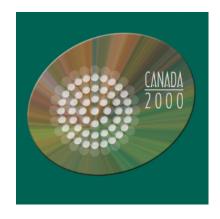# Classification of Instructional Programs, Canada

2000

Canada

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2000

Note of appreciation

Preface

CIP Canada 2000 is the culmination of a multi-year co-operative effort by Statistics Canada and the National Center for Education Statistics.

The National Center for Education Statistics is the primary federal entity in the United States for collecting, analysing and reporting data related to education in the United States and other nations.

Statistics Canada is Canada's national statistics agency. Its mandate is to collect, compile, analyse and publish statistical information relating to the activities and condition of the people of Canada.

CIP Canada 2000 is the adaptation of CIP-2000 for use in Canada. CIP-2000 is the *Classification of Instructional Programs: 2000 Edition* published by the National Center for Education Statistics. CIP Canada 2000 reflects Canadian needs and circumstances. It also incorporates examples of the types of instructional programs included in and excluded from each CIP class, a feature intended to facilitate proper use of the classification.

CIP Canada 2000 is published by Standards Division, Statistics Canada (Alice Born, Director).

The publication was prepared by a project team headed by John Crysdale. The team comprised Peter Elliott, Jennifer Flack, Sylvain Lafleur, Todd Lavictoire, Jocelyne Lepage, Sandra Mialkowski, and Pierre Parent.

Eleanor Bouliane, Paul Johanis, François Nault, Larry Orton, and Maryanne Webber also helped direct the project.

CIP Canada 2000 could not have been prepared without the assistance of numerous other persons throughout Statistics Canada. These include Catherine Anderson, Fred Baker, Suzanne Bastien, Johanne Beauseigle, Sylvie Bonhomme, Michael Bordt, Robert Boucher, Cécile Bourque, Isabelle Bussières, Joann Casey, France Filion, Ian Gessner, Kyoomars Haghandish, Kirstin Haley, Susan Ingram, Elizabeth Irving, Darren Kipp, Liliane Lanoie, Annie Lebeau, Joanne Leclerc, Jeff Leonard, Debra Mair, Dolores Malette, Carol Noël, Francine Pilon-Renaud, Johanne Pineau, Sandrine Prasil, Wayne Silver, Karl Skof, Robert Smith, Yves Thériault, Mike Trant, Chantal Vaillancourt, Nathalie Villemure, and Tom Vradenburg.

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Introduction

Classification of Instructional Programs, Canada, 2000

The Classification of Instructional Programs (CIP) was developed in 1980 by the National Center for Education Statistics (NCES) in the United States. NCES released updates in 1985, 1990 and 2000. CIP Canada 2000 is the first Canadian version of this classification.

CIP is designed to classify 'instructional programs,' which are defined as follows:

> A combination of courses and experiences that is designed to accomplish a predetermined objective or set of allied objectives such as preparation for advanced study, qualification for an occupation or range of occupations or simply the increase of knowledge and understanding. (Chismore and Hill, *A Classification of Educational Subject Matter*, 1978, NCES, p. 165).

Although CIP was specifically designed for the classification of instructional programs, it has also been used to classify courses, and will likely continue to be used for that purpose. CIP can also be used to classify and understand other units. For example, one might use CIP codes to classify institutions by programs offered, students and graduates by programs studied or faculty by programs taught.

The organizing principle behind CIP is 'field of study.' At Statistics Canada, a field of study is defined as a "discipline or area of learning or training" (Statistics Canada, *2001 Census Dictionary*, Catalogue no. 92-378-XIE, http://www12.statcan.ca/english/census01/Products/Reference/dict/index.htm).

Several field of study classifications besides CIP have been used at Statistics Canada: the Community College Student Information System (CCSIS) classification, the International Standard Classification of Education (ISCED), the Major Field of Study (MFS) classification, the Registered Apprenticeship Information System (RAIS) classification and the University Student Information System (USIS) classification.

Several years ago, Statistics Canada decided to implement just one classification for all its field of study data. CIP was adopted because it was a detailed and proven classification with a 20-year history, was up to date, had an established mechanism for updates and a track record of regular updates, and had a proper hierarchical coding structure. As an added advantage, it would provide comparability with the United States. CIP is now the Statistics Canada standard for field of study classification.

Some of the major aspects of CIP are discussed below, under the following headings:

- Structure of the Classification
- Preparing CIP Canada 2000
- Special Aggregation Structure—Primary Groupings
- Assigning CIP Codes to Instructional Programs
- Concordances
- Revision Cycle

Structure of the Classification

CIP Canada 2000 is divided into six chapters.

- **Chapter I: Academic and Occupation-specific Programs**. This chapter comprises academic and occupation-specific instructional programs offered for academic credit at one or more postsecondary educational levels. These programs usually result in recognized completion points and awards such as degrees, diplomas, certificates or other formal awards.

- **Chapter II: Dental, Medical and Veterinary Residency Programs**. This chapter comprises residency programs in various dental, medical and veterinary specializations, offered in teaching hospitals and similar locations, that may lead to advanced professional certification.

- **Chapter III: Technology Education/Industrial Arts Programs**. This chapter comprises technology education and industrial arts programs that are taught at high schools and other non-postsecondary levels.

- **Chapter IV: Reserve Entry Scheme for Officers in the Armed Forces**. This chapter comprises reserve officer training programs that are offered for limited regular credit and that lead to professionally recognized completions, but that do not lead to academic awards or completions.

- **Chapter V: Personal Improvement and Leisure Programs**. This chapter comprises personal improvement and leisure-time programs that are not typically offered for academic credit, but that may receive some form of recognition and may lead to a completion award.

- **Chapter VI: High School/Secondary Diploma and Certificate Programs**. This chapter comprises instructional programs that lead to general diplomas and certificates awarded at the secondary education level only.

The CIP is then subdivided into three levels:

1. The first level, referred to as the 'series,' comprises two-digit classes. The series represent the most general grouping of related programs. CIP Canada 2000 comprises 49 series.

2. The second level, the 'subseries,' comprises four-digit classes. The subseries represent an intermediate grouping of programs that have comparable content and objectives. CIP Canada 2000 comprises 385 subseries.

3. The third level, 'instructional program classes,' comprises six-digit classes. Instructional program classes represent the specific instructional programs. Instructional program classes are the most detailed level within CIP. They are the basic unit of analysis used in reporting instructional programs. CIP Canada 2000 comprises 1,432 instructional program classes.

The format for classes at the series level consists of a two-digit code followed by a period, then by the program title. For example: 01. Agriculture, Agriculture Operations and Related Sciences. There is at least one series within every chapter.

The format for classes at the subseries level consists of the two-digit series code, followed by a period, then by a further two digits that are uniquely associated with that subseries. The code is followed by the program title. For example: 01.01 Agricultural Business and Management. There is at least one subseries within every series.

The format for classes at the instructional program class level consists of the four-digit subseries code, followed by a further two digits that are uniquely associated with that instructional program class. This is followed by the program title. For example: 01.0101 Agricultural Business and Management, General. There is at least one instructional program class within every subseries.

Program descriptions identify the objectives and content of the instructional programs. Program descriptions using phrases such as "any program that focuses on" or "any general program that focuses on" describe academic and general programs. Program descriptions using phrases such as "program that prepares individuals for" or "program that generally prepares individuals for" describe programs designed to prepare individuals for specific occupations.

Sample program descriptions:

01. Agriculture, Agriculture Operations and Related Sciences. This series comprises instructional programs that focus on agriculture and related sciences and that prepare individuals to apply specific knowledge, methods, and techniques to the management and performance of agricultural operations.

01.01 Agricultural Business and Management. This subseries comprises instructional program classes 01.0101 to 01.0199.

01.0102 Agribusiness/Agricultural Business Operations. This instructional program class comprises any program that prepares individuals to manage agricultural businesses and agriculturally related operations within diversified corporations. These programs include courses in agriculture, agricultural specialization, business management, accounting, finance, marketing, planning, human resources management, and other managerial responsibilities.

Within each subseries, instructional program classes are listed in numerical sequence. Classes with a more general focus appear at the beginning of the sequence. A residual class appears at the end of the sequence to cover instructional programs that belong in the subseries but are not covered by another instructional program class. For example, within subseries 01.01, Agricultural Business and Management, instructional program class 01.0101 Agricultural Business and Management, General appears first and instructional program class 01.0199, Agricultural Business and Management, Other appears last.

Occasional gaps may be found in the numerical sequence of classes. They result either from deletions of classes that appeared in previous editions of CIP or from moves of classes to new locations in the classification.

Titles generally comprise one word or phrase, such as 'psychology' or 'civil engineering,' that conveys the most commonly used or accepted name describing a program.

In some cases, more than one title may be used for the same instructional program. To reflect this, the title of the corresponding instructional program uses words or phrases separated by slashes. This is done in the following situations:

- two or more commonly accepted names exist for the same program, or

- the same program has different names at different educational levels, or

- the program has undergone a recent name change but many institutions still use the older name for the program.

For example, series 15. Engineering Technologies/Technicians includes programs that prepare engineering technologists (the preferred term, but not the only one used) and engineering technicians (an alternative title).

Preparing CIP Canada 2000

CIP Canada 2000 maintains the CIP-2000 structure to permit close comparability between Canadian and U.S. educational data and to facilitate a common approach to future classification revisions. Canada and the United States have agreed to co-ordinate revision activity.

Much of the work in preparing CIP Canada 2000 involved locating institutional references in CIP-2000, converting those to references appropriate for the Canadian context and developing examples of the instructional programs by instructional program class. Beyond that, much of the CIP-2000 classification manual has been incorporated directly into the CIP Canada 2000 manual.

A few structural changes were needed to reflect the Canadian context. The following classes have been added or changed:

- Subseries 16.17 Second Language Learning has been added to cover second language learning on a for-credit basis. Second language learning on a not-for-credit basis is still covered by instructional program class 32.0109, which has been retitled from Second Language Learning to Second Language Learning (not for credit). Subseries 16.17 has been broken out into three instructional program classes: 16.1701 English as a Second Language; 16.1702 French as a Second Language; and 16.1799 Second Language Learning, Other. Series 16. has been retitled from Foreign Languages, Literatures, and Linguistics to Aboriginal and Foreign Languages, Literatures and Linguistics.

- Subseries 28.05 and instructional program class 28.0501, both entitled Reserve Entry Scheme for Officers in the Armed Forces, have been added to reflect the unified structure of the Canadian Forces. Series 28. has also been renamed from Reserve Officer Training Corps (JROTC, ROTC) to Reserve Entry Scheme for Officers in the Armed Forces.

- Subseries 47.05 Stationary Energy Sources Installer and Operator and instructional program class 47.0501 Stationary Energy Sources Installer and Operator have been reinstated. These classes had been included in CIP-1990 and were dropped from CIP-2000.

- Series 55. French (Canadian) Language and Literature/Letters has been moved to within the classification proper. In CIP-2000, this series constitutes an appendix to the main classification. The series retains code 55. and has been retitled from French (Canadian) Language and Literature/Letters to French Language and Literature/Letters. Series 55. is now the French language equivalent of series 23. English Language and Literature/Letters.

The following classes have been deleted:

- Instructional program class 16.0901 French Language and Literature has been dropped. This content is covered by instructional program class 55.0101 French Language and Literature, General.

- Subseries 28.01 Air Force JROTC/ROTC, 28.03 Army JROTC/ROTC and 28.04 Navy/Marine Corps JROTC/ROTC, and instructional program classes 28.0101 Air Force JROTC/ROTC, 28.0301 Army JROTC/ROTC and 28.0401 Navy/Marine Corps JROTC/ROTC, have been dropped. These are replaced by subseries 28.05 Reserve Entry Scheme for Officers in the Armed Forces and instructional program class 28.0501 Reserve Entry Scheme for Officers in the Armed Forces, as described above.

- Subseries 55.02 Comparative Literature and instructional program class 55.0201 Comparative Literature have been dropped. This reflects the fact that the content is covered by 16.0104 Comparative Literature.

Beyond these changes, and the use of Canadian spelling, there were no other additions or deletions. Even where no current Canadian programs are known to exist for CIP-2000 classes, CIP Canada 2000 retains those classes. This will permit a full range of possibilities for the coding of education data from household surveys such as the 2006 Census of Population. In the census, respondents report not only current programs but also programs studied early in their lives and in other countries.

Inclusions accompany most CIP Canada 2000 instructional program classes. Inclusions are examples of the instructional programs found in the corresponding class. They appear under the heading *Examples of included programs.* The inclusions were developed based mainly on the program names used in response to the Canadian Census of Population. The wording used reflects the way respondents would typically describe these programs. Because the programs would be described differently in English and French, the actual wording will not typically be strictly equivalent between the English and French versions of the CIP Canada 2000 manual.

Exclusions also accompany most instructional program classes. Exclusions are examples of the instructional programs that could belong in the subject CIP class but do not. They appear under the heading *Examples of excluded programs.* These are borderline cases. The exclusions have been chosen by expert coders who were aware of potential coding pitfalls. For each instructional program class, the exclusions were selected from among the inclusions of related instructional program classes.

The lists of inclusions and exclusions are meant to facilitate the use of CIP. The lists are illustrative, and will evolve over time in response to questions that arise from the use of this classification.

Special Aggregation Structure—Primary Groupings

An aggregation structure has been developed jointly by Statistics Canada and the National Center for Education Statistics. It is based on work undertaken as a part of the creation of the North American Product Classification System (NAPCS) by Canada, the United States and Mexico.

The structure comprises thirteen 'primary groupings' that are a convenient and useful basis for summarizing and analysing more detailed classes. Two general observations about the primary groupings should be kept in mind:

1. Groupings are based on field of study and are independent of the level at which the study was undertaken. Series 21. Technology Education/Industrial Arts Programs and series 53. High School/Secondary Diploma and Certificate Programs are exceptions to this rule; these two series are included in the Other category.

2. Primary groupings comprise entire series, with one exception: series 30. Multidisciplinary/Interdisciplinary Studies has been split into its constituent subseries. Those subseries have then been grouped with the closest equivalent series.

The primary groupings are as follows:

Table: Special Aggregation Structure

Primary Grouping		Constituent CIP Series and Subseries	
Code	Title	Code	Title
00	Personal Improvement and Leisure	32.	Basic Skills
		33.	Citizenship Activities
		34.	Health-related Knowledge and Skills
		35.	Interpersonal and Social Skills
		36.	Leisure and Recreational Activities
		37.	Personal Awareness and Self-improvement
01	Education	13.	Education
02	Visual and Performing Arts, and Communications Technologies	50.	Visual and Performing Arts
		10.	Communications Technologies/Technicians and Support Services
03	Humanities	24.	Liberal Arts and Sciences, General Studies and Humanities
		38.	Philosophy and Religious Studies
		39.	Theology and Religious Vocations
		54.	History
		30.13	Medieval and Renaissance Studies
		30.21	Holocaust and Related Studies
		30.22	Classical and Ancient Studies
		23.	English Language and Literature/Letters
		55.	French Language and Literature/Letters
		16.	Aboriginal and Foreign Languages, Literatures and Linguistics
04	Social and Behavioural Sciences and Law	45.	Social Sciences
		30.14	Museology/Museum Studies
		30.23	Intercultural/Multicultural and Diversity Studies
		30.05	Peace Studies and Conflict Resolution
		30.20	International/Global Studies
		30.15	Science, Technology and Society
		30.11	Gerontology
		42.	Psychology
		30.17	Behavioural Sciences
		30.25	Cognitive Science
		30.10	Biopsychology
		05.	Area, Ethnic, Cultural and Gender Studies

Table: Special Aggregation Structure—continued

Primary Grouping		Constituent CIP Series and Subseries	
Code	Title	Code	Title
		19.	Family and Consumer Sciences/Human Sciences
		09.	Communication, Journalism and Related Programs
		22.	Legal Professions and Studies
05	Business, Management and Public Administration	52.	Business, Management, Marketing and Related Support Services
		30.16	Accounting and Computer Science
		44.	Public Administration and Social Service Professions
06	Physical and Life Sciences and Technologies	40.	Physical Sciences
		26.	Biological and Biomedical Sciences
		30.01	Biological and Physical Sciences
		30.18	Natural Sciences
		30.19	Nutrition Sciences
		30.24	Neuroscience
		41.	Science Technologies/Technicians
07	Mathematics, Computer and Information Sciences	27.	Mathematics and Statistics
		30.08	Mathematics and Computer Science
		11.	Computer and Information Sciences and Support Services
		30.06	Systems Science and Theory
		25.	Library Science
08	Architecture, Engineering, and Related Technologies	04.	Architecture and Related Services
		30.12	Historic Preservation and Conservation
		14.	Engineering
		15.	Engineering Technologies/Technicians
		46.	Construction Trades
		47.	Mechanic and Repair Technologies/Technicians
		48.	Precision Production
09	Agriculture, Natural Resources and Conservation	01.	Agriculture, Agriculture Operations and Related Sciences
		03.	Natural Resources and Conservation
10	Health, Parks, Recreation and Fitness	51.	Health Professions and Related Clinical Sciences
		60.	Dental, Medical and Veterinary Residency Programs
		31.	Parks, Recreation, Leisure and Fitness Studies

Table: Special Aggregation Structure—continued

Primary Grouping		Constituent CIP Series and Subseries	
Code	Title	Code	Title
11	Personal, Protective and Transportation Services	12.	Personal and Culinary Services
		43.	Security and Protective Services
		29.	Military Technologies
		28.	Reserve Entry Scheme for Officers in the Armed Forces
		49.	Transportation and Materials Moving
12	Other	30.99	Multidisciplinary/Interdisciplinary Studies, Other
		21.	Technology Education/Industrial Arts Programs
		53.	High School/Secondary Diploma and Certificate Programs

Assigning CIP Codes to Instructional Programs

To ensure consistency at the national level, Statistics Canada codes program data submitted from household surveys and from administrative data in institutions' files. This coding is done with the help of software that has been developed to provide a combination of auto-coding and computer-assisted coding. The basic approach is described first—this will be of particular interest to institutions or organizations that need to do their own CIP coding. This is followed by an outline of the process used at Statistics Canada.

Assigning CIP codes: the basic approach

The basic coding tool is the classification manual available in both hard-copy and electronic format.

In addition to the manual, those coding programs using CIP should ensure that they also have the following information:

- program title
- program description
- type of institution
- duration of study
- nature of the academic award

With this information at hand, the coding of a single-discipline instructional program is relatively straightforward. The coder first determines the appropriate chapter. The coder then selects all likely series and from among those chooses the most applicable. The process is then repeated at the subseries level, and again at the instructional program class level. This top-down process is facilitated by referring to the inclusions and exclusions in the manual.

Several examples are presented to show the coding process.

Suppose the coder has the following information:

- program title: Canadian History
- program description: five-credit MA through department of history, faculty of arts and sciences
- type of institution: university
- duration of study: one year postgraduate
- academic award: MA

The academic award confirms that the program is a credit course and belongs in Chapter I: Academic and Occupation-specific Programs. The coder will next try to identify the appropriate two-digit series. In this case, from the title and description, series 54. History is the clear choice. Within series 54., only subseries 54.01 History exists. Within 54.01, instructional program class 54.0107 Canadian History is selected. By referring to the inclusions, the coder will find that Canadian history is explicitly part of this class. This confirms the results of the top-down process. The institution type and duration of study were not used.

In a second case, the coder has the following information:

- program title: Mathematical Physics
- program description: five-credit MSc through department of physics, faculty of science
- type of institution: university
- duration of study: postgraduate
- academic award: MSc

The academic award confirms that the program is a credit course and properly belongs in Chapter I: Academic and Occupation-specific Programs. The coder will next try to identify the appropriate two-digit series—in this case, series 27. Mathematics and Statistics, series 40. Physical Sciences and series 41. Science Technologies/Technicians are possibilities. Based on the program title and description, the program is not pure mathematics, nor is it technological in nature. This rules out series 27. and 41. Within series 40., subseries 40.08 Physics is most applicable. Within 40.08, instructional program class 40.0810 Theoretical and Mathematical Physics is selected. By referring to the inclusions, the coder will find that Mathematical Physics is part of this class. Use of the inclusions in this way confirms the results of the top-down process. The institution type and duration of study were not used.

In a third case, the coder has the following information:

- program title: Film Law
- program description: Master of Laws through faculty of law with specialization in film law
- type of institution: university
- duration of study: postgraduate
- academic award: Master of Laws (LLM)

The academic award confirms that the program is a credit course and belongs in Chapter I: Academic and Occupation-specific Programs. The coder will next try to identify the appropriate two-digit series. Possible candidates are series 22. Legal Professions and Studies and series 50. Visual and Performing Arts. Series 50. focuses on the actual performance. Series 22. prepares individuals for the legal profession and related research. Based on the program title and description, series 22. is the clear choice. This is an advanced law degree and therefore, within series 22., the program belongs in subseries 22.02 Legal Research and Advanced Professional Studies (Post-LLB/JD). Within 22.02, there are no instructional program classes which specifically include this specialty in the description. The coder would therefore consider that this likely belongs to instructional program class 22.0299, which is the residual class for this subseries. Referring to the inclusions confirms this. The institution type and duration of study were not explicitly used in this determination.

In a fourth case, the coder has the following information:

- program title: Truck and Coach Mechanic
- program description: This apprenticeship certificate program completes the in-school requirements for the truck and coach technician apprentices. Students are offered instruction in subjects such as trade practices and auxiliary systems, engine systems, electrical systems, fuel systems, drive trains, and steering, suspension, and brake systems.
- type of institution: community college
- duration of study: one year
- academic award: certificate

The academic award and duration of study, together, confirm that the program is a credit course and belongs in Chapter I: Academic and Occupation-specific Programs. The top-down process continues as

previously. Using the institution type, program title and program description, the coder will choose series 47. Mechanic and Repair Technologies/Technicians, subseries 47.06 Vehicle Maintenance and Repair Technologies, and then instructional program class 47.0613 Medium/Heavy Vehicle and Truck Technology/Technician. By referring to the inclusions, the coder will find that Truck and Coach Mechanic is part of this class—and thereby confirm the coding choice.

The coding of combined majors, also called 'double majors' or 'joint majors,' and multidisciplinary programs follows the same top-down approach. The difference here involves the choice of residual class in the event that there is no specific class for the combined program. The approach to combined majors and multidisciplinary studies is as follows:

- Proceeding top-down, the coder tries to find an instructional program class that explicitly covers the combined program. If such a class is found, the program can normally be assigned directly to that class. For example, a double major involving 11.0501 Computer Systems Analysis/Analyst and 27.0301 Applied Mathematics, General would be coded to 30.0801 Mathematics and Computer Science.

- Otherwise, if the component disciplines belong to the same subseries—but not the same instructional program class—the program can normally be coded to the residual category (a class ending in *99*) within that subseries. For example, a double major involving 14.0902 Computer Hardware Engineering and 14.0903 Computer Software Engineering would be coded to 14.0999 Computer Engineering, Other.

- Otherwise, if the component disciplines belong to the same series—but not the same subseries—the program can normally be coded to the residual category (a class ending in *9999*) within that series. For example, a double major involving 14.0902 Computer Hardware Engineering and 14.1101 Engineering Mechanics would be coded to 14.9999 Engineering, Other.

- Otherwise, if the component disciplines belong to different series, the program is normally coded to instructional program class 30.9999 Multidisciplinary/Interdisciplinary Studies, Other. For example, a double major involving 14.0902 Computer Hardware Engineering and 27.0301 Applied Mathematics, General would be coded to 30.9999 Multidisciplinary/Interdisciplinary Studies, Other.

- An exception to the use of 30.9999 involves combined/joint language majors. Language studies are covered by series 16. Aboriginal and Foreign Languages, Literatures and Linguistics, series 23. English Language and Literature/Letters and series 55. French Language and Literature/Letters. Where programs involve combinations belonging to two or more of these series, the combined programs are coded to residual instructional program classes within series 16. Aboriginal and Foreign Languages, Literatures and Linguistics. For example, a combined French/Spanish major is coded to 16.0999 Romance Languages, Literatures and Linguistics, Other. For similar reasons, a combined French/German major or a combined French/English major is coded to 16.9999 Aboriginal and Foreign Languages, Literatures and Linguistics, Other.

Assigning CIP codes: Statistics Canada's process

A large number of records, from both household surveys and educational institutions, contain data on instructional programs. This has led Statistics Canada to develop tools—over and above the classification manual—to simplify and speed up the process, and ensure a high level of consistency.

The first of these tools, used for interactive coding, incorporates all the features of the manual. It also enables users to click to see which institutions are offering a given program and what name each institution attaches to the generic CIP program title. That store of institutional program information is the 'reference file' used to ensure consistency. The software also contains regularly updated information, and enables users to search and code to other field of study classifications. Further information on this coding tool is available from the Centre for Education Statistics at Statistics Canada.

The second tool, used for automated coding, reads and codes program information stored in an electronic file. The success of auto-coding depends on the quality of the reference file available to the system. In the case of program files submitted by colleges and universities, the reference file is a historical

file of the CIP codes previously assigned for that institution. Using that historical file ensures consistency. In the case of instructional program information coming from household surveys, such as the Census of Population, the reference file is based on household survey information rather than institutions' full and formal program names and descriptions. In either case, the auto-coding tool is run in batch mode; the system reports which programs have been coded successfully and which require further attention.

Programs requiring further attention are referred to expert coders, who use the interactive tool described above. If a good decision is still not possible, the coders are able to refer the case to an expert panel comprising representatives from Statistics Canada and postsecondary institutions.

Concordances

For information on concordances between CIP and other national and international field of study classifications, see the Statistics Canada website.

Revision Cycle

CIP has a 10-year revision cycle. Revising a statistical classification involves a complete review of the conceptual basis of the classification as well as a review of user needs and available tools. Part of that review involves determining whether proposed changes would work better than the current practices and thus warrant a revised version of the classification.

Between revisions, updates can also be made to address significant changes in the instructional programs being offered. Canada and the United States have agreed that, at five-year intervals, the midpoint in the revision cycle, an assessment will be made of the need for such an update.

CIP Canada 2000 is the first Canadian version of the Classification of Instructional Programs. We invite user feedback.

Symbols and Abbreviations

Symbols and Abbreviations

The following abbreviations are used in CIP Canada 2000:

AAS	Associate of Applied Science
AC	Air Conditioning
ACH	Air Conditioning and Heating
ACHR	Air Conditioning, Heating and Refrigeration
ACR	Air Conditioning and Refrigeration
ASL	American Sign Language
ASN	Associate of Science in Nursing
BA	Bachelor of Arts
BArch	Bachelor of Architecture
BCL	Bachelor of Civil Law
BDiv	Bachelor of Divinity
BLA	Bachelor of Landscape Architecture
BPharm	Bachelor of Pharmacy
BSc	Bachelor of Science
BScN	Bachelor of Science in Nursing
BSLA	Bachelor of Science in Landscape Architecture
Cert.	Certificate
CPM	Certified Professional Midwife
DC	Doctor of Chiropractic Medicine
DDS	Doctor of Dental Surgery
Dipl.	Diploma
DMD	Doctor of Medical Dentistry
DO	Doctor of Osteopathic Medicine
DPH	Doctor of Public Health
DPM	Doctor of Podiatric Medicine
DTR	Dietetic Technician, Registered
DVM	Doctor of Veterinary Medicine
EMT	Emergency Medical Technician
HRAC	Heating, Refrigeration and Air Conditioning
HVAC	Heating, Ventilation and Air Conditioning
JD	Doctor of Jurisprudence
JSD	Doctor of Science of Law
LLB	Bachelor of Laws
LLM	Master of Laws
LM	Licensed Midwife
LPN	Licensed Practical Nurse
LVN	Licensed Vocational Nurse
MA	Master of Arts
MArch	Master of Architecture
MCJ	Master of Criminal Justice
MCL	Master of Comparative Law
MD	Medical Doctor
MDiv	Master of Divinity
MHL/Rav	Master of Hebrew Letters and Rabbinical Ordination
MJ	Master of Jurisprudence
MLA	Master of Landscape Architecture
MLI	Master of Legal Institutions
MPH	Master of Public Health
MSc	Master of Science
MScN	Master of Science in Nursing
MSL	Master of Studies in Law
MSLA	Master of Science in Landscape Architecture
ND	Naturopathic Doctor

OD	Doctor of Optometry
PharmD	Doctor of Pharmacy
PhD	Doctor of Philosophy
RD	Registered Dietitian
RN	Registered Nurse
SJD	Doctor of Science of Law

CIP classes which are comparable between Canada and the United States have identical codes. Classes that apply only in Canada use a CIP code not used in the United States and are highlighted by means of a superscript appearing at the end of the class title.

The superscript symbol used is:

Symbol	Explanation
CAN	Canadian class only

Classification Structure

Chapter I: Academic and Occupation-specific Programs

01.   **Agriculture, Agriculture Operations and Related Sciences**

    01.00   Agriculture, General

        01.0000   Agriculture, General

    01.01   Agricultural Business and Management

        01.0101   Agricultural Business and Management, General
        01.0102   Agribusiness/Agricultural Business Operations
        01.0103   Agricultural Economics
        01.0104   Farm/Farm and Ranch Management
        01.0105   Agricultural/Farm Supplies Retailing and Wholesaling
        01.0106   Agricultural Business Technology
        01.0199   Agricultural Business and Management, Other

    01.02   Agricultural Mechanization

        01.0201   Agricultural Mechanization, General
        01.0204   Agricultural Power Machinery Operation
        01.0205   Agricultural Mechanics and Equipment/Machine Technology
        01.0299   Agricultural Mechanization, Other

    01.03   Agricultural Production Operations

        01.0301   Agricultural Production Operations, General
        01.0302   Animal/Livestock Husbandry and Production
        01.0303   Aquaculture
        01.0304   Crop Production
        01.0306   Dairy Husbandry and Production
        01.0307   Horse Husbandry/Equine Science and Management
        01.0399   Agricultural Production Operations, Other

    01.04   Agricultural and Food Products Processing

        01.0401   Agricultural and Food Products Processing

    01.05   Agricultural and Domestic Animal Services

        01.0504   Dog/Pet/Animal Grooming
        01.0505   Animal Training
        01.0507   Equestrian/Equine Studies
        01.0508   Taxidermy/Taxidermist
        01.0599   Agricultural and Domestic Animal Services, Other

    01.06   Applied Horticulture/Horticultural Business Services

        01.0601   Applied Horticulture/Horticulture Operations, General
        01.0603   Ornamental Horticulture
        01.0604   Greenhouse Operations and Management
        01.0605   Landscaping and Groundskeeping
        01.0606   Plant Nursery Operations and Management
        01.0607   Turf and Turfgrass Management
        01.0608   Floriculture/Floristry Operations and Management
        01.0699   Applied Horticulture/Horticultural Business Services, Other

01.07   International Agriculture

01.0701   International Agriculture

01.08   Agricultural Public Services

01.0801   Agricultural and Extension Education Services
01.0802   Agricultural Communication/Journalism
01.0899   Agricultural Public Services, Other

01.09   Animal Sciences

01.0901   Animal Sciences, General
01.0902   Agricultural Animal Breeding
01.0903   Animal Health
01.0904   Animal Nutrition
01.0905   Dairy Science
01.0906   Livestock Management
01.0907   Poultry Science
01.0999   Animal Sciences, Other

01.10   Food Science and Technology

01.1001   Food Science
01.1002   Food Technology and Processing
01.1099   Food Science and Technology, Other

01.11   Plant Sciences

01.1101   Plant Sciences, General
01.1102   Agronomy and Crop Science
01.1103   Horticultural Science
01.1104   Agricultural and Horticultural Plant Breeding
01.1105   Plant Protection and Integrated Pest Management
01.1106   Range Science and Management
01.1199   Plant Sciences, Other

01.12   Soil Sciences

01.1201   Soil Science and Agronomy, General
01.1202   Soil Chemistry and Physics
01.1203   Soil Microbiology
01.1299   Soil Sciences, Other

01.99   Agriculture, Agriculture Operations and Related Sciences, Other

01.9999   Agriculture, Agriculture Operations and Related Sciences, Other

03.   Natural Resources and Conservation

03.01   Natural Resources Conservation and Research

03.0101   Natural Resources/Conservation, General
03.0103   Environmental Studies
03.0104   Environmental Science
03.0199   Natural Resources Conservation and Research, Other

03.02   Natural Resources Management and Policy

03.0201   Natural Resources Management and Policy, General
03.0204   Natural Resource Economics
03.0205   Water, Wetlands and Marine Resources Management
03.0206   Land Use Planning and Management/Development
03.0299   Natural Resources Management and Policy, Other

03.03   Fishing and Fisheries Sciences and Management

03.0301   Fishing and Fisheries Sciences and Management

03.05   Forestry

03.0501   Forestry, General
03.0502   Forest Sciences and Biology
03.0506   Forest Management/Forest Resources Management
03.0508   Urban Forestry
03.0509   Wood Science and Wood Products/Pulp and Paper Technology
03.0510   Forest Resources Production and Management
03.0511   Forest Technology/Technician
03.0599   Forestry, Other

03.06   Wildlife and Wildlands Science and Management

03.0601   Wildlife and Wildlands Science and Management

03.99   Natural Resources and Conservation, Other

03.9999   Natural Resources and Conservation, Other

04.   Architecture and Related Services

04.02   Architecture (BArch, BA/BSc, MArch, MA/MSc, PhD)

04.0201   Architecture (BArch, BA/BSc, MArch, MA/MSc, PhD)

04.03   City/Urban, Community and Regional Planning

04.0301   City/Urban, Community and Regional Planning

04.04   Environmental Design/Architecture

04.0401   Environmental Design/Architecture

04.05   Interior Architecture

04.0501   Interior Architecture

04.06   Landscape Architecture (BSc, BSLA, BLA, MSLA, MLA, PhD)

04.0601   Landscape Architecture (BSc, BSLA, BLA, MSLA, MLA, PhD)

04.08   Architectural History and Criticism

04.0801   Architectural History and Criticism

04.09   Architectural Technology/Technician

04.0901   Architectural Technology/Technician

04.99   Architecture and Related Services, Other

04.9999   Architecture and Related Services, Other

05.   Area, Ethnic, Cultural and Gender Studies

05.01   Area Studies

05.0101   African Studies
05.0102   American/United States Studies/Civilization
05.0103   Asian Studies/Civilization
05.0104   East Asian Studies
05.0105   Central/Middle and Eastern European Studies
05.0106   European Studies/Civilization
05.0107   Latin American Studies
05.0108   Near and Middle Eastern Studies
05.0109   Pacific Area/Pacific Rim Studies
05.0110   Russian Studies
05.0111   Scandinavian Studies
05.0112   South Asian Studies
05.0113   Southeast Asian Studies
05.0114   Western European Studies
05.0115   Canadian Studies
05.0116   Balkan Studies
05.0117   Baltic Studies
05.0118   Slavic Studies
05.0119   Caribbean Studies
05.0120   Ural-Altaic and Central Asian Studies
05.0121   Commonwealth Studies
05.0122   Regional Studies (U.S., Canadian, Foreign)
05.0123   Chinese Studies
05.0124   French Studies
05.0125   German Studies
05.0126   Italian Studies
05.0127   Japanese Studies
05.0128   Korean Studies
05.0129   Polish Studies
05.0130   Spanish and Iberian Studies
05.0131   Tibetan Studies
05.0132   Ukraine Studies
05.0199   Area Studies, Other

05.02   Ethnic, Cultural Minority and Gender Studies

05.0201   African American/Black Studies
05.0202   Aboriginal Studies
05.0203   Hispanic American, Puerto Rican and Mexican American/Chicano
          Studies
05.0206   Asian American Studies
05.0207   Women's Studies
05.0208   Gay/Lesbian Studies
05.0299   Ethnic, Cultural Minority and Gender Studies, Other

05.99   Area, Ethnic, Cultural and Gender Studies, Other

05.9999   Area, Ethnic, Cultural and Gender Studies, Other

09.   Communication, Journalism and Related Programs

09.01   Communication and Media Studies

09.0101   Communication Studies/Speech Communication and Rhetoric
09.0102   Mass Communication/Media Studies
09.0199   Communication and Media Studies, Other

09.04   Journalism

09.0401   Journalism, General
09.0402   Broadcast Journalism
09.0404   Photojournalism
09.0499   Journalism, Other

09.07   Radio, Television and Digital Communication

09.0701   Radio and Television
09.0702   Digital Communication and Media/Multimedia
09.0799   Radio, Television and Digital Communication, Other

09.09   Public Relations, Advertising and Applied Communication

09.0901   Organizational Communication, General
09.0902   Public Relations/Image Management
09.0903   Advertising
09.0904   Political Communication
09.0905   Health Communication
09.0999   Public Relations, Advertising and Applied Communication, Other

09.10   Publishing

09.1001   Publishing

09.99   Communication, Journalism and Related Programs, Other

09.9999   Communication, Journalism and Related Programs, Other

10.   Communications Technologies/Technicians and Support Services

10.01   Communications Technology/Technician

10.0105   Communications Technology/Technician

10.02   Audiovisual Communications Technologies/Technicians

10.0201   Photographic and Film/Video Technology/Technician and Assistant
10.0202   Radio and Television Broadcasting Technology/Technician
10.0203   Recording Arts Technology/Technician
10.0299   Audiovisual Communications Technologies/Technicians, Other

10.03   Graphic Communications

10.0301   Graphic Communications, General

10.0302   Printing Management
10.0303   Prepress/Desktop Publishing and Digital Imaging Design
10.0304   Animation, Interactive Technology, Video Graphics and Special Effects
10.0305   Graphic and Printing Equipment Operator, General Production
10.0306   Platemaker/Imager
10.0307   Printing Press Operator
10.0308   Computer Typography and Composition Equipment Operator
10.0399   Graphic Communications, Other

10.99   Communications Technologies/Technicians and Support Services, Other

10.9999   Communications Technologies/Technicians and Support Services, Other

11.   Computer and Information Sciences and Support Services

11.01   Computer and Information Sciences and Support Services, General

11.0101   Computer and Information Sciences, General
11.0102   Artificial Intelligence and Robotics
11.0103   Information Technology
11.0199   Computer and Information Sciences and Support Services, General, Other

11.02   Computer Programming

11.0201   Computer Programming/Programmer, General
11.0202   Computer Programming, Specific Applications
11.0203   Computer Programming, Vendor/Product Certification
11.0299   Computer Programming, Other

11.03   Data Processing and Data Processing Technology/Technician

11.0301   Data Processing and Data Processing Technology/Technician

11.04   Information Science/Studies

11.0401   Information Science/Studies

11.05   Computer Systems Analysis/Analyst

11.0501   Computer Systems Analysis/Analyst

11.06   Data Entry/Microcomputer Applications

11.0601   Data Entry/Microcomputer Applications, General
11.0602   Word Processing
11.0699   Data Entry/Microcomputer Applications, Other

11.07   Computer Science

11.0701   Computer Science

11.08   Computer Software and Media Applications

11.0801   Web Page, Digital/Multimedia and Information Resources Design
11.0802   Data Modelling/Warehousing and Database Administration
11.0803   Computer Graphics
11.0899   Computer Software and Media Applications, Other

11.09 Computer Systems Networking and Telecommunications

11.0901 Computer Systems Networking and Telecommunications

11.10 Computer/Information Technology Administration and Management

11.1001 System Administration/Administrator
11.1002 System, Networking and LAN/WAN Management/Manager
11.1003 Computer and Information Systems Security
11.1004 Web/Multimedia Management and Webmaster
11.1099 Computer/Information Technology Administration and Management, Other

11.99 Computer and Information Sciences and Support Services, Other

11.9999 Computer and Information Sciences and Support Services, Other

12. Personal and Culinary Services

12.03 Funeral Service and Mortuary Science

12.0301 Funeral Service and Mortuary Science, General
12.0302 Funeral Direction/Service
12.0303 Mortuary Science and Embalming/Embalmer
12.0399 Funeral Service and Mortuary Science, Other

12.04 Cosmetology and Related Personal Grooming Services

12.0401 Cosmetology/Cosmetologist, General
12.0402 Barbering/Barber
12.0404 Electrolysis/Electrology and Electrolysis Technician
12.0406 Makeup Artist/Specialist
12.0407 Hair Styling/Stylist and Hair Design
12.0408 Facial Treatment Specialist/Facialist
12.0409 Aesthetician/Esthetician and Skin Care Specialist
12.0410 Nail Technician/Specialist and Manicurist
12.0411 Permanent Cosmetics/Makeup and Tattooing
12.0412 Salon/Beauty Salon Management/Manager
12.0413 Cosmetology, Barber/Styling and Nail Instructor
12.0499 Cosmetology and Related Personal Grooming Services, Other

12.05 Culinary Arts and Related Services

12.0500 Cooking and Related Culinary Arts, General
12.0501 Baking and Pastry Arts/Baker/Pastry Chef
12.0502 Bartending/Bartender
12.0503 Culinary Arts/Chef Training
12.0504 Restaurant, Culinary and Catering Management/Manager
12.0505 Food Preparation/Professional Cooking/Kitchen Assistant
12.0506 Meat Cutting/Meat Cutter
12.0507 Food Service, Waiter/Waitress and Dining Room Management/Manager
12.0508 Institutional Food Workers
12.0599 Culinary Arts and Related Services, Other

12.99 Personal and Culinary Services, Other

12.9999 Personal and Culinary Services, Other

13.   Education

13.01   Education, General

13.0101   Education, General

13.02   Bilingual, Multilingual and Multicultural Education

13.0201   Bilingual and Multilingual Education
13.0202   Multicultural Education
13.0203   Aboriginal Education
13.0299   Bilingual, Multilingual and Multicultural Education, Other

13.03   Curriculum and Instruction

13.0301   Curriculum and Instruction

13.04   Educational Administration and Supervision

13.0401   Educational Leadership and Administration, General
13.0402   Administration of Special Education
13.0403   Adult and Continuing Education Administration
13.0404   Educational, Instructional and Curriculum Supervision
13.0406   Higher Education/Higher Education Administration
13.0407   Community College and General and Vocational College (CEGEP)
            Administration
13.0408   Elementary and Middle School Administration/Principalship
13.0409   Secondary School Administration/Principalship
13.0410   Urban Education and Leadership
13.0411   Superintendency and Educational System Administration
13.0499   Educational Administration and Supervision, Other

13.05   Educational/Instructional Media Design

13.0501   Educational/Instructional Media Design

13.06   Educational Assessment, Evaluation and Research

13.0601   Educational Evaluation and Research
13.0603   Educational Statistics and Research Methods
13.0604   Educational Assessment, Testing and Measurement
13.0699   Educational Assessment, Evaluation and Research, Other

13.07   International and Comparative Education

13.0701   International and Comparative Education

13.09   Social and Philosophical Foundations of Education

13.0901   Social and Philosophical Foundations of Education

13.10   Special Education and Teaching

13.1001   Special Education and Teaching, General
13.1003   Education/Teaching of Individuals with Hearing Impairments Including
            Deafness
13.1004   Education/Teaching of the Gifted and Talented

13.1005   Education/Teaching of Individuals with Emotional Disturbances
13.1006   Education/Teaching of Intellectually-impaired Individuals
13.1007   Education/Teaching of Individuals with Multiple Disabilities
13.1008   Education/Teaching of Individuals with Orthopedic and Other Physical Health Impairments
13.1009   Education/Teaching of Individuals with Vision Impairments Including Blindness
13.1011   Education/Teaching of Individuals with Specific Learning Disabilities
13.1012   Education/Teaching of Individuals with Speech or Language Impairments
13.1013   Education/Teaching of Individuals with Autism
13.1014   Education/Teaching of Individuals Who are Developmentally Delayed
13.1015   Education/Teaching of Individuals in Early Childhood Special Education Programs
13.1016   Education/Teaching of Individuals with Traumatic Brain Injuries
13.1099   Special Education and Teaching, Other

13.11   Student Counselling and Personnel Services

13.1101   Counsellor Education/School Counselling and Guidance Services
13.1102   College Student Counselling and Personnel Services
13.1199   Student Counselling and Personnel Services, Other

13.12   Teacher Education and Professional Development, Specific Levels and Methods

13.1201   Adult and Continuing Education and Teaching
13.1202   Elementary Education and Teaching
13.1203   Junior High/Intermediate/Middle School Education and Teaching
13.1205   Secondary Education and Teaching
13.1206   Teacher Education, Multiple Levels
13.1207   Montessori Teacher Education
13.1208   Waldorf/Steiner Teacher Education
13.1209   Kindergarten/Preschool Education and Teaching
13.1210   Early Childhood Education and Teaching
13.1299   Teacher Education and Professional Development, Specific Levels and Methods, Other

13.13   Teacher Education and Professional Development, Specific Subject Areas

13.1301   Agricultural Teacher Education
13.1302   Art Teacher Education
13.1303   Business Teacher Education
13.1304   Driver and Safety Teacher Education
13.1305   English/English Language Arts Teacher Education
13.1306   Aboriginal and Foreign Language Teacher Education
13.1307   Health Teacher Education
13.1308   Family and Consumer Sciences/Home Economics Teacher Education
13.1309   Technology Teacher Education/Industrial Arts Teacher Education
13.1310   Sales and Marketing Operations/Marketing and Distribution Teacher Education
13.1311   Mathematics Teacher Education
13.1312   Music Teacher Education
13.1314   Physical Education Teaching and Coaching
13.1315   Reading Teacher Education
13.1316   Science Teacher Education/General Science Teacher Education

13.1317 Social Science Teacher Education
13.1318 Social Studies Teacher Education
13.1319 Technical Teacher Education
13.1320 Trade and Industrial Teacher Education
13.1321 Computer Teacher Education
13.1322 Biology Teacher Education
13.1323 Chemistry Teacher Education
13.1324 Drama and Dance Teacher Education
13.1325 French Language/French Language Arts Teacher Education
13.1326 German Language Teacher Education
13.1327 Health Occupations Teacher Education
13.1328 History Teacher Education
13.1329 Physics Teacher Education
13.1330 Spanish Language Teacher Education
13.1331 Speech Teacher Education
13.1332 Geography Teacher Education
13.1333 Latin Teacher Education
13.1334 School Librarian/School Library Media Specialist
13.1335 Psychology Teacher Education
13.1399 Teacher Education and Professional Development, Specific Subject Areas, Other

13.14   Teaching English or French as a Second or Foreign Language

13.1401 Teaching English as a Second or Foreign Language/ESL Language Instructor
13.1402 Teaching French as a Second or Foreign Language
13.1499 Teaching English or French as a Second or Foreign Language, Other

13.15   Teaching Assistants/Aides

13.1501 Teaching Assistants/Aides, General
13.1502 Adult Literacy Tutor/Instructor
13.1599 Teaching Assistants/Aides, Other

13.99   Education, Other

13.9999 Education, Other

14.   Engineering

14.01   Engineering, General

14.0101 Engineering, General

14.02   Aerospace, Aeronautical and Astronautical Engineering

14.0201 Aerospace, Aeronautical and Astronautical Engineering

14.03   Agricultural/Biological Engineering and Bioengineering

14.0301 Agricultural/Biological Engineering and Bioengineering

14.04   Architectural Engineering

14.0401 Architectural Engineering

14.05   **Biomedical/Medical Engineering**

   14.0501   Biomedical/Medical Engineering

14.06   **Ceramic Sciences and Engineering**

   14.0601   Ceramic Sciences and Engineering

14.07   **Chemical Engineering**

   14.0701   Chemical Engineering

14.08   **Civil Engineering**

   14.0801   Civil Engineering, General
   14.0802   Geotechnical Engineering
   14.0803   Structural Engineering
   14.0804   Transportation and Highway Engineering
   14.0805   Water Resources Engineering
   14.0899   Civil Engineering, Other

14.09   **Computer Engineering**

   14.0901   Computer Engineering, General
   14.0902   Computer Hardware Engineering
   14.0903   Computer Software Engineering
   14.0999   Computer Engineering, Other

14.10   **Electrical, Electronics and Communications Engineering**

   14.1001   Electrical, Electronics and Communications Engineering

14.11   **Engineering Mechanics**

   14.1101   Engineering Mechanics

14.12   **Engineering Physics**

   14.1201   Engineering Physics

14.13   **Engineering Science**

   14.1301   Engineering Science

14.14   **Environmental/Environmental Health Engineering**

   14.1401   Environmental/Environmental Health Engineering

14.18   **Materials Engineering**

   14.1801   Materials Engineering

14.19   **Mechanical Engineering**

   14.1901   Mechanical Engineering

14.20   **Metallurgical Engineering**

14.2001   Metallurgical Engineering

14.21   Mining and Mineral Engineering

14.2101   Mining and Mineral Engineering

14.22   Naval Architecture and Marine Engineering

14.2201   Naval Architecture and Marine Engineering

14.23   Nuclear Engineering

14.2301   Nuclear Engineering

14.24   Ocean Engineering

14.2401   Ocean Engineering

14.25   Petroleum Engineering

14.2501   Petroleum Engineering

14.27   Systems Engineering

14.2701   Systems Engineering

14.28   Textile Sciences and Engineering

14.2801   Textile Sciences and Engineering

14.31   Materials Science

14.3101   Materials Science

14.32   Polymer/Plastics Engineering

14.3201   Polymer/Plastics Engineering

14.33   Construction Engineering

14.3301   Construction Engineering

14.34   Forest Engineering

14.3401   Forest Engineering

14.35   Industrial Engineering

14.3501   Industrial Engineering

14.36   Manufacturing Engineering

14.3601   Manufacturing Engineering

14.37   Operations Research

14.3701   Operations Research

14.38   Surveying Engineering

14.3801   Surveying Engineering

14.39   Geological/Geophysical Engineering

14.3901   Geological/Geophysical Engineering

14.99   Engineering, Other

14.9999   Engineering, Other

15.   Engineering Technologies/Technicians

15.00   Engineering Technology, General

15.0000   Engineering Technology, General

15.01   Architectural Engineering Technology/Technician

15.0101   Architectural Engineering Technology/Technician

15.02   Civil Engineering Technology/Technician

15.0201   Civil Engineering Technology/Technician

15.03   Electrical and Electronic Engineering Technologies/Technicians

15.0303   Electrical, Electronic and Communications Engineering
          Technology/Technician
15.0304   Laser and Optical Technology/Technician
15.0305   Telecommunications Technology/Technician
15.0399   Electrical and Electronic Engineering Technologies/Technicians, Other

15.04   Electromechanical and Instrumentation and Maintenance Technologies/Technicians

15.0401   Biomedical Technology/Technician
15.0403   Electromechanical Technology/Electromechanical Engineering
          Technology
15.0404   Instrumentation Technology/Technician
15.0405   Robotics Technology/Technician
15.0499   Electromechanical and Instrumentation and Maintenance
          Technologies/Technicians, Other

15.05   Environmental Control Technologies/Technicians

15.0501   Heating, Air Conditioning and Refrigeration Technology/Technician
          (ACH/ACR/ACHR/HRAC/HVAC/AC Technology)
15.0503   Energy Management and Systems Technology/Technician
15.0505   Solar Energy Technology/Technician
15.0506   Water Quality and Wastewater Treatment Management and Recycling
          Technology/Technician
15.0507   Environmental Engineering Technology/Environmental Technology
15.0508   Hazardous Materials Management and Waste Technology/Technician
15.0599   Environmental Control Technologies/Technicians, Other

15.06   **Industrial Production Technologies/Technicians**

15.0607   Plastics Engineering Technology/Technician
15.0611   Metallurgical Technology/Technician
15.0612   Industrial Technology/Technician
15.0613   Manufacturing Technology/Technician
15.0699   Industrial Production Technologies/Technicians, Other

15.07   **Quality Control and Safety Technologies/Technicians**

15.0701   Occupational Safety and Health Technology/Technician
15.0702   Quality Control Technology/Technician
15.0703   Industrial Safety Technology/Technician
15.0704   Hazardous Materials Information Systems Technology/Technician
15.0799   Quality Control and Safety Technologies/Technicians, Other

15.08   **Mechanical Engineering Related Technologies/Technicians**

15.0801   Aeronautical/Aerospace Engineering Technology/Technician
15.0803   Automotive Engineering Technology/Technician
15.0805   Mechanical Engineering/Mechanical Technology/Technician
15.0899   Mechanical Engineering Related Technologies/Technicians, Other

15.09   **Mining and Petroleum Technologies/Technicians**

15.0901   Mining Technology/Technician
15.0903   Petroleum Technology/Technician
15.0999   Mining and Petroleum Technologies/Technicians, Other

15.10   **Construction Engineering Technology/Technician**

15.1001   Construction Engineering Technology/Technician

15.11   **Engineering-related Technologies**

15.1102   Surveying Technology/Surveying
15.1103   Hydraulics and Fluid Power Technology/Technician
15.1199   Engineering-related Technologies, Other

15.12   **Computer Engineering Technologies/Technicians**

15.1201   Computer Engineering Technology/Technician, General
15.1202   Computer Technology/Computer Systems Technology
15.1203   Computer Hardware Technology/Technician
15.1204   Computer Software Technology/Technician
15.1299   Computer Engineering Technologies/Technicians, Other

15.13   **Drafting/Design Engineering Technologies/Technicians**

15.1301   Drafting and Design Technology/Technician, General
15.1302   CAD/CADD Drafting and/or Design Technology/Technician
15.1303   Architectural Drafting and Architectural CAD/CADD
15.1304   Civil Drafting and Civil Engineering CAD/CADD
15.1305   Electrical/Electronics Drafting and Electrical/Electronics CAD/CADD
15.1306   Mechanical Drafting and Mechanical Drafting CAD/CADD
15.1399   Drafting/Design Engineering Technologies/Technicians, Other

15.14   Nuclear Engineering Technology/Technician

15.1401   Nuclear Engineering Technology/Technician

15.15   Engineering/Industrial Management

15.1501   Engineering/Industrial Management

15.99   Engineering Technologies/Technicians, Other

15.9999   Engineering Technologies/Technicians, Other

16.   Aboriginal and Foreign Languages, Literatures and Linguistics

16.01   Linguistic, Comparative and Related Language Studies and Services

16.0101   Aboriginal and Foreign Languages and Literatures, General
16.0102   Linguistics
16.0103   Language Interpretation and Translation
16.0104   Comparative Literature
16.0199   Linguistic, Comparative and Related Language Studies and Services, Other

16.02   African Languages, Literatures and Linguistics

16.0201   African Languages, Literatures and Linguistics

16.03   East Asian Languages, Literatures and Linguistics

16.0300   East Asian Languages, Literatures and Linguistics, General
16.0301   Chinese Language and Literature
16.0302   Japanese Language and Literature
16.0303   Korean Language and Literature
16.0304   Tibetan Language and Literature
16.0399   East Asian Languages, Literatures and Linguistics, Other

16.04   Slavic, Baltic and Albanian Languages, Literatures and Linguistics

16.0400   Slavic Languages, Literatures and Linguistics, General
16.0401   Baltic Languages, Literatures and Linguistics
16.0402   Russian Language and Literature
16.0404   Albanian Language and Literature
16.0405   Bulgarian Language and Literature
16.0406   Czech Language and Literature
16.0407   Polish Language and Literature
16.0408   Serbian, Croatian and Serbo-Croatian Languages and Literatures
16.0409   Slovak Language and Literature
16.0410   Ukrainian Language and Literature
16.0499   Slavic, Baltic and Albanian Languages, Literatures and Linguistics, Other

16.05   Germanic Languages, Literatures and Linguistics

16.0500   Germanic Languages, Literatures and Linguistics, General
16.0501   German Language and Literature
16.0502   Scandinavian Languages, Literatures and Linguistics
16.0503   Danish Language and Literature
16.0504   Dutch/Flemish Language and Literature

16.0505   Norwegian Language and Literature
16.0506   Swedish Language and Literature
16.0599   Germanic Languages, Literatures and Linguistics, Other

16.06   Modern Greek Language and Literature

16.0601   Modern Greek Language and Literature

16.07   South Asian Languages, Literatures and Linguistics

16.0700   South Asian Languages, Literatures and Linguistics, General
16.0701   Hindi Language and Literature
16.0702   Sanskrit and Classical Indian Languages, Literatures and Linguistics
16.0704   Bengali Language and Literature
16.0705   Punjabi Language and Literature
16.0706   Tamil Language and Literature
16.0707   Urdu Language and Literature
16.0799   South Asian Languages, Literatures and Linguistics, Other

16.08   Iranian/Persian Languages, Literatures and Linguistics

16.0801   Iranian/Persian Languages, Literatures and Linguistics

16.09   Romance Languages, Literatures and Linguistics

16.0900   Romance Languages, Literatures and Linguistics, General
16.0902   Italian Language and Literature
16.0904   Portuguese Language and Literature
16.0905   Spanish Language and Literature
16.0906   Romanian Language and Literature
16.0907   Catalan Language and Literature
16.0999   Romance Languages, Literatures and Linguistics, Other

16.10   Aboriginal Languages, Literatures and Linguistics

16.1001   Aboriginal Languages, Literatures and Linguistics

16.11   Middle/Near Eastern and Semitic Languages, Literatures and Linguistics

16.1100   Semitic Languages, Literatures and Linguistics, General
16.1101   Arabic Language and Literature
16.1102   Hebrew Language and Literature
16.1103   Ancient Near Eastern and Biblical Languages, Literatures and Linguistics
16.1199   Middle/Near Eastern and Semitic Languages, Literatures and
           Linguistics, Other

16.12   Classics and Classical Languages, Literatures and Linguistics

16.1200   Classics and Classical Languages, Literatures and Linguistics, General
16.1202   Ancient/Classical Greek Language and Literature
16.1203   Latin Language and Literature
16.1299   Classics and Classical Languages, Literatures and Linguistics, Other

16.13   Celtic Languages, Literatures and Linguistics

16.1301   Celtic Languages, Literatures and Linguistics

16.14   Southeast Asian and Australasian/Pacific Languages, Literatures and Linguistics

16.1400   Southeast Asian Languages, Literatures and Linguistics, General
16.1401   Australian/Oceanic/Pacific Languages, Literatures and Linguistics
16.1402   Bahasa Indonesian/Bahasa Malay Languages and Literatures
16.1403   Burmese Language and Literature
16.1404   Philippine/Tagalog Language and Literature
16.1405   Khmer/Cambodian Language and Literature
16.1406   Lao/Laotian Language and Literature
16.1407   Thai Language and Literature
16.1408   Vietnamese Language and Literature
16.1499   Southeast Asian and Australasian/Pacific Languages, Literatures and Linguistics, Other

16.15   Turkic, Ural-Altaic, Caucasian and Central Asian Languages, Literatures and Linguistics

16.1501   Turkish Language and Literature
16.1502   Finnish and Related Languages, Literatures and Linguistics
16.1503   Hungarian/Magyar Language and Literature
16.1504   Mongolian Language and Literature
16.1599   Turkic, Ural-Altaic, Caucasian and Central Asian Languages, Literatures and Linguistics, Other

16.16   Sign Language

16.1601   American Sign Language (ASL)
16.1602   Linguistics of Sign Language
16.1603   Sign Language Interpretation and Translation
16.1699   Sign Language, Other

16.17   Second Language Learning[CAN]

16.1701   English as a Second Language[CAN]
16.1702   French as a Second Language[CAN]
16.1799   Second Language Learning, Other[CAN]

16.99   Aboriginal and Foreign Languages, Literatures and Linguistics, Other

16.9999   Aboriginal and Foreign Languages, Literatures and Linguistics, Other

19.   Family and Consumer Sciences/Human Sciences

19.00   Work and Family Studies

19.0000   Work and Family Studies

19.01   Family and Consumer Sciences/Human Sciences, General

19.0101   Family and Consumer Sciences/Human Sciences, General

19.02   Family and Consumer Sciences/Human Sciences Business Services

19.0201   Business, Family and Consumer Sciences/Human Sciences
19.0202   Family and Consumer Sciences/Human Sciences Communication
19.0203   Consumer Merchandising/Retailing Management

19.0299 Family and Consumer Sciences/Human Sciences Business Services, Other

19.04   Family and Consumer Economics and Related Services

19.0401 Family Resource Management Studies, General
19.0402 Consumer Economics
19.0403 Consumer Services and Advocacy
19.0499 Family and Consumer Economics and Related Services, Other

19.05   Foods, Nutrition and Related Services

19.0501 Foods, Nutrition and Wellness Studies, General
19.0504 Human Nutrition
19.0505 Foodservice Systems Administration/Management
19.0599 Foods, Nutrition and Related Services, Other

19.06   Housing and Human Environments

19.0601 Housing and Human Environments, General
19.0604 Facilities Planning and Management
19.0605 Home Furnishings and Equipment Installers
19.0699 Housing and Human Environments, Other

19.07   Human Development, Family Studies and Related Services

19.0701 Human Development and Family Studies, General
19.0702 Adult Development and Aging
19.0704 Family Systems
19.0706 Child Development
19.0707 Family and Community Services
19.0708 Child Care and Support Services Management
19.0709 Child Care Provider/Assistant
19.0799 Human Development, Family Studies and Related Services, Other

19.09   Apparel and Textiles

19.0901 Apparel and Textiles, General
19.0902 Apparel and Textile Manufacture
19.0904 Textile Science
19.0905 Apparel and Textile Marketing Management
19.0906 Fashion and Fabric Consultant
19.0999 Apparel and Textiles, Other

19.99   Family and Consumer Sciences/Human Sciences, Other

19.9999 Family and Consumer Sciences/Human Sciences, Other

21.   Technology Education/Industrial Arts Programs. This series is found in chapter III.

22.   Legal Professions and Studies

22.00   Non-professional General Legal Studies (Undergraduate)

22.0000 Legal Studies, General
22.0001 Prelaw Studies

22.01   Law (LLB, JD, BCL)

22.0101   Law (LLB, JD, BCL)

22.02   Legal Research and Advanced Professional Studies (Post-LLB/JD)

22.0201   Advanced Legal Research/Studies, General (LLM, MCL, MLI, MSL, JSD/SJD)
22.0202   Programs for Foreign Lawyers (LLM, MCL)
22.0203   American/US Law/Legal Studies/Jurisprudence (LLM, MCJ, JSD/SJD)
22.0204   Canadian Law/Legal Studies/Jurisprudence (LLM, MCJ, JSD/SJD)
22.0205   Banking, Corporate, Finance and Securities Law (LLM, JSD/SJD)
22.0206   Comparative Law (LLM, MCL, JSD/SJD)
22.0207   Energy, Environment and Natural Resources Law (LLM, MSc, JSD/SJD)
22.0208   Health Law (LLM, MJ, JSD/SJD)
22.0209   International Law and Legal Studies (LLM, JSD/SJD)
22.0210   International Business, Trade and Tax Law (LLM, JSD/SJD)
22.0211   Tax Law/Taxation (LLM, JSD/SJD)
22.0299   Legal Research and Advanced Professional Studies (Post-LLB/JD), Other

22.03   Legal Support Services

22.0301   Legal Administrative Assistant/Secretary
22.0302   Legal Assistant/Paralegal
22.0303   Court Reporting/Court Reporter
22.0399   Legal Support Services, Other

22.99   Legal Professions and Studies, Other

22.9999   Legal Professions and Studies, Other

23.   English Language and Literature/Letters

23.01   English Language and Literature, General

23.0101   English Language and Literature, General

23.04   English Composition

23.0401   English Composition

23.05   English Creative Writing

23.0501   English Creative Writing

23.07   Canadian and American Literature

23.0701   American Literature
23.0702   English Canadian Literature

23.08   English Literature (British and Commonwealth)

23.0801   English Literature (British and Commonwealth)

23.10   English Speech and Rhetorical Studies

23.1001   English Speech and Rhetorical Studies

23.11   English Technical and Business Writing

23.1101   English Technical and Business Writing

23.99   English Language and Literature/Letters, Other

23.9999   English Language and Literature/Letters, Other

24.   Liberal Arts and Sciences, General Studies and Humanities

24.01   Liberal Arts and Sciences, General Studies and Humanities

24.0101   Liberal Arts and Sciences/Liberal Studies
24.0102   General Studies
24.0103   Humanities/Humanistic Studies
24.0199   Liberal Arts and Sciences, General Studies and Humanities, Other

25.   Library Science

25.01   Library Science/Librarianship

25.0101   Library Science/Librarianship

25.03   Library Assistant/Technician

25.0301   Library Assistant/Technician

25.99   Library Science, Other

25.9999   Library Science, Other

26.   Biological and Biomedical Sciences

26.01   Biology, General

26.0101   Biology/Biological Sciences, General
26.0102   Biomedical Sciences, General

26.02   Biochemistry/Biophysics and Molecular Biology

26.0202   Biochemistry
26.0203   Biophysics
26.0204   Molecular Biology
26.0205   Molecular Biochemistry
26.0206   Molecular Biophysics
26.0207   Structural Biology
26.0208   Photobiology
26.0209   Radiation Biology/Radiobiology
26.0210   Biochemistry/Biophysics and Molecular Biology, Integrated
26.0299   Biochemistry/Biophysics and Molecular Biology, Other

26.03   Botany/Plant Biology

26.0301   Botany/Plant Biology, General
26.0305   Plant Pathology/Phytopathology
26.0307   Plant Physiology
26.0308   Plant Molecular Biology
26.0399   Botany/Plant Biology, Other

26.04   Cell/Cellular Biology and Anatomical Sciences

26.0401   Cell/Cellular Biology and Histology
26.0403   Anatomy
26.0404   Developmental Biology and Embryology
26.0405   Neuroanatomy
26.0406   Cell/Cellular and Molecular Biology
26.0407   Cell Biology and Anatomy
26.0499   Cell/Cellular Biology and Anatomical Sciences, Other

26.05   Microbiological Sciences and Immunology

26.0502   Microbiology, General
26.0503   Medical Microbiology and Bacteriology
26.0504   Virology
26.0505   Parasitology
26.0506   Mycology
26.0507   Immunology
26.0599   Microbiological Sciences and Immunology, Other

26.07   Zoology/Animal Biology

26.0701   Zoology/Animal Biology, General
26.0702   Entomology
26.0707   Animal Physiology
26.0708   Animal Behaviour and Ethology
26.0709   Wildlife Biology
26.0799   Zoology/Animal Biology, Other

26.08   Genetics

26.0801   Genetics, General
26.0802   Molecular Genetics
26.0803   Microbial and Eukaryotic Genetics
26.0804   Animal Genetics
26.0805   Plant Genetics
26.0806   Human/Medical Genetics
26.0899   Genetics, Other

26.09   Physiology, Pathology and Related Sciences

26.0901   Physiology, General
26.0902   Molecular Physiology
26.0903   Cell Physiology
26.0904   Endocrinology
26.0905   Reproductive Biology
26.0906   Neurobiology and Neurophysiology
26.0907   Cardiovascular Science
26.0908   Exercise Physiology
26.0909   Vision Science/Physiological Optics
26.0910   Pathology/Experimental Pathology
26.0911   Oncology and Cancer Biology
26.0999   Physiology, Pathology and Related Sciences, Other

26.10   Pharmacology and Toxicology

26.1001   Pharmacology

26.1002 Molecular Pharmacology
26.1003 Neuropharmacology
26.1004 Toxicology
26.1005 Molecular Toxicology
26.1006 Environmental Toxicology
26.1007 Pharmacology and Toxicology, Integrated
26.1099 Pharmacology and Toxicology, Other

26.11 Biomathematics and Bioinformatics

26.1101 Biometry/Biometrics
26.1102 Biostatistics
26.1103 Bioinformatics
26.1199 Biomathematics and Bioinformatics, Other

26.12 Biotechnology

26.1201 Biotechnology

26.13 Ecology, Evolution, Systematics and Population Biology

26.1301 Ecology
26.1302 Marine Biology and Biological Oceanography
26.1303 Evolutionary Biology
26.1304 Aquatic Biology/Limnology
26.1305 Environmental Biology
26.1306 Population Biology
26.1307 Conservation Biology
26.1308 Systematic Biology/Biological Systematics
26.1309 Epidemiology
26.1399 Ecology, Evolution, Systematics and Population Biology, Other

26.99 Biological and Biomedical Sciences, Other

26.9999 Biological and Biomedical Sciences, Other

27. Mathematics and Statistics

27.01 Mathematics

27.0101 Mathematics, General
27.0102 Algebra and Number Theory
27.0103 Analysis and Functional Analysis
27.0104 Geometry/Geometric Analysis
27.0105 Topology and Foundations
27.0199 Mathematics, Other

27.03 Applied Mathematics

27.0301 Applied Mathematics, General
27.0303 Computational Mathematics
27.0399 Applied Mathematics, Other

27.05 Statistics

27.0501 Statistics, General
27.0502 Mathematical Statistics and Probability

27.0599   Statistics, Other

27.99   **Mathematics and Statistics, Other**

27.9999   Mathematics and Statistics, Other

28.   **Reserve Entry Scheme for Officers in the Armed Forces**. This series is found in chapter IV.

29.   **Military Technologies**

29.01   **Military Technologies**

29.0101   Military Technologies

30.   **Multidisciplinary/Interdisciplinary Studies**

30.01   **Biological and Physical Sciences**

30.0101   Biological and Physical Sciences

30.05   **Peace Studies and Conflict Resolution**

30.0501   Peace Studies and Conflict Resolution

30.06   **Systems Science and Theory**

30.0601   Systems Science and Theory

30.08   **Mathematics and Computer Science**

30.0801   Mathematics and Computer Science

30.10   **Biopsychology**

30.1001   Biopsychology

30.11   **Gerontology**

30.1101   Gerontology

30.12   **Historic Preservation and Conservation**

30.1201   Historic Preservation and Conservation, General
30.1202   Cultural Resource Management and Policy Analysis
30.1299   Historic Preservation and Conservation, Other

30.13   **Medieval and Renaissance Studies**

30.1301   Medieval and Renaissance Studies

30.14   **Museology/Museum Studies**

30.1401   Museology/Museum Studies

30.15   **Science, Technology and Society**

30.1501   Science, Technology and Society

30.16 **Accounting and Computer Science**

30.1601   Accounting and Computer Science

30.17 **Behavioural Sciences**

30.1701   Behavioural Sciences

30.18 **Natural Sciences**

30.1801   Natural Sciences

30.19 **Nutrition Sciences**

30.1901   Nutrition Sciences

30.20 **International/Global Studies**

30.2001   International/Global Studies

30.21 **Holocaust and Related Studies**

30.2101   Holocaust and Related Studies

30.22 **Classical and Ancient Studies**

30.2201   Ancient Studies/Civilization
30.2202   Classical, Ancient Mediterranean and Near Eastern Studies and
Archeology

30.23 **Intercultural/Multicultural and Diversity Studies**

30.2301   Intercultural/Multicultural and Diversity Studies

30.24 **Neuroscience**

30.2401   Neuroscience

30.25 **Cognitive Science**

30.2501   Cognitive Science

30.99 **Multidisciplinary/Interdisciplinary Studies, Other**

30.9999   Multidisciplinary/Interdisciplinary Studies, Other

31. **Parks, Recreation, Leisure and Fitness Studies**

31.01 **Parks, Recreation and Leisure Studies**

31.0101   Parks, Recreation and Leisure Studies

31.03 **Parks, Recreation and Leisure Facilities Management**

31.0301   Parks, Recreation and Leisure Facilities Management

31.05 **Health and Physical Education/Fitness**

31.0501 Health and Physical Education, General
31.0504 Sport and Fitness Administration/Management
31.0505 Kinesiology and Exercise Science
31.0599 Health and Physical Education/Fitness, Other

31.99   Parks, Recreation, Leisure and Fitness Studies, Other

31.9999 Parks, Recreation, Leisure and Fitness Studies, Other

32.   Basic Skills. This series is found in chapter V.

33.   Citizenship Activities. This series is found in chapter V.

34.   Health-related Knowledge and Skills. This series is found in chapter V.

35.   Interpersonal and Social Skills. This series is found in chapter V.

36.   Leisure and Recreational Activities. This series is found in chapter V.

37.   Personal Awareness and Self-improvement. This series is found in chapter V.

38.   Philosophy and Religious Studies

38.01   Philosophy, Logic and Ethics

38.0101 Philosophy
38.0102 Logic
38.0103 Ethics
38.0199 Philosophy, Logic and Ethics, Other

38.02   Religion/Religious Studies

38.0201 Religion/Religious Studies, General
38.0202 Buddhist Studies
38.0203 Christian Studies
38.0204 Hindu Studies
38.0205 Islamic Studies
38.0206 Jewish/Judaic Studies
38.0299 Religion/Religious Studies, Other

38.99   Philosophy and Religious Studies, Other

38.9999 Philosophy and Religious Studies, Other

39.   Theology and Religious Vocations

39.02   Bible/Biblical Studies

39.0201 Bible/Biblical Studies

39.03   Missions/Missionary Studies and Missiology

39.0301 Missions/Missionary Studies and Missiology

39.04   Religious Education

39.0401 Religious Education

39.05   **Religious/Sacred Music**

39.0501   Religious/Sacred Music

39.06   **Theological and Ministerial Studies**

39.0601   Theology/Theological Studies
39.0602   Divinity/Ministry (BDiv, MDiv)
39.0604   Pretheology/Preministerial Studies
39.0605   Rabbinical Studies (MHL/Rav)
39.0606   Talmudic Studies
39.0699   Theological and Ministerial Studies, Other

39.07   **Pastoral Counselling and Specialized Ministries**

39.0701   Pastoral Studies/Counselling
39.0702   Youth Ministry
39.0799   Pastoral Counselling and Specialized Ministries, Other

39.99   **Theology and Religious Vocations, Other**

39.9999   Theology and Religious Vocations, Other

40.   **Physical Sciences**

40.01   **Physical Sciences, General**

40.0101   Physical Sciences, General

40.02   **Astronomy and Astrophysics**

40.0201   Astronomy
40.0202   Astrophysics
40.0203   Planetary Astronomy and Science
40.0299   Astronomy and Astrophysics, Other

40.04   **Atmospheric Sciences and Meteorology**

40.0401   Atmospheric Sciences and Meteorology, General
40.0402   Atmospheric Chemistry and Climatology
40.0403   Atmospheric Physics and Dynamics
40.0404   Meteorology
40.0499   Atmospheric Sciences and Meteorology, Other

40.05   **Chemistry**

40.0501   Chemistry, General
40.0502   Analytical Chemistry
40.0503   Inorganic Chemistry
40.0504   Organic Chemistry
40.0506   Physical and Theoretical Chemistry
40.0507   Polymer Chemistry
40.0508   Chemical Physics
40.0599   Chemistry, Other

40.06   **Geological and Earth Sciences/Geosciences**

40.0601 Geology/Earth Science, General
40.0602 Geochemistry
40.0603 Geophysics and Seismology
40.0604 Paleontology
40.0605 Hydrology and Water Resources Science
40.0606 Geochemistry and Petrology
40.0607 Oceanography, Chemical and Physical
40.0699 Geological and Earth Sciences/Geosciences, Other

40.08   Physics

40.0801 Physics, General
40.0802 Atomic/Molecular Physics
40.0804 Elementary Particle Physics
40.0805 Plasma and High-temperature Physics
40.0806 Nuclear Physics
40.0807 Optics/Optical Sciences
40.0808 Solid State and Low-temperature Physics
40.0809 Acoustics
40.0810 Theoretical and Mathematical Physics
40.0899 Physics, Other

40.99   Physical Sciences, Other

40.9999 Physical Sciences, Other

41.   Science Technologies/Technicians

41.01   Biology Technician/Biotechnology Laboratory Technician

41.0101 Biology Technician/Biotechnology Laboratory Technician

41.02   Nuclear and Industrial Radiologic Technologies/Technicians

41.0204 Industrial Radiologic Technology/Technician
41.0205 Nuclear/Nuclear Power Technology/Technician
41.0299 Nuclear and Industrial Radiologic Technologies/Technicians, Other

41.03   Physical Science Technologies/Technicians

41.0301 Chemical Technology/Technician
41.0399 Physical Science Technologies/Technicians, Other

41.99   Science Technologies/Technicians, Other

41.9999 Science Technologies/Technicians, Other

42.   Psychology

42.01   Psychology, General

42.0101 Psychology, General

42.02   Clinical Psychology

42.0201 Clinical Psychology

42.03   **Cognitive Psychology and Psycholinguistics**

42.0301   Cognitive Psychology and Psycholinguistics

42.04   **Community Psychology**

42.0401   Community Psychology

42.05   **Comparative Psychology**

42.0501   Comparative Psychology

42.06   **Counselling Psychology**

42.0601   Counselling Psychology

42.07   **Developmental and Child Psychology**

42.0701   Developmental and Child Psychology

42.08   **Experimental Psychology**

42.0801   Experimental Psychology

42.09   **Industrial and Organizational Psychology**

42.0901   Industrial and Organizational Psychology

42.10   **Personality Psychology**

42.1001   Personality Psychology

42.11   **Physiological Psychology/Psychobiology**

42.1101   Physiological Psychology/Psychobiology

42.16   **Social Psychology**

42.1601   Social Psychology

42.17   **School Psychology**

42.1701   School Psychology

42.18   **Educational Psychology**

42.1801   Educational Psychology

42.19   **Psychometrics and Quantitative Psychology**

42.1901   Psychometrics and Quantitative Psychology

42.20   **Clinical Child Psychology**

42.2001   Clinical Child Psychology

42.21   **Environmental Psychology**

42.2101   Environmental Psychology

42.22   Geropsychology

42.2201   Geropsychology

42.23   Health/Medical Psychology

42.2301   Health/Medical Psychology

42.24   Psychopharmacology

42.2401   Psychopharmacology

42.25   Family Psychology

42.2501   Family Psychology

42.26   Forensic Psychology

42.2601   Forensic Psychology

42.99   Psychology, Other

42.9999   Psychology, Other

43.   Security and Protective Services

43.01   Criminal Justice and Corrections

43.0102   Corrections
43.0103   Criminal Justice/Law Enforcement Administration
43.0104   Criminal Justice/Safety Studies
43.0106   Forensic Science and Technology
43.0107   Criminal Justice/Police Science
43.0109   Security and Loss Prevention Services
43.0110   Juvenile Corrections
43.0111   Criminalistics and Criminal Science
43.0112   Securities Services Administration/Management
43.0113   Corrections Administration
43.0199   Criminal Justice and Corrections, Other

43.02   Fire Protection

43.0201   Fire Protection and Safety Technology/Technician
43.0202   Fire Services Administration
43.0203   Fire Science/Firefighting
43.0299   Fire Protection, Other

43.99   Security and Protective Services, Other

43.9999   Security and Protective Services, Other

44.   Public Administration and Social Service Professions

44.00   Human Services, General

44.0000   Human Services, General

44.02   Community Organization and Advocacy

44.0201   Community Organization and Advocacy

44.04   Public Administration

44.0401   Public Administration

44.05   Public Policy Analysis

44.0501   Public Policy Analysis

44.07   Social Work

44.0701   Social Work, General
44.0702   Youth Services/Administration
44.0799   Social Work, Other

44.99   Public Administration and Social Service Professions, Other

44.9999   Public Administration and Social Service Professions, Other

45.   Social Sciences

45.01   Social Sciences, General

45.0101   Social Sciences, General

45.02   Anthropology

45.0201   Anthropology, General
45.0202   Physical Anthropology
45.0299   Anthropology, Other

45.03   Archeology

45.0301   Archeology

45.04   Criminology

45.0401   Criminology

45.05   Demography and Population Studies

45.0501   Demography and Population Studies

45.06   Economics

45.0601   Economics, General
45.0602   Applied Economics
45.0603   Econometrics and Quantitative Economics
45.0604   Development Economics and International Development
45.0605   International Economics
45.0699   Economics, Other

45.07   Geography and Cartography

45.0701 Geography
45.0702 Cartography
45.0799 Geography and Cartography, Other

45.09   International Relations and Affairs

45.0901 International Relations and Affairs

45.10   Political Science and Government

45.1001 Political Science and Government, General
45.1002 American Government and Politics (United States)
45.1003 Canadian Government and Politics
45.1099 Political Science and Government, Other

45.11   Sociology

45.1101 Sociology

45.12   Urban Studies/Affairs

45.1201 Urban Studies/Affairs

45.99   Social Sciences, Other

45.9999 Social Sciences, Other

46.   Construction Trades

46.00   Construction Trades, General

46.0000 Construction Trades, General

46.01   Masonry/Mason

46.0101 Masonry/Mason

46.02   Carpentry/Carpenter

46.0201 Carpentry/Carpenter

46.03   Electrical and Power Transmission Installers

46.0301 Electrical and Power Transmission Installation/Installer, General
46.0302 Electrician
46.0303 Lineworker
46.0399 Electrical and Power Transmission Installers, Other

46.04   Building/Construction Finishing, Management and Inspection

46.0401 Building/Property Maintenance and Management
46.0402 Concrete Finishing/Concrete Finisher
46.0403 Building/Home/Construction Inspection/Inspector
46.0404 Drywall Installation/Drywaller
46.0406 Glazier
46.0408 Painting/Painter and Wall Coverer
46.0410 Roofer

46.0411   Metal Building Assembly/Assembler
46.0412   Building/Construction Site Management/Manager
46.0499   Building/Construction Finishing, Management and Inspection, Other

46.05   Plumbing and Related Water Supply Services

46.0502   Pipefitting/Pipefitter and Sprinkler Fitter
46.0503   Plumbing Technology/Plumber
46.0504   Well Drilling/Driller
46.0505   Blasting/Blaster
46.0599   Plumbing and Related Water Supply Services, Other

46.99   Construction Trades, Other

46.9999   Construction Trades, Other

47.   Mechanic and Repair Technologies/Technicians

47.00   Mechanics and Repairers, General

47.0000   Mechanics and Repairers, General

47.01   Electrical/Electronics Maintenance and Repair Technology

47.0101   Electrical/Electronics Equipment Installation and Repair, General
47.0102   Business Machine Repair
47.0103   Communications Systems Installation and Repair Technology
47.0104   Computer Installation and Repair Technology/Technician
47.0105   Industrial Electronics Technology/Technician
47.0106   Appliance Installation and Repair Technology/Technician
47.0110   Security System Installation, Repair and Inspection
          Technology/Technician
47.0199   Electrical/Electronics Maintenance and Repair Technology, Other

47.02   Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/Technician (HAC, HACR, HVAC, HVACR)

47.0201   Heating, Air Conditioning, Ventilation and Refrigeration Maintenance
          Technology/Technician (HAC, HACR, HVAC, HVACR)

47.03   Heavy/Industrial Equipment Maintenance Technologies

47.0302   Heavy Equipment Maintenance Technology/Technician
47.0303   Industrial Mechanics and Maintenance Technology
47.0399   Heavy/Industrial Equipment Maintenance Technologies, Other

47.04   Precision Systems Maintenance and Repair Technologies

47.0402   Gunsmithing/Gunsmith
47.0403   Locksmithing and Safe Repair
47.0404   Musical Instrument Fabrication and Repair
47.0408   Watchmaking and Jewellery Making
47.0409   Parts and Warehousing Operations and Maintenance
          Technology/Technician
47.0499   Precision Systems Maintenance and Repair Technologies, Other

47.05   Stationary Energy Sources Installer and Operator[CAN]

47.0501   Stationary Energy Sources Installer and Operator[CAN]

47.06   Vehicle Maintenance and Repair Technologies

47.0603   Autobody/Collision and Repair Technology/Technician
47.0604   Automobile/Automotive Mechanics Technology/Technician
47.0605   Diesel Mechanics Technology/Technician
47.0606   Small Engine Mechanics and Repair Technology/Technician
47.0607   Airframe Mechanics and Aircraft Maintenance Technology/Technician
47.0608   Aircraft Powerplant Technology/Technician
47.0609   Avionics Maintenance Technology/Technician
47.0610   Bicycle Mechanics and Repair Technology/Technician
47.0611   Motorcycle Maintenance and Repair Technology/Technician
47.0612   Vehicle Emissions Inspection and Maintenance Technology/Technician
47.0613   Medium/Heavy Vehicle and Truck Technology/Technician
47.0614   Alternative Fuel Vehicle Technology/Technician
47.0615   Engine Machinist
47.0616   Marine Maintenance/Fitter and Ship Repair Technology/Technician
47.0699   Vehicle Maintenance and Repair Technologies, Other

47.99   Mechanic and Repair Technologies/Technicians, Other

47.9999   Mechanic and Repair Technologies/Technicians, Other

48.   Precision Production

48.00   Precision Production Trades, General

48.0000   Precision Production Trades, General

48.03   Leatherworking and Upholstery

48.0303   Upholstery/Upholsterer
48.0304   Shoe, Boot and Leather Repair
48.0399   Leatherworking and Upholstery, Other

48.05   Precision Metal Working

48.0501   Machine Tool Technology/Machinist
48.0503   Machine Shop Technology/Assistant
48.0506   Sheet Metal Technology/Sheetworking
48.0507   Tool and Die Technology/Technician
48.0508   Welding Technology/Welder
48.0509   Ironworking/Ironworker
48.0599   Precision Metal Working, Other

48.07   Woodworking

48.0701   Woodworking, General
48.0702   Furniture Design and Manufacturing
48.0703   Cabinetmaking and Millwork
48.0799   Woodworking, Other

48.08   Boilermaking/Boilermaker

48.0801   Boilermaking/Boilermaker

48.99   Precision Production, Other

48.9999   Precision Production, Other

49.   Transportation and Materials Moving

49.01   Air Transportation

49.0101   Aeronautics/Aviation/Aerospace Science and Technology, General
49.0102   Airline/Commercial/Professional Pilot and Flight Crew
49.0104   Aviation/Airway Management and Operations
49.0105   Air Traffic Controller
49.0106   Airline Flight Attendant
49.0108   Flight Instructor
49.0199   Air Transportation, Other

49.02   Ground Transportation

49.0202   Construction/Heavy Equipment/Earthmoving Equipment Operation
49.0205   Truck and Bus Driver/Commercial Vehicle Operation
49.0206   Mobile Crane Operation/Operator
49.0299   Ground Transportation, Other

49.03   Marine Transportation

49.0303   Commercial Fishing
49.0304   Diver, Professional and Instructor
49.0309   Nautical Science/Merchant Marine Officer
49.0399   Marine Transportation, Other

49.99   Transportation and Materials Moving, Other

49.9999   Transportation and Materials Moving, Other

50.   Visual and Performing Arts

50.01   Visual and Performing Arts, General

50.0101   Visual and Performing Arts, General

50.02   Crafts/Craft Design, Folk Art and Artisanry

50.0201   Crafts/Craft Design, Folk Art and Artisanry

50.03   Dance

50.0301   Dance, General
50.0302   Ballet
50.0399   Dance, Other

50.04   Design and Applied Arts

50.0401   Design and Visual Communications, General
50.0402   Commercial and Advertising Art
50.0404   Industrial Design
50.0406   Commercial Photography
50.0407   Fashion/Apparel Design

50.0408   Interior Design
50.0409   Graphic Design
50.0410   Illustration
50.0499   Design and Applied Arts, Other

50.05   Drama/Theatre Arts and Stagecraft

50.0501   Drama and Dramatics/Theatre Arts, General
50.0502   Technical Theatre/Theatre Design and Technology
50.0504   Playwriting and Screenwriting
50.0505   Theatre Literature, History and Criticism
50.0506   Acting
50.0507   Directing and Theatrical Production
50.0508   Theatre/Theatre Arts Management
50.0599   Drama/Theatre Arts and Stagecraft, Other

50.06   Film/Video and Photographic Arts

50.0601   Film/Cinema Studies
50.0602   Cinematography and Film/Video Production
50.0605   Photography
50.0699   Film/Video and Photographic Arts, Other

50.07   Fine Arts and Art Studies

50.0701   Art/Art Studies, General
50.0702   Fine/Studio Arts, General
50.0703   Art History, Criticism and Conservation
50.0704   Arts Management
50.0705   Drawing
50.0706   Intermedia/Multimedia
50.0708   Painting
50.0709   Sculpture
50.0710   Printmaking
50.0711   Ceramic Arts and Ceramics
50.0712   Fibre, Textile and Weaving Arts
50.0713   Metal and Jewellery Arts
50.0799   Fine Arts and Art Studies, Other

50.09   Music

50.0901   Music, General
50.0902   Music History, Literature and Theory
50.0903   Music Performance, General
50.0904   Music Theory and Composition
50.0905   Musicology and Ethnomusicology
50.0906   Conducting
50.0907   Piano and Organ
50.0908   Voice and Opera
50.0909   Music Management and Merchandising
50.0910   Jazz/Jazz Studies
50.0911   Violin, Viola, Guitar and Other Stringed Instruments
50.0912   Music Pedagogy
50.0999   Music, Other

50.99   Visual and Performing Arts, Other

50.9999   Visual and Performing Arts, Other

51.   Health Professions and Related Clinical Sciences

51.00   Health Services/Allied Health/Health Sciences, General

51.0000   Health Services/Allied Health/Health Sciences, General

51.01   Chiropractic (DC)

51.0101   Chiropractic (DC)

51.02   Communication Disorders Sciences and Services

51.0201   Communication Disorders, General
51.0202   Audiology/Audiologist and Hearing Sciences
51.0203   Speech-language Pathology/Pathologist
51.0204   Audiology/Audiologist and Speech-language Pathology/Pathologist
51.0299   Communication Disorders Sciences and Services, Other

51.04   Dentistry (DDS, DMD)

51.0401   Dentistry (DDS, DMD)

51.05   Advanced/Graduate Dentistry and Oral Sciences (Cert., MSc, PhD)

51.0501   Dental Clinical Sciences, General (MSc, PhD)
51.0502   Advanced General Dentistry (Cert., MSc, PhD)
51.0503   Oral Biology and Oral Pathology (MSc, PhD)
51.0504   Dental Public Health and Education (Cert., MSc, MPH, PhD, DPH)
51.0505   Dental Materials (MSc, PhD)
51.0506   Endodontics/Endodontology (Cert., MSc, PhD)
51.0507   Oral/Maxillofacial Surgery (Cert., MSc, PhD)
51.0508   Orthodontics/Orthodontology (Cert., MSc, PhD)
51.0509   Pediatric Dentistry/Pedodontics (Cert., MSc, PhD)
51.0510   Periodontics/Periodontology (Cert., MSc, PhD)
51.0511   Prosthodontics/Prosthodontology (Cert., MSc, PhD)
51.0599   Advanced/Graduate Dentistry and Oral Sciences (Cert., MSc, PhD), Other

51.06   Dental Support Services and Allied Professions

51.0601   Dental Assisting/Assistant
51.0602   Dental Hygiene/Hygienist
51.0603   Dental Laboratory Technology/Technician
51.0699   Dental Support Services and Allied Professions, Other

51.07   Health and Medical Administrative Services

51.0701   Health/Health Care Administration/Management
51.0702   Hospital and Health Care Facilities Administration/Management
51.0703   Health Unit Coordinator/Ward Clerk
51.0704   Health Unit Manager/Ward Supervisor
51.0705   Medical Office Management/Administration
51.0706   Health Information/Medical Records Administration/Administrator
51.0707   Health Information/Medical Records Technology/Technician
51.0708   Medical Transcription/Transcriptionist

51.0709   Medical Office Computer Specialist/Assistant
51.0710   Medical Office Assistant/Specialist
51.0711   Medical/Health Management and Clinical Assistant/Specialist
51.0712   Medical Reception/Receptionist
51.0713   Medical Insurance Coding Specialist/Coder
51.0714   Medical Insurance Specialist/Medical Biller
51.0715   Health/Medical Claims Examiner
51.0716   Medical Administrative/Executive Assistant and Medical Secretary
51.0717   Medical Staff Services Technology/Technician
51.0799   Health and Medical Administrative Services, Other

51.08   Allied Health and Medical Assisting Services

51.0801   Medical/Clinical Assistant
51.0802   Clinical/Medical Laboratory Assistant
51.0803   Occupational Therapist Assistant
51.0805   Pharmacy Technician/Assistant
51.0806   Physical Therapist Assistant
51.0808   Veterinary/Animal Health Technology/Technician and Veterinary
          Assistant
51.0809   Anesthesiologist Assistant
51.0810   Emergency Care Attendant (EMT Ambulance)
51.0811   Pathology/Pathologist Assistant
51.0812   Respiratory Therapy Technician/Assistant
51.0813   Chiropractic Assistant/Technician
51.0899   Allied Health and Medical Assisting Services, Other

51.09   Allied Health Diagnostic, Intervention and Treatment Professions

51.0901   Cardiovascular Technology/Technologist
51.0902   Electrocardiograph Technology/Technician
51.0903   Electroneurodiagnostic/Electroencephalographic
          Technology/Technologist
51.0904   Emergency Medical Technology/Technician (EMT Paramedic)
51.0905   Nuclear Medical Technology/Technologist
51.0906   Perfusion Technology/Perfusionist
51.0907   Medical Radiologic Technology/Science - Radiation Therapist
51.0908   Respiratory Care Therapy/Therapist
51.0909   Surgical Technology/Technologist
51.0910   Diagnostic Medical Sonography/Sonographer and Ultrasound
          Technician
51.0911   Radiologic Technology/Science - Radiographer
51.0912   Physician Assistant
51.0913   Athletic Training/Trainer
51.0914   Gene/Genetic Therapy
51.0915   Cardiopulmonary Technology/Technologist
51.0916   Radiation Protection/Health Physics Technician
51.0999   Allied Health Diagnostic, Intervention and Treatment Professions, Other

51.10   Clinical/Medical Laboratory Science and Allied Professions

51.1001   Blood Bank Technology Specialist
51.1002   Cytotechnology/Cytotechnologist
51.1003   Hematology Technology/Technician
51.1004   Clinical/Medical Laboratory Technician
51.1005   Clinical Laboratory Science/Medical Technology/Technologist
51.1006   Ophthalmic Laboratory Technology/Technician

51.1007   Histologic Technology/Histotechnologist
51.1008   Histologic Technician
51.1009   Phlebotomy/Phlebotomist
51.1010   Cytogenetics/Genetics/Clinical Genetics Technology/Technologist
51.1011   Renal/Dialysis Technologist/Technician
51.1099   Clinical/Medical Laboratory Science and Allied Professions, Other

51.11   Health/Medical Preparatory Programs

51.1101   Predentistry Studies
51.1102   Premedicine/Premedical Studies
51.1103   Prepharmacy Studies
51.1104   Preveterinary Studies
51.1105   Prenursing Studies
51.1199   Health/Medical Preparatory Programs, Other

51.12   Medicine (MD)

51.1201   Medicine (MD)

51.14   Medical Scientist (MSc, PhD)

51.1401   Medical Scientist (MSc, PhD)

51.15   Mental and Social Health Services and Allied Professions

51.1501   Substance Abuse/Addiction Counselling
51.1502   Psychiatric/Mental Health Services Technician
51.1503   Clinical/Medical Social Work
51.1504   Community Health Services/Liaison/Counselling
51.1505   Marriage and Family Therapy/Counselling
51.1506   Clinical Pastoral Counselling/Patient Counselling
51.1507   Psychoanalysis and Psychotherapy
51.1508   Mental Health Counselling/Counsellor
51.1509   Genetic Counselling/Counsellor
51.1599   Mental and Social Health Services and Allied Professions, Other

51.16   Nursing

51.1601   Nursing/Registered Nurse (RN, ASN, BScN, MScN)
51.1602   Nursing Administration (MScN, MSc, PhD)
51.1603   Adult Health Nurse/Nursing
51.1604   Nurse Anesthetist
51.1605   Family Practice Nurse/Nurse Practitioner
51.1606   Maternal/Child Health and Neonatal Nurse/Nursing
51.1607   Nurse Midwife/Nursing Midwifery
51.1608   Nursing Science (MSc, PhD)
51.1609   Pediatric Nurse/Nursing
51.1610   Psychiatric/Mental Health Nurse/Nursing
51.1611   Public Health/Community Nurse/Nursing
51.1612   Perioperative/Operating Room and Surgical Nurse/Nursing
51.1613   Licensed Practical/Vocational Nurse Training (LPN, LVN, Cert., Dipl.,
          AAS)
51.1614   Nurse/Nursing Assistant/Aide and Patient Care Assistant
51.1616   Clinical Nurse Specialist
51.1617   Critical Care Nursing
51.1618   Occupational and Environmental Health Nursing

51.1699   Nursing, Other

51.17   Optometry (OD)

51.1701   Optometry (OD)

51.18   Ophthalmic and Optometric Support Services and Allied Professions

51.1801   Opticianry/Ophthalmic Dispensing Optician
51.1802   Optometric Technician/Assistant
51.1803   Ophthalmic Technician/Technologist
51.1804   Orthoptics/Orthoptist
51.1899   Ophthalmic and Optometric Support Services and Allied Professions,
          Other

51.19   Osteopathic Medicine/Osteopathy (DO)

51.1901   Osteopathic Medicine/Osteopathy (DO)

51.20   Pharmacy, Pharmaceutical Sciences and Administration

51.2001   Pharmacy (PharmD [USA], PharmD or BSc/BPharm [Canada])
51.2002   Pharmacy Administration and Pharmacy Policy and Regulatory Affairs
          (MSc, PhD)
51.2003   Pharmaceutics and Drug Design (MSc, PhD)
51.2004   Medicinal and Pharmaceutical Chemistry (MSc, PhD)
51.2005   Natural Products Chemistry and Pharmacognosy (MSc, PhD)
51.2006   Clinical and Industrial Drug Development (MSc, PhD)
51.2007   Pharmacoeconomics/Pharmaceutical Economics (MSc, PhD)
51.2008   Clinical, Hospital and Managed Care Pharmacy (MSc, PhD)
51.2009   Industrial and Physical Pharmacy and Cosmetic Sciences (MSc, PhD)
51.2099   Pharmacy, Pharmaceutical Sciences and Administration, Other

51.21   Podiatric Medicine/Podiatry (DPM)

51.2101   Podiatric Medicine/Podiatry (DPM)

51.22   Public Health

51.2201   Public Health, General (MPH, DPH)
51.2202   Environmental Health
51.2205   Health/Medical Physics
51.2206   Occupational Health and Industrial Hygiene
51.2207   Public Health Education and Promotion
51.2208   Community Health and Preventive Medicine
51.2209   Maternal and Child Health
51.2210   International Public Health/International Health
51.2211   Health Services Administration
51.2299   Public Health, Other

51.23   Rehabilitation and Therapeutic Professions

51.2301   Art Therapy/Therapist
51.2302   Dance Therapy/Therapist
51.2305   Music Therapy/Therapist
51.2306   Occupational Therapy/Therapist
51.2307   Orthotist/Prosthetist

51.2308 Physical Therapy/Therapist
51.2309 Therapeutic Recreation/Recreational Therapy
51.2310 Vocational Rehabilitation Counselling/Counsellor
51.2311 Kinesiotherapy/Kinesiotherapist
51.2312 Assistive/Augmentative Technology and Rehabilitation Engineering
51.2399 Rehabilitation and Therapeutic Professions, Other

51.24   Veterinary Medicine (DVM)

51.2401 Veterinary Medicine (DVM)

51.25   Veterinary Biomedical and Clinical Sciences (Cert., MSc, PhD)

51.2501 Veterinary Sciences/Veterinary Clinical Sciences, General (Cert., MSc, PhD)
51.2502 Veterinary Anatomy (Cert., MSc, PhD)
51.2503 Veterinary Physiology (Cert., MSc, PhD)
51.2504 Veterinary Microbiology and Immunobiology (Cert., MSc, PhD)
51.2505 Veterinary Pathology and Pathobiology (Cert., MSc, PhD)
51.2506 Veterinary Toxicology and Pharmacology (Cert., MSc, PhD)
51.2507 Large Animal/Food Animal and Equine Surgery and Medicine (Cert., MSc, PhD)
51.2508 Small/Companion Animal Surgery and Medicine (Cert., MSc, PhD)
51.2509 Comparative and Laboratory Animal Medicine (Cert., MSc, PhD)
51.2510 Veterinary Preventive Medicine, Epidemiology and Public Health (Cert., MSc, PhD)
51.2511 Veterinary Infectious Diseases (Cert., MSc, PhD)
51.2599 Veterinary Biomedical and Clinical Sciences (Cert., MSc, PhD), Other

51.26   Health Aides/Attendants/Orderlies

51.2601 Health Aide
51.2602 Home Health Aide/Home Attendant
51.2603 Medication Aide
51.2699 Health Aides/Attendants/Orderlies, Other

51.27   Medical Illustration and Informatics

51.2703 Medical Illustration/Medical Illustrator
51.2706 Medical Informatics
51.2799 Medical Illustration and Informatics, Other

51.31   Dietetics and Clinical Nutrition Services

51.3101 Dietetics/Dietitian (RD)
51.3102 Clinical Nutrition/Nutritionist
51.3103 Dietetic Technician (DTR)
51.3104 Dietitian Assistant
51.3199 Dietetics and Clinical Nutrition Services, Other

51.32   Bioethics/Medical Ethics

51.3201 Bioethics/Medical Ethics

51.33   Alternative and Complementary Medicine and Medical Systems

51.3301 Acupuncture

51.3302　Traditional Chinese/Asian Medicine and Chinese Herbology
51.3303　Naturopathic Medicine/Naturopathy (ND)
51.3304　Homeopathic Medicine/Homeopathy
51.3305　Ayurvedic Medicine/Ayurveda
51.3399　Alternative and Complementary Medicine and Medical Systems, Other

51.34　Alternative and Complementary Medical Support Services

51.3401　Direct Entry Midwifery (LM, CPM)
51.3499　Alternative and Complementary Medical Support Services, Other

51.35　Somatic Bodywork and Related Therapeutic Services

51.3501　Massage Therapy/Therapeutic Massage
51.3502　Asian Bodywork Therapy
51.3503　Somatic Bodywork
51.3599　Somatic Bodywork and Related Therapeutic Services, Other

51.36　Movement and Mind-Body Therapies

51.3601　Movement Therapy
51.3602　Yoga Teacher Training/Yoga Therapy
51.3603　Hypnotherapy/Hypnotherapist
51.3699　Movement and Mind-Body Therapies, Other

51.37　Energy-based and Biologically-based Therapies

51.3701　Aromatherapy
51.3702　Herbalism/Herbalist
51.3703　Polarity Therapy
51.3704　Reiki
51.3799　Energy-based and Biologically-based Therapies, Other

51.99　Health Professions and Related Clinical Sciences, Other

51.9999　Health Professions and Related Clinical Sciences, Other

52.　Business, Management, Marketing and Related Support Services

52.01　Business/Commerce, General

52.0101　Business/Commerce, General

52.02　Business Administration, Management and Operations

52.0201　Business Administration and Management, General
52.0202　Purchasing, Procurement/Acquisitions and Contracts Management
52.0203　Logistics and Materials Management
52.0204　Office Management and Supervision
52.0205　Operations Management and Supervision
52.0206　Non-profit/Public/Organizational Management
52.0207　Customer Service Management
52.0208　E-commerce/Electronic Commerce
52.0209　Transportation/Transportation Management
52.0299　Business Administration, Management and Operations, Other

52.03　Accounting and Related Services

52.0301   Accounting
52.0302   Accounting Technology/Technician and Bookkeeping
52.0303   Auditing
52.0304   Accounting and Finance
52.0305   Accounting and Business/Management
52.0399   Accounting and Related Services, Other

52.04   Business Operations Support and Assistant Services

52.0401   Administrative Assistant and Secretarial Science, General
52.0402   Executive Assistant/Executive Secretary
52.0406   Receptionist
52.0407   Business/Office Automation/Technology/Data Entry
52.0408   General Office Occupations and Clerical Services
52.0409   Parts, Warehousing and Inventory Management Operations
52.0410   Traffic, Customs and Transportation Clerk/Technician
52.0411   Customer Service Support/Call Centre/Teleservice Operation
52.0499   Business Operations Support and Assistant Services, Other

52.05   Business/Corporate Communications

52.0501   Business/Corporate Communications

52.06   Business/Managerial Economics

52.0601   Business/Managerial Economics

52.07   Entrepreneurial and Small Business Operations

52.0701   Entrepreneurship/Entrepreneurial Studies
52.0702   Franchising and Franchise Operations
52.0703   Small Business Administration/Management
52.0799   Entrepreneurial and Small Business Operations, Other

52.08   Finance and Financial Management Services

52.0801   Finance, General
52.0803   Banking and Financial Support Services
52.0804   Financial Planning and Services
52.0806   International Finance
52.0807   Investments and Securities
52.0808   Public Finance
52.0809   Credit Management
52.0899   Finance and Financial Management Services, Other

52.09   Hospitality Administration/Management

52.0901   Hospitality Administration/Management, General
52.0903   Tourism and Travel Services Management
52.0904   Hotel/Motel Administration/Management
52.0905   Restaurant/Food Services Management
52.0906   Resort Management
52.0999   Hospitality Administration/Management, Other

52.10   Human Resources Management and Services

52.1001   Human Resources Management/Personnel Administration, General

52.1002   Labour and Industrial Relations
52.1003   Organizational Behaviour Studies
52.1004   Labour Studies
52.1005   Human Resources Development
52.1099   Human Resources Management and Services, Other

52.11   International Business/Trade/Commerce

52.1101   International Business/Trade/Commerce

52.12   Management Information Systems and Services

52.1201   Management Information Systems, General
52.1206   Information Resources Management/Chief Information Officer (CIO)
              Training
52.1207   Knowledge Management
52.1299   Management Information Systems and Services, Other

52.13   Management Sciences and Quantitative Methods

52.1301   Management Science, General
52.1302   Business Statistics
52.1304   Actuarial Science
52.1399   Management Sciences and Quantitative Methods, Other

52.14   Marketing

52.1401   Marketing/Marketing Management, General
52.1402   Marketing Research
52.1403   International Marketing
52.1499   Marketing, Other

52.15   Real Estate

52.1501   Real Estate

52.16   Taxation

52.1601   Taxation

52.17   Insurance

52.1701   Insurance

52.18   General Sales, Merchandising and Related Marketing Operations

52.1801   Sales, Distribution and Marketing Operations, General
52.1802   Merchandising and Buying Operations
52.1803   Retailing and Retail Operations
52.1804   Selling Skills and Sales Operations
52.1899   General Sales, Merchandising and Related Marketing Operations, Other

52.19   Specialized Sales, Merchandising and Marketing Operations

52.1901   Auctioneering
52.1902   Fashion Merchandising
52.1903   Fashion Modelling

52.1904 Apparel and Accessories Marketing Operations
52.1905 Tourism and Travel Services Marketing Operations
52.1906 Tourism Promotion Operations
52.1907 Vehicle and Vehicle Parts and Accessories Marketing Operations
52.1908 Business and Personal/Financial Services Marketing Operations
52.1909 Special Products Marketing Operations
52.1910 Hospitality and Recreation Marketing Operations
52.1999 Specialized Sales, Merchandising and Marketing Operations, Other

52.20 Construction Management

52.2001 Construction Management

52.99 Business, Management, Marketing and Related Support Services, Other

52.9999 Business, Management, Marketing and Related Support Services, Other

53. High School/Secondary Diploma and Certificate Programs. This series is found in chapter VI.

54. History

54.01 History

54.0101 History, General
54.0102 American History (United States)
54.0103 European History
54.0104 History and Philosophy of Science and Technology
54.0105 Public/Applied History and Archival Administration
54.0106 Asian History
54.0107 Canadian History
54.0199 History, Other

55. French Language and Literature/Letters[CAN]

55.01 French Language and Literature, General[CAN]

55.0101 French Language and Literature, General[CAN]

55.03 French Composition[CAN]

55.0301 French Composition[CAN]

55.04 French Creative Writing[CAN]

55.0401 French Creative Writing[CAN]

55.05 French Canadian Literature[CAN]

55.0501 French Canadian Literature[CAN]

55.06 French Literature (France and the French Community)[CAN]

55.0601 French Literature (France and the French Community)[CAN]

55.07 French Speech and Rhetorical Studies[CAN]

55.0701　French Speech and Rhetorical Studies[CAN]

55.08　French Technical and Business Writing[CAN]

55.0801　French Technical and Business Writing[CAN]

55.99　French Language and Literature/Letters, Other[CAN]

55.9999　French Language and Literature/Letters, Other[CAN]

Chapter II: Dental, Medical and Veterinary Residency Programs

60.　Dental, Medical and Veterinary Residency Programs

60.01　Dental Residency Programs

60.0101　Dental/Oral Surgery Specialty Residency Programs
60.0102　Dental Public Health Specialty Residency Programs
60.0103　Endodontics Specialty Residency Programs
60.0104　Oral Pathology Specialty Residency Programs
60.0105　Orthodontics Specialty Residency Programs
60.0106　Pedodontics Specialty Residency Programs
60.0107　Periodontics Specialty Residency Programs
60.0108　Prosthodontics Specialty Residency Programs
60.0199　Dental Residency Programs, Other

60.02　Medical Residency Programs

60.0201　Aerospace Medicine Residency Programs
60.0202　Allergies and Immunology Residency Programs
60.0203　Anesthesiology Residency Programs
60.0204　Blood Banking Residency Programs
60.0205　Cardiology Residency Programs
60.0206　Chemical Pathology Residency Programs
60.0207　Child/Pediatric Neurology Residency Programs
60.0208　Child Psychiatry Residency Programs
60.0209　Colon and Rectal Surgery Residency Programs
60.0210　Critical Care Anesthesiology Residency Programs
60.0211　Critical Care Medicine Residency Programs
60.0212　Critical Care Surgery Residency Programs
60.0213　Dermatology Residency Programs
60.0214　Dermatopathology Residency Programs
60.0215　Diagnostic Radiology Residency Programs
60.0216　Emergency Medicine Residency Programs
60.0217　Endocrinology and Metabolism Residency Programs
60.0218　Family Medicine Residency Programs
60.0219　Forensic Pathology Residency Programs
60.0220　Gastroenterology Residency Programs
60.0221　General Surgery Residency Programs
60.0222　Geriatric Medicine Residency Programs
60.0223　Hand Surgery Residency Programs
60.0224　Hematology Residency Programs
60.0225　Hematological Pathology Residency Programs
60.0226　Immunopathology Residency Programs
60.0227　Infectious Disease Residency Programs
60.0228　Internal Medicine Residency Programs

60.0229 Laboratory Medicine Residency Programs
60.0230 Musculoskeletal Oncology Residency Programs
60.0231 Neonatal-Perinatal Medicine Residency Programs
60.0232 Nephrology Residency Programs
60.0233 Neurological Surgery/Neurosurgery Residency Programs
60.0234 Neurology Residency Programs
60.0235 Neuropathology Residency Programs
60.0236 Nuclear Medicine Residency Programs
60.0237 Nuclear Radiology Residency Programs
60.0238 Obstetrics and Gynecology Residency Programs
60.0239 Occupational Medicine Residency Programs
60.0240 Oncology Residency Programs
60.0241 Ophthalmology Residency Programs
60.0242 Orthopedics/Orthopedic Surgery Residency Programs
60.0243 Otolaryngology Residency Programs
60.0244 Pathology Residency Programs
60.0245 Pediatric Cardiology Residency Programs
60.0246 Pediatric Endocrinology Residency Programs
60.0247 Pediatric Hemato-Oncology Residency Programs
60.0248 Pediatric Nephrology Residency Programs
60.0249 Pediatric Orthopedics Residency Programs
60.0250 Pediatric Surgery Residency Programs
60.0251 Pediatrics Residency Programs
60.0252 Physical and Rehabilitation Medicine Residency Programs
60.0253 Plastic Surgery Residency Programs
60.0254 Preventive Medicine Residency Programs
60.0255 Psychiatry Residency Programs
60.0256 Public Health Medicine Residency Programs
60.0257 Pulmonary Disease Residency Programs
60.0258 Radiation Oncology Residency Programs
60.0259 Radioisotopic Pathology Residency Programs
60.0260 Rheumatology Residency Programs
60.0261 Sports Medicine Residency Programs
60.0262 Thoracic Surgery Residency Programs
60.0263 Urology Residency Programs
60.0264 Vascular Surgery Residency Programs
60.0265 Adult Reconstructive Orthopedics (Orthopedic Surgery) Residency Programs
60.0266 Child Neurology Residency Programs
60.0267 Cytopathology Residency Programs
60.0268 Geriatric Medicine (Internal Medicine) Residency Programs
60.0269 Pediatric Urology Residency Programs
60.0270 Physical Medicine and Rehabilitation/Psychiatry Residency Programs
60.0271 Orthopedic Surgery of the Spine Residency Programs
60.0299 Medical Residency Programs, Other

60.03   Veterinary Residency Programs

60.0301 Veterinary Anesthesiology Residency Programs
60.0302 Veterinary Dentistry Residency Programs
60.0303 Veterinary Dermatology Residency Programs
60.0304 Veterinary Emergency and Critical Care Medicine Residency Programs
60.0305 Veterinary Internal Medicine Residency Programs
60.0306 Laboratory Animal Medicine Residency Programs
60.0307 Veterinary Microbiology Residency Programs
60.0308 Veterinary Nutrition Residency Programs
60.0309 Veterinary Ophthalmology Residency Programs

60.0310   Veterinary Pathology Residency Programs
60.0311   Veterinary Practice Residency Programs
60.0312   Veterinary Preventive Medicine Residency Programs
60.0313   Veterinary Radiology Residency Programs
60.0314   Veterinary Surgery Residency Programs
60.0315   Theriogenology Residency Programs
60.0316   Veterinary Toxicology Residency Programs
60.0317   Zoological Medicine Residency Programs
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Chapter III: Technology Education/Industrial Arts Programs

21.   Technology Education/Industrial Arts Programs

21.01   Technology Education/Industrial Arts Programs

21.0101   Technology Education/Industrial Arts Programs

Chapter IV: Reserve Entry Scheme for Officers in the Armed Forces

28.   Reserve Entry Scheme for Officers in the Armed Forces

28.05   Reserve Entry Scheme for Officers in the Armed Forces[CAN]

28.0501   Reserve Entry Scheme for Officers in the Armed Forces[CAN]

Chapter V: Personal Improvement and Leisure Programs

32.   Basic Skills

32.01   Basic Skills

32.0101   Basic Skills, General
32.0104   Numeracy and Computational Skills
32.0105   Job-seeking/Changing Skills
32.0107   Career Exploration/Awareness Skills
32.0108   Literacy and Communication Skills
32.0109   Second Language Learning (not for credit)
32.0199   Basic Skills, Other

33.   Citizenship Activities

33.01   Citizenship Activities

33.0101   Citizenship Activities, General
33.0102   American Citizenship Education
33.0103   Community Awareness
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33.0105   Canadian Citizenship Education
33.0199   Citizenship Activities, Other

34.   Health-related Knowledge and Skills

34.01   Health-related Knowledge and Skills

34.0102   Birthing and Parenting Knowledge and Skills

      34.0103 Personal Health Improvement and Maintenance
      34.0104 Addiction Prevention and Treatment
      34.0199 Health-related Knowledge and Skills, Other

35.   **Interpersonal and Social Skills**

    35.01   **Interpersonal and Social Skills**

      35.0101 Interpersonal and Social Skills, General
      35.0102 Interpersonal Relationships Skills
      35.0103 Business and Social Skills
      35.0199 Interpersonal and Social Skills, Other

36.   **Leisure and Recreational Activities**

    36.01   **Leisure and Recreational Activities**

      36.0101 Leisure and Recreational Activities, General
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Chapter VI: High School/Secondary Diploma and Certificate Programs

53.   **High School/Secondary Diploma and Certificate Programs**

    53.01   **High School/Secondary Diploma Programs**

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53.02   High School/Secondary Certificate Programs

53.0201   High School Equivalence Certificate Programs
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Descriptions

Chapter I: Academic and Occupation-specific Programs

This chapter comprises academic and occupation-specific instructional programs offered for academic credit at one or more postsecondary educational levels. These programs usually result in recognized completion points and awards such as degrees, diplomas, certificates or other formal awards.

01. Agriculture, Agriculture Operations and Related Sciences

This series comprises instructional programs that focus on agriculture and related sciences and that prepare individuals to apply specific knowledge, methods, and techniques to the management and performance of agricultural operations.

01.00 Agriculture, General

This subseries comprises instructional program class 01.0000.

01.0000 Agriculture, General

This instructional program class comprises any program that focuses on the general principles and practice of agricultural research and production and that prepares individuals to apply this knowledge to the solution of practical agricultural problems. These programs include courses in basic animal, plant, and soil science; animal husbandry and plant cultivation; soil conservation; and agricultural operations such as farming, ranching, and agricultural business.

Examples of included programs
- Agricultural science
- Agricultural technology

Examples of excluded programs
- International agriculture [*see* 01.0701 International Agriculture]
- Agricultural engineering [*see* 14.0301 Agricultural/Biological Engineering and Bioengineering]

01.01 Agricultural Business and Management

This subseries comprises instructional program classes 01.0101 to 01.0199.

01.0101 Agricultural Business and Management, General

This instructional program class comprises any general program that focuses on modern business and economic principles involved in the organization, operation, and management of agricultural enterprises.

Examples of included programs
- Agricultural business
- Agricultural business management
- Agricultural management

Examples of excluded programs
- Agribusiness operations [*see* 01.0102 Agribusiness/Agricultural Business Operations]
- Farm management [*see* 01.0104 Farm/Farm and Ranch Management]
- Agricultural business technology [*see* 01.0106 Agricultural Business Technology]
- Agricultural production [*see* 01.0301 Agricultural Production Operations, General]
- Business management [*see* 52.0201 Business Administration and Management, General]
- Small business management [*see* 52.0703 Small Business Administration/Management]

01.0102 Agribusiness/Agricultural Business Operations

This instructional program class comprises any program that prepares individuals to manage agricultural businesses and agriculturally related operations within diversified corporations. These programs include courses in agriculture, agricultural specialization, business management, accounting, finance, marketing, planning, human resources management, and other managerial responsibilities.

Example of included programs
- Agribusiness operations

Examples of excluded programs
- Agricultural business management [*see* 01.0101 Agricultural Business and Management, General]
- Agricultural business technology [*see* 01.0106 Agricultural Business Technology]
- Agricultural production management [*see* 01.0301 Agricultural Production Operations, General]
- Operations management [*see* 52.0205 Operations Management and Supervision]
- Small business management [*see* 52.0703 Small Business Administration/Management]

01.0103 Agricultural Economics

This instructional program class comprises any program that focuses on the application of economics to the analysis of resource allocation, productivity, investment, and trends in the agricultural sector, both domestically and internationally. These programs include courses in economics and related subfields as well as applicable agricultural fields.

Examples of included programs
- Agricultural economics
- Rural economy

Examples of excluded programs
- Agricultural finance [*see* 01.0199 Agricultural Business and Management, Other]
- Natural resource economics [*see* 03.0204 Natural Resource Economics]
- Economics [*see* 45.0601 Economics, General]
- International economics [*see* 45.0605 International Economics]
- Social economics [*see* 45.0699 Economics, Other]

01.0104 Farm/Farm and Ranch Management

This instructional program class comprises any program that prepares individuals to manage farms, ranches, and similar enterprises. These programs include courses in applicable agricultural specialization, business management, accounting, taxation, capitalization, purchasing, government programs and regulations, operational planning and budgeting, contracts and negotiation, and estate planning.

Examples of included programs
- Farm business
- Farm business management
- Farm management
- Farm management and technology
- Ranch management

Examples of excluded programs
- Agricultural business management [*see* 01.0101 Agricultural Business and Management, General]
- Agribusiness operations [*see* 01.0102 Agribusiness/Agricultural Business Operations]
- Agricultural business technology [*see* 01.0106 Agricultural Business Technology]
- Agricultural production management [*see* 01.0301 Agricultural Production Operations, General]
- Business management [*see* 52.0201 Business Administration and Management, General]
- Small business management [*see* 52.0703 Small Business Administration/Management]

01.0105 Agricultural/Farm Supplies Retailing and Wholesaling

This instructional program class comprises any program that prepares individuals to sell agricultural products and supplies, provide support services to agricultural enterprises, and purchase and market agricultural products. These programs include courses in basic business management, marketing, retailing and wholesaling operations, and applicable principles of agriculture and agricultural operations.

Examples of included programs
- Agricultural supplies retailing and wholesaling
- Farm supplies retailing and wholesaling

Examples of excluded programs
- Procurement [*see* 52.0202 Purchasing, Procurement/Acquisitions and Contracts Management]
- Purchasing [*see* 52.0202 Purchasing, Procurement/Acquisitions and Contracts Management]
- Retailing [*see* 52.1803 Retailing and Retail Operations]
- Auctioneering [*see* 52.1901 Auctioneering]

01.0106 Agricultural Business Technology

This instructional program class comprises any program that prepares individuals to perform specialized support functions related to agricultural business offices and operations and to operate agricultural office equipment, software, and information systems. These programs include courses in basic agricultural business principles, office management, equipment operation, standard software, and database management.

Examples of included programs
- Agricultural business technician
- Agricultural business technology

Examples of excluded programs
- Agricultural business [*see* 01.0101 Agricultural Business and Management, General]
- Agribusiness operations [*see* 01.0102 Agribusiness/Agricultural Business Operations]
- Farm management and technology [*see* 01.0104 Farm/Farm and Ranch Management]
- Business administration [*see* 52.0201 Business Administration and Management, General]
- Office management [*see* 52.0204 Office Management and Supervision]

01.0199 Agricultural Business and Management, Other

This instructional program class comprises any program not listed above that relates to Agricultural Business and Management.

Examples of included programs
- Agricultural finance
- Agrosystem management
- Organic farming inspection

Examples of excluded programs
- Agricultural business management [*see* 01.0101 Agricultural Business and Management, General]
- Agribusiness operations [*see* 01.0102 Agribusiness/Agricultural Business Operations]

01.02 Agricultural Mechanization

This subseries comprises instructional program classes 01.0201 to 01.0299.

01.0201 Agricultural Mechanization, General

This instructional program class comprises any program that generally prepares individuals to sell, select, and service agricultural or agribusiness technical equipment and facilities, including computers, specialized software, power units, machinery, equipment structures, and utilities. These programs include courses in agricultural power systems; planning and selecting materials for the construction of support facilities; mechanical practices associated with irrigation and water conservation; erosion control; and agricultural data processing systems.

Example of included programs
- Agricultural mechanization

Examples of excluded programs
- Agricultural technology [*see* 01.0000 Agriculture, General]
- Farm equipment operator [*see* 01.0204 Agricultural Power Machinery Operation]
- Agricultural mechanics [*see* 01.0205 Agricultural Mechanics and Equipment/Machine Technology]
- Agricultural engineering [*see* 14.0301 Agricultural/Biological Engineering and Bioengineering]
- Industrial mechanics [*see* 47.0303 Industrial Mechanics and Maintenance Technology]

01.0204 Agricultural Power Machinery Operation

This instructional program class comprises any program that prepares individuals to operate specialized farm, ranch, and agribusiness power equipment of a stationary, mobile, and/or hand-operated nature. These programs include courses in operating specialized equipment such as terrestrial and airborne crop spraying equipment; tractors and hauling equipment; planting and harvesting equipment; cutting equipment; power sources and systems for silos, irrigation, pumping, and applications such as dairy, feeding and shearing operations; processing equipment; and applicable electrical, mechanical, and safety principles.

Examples of included programs
- Agricultural power machinery operation
- Farm equipment operator

Examples of excluded programs
- Heavy duty equipment operator [*see* 49.0202 Construction/Heavy Equipment/Earthmoving Equipment Operation]
- Heavy machinery operator [*see* 49.0202 Construction/Heavy Equipment/Earthmoving Equipment Operation]

01.0205 Agricultural Mechanics and Equipment/Machine Technology

This instructional program class comprises any program that prepares individuals to maintain and repair specialized farm, ranch, and agribusiness power equipment and vehicles. These programs include courses in the principles of diesel, combustion, electrical, steam, hydraulic, and mechanical systems and their application to the maintenance of terrestrial and airborne crop spraying equipment; tractors and hauling equipment; planting and harvesting equipment; cutting equipment; power sources and systems for silos; irrigation and pumping equipment; dairy, feeding and shearing operations; and processing systems.

Examples of included programs
- Agricultural machinery technician
- Agricultural mechanics
- Farm equipment mechanic
- Farm equipment technician
- Farm machinery mechanic
- Farm machinery repair
- Farm machinery technician

Examples of excluded programs
- Agricultural technology [*see* 01.0000 Agriculture, General]
- Agricultural mechanization [*see* 01.0201 Agricultural Mechanization, General]
- Agricultural power machinery operation [*see* 01.0204 Agricultural Power Machinery Operation]
- Agricultural engineering [*see* 14.0301 Agricultural/Biological Engineering and Bioengineering]
- Heavy equipment mechanic [*see* 47.0302 Heavy Equipment Maintenance Technology/Technician]
- Industrial mechanics [*see* 47.0303 Industrial Mechanics and Maintenance Technology]

01.0299 Agricultural Mechanization, Other

This instructional program class comprises any program not listed above that relates to Agricultural Mechanization.

01.03 Agricultural Production Operations

This subseries comprises instructional program classes 01.0301 to 01.0399.

01.0301 Agricultural Production Operations, General

This instructional program class comprises any program that focuses on the general planning, economics, and use of facilities, natural resources, equipment, labour, and capital to produce plant and animal products, and that prepares individuals for work in farming, ranching, and agribusiness.

Examples of included programs
- Agricultural production
- Agricultural production management

Examples of excluded programs
- Agricultural business [*see* 01.0101 Agricultural Business and Management, General]
- Agribusiness operations [*see* 01.0102 Agribusiness/Agricultural Business Operations]
- Animal production [*see* 01.0302 Animal/Livestock Husbandry and Production]
- Crop production [*see* 01.0304 Crop Production]
- Horticulture operations [*see* 01.0601 Applied Horticulture/Horticulture Operations, General]
- Operations management [*see* 52.0205 Operations Management and Supervision]
- Production management [*see* 52.0205 Operations Management and Supervision]

01.0302 Animal/Livestock Husbandry and Production

This instructional program class comprises any program that prepares individuals to select, breed, care for, process, and market livestock and small farm animals. These programs include courses in basic animal science, animal nutrition, and animal health as applied to various species and breeds; design and operation of housing, feeding, and processing facilities; and related issues of safety, applicable regulations, logistics, and supply.

Examples of included programs
- Animal husbandry
- Animal production
- Beef production
- Livestock production
- Poultry husbandry
- Swine technology

Examples of excluded programs
- Dairy husbandry [*see* 01.0306 Dairy Husbandry and Production]
- Animal sciences [*see* 01.0901 Animal Sciences, General]
- Animal breeding [*see* 01.0902 Agricultural Animal Breeding]
- Livestock management [*see* 01.0906 Livestock Management]

01.0303 Aquaculture

This instructional program class comprises any program that prepares individuals to select, culture, propagate, harvest, and market domesticated fish, shellfish, and marine plants, both freshwater and saltwater. These programs include courses in the basic principles of aquatic and marine biology; health and nutrition of aquatic and marine life; design and operation of fish farms, breeding facilities, culture beds, and related enterprises; and related issues of safety, applicable regulations, logistics, and supply.

Examples of included programs
- Aquaculture
- Aquaculture technician
- Aquaculture technology
- Fish culture
- Fish farming
- Management of aquaculture systems
- Management training for aquaculture
- Pisciculture
- Salmon enhancement
- Salmon farm technician
- Salmon farming

Examples of excluded programs
- Marine resources management [*see* 03.0205 Water, Wetlands and Marine Resources Management]
- Fisheries management [*see* 03.0301 Fishing and Fisheries Sciences and Management]
- Marine biology [*see* 26.1302 Marine Biology and Biological Oceanography]
- Fisheries biology [*see* 26.1304 Aquatic Biology/Limnology]
- Fishing [*see* 49.0303 Commercial Fishing]

01.0304 Crop Production

This instructional program class comprises any program that prepares individuals to cultivate grain, fibre, forage, oilseed, fruits and nuts, vegetables, and other domesticated plant products. These programs include courses in basic principles of plant science, health, and nutrition as applied to particular species and breeds; soil preparation and irrigation; pest management; planting and harvesting operations; product marketing; and applicable issues of safety, regulation, logistics, and supply.

Examples of included programs
- Crop production
- Crop technology
- Field crop production

Examples of excluded programs
- Agricultural production [*see* 01.0301 Agricultural Production Operations, General]
- Plant sciences [*see* 01.1101 Plant Sciences, General]
- Crop science [*see* 01.1102 Agronomy and Crop Science]
- Crop protection [*see* 01.1105 Plant Protection and Integrated Pest Management]
- Botany [*see* 26.0301 Botany/Plant Biology, General]

01.0306 Dairy Husbandry and Production

This instructional program class comprises any program that prepares individuals to manage the selection and care of dairy animals and associated dairy farm and processing facilities and operations. These programs include courses in basic animal and dairy science; dairy animal nutrition and health; design and operation of dairy housing, feeding, and processing facilities and equipment; and related issues of safety, sanitation, shipping and handling, and applicable regulations.

Examples of included programs
- Butter making
- Cheese making
- Dairy farming
- Dairy herd management
- Dairy herdsman/woman
- Dairy husbandry
- Dairy management
- Dairy production
- Dairy technology
- Dairying
- Milk grading
- Milker training

Examples of excluded programs
- Livestock production [*see* 01.0302 Animal/Livestock Husbandry and Production]
- Dairy science [*see* 01.0905 Dairy Science]
- Food processing [*see* 01.1002 Food Technology and Processing]
- Butcher [*see* 12.0506 Meat Cutting/Meat Cutter]

01.0307 Horse Husbandry/Equine Science and Management

This instructional program class comprises any program that prepares individuals to manage the selection, breeding, care, and maintenance of work, athletic, and show horses; and horse farms, stables, tracks and related equipment and operations. These programs include courses in applicable principles of animal science, care, and health; stable and track management; design and operation of facilities and equipment; and related issues such as regulations, business management; and logistics.

Examples of included programs
- Equine care
- Equine management
- Equine massage therapy
- Equine science
- Equine technology
- Farrier
- Farrier science
- Horse breeding
- Horse grooming
- Horse husbandry
- Horseshoeing

Examples of excluded programs
- Animal husbandry [*see* 01.0302 Animal/Livestock Husbandry and Production]
- Equestrian management [*see* 01.0507 Equestrian/Equine Studies]
- Animal breeding [*see* 01.0902 Agricultural Animal Breeding]
- Livestock management [*see* 01.0906 Livestock Management]
- Blacksmith [*see* 48.0599 Precision Metal Working, Other]

01.0399 Agricultural Production Operations, Other

This instructional program class comprises any program not listed above that relates to Agricultural Production Operations.

Examples of included programs
- Apiculture
- Beekeeping
- Organic farming
- Sustainable agricultural systems
- Tropical agriculture
- Viticulture

Examples of excluded programs
- Agricultural production [*see* 01.0301 Agricultural Production Operations, General]
- Animal production [*see* 01.0302 Animal/Livestock Husbandry and Production]
- Crop production [*see* 01.0304 Crop Production]
- Dairy production [*see* 01.0306 Dairy Husbandry and Production]

01.04 Agricultural and Food Products Processing

This subseries comprises instructional program class 01.0401.

01.0401 Agricultural and Food Products Processing

This instructional program class comprises any program that prepares individuals to receive, inspect, store, process, and package agricultural products in the form of human food consumables, animal or plant food, or other industrial products. These programs include courses in the nutrient and industrial properties of various agricultural products; logistics and storage procedures; chemical and mechanical processing operations; packaging; safety and health requirements; and related technical and business principles.

Examples of included programs
- Flour milling
- Food inspection
- Grain inspection

Examples of excluded programs
- Butter making [*see* 01.0306 Dairy Husbandry and Production]
- Cheese making [*see* 01.0306 Dairy Husbandry and Production]
- Food processing [*see* 01.1002 Food Technology and Processing]
- Food technology [*see* 01.1002 Food Technology and Processing]
- Food preparation [*see* 12.0505 Food Preparation/Professional Cooking/Kitchen Assistant]

01.05 Agricultural and Domestic Animal Services

This subseries comprises instructional program classes 01.0504 to 01.0599.

01.0504 Dog/Pet/Animal Grooming

This instructional program class comprises any program that prepares individuals to provide cosmetic services for household pets, show animals, work animals and animal athletes. These programs include courses in skin, coat, and pelt grooming and styling; skin care; hoof, nail, and claw care; animal massage; minor first aid and veterinary referral; animal grooming products and applications; health and safety; and applicable regulations.

Examples of included programs
- Animal grooming
- Dog grooming
- Pet grooming
- Pet stylist

Examples of excluded programs
- Horse grooming [*see* 01.0307 Horse Husbandry/Equine Science and Management]
- Cosmetologist [*see* 12.0401 Cosmetology/Cosmetologist, General]
- Hairstyling [*see* 12.0407 Hair Styling/Stylist and Hair Design]
- Pedicure [*see* 12.0410 Nail Technician/Specialist and Manicurist]

01.0505 Animal Training

This instructional program class comprises any program that prepares individuals to teach and exercise animals for leisure, sport, show, and professional purposes. These programs include courses in animal psychology, health, and safety; human animal interaction; learning and behaviour styles associated with different breeds and species; and the technical and pedagogical aspects of training animals for such specific functions as obedient household pets, performing show animals, animal athletes, care-giving (e.g., seeing-eye dogs), search and rescue, and police/security work.

Examples of included programs
- Animal training
- Dog training

Examples of excluded programs
- Horse training [*see* 01.0507 Equestrian/Equine Studies]
- Animal behaviour [*see* 26.0708 Animal Behaviour and Ethology]

01.0507 Equestrian/Equine Studies

This instructional program class comprises any program that focuses on the horse, horsemanship, and related subjects and prepares individuals to care for horses and horse equipment; ride and drive horses for leisure, sport, show, and professional purposes; and manage the training of horses and riders. These programs include courses in horse breeding, nutrition, health, and safety; history of the horse and horsemanship; horse development and training; riding and equestrian technique; stable, paddock, and track management; and equipment maintenance and repair.

Examples of included programs
- Equestrian coaching
- Equestrian instructor
- Equestrian management
- Equestrian sports
- Equestrian studies
- Equestrian training
- Equine coaching
- Equine studies
- Horse training
- Riding instruction
- Western horsemanship

Examples of excluded programs
- Equine care [*see* 01.0307 Horse Husbandry/Equine Science and Management]
- Physical education teaching [*see* 13.1314 Physical Education Teaching and Coaching]
- Animal care technology [*see* 51.0808 Veterinary/Animal Health Technology/Technician and Veterinary Assistant]
- Athletic training/trainer [*see* 51.0913 Athletic Training/Trainer]

01.0508 Taxidermy/Taxidermist

This instructional program class comprises any program that prepares individuals to reproduce life-like three-dimensional representations of living animals for permanent display using elements of the deceased specimen(s) as well as artificial materials, and to manage taxidermy services and businesses. These programs include courses in specimen grading and selection, capping and fleshing, preservation procedures, tanning, drying, measurements, form and armature construction, carpentry and woodworking, moulding and casting, drawing, sculptural techniques, painting and finishing techniques, basic business operations, customer communications, and applicable laws and regulations.

Examples of included programs
- Taxidermist
- Taxidermy

Examples of excluded programs
- Museum technology [*see* 30.1401 Museology/Museum Studies]
- Arts and crafts [*see* 50.0201 Crafts/Craft Design, Folk Art and Artisanry]
- Handicrafts [*see* 50.0201 Crafts/Craft Design, Folk Art and Artisanry]

01.0599 Agricultural and Domestic Animal Services, Other

This instructional program class comprises any program not listed above that relates to Agricultural and Domestic Animal Services.

01.06 Applied Horticulture/Horticultural Business Services

This subseries comprises instructional program classes 01.0601 to 01.0699.

01.0601 Applied Horticulture/Horticulture Operations, General

This instructional program class comprises any program that focuses on the general production and processing of domesticated plants, shrubs, flowers, foliage, trees, groundcovers, and related plant materials; the management of technical and business operations connected with horticultural services; and the basic scientific principles needed to understand plants and their management and care.

Examples of included programs
- Applied horticulture
- Environmental horticulture technology
- Horticultural apprenticeship
- Horticultural technology
- Horticulture
- Horticulture operations
- Horticulture services
- Horticulturist

Examples of excluded programs
- Ornamental horticulture [*see* 01.0603 Ornamental Horticulture]
- Greenhouse operations and management [*see* 01.0604 Greenhouse Operations and Management]
- Horticultural landscaping [*see* 01.0605 Landscaping and Groundskeeping]
- Plant sciences [*see* 01.1101 Plant Sciences, General]
- Horticultural science [*see* 01.1103 Horticultural Science]
- Landscaping architecture [*see* 04.0601 Landscape Architecture (BSc, BSLA, BLA, MSLA, MLA, PhD)]
- Botany [*see* 26.0301 Botany/Plant Biology, General]

01.0603 Ornamental Horticulture

This instructional program class comprises any program that focuses on domesticated plants and plant materials used for decorative and recreational applications and prepares individuals to breed, grow, and utilize ornamental plant varieties for commercial and aesthetic purposes. These programs include courses in applicable plant science subjects, the environmental design and artistic aspects of horticultural product usage, and the management of horticultural operations.

Examples of included programs
- Ornamental horticulture
- Ornamental horticulture production

Examples of excluded programs
- Horticulture [*see* 01.0601 Applied Horticulture/Horticulture Operations, General]
- Landscape design [*see* 01.0605 Landscaping and Groundskeeping]
- Landscape gardening [*see* 01.0605 Landscaping and Groundskeeping]
- Plant nursery operations [*see* 01.0606 Plant Nursery Operations and Management]
- Commercial floristry [*see* 01.0608 Floriculture/Floristry Operations and Management]
- Horticultural science [*see* 01.1103 Horticultural Science]
- Environmental design [*see* 04.0401 Environmental Design/Architecture]

01.0604 Greenhouse Operations and Management

This instructional program class comprises any program that prepares individuals to produce, store, and deliver plant species in controlled indoor environments for wholesale, commercial, research, or other purposes. These programs include courses in applicable principles of plant science; climate, irrigation, and nutrition control equipment operation and maintenance; facilities management; inventory control; safety procedures; and personnel supervision.

Examples of included programs
- Greenhouse management
- Greenhouse operations and management

Examples of excluded programs
- Horticulture operations [*see* 01.0601 Applied Horticulture/Horticulture Operations, General]
- Plant nursery operations [*see* 01.0606 Plant Nursery Operations and Management]
- Floristry operations and management [*see* 01.0608 Floriculture/Floristry Operations and Management]
- Plant breeding [*see* 01.1104 Agricultural and Horticultural Plant Breeding]
- Botany [*see* 26.0301 Botany/Plant Biology, General]

01.0605 Landscaping and Groundskeeping

This instructional program class comprises any program that prepares individuals to manage and maintain indoor and/or outdoor ornamental and recreational plants and groundcovers and related conceptual designs established by landscape architects, interior designers, enterprise owners or managers, and individual clients. These programs include courses in applicable principles of horticulture, gardening, plant and soil irrigation and nutrition, turf maintenance, plant maintenance, equipment operation and maintenance, personnel supervision, and purchasing.

Examples of included programs
- Environmental landscape management
- Garden design
- Greenspace management
- Groundskeeping
- Horticultural landscaping
- Landscape and gardening
- Landscape construction
- Landscape design
- Landscape gardening
- Landscape horticulture
- Landscape technology
- Landscaping
- Landscaping construction
- Landscaping horticulture

Examples of excluded programs
- Horticulture services [*see* 01.0601 Applied Horticulture/Horticulture Operations, General]
- Greenskeeping [*see* 01.0607 Turf and Turfgrass Management]
- Environmental design [*see* 04.0401 Environmental Design/Architecture]

01.0606 Plant Nursery Operations and Management

This instructional program class comprises any program that prepares individuals to operate and manage outdoor plant farms, tree and shrub nurseries, and related facilities that develop domesticated plant products for propagation, harvesting, and transplantation. These programs include courses in applicable principles of plant science; farm and business management; nursery operations; equipment operation and maintenance; safety procedures; and personnel supervision.

Examples of included programs
- Nursery technology
- Plant nursery management
- Plant nursery operations

Examples of excluded programs
- Horticulture operations [*see* 01.0601 Applied Horticulture/Horticulture Operations, General]
- Greenhouse operations and management [*see* 01.0604 Greenhouse Operations and Management]
- Floristry operations and management [*see* 01.0608 Floriculture/Floristry Operations and Management]
- Plant sciences [*see* 01.1101 Plant Sciences, General]
- Nursing [*see* 51.1601 Nursing/Registered Nurse (RN, ASN, BScN, MScN)]

01.0607 Turf and Turfgrass Management

This instructional program class comprises any program that focuses on turf grasses and related groundcover plants and prepares individuals to develop ornamental or recreational grasses and related products; plant, transplant, and manage grassed areas; and to produce and store turf used for transplantation. These programs include courses in applicable plant sciences, genetics of grasses, turf science, use analysis, turf management, and related economics.

Examples of included programs
- Golf course maintenance
- Golf course technology
- Greenskeeping
- Turf maintenance
- Turf management
- Turf science
- Turf technician
- Turfgrass
- Turfgrass management
- Turfgrass technology

Examples of excluded programs
- Horticulture [*see* 01.0601 Applied Horticulture/Horticulture Operations, General]
- Ornamental horticulture [*see* 01.0603 Ornamental Horticulture]
- Groundskeeping [*see* 01.0605 Landscaping and Groundskeeping]
- Landscape and gardening [*see* 01.0605 Landscaping and Groundskeeping]
- Golf course management [*see* 31.0504 Sport and Fitness Administration/Management]

01.0608 Floriculture/Floristry Operations and Management

This instructional program class comprises any program that prepares individuals to operate and manage commercial and contract florist enterprises, supply and delivery services, and flower catering services. These programs include courses in the applicable principles of plant science; purchasing, storage, and delivery systems; floral design and arranging; and principles of business management.

Examples of included programs
- Commercial floriculture
- Commercial floristry
- Floral arrangement
- Floral arts
- Floral design
- Floral industry
- Floriculture
- Florist
- Florist designer
- Floristry
- Floristry operations and management
- Retail floriculture
- Retail florist
- Retail floristry

Examples of excluded programs
- Horticulture operations [*see* 01.0601 Applied Horticulture/Horticulture Operations, General]
- Ornamental horticulture [*see* 01.0603 Ornamental Horticulture]
- Plant nursery management [*see* 01.0606 Plant Nursery Operations and Management]
- Plant sciences [*see* 01.1101 Plant Sciences, General]
- Horticultural science [*see* 01.1103 Horticultural Science]

01.0699 Applied Horticulture/Horticultural Business Services, Other

This instructional program class comprises any program not listed above that relates to Applied Horticulture/Horticultural Business Services.

Examples of included programs
- Arboriculture
- Arborist
- Certified arborist
- Certified utility arborist
- Urban arboriculture
- Utility arborist

Examples of excluded programs
- Horticulture [*see* 01.0601 Applied Horticulture/Horticulture Operations, General]
- Greenhouse operations and management [*see* 01.0604 Greenhouse Operations and Management]
- Greenspace management [*see* 01.0605 Landscaping and Groundskeeping]
- Plant nursery operations [*see* 01.0606 Plant Nursery Operations and Management]
- Floristry operations and management [*see* 01.0608 Floriculture/Floristry Operations and Management]
- Forest resources production and management [*see* 03.0510 Forest Resources Production and Management]

01.07 International Agriculture

This subseries comprises instructional program class 01.0701.

01.0701 International Agriculture

This instructional program class comprises any program that focuses on the application of agricultural management and scientific principles to the problems of global food production and distribution, and to the study of the agricultural systems of other countries. These programs include courses in agricultural

economics; comparative agricultural systems; international agribusiness and law; third-world development studies and economic development; and global applications of climate, soil, water resources, ecological and environmental studies, and animal and plant sciences.

Example of included programs
- International agriculture

Examples of excluded programs
- Agricultural science [*see* 01.0000 Agriculture, General]
- Agribusiness operations [*see* 01.0102 Agribusiness/Agricultural Business Operations]
- Agricultural economics [*see* 01.0103 Agricultural Economics]
- Sustainable agricultural systems [*see* 01.0399 Agricultural Production Operations, Other]
- International development [*see* 45.0604 Development Economics and International Development]

01.08 Agricultural Public Services

This subseries comprises instructional program classes 01.0801 to 01.0899.

01.0801 Agricultural and Extension Education Services

This instructional program class comprises any program that prepares individuals to provide referral, consulting, technical assistance, and educational services to gardeners, farmers, ranchers, agribusinesses, and other organizations. These programs include courses in basic agricultural sciences, agricultural business operations, pest control, adult education methods, public relations, applicable laws and regulations, and communication skills.

Examples of included programs
- Agricultural extension
- Rural extension
- Rural extension studies

Example of excluded programs
- Agricultural teacher education [*see* 13.1301 Agricultural Teacher Education]

01.0802 Agricultural Communication/Journalism

This instructional program class comprises any program that prepares individuals to apply journalistic, communication, and broadcasting principles to the development, production, and transmittal of agricultural information. These programs include courses in basic journalism, broadcasting, film/video, and communication techniques; the production of technically specialized information products for agricultural audiences; and the principles of agricultural sciences and business operations needed to develop and communicate agricultural subject matter in effective ways.

Examples of included programs
- Agricultural journalism
- Print journalism—agricultural option

Examples of excluded programs
- Journalism [*see* 09.0401 Journalism, General]
- Broadcast journalism [*see* 09.0402 Broadcast Journalism]
- Public relations [*see* 09.0902 Public Relations/Image Management]

01.0899 Agricultural Public Services, Other

This instructional program class comprises any program not listed above that relates to Agricultural Public Services.

01.09 Animal Sciences

This subseries comprises instructional program classes 01.0901 to 01.0999.

01.0901 Animal Sciences, General

This instructional program class comprises any general program that focuses on the scientific principles that underlie the breeding and husbandry of agricultural animals, and the production, processing, and distribution of agricultural animal products. These programs include courses in the animal sciences, animal husbandry and production, and agricultural and food products processing.

Example of included programs
- Animal sciences

Examples of excluded programs
- Agricultural production [*see* 01.0301 Agricultural Production Operations, General]
- Animal husbandry [*see* 01.0302 Animal/Livestock Husbandry and Production]
- Animal breeding [*see* 01.0902 Agricultural Animal Breeding]
- Animal biology [*see* 26.0701 Zoology/Animal Biology, General]
- Animal physiology [*see* 26.0707 Animal Physiology]
- Animal genetics [*see* 26.0804 Animal Genetics]

01.0902 Agricultural Animal Breeding

This instructional program class comprises any program that focuses on the application of genetics and genetic engineering to the improvement of agricultural animal health, the development of new animal breeds, and the selective improvement of agricultural animal populations. These programs include courses in genetics, genetic engineering, population genetics, animal health, animal husbandry, and biotechnology.

Example of included programs
- Animal breeding

Examples of excluded programs
- Animal husbandry [*see* 01.0302 Animal/Livestock Husbandry and Production]
- Horse breeding [*see* 01.0307 Horse Husbandry/Equine Science and Management]
- Animal health [*see* 01.0903 Animal Health]
- Animal genetics [*see* 26.0804 Animal Genetics]
- Reproductive biology [*see* 26.0905 Reproductive Biology]

01.0903 Animal Health

This instructional program class comprises any program that focuses on the application of biological and chemical principles to the study, prevention, and control of diseases in agricultural animal populations. These programs include courses in environmental science, pharmacology, animal population studies, genetics, animal physiology and diet, disease prevention, treatment methodologies, and laboratory and testing procedures.

Example of included programs
- Animal health

Examples of excluded programs
- Animal sciences [*see* 01.0901 Animal Sciences, General]
- Immunology [*see* 26.0507 Immunology]
- Animal biology [*see* 26.0701 Zoology/Animal Biology, General]
- Animal physiology [*see* 26.0707 Animal Physiology]
- Animal health technician [*see* 51.0808 Veterinary/Animal Health Technology/Technician and Veterinary Assistant]
- Veterinary sciences (Cert., MSc, PhD) [*see* 51.2501 Veterinary Sciences/Veterinary Clinical Sciences, General (Cert., MSc, PhD)]
- Veterinary practice—residency [*see* 60.0311 Veterinary Practice Residency Programs]

01.0904 Animal Nutrition

This instructional program class comprises any program that focuses on the biology and chemistry of proteins, fats, carbohydrates, water, vitamins, and feed additives as related to animal health and the production of improved animal products. These programs include courses in nutrition science, animal health and physiology, biochemistry, cellular and molecular biology, animal husbandry, and food science.

Example of included programs
- Animal nutrition

Examples of excluded programs
- Animal husbandry [*see* 01.0302 Animal/Livestock Husbandry and Production]
- Food, nutrition and health [*see* 19.0501 Foods, Nutrition and Wellness Studies, General]
- Animal physiology [*see* 26.0707 Animal Physiology]
- Nutrition science [*see* 30.1901 Nutrition Sciences]
- Clinical nutrition [*see* 51.3102 Clinical Nutrition/Nutritionist]
- Veterinary nutrition—residency [*see* 60.0308 Veterinary Nutrition Residency Programs]

01.0905 Dairy Science

This instructional program class comprises any program that focuses on the application of biological and chemical principles to the production and management of dairy animals and the production and handling of dairy products. These programs include courses in animal sciences, nutrition sciences, food science and technology, biochemistry, and related aspects of human and animal health and safety.

Example of included programs
- Dairy science

Examples of excluded programs
- Dairy technology [*see* 01.0306 Dairy Husbandry and Production]
- Food inspection [*see* 01.0401 Agricultural and Food Products Processing]
- Food science [*see* 01.1001 Food Science]
- Food processing [*see* 01.1002 Food Technology and Processing]

01.0906 Livestock Management

This instructional program class comprises any program that focuses on the application of biological and chemical principles to the production and management of livestock animals and the production and handling of meat and other products. These programs include courses in animal sciences, range science, nutrition sciences, food science and technology, biochemistry, and related aspects of human and animal health and safety.

Examples of included programs
- Beef management
- Beef production management
- Livestock management

Examples of excluded programs
- Agricultural management [*see* 01.0101 Agricultural Business and Management, General]
- Farm management [*see* 01.0104 Farm/Farm and Ranch Management]
- Agricultural production management [*see* 01.0301 Agricultural Production Operations, General]
- Livestock production [*see* 01.0302 Animal/Livestock Husbandry and Production]

01.0907 Poultry Science

This instructional program class comprises any program that focuses on the application of biological and chemical principles to the production and management of poultry animals and the production and handling of poultry products. These programs include courses in avian sciences, nutrition sciences, food science and technology, biochemistry, hatchery design, and related aspects of human and animal health and safety.

Example of included programs
- Poultry science

Examples of excluded programs
- Animal sciences [*see* 01.0901 Animal Sciences, General]
- Animal nutrition [*see* 01.0904 Animal Nutrition]
- Food science [*see* 01.1001 Food Science]
- Food processing [*see* 01.1002 Food Technology and Processing]
- Food technology [*see* 01.1002 Food Technology and Processing]

01.0999 Animal Sciences, Other

This instructional program class comprises any program not listed above that relates to Animal Sciences.

01.10 Food Science and Technology

This subseries comprises instructional program classes 01.1001 to 01.1099.

01.1001 Food Science

This instructional program class comprises any program that focuses on the application of biological, chemical, and physical principles to the study of converting raw agricultural products into processed forms suitable for direct human consumption, and the storage of such products. These programs include courses in applicable aspects of the agricultural sciences, human physiology and nutrition, food chemistry, agricultural products processing, food additives, food preparation and packaging, food storage and shipment, and related aspects of human health and safety including toxicology and pathology.

Examples of included programs
- Food chemistry
- Food science

Examples of excluded programs
- Food processing [*see* 01.1002 Food Technology and Processing]
- Cooking [*see* 12.0500 Cooking and Related Culinary Arts, General]
- Food preparation [*see* 12.0505 Food Preparation/Professional Cooking/Kitchen Assistant]
- Food engineering [*see* 14.0301 Agricultural/Biological Engineering and Bioengineering]
- Human nutritional sciences [*see* 30.1901 Nutrition Sciences]

01.1002 Food Technology and Processing

This instructional program class comprises any program that focuses on the application of chemical, physical, and engineering principles to the development and implementation of manufacturing, packaging, storage, and distribution technologies and processes for food products. These programs include courses in food engineering, food preservation and handling, food preparation, food packaging and display, food storage and shipment, and related equipment and facilities design, operation, and maintenance.

Examples of included programs
- Bio-food technology
- Brewing
- Food processing
- Food technology
- Wine technology

Examples of excluded programs
- Butter making [*see* 01.0306 Dairy Husbandry and Production]
- Flour milling [*see* 01.0401 Agricultural and Food Products Processing]
- Cooking [*see* 12.0500 Cooking and Related Culinary Arts, General]
- Food preparation [*see* 12.0505 Food Preparation/Professional Cooking/Kitchen Assistant]
- Butcher [*see* 12.0506 Meat Cutting/Meat Cutter]
- Food processing engineering [*see* 14.0301 Agricultural/Biological Engineering and Bioengineering]

01.1099 Food Science and Technology, Other

This instructional program class comprises any program not listed above that relates to Food Science and Technology.

01.11 Plant Sciences

This subseries comprises instructional program classes 01.1101 to 01.1199.

01.1101 Plant Sciences, General

This instructional program class comprises any general program that focuses on the scientific principles that underlie the breeding, cultivation, and production of agricultural plants, and the production, processing, and distribution of agricultural plant products. These programs include courses in the plant sciences, crop cultivation and production, and agricultural and food products processing.

Example of included programs
- Plant sciences

Examples of excluded programs
- Crop technology [*see* 01.0304 Crop Production]
- Crop science [*see* 01.1102 Agronomy and Crop Science]
- Horticultural science [*see* 01.1103 Horticultural Science]
- Botany [*see* 26.0301 Botany/Plant Biology, General]

01.1102 Agronomy and Crop Science

This instructional program class comprises any program that focuses on the chemical, physical, and biological relationships of crops and the soils nurturing them. These programs include courses in the growth and behaviour of agricultural crops, the development of new plant varieties, and the scientific management of soils and nutrients for maximum plant nutrition, health, and productivity.

Examples of included programs
- Agronomy and crop science
- Crop science

Examples of excluded programs
- Crop technology [*see* 01.0304 Crop Production]
- Plant sciences [*see* 01.1101 Plant Sciences, General]
- Agriculture soil science [*see* 01.1201 Soil Science and Agronomy, General]
- Botany [*see* 26.0301 Botany/Plant Biology, General]

01.1103 Horticultural Science

This instructional program class comprises any program that focuses on the scientific principles related to the cultivation of garden and ornamental plants, including fruits, vegetables, flowers, and landscape and nursery crops. These programs include courses in specific types of plants, such as citrus; breeding horticultural varieties; physiology of horticultural species; and the scientific management of horticultural plant development and production through the life cycle.

Example of included programs
- Horticultural science

Examples of excluded programs
- Horticulture [*see* 01.0601 Applied Horticulture/Horticulture Operations, General]
- Ornamental horticulture [*see* 01.0603 Ornamental Horticulture]
- Greenhouse operations and management [*see* 01.0604 Greenhouse Operations and Management]
- Landscape gardening [*see* 01.0605 Landscaping and Groundskeeping]
- Nursery technology [*see* 01.0606 Plant Nursery Operations and Management]
- Floristry [*see* 01.0608 Floriculture/Floristry Operations and Management]

01.1104 Agricultural and Horticultural Plant Breeding

This instructional program class comprises any program that focuses on the application of genetics and genetic engineering to the improvement of agricultural plant health, the development of new plant varieties, and the selective improvement of agricultural plant populations. These programs include courses in genetics, genetic engineering, population genetics, agronomy, plant protection, and biotechnology.

Examples of included programs
- Agricultural plant breeding
- Genetics and plant breeding
- Horticultural plant breeding
- Plant breeding
- Plant breeding genetics

Examples of excluded programs
- Horticultural technology [*see* 01.0601 Applied Horticulture/Horticulture Operations, General]
- Ornamental horticulture production [*see* 01.0603 Ornamental Horticulture]
- Nursery technology [*see* 01.0606 Plant Nursery Operations and Management]
- Horticultural science [*see* 01.1103 Horticultural Science]
- Botany [*see* 26.0301 Botany/Plant Biology, General]
- Plant genetics [*see* 26.0805 Plant Genetics]
- Plant biotechnology [*see* 26.1201 Biotechnology]

01.1105 Plant Protection and Integrated Pest Management

This instructional program class comprises any program that focuses on the application of scientific principles to the control of animal and weed infestation of domesticated plant populations, including agricultural crops; the prevention/reduction of attendant economic loss; and the control of environmental pollution and degradation related to pest infestation and pest control measures. These programs include courses in entomology, applicable animal sciences, plant pathology and physiology, weed science, crop science, and environmental toxicology.

Examples of included programs
- Agriculture plant protection
- Crop protection
- Integrated pest management

Examples of excluded programs
- Crop technology [*see* 01.0304 Crop Production]
- Environmental and conservation science [*see* 03.0101 Natural Resources/Conservation, General]
- Plant physiology [*see* 26.0307 Plant Physiology]
- Entomology [*see* 26.0702 Entomology]
- Environmental toxicology [*see* 26.1006 Environmental Toxicology]

01.1106 Range Science and Management

This instructional program class comprises any program that focuses on the scientific study of rangelands, arid regions, grasslands, and other areas of low productivity, as well as the principles of managing such resources for maximum benefit and environmental balance. These programs include courses in livestock management, wildlife biology, plant sciences, ecology, soil science, and hydrology.

Examples of included programs
- Range and pasture management
- Range management
- Range science

Examples of excluded programs
- Livestock management [*see* 01.0906 Livestock Management]
- Plant sciences [*see* 01.1101 Plant Sciences, General]
- Wildlife management [*see* 03.0601 Wildlife and Wildlands Science and Management]
- Ecology [*see* 26.1301 Ecology]
- Environmental biology [*see* 26.1305 Environmental Biology]
- Hydrology [*see* 40.0605 Hydrology and Water Resources Science]

01.1199 Plant Sciences, Other

This instructional program class comprises any program not listed above that relates to Plant Sciences.

Examples of included programs
- Crop and horticultural science
- Plant science technology

Examples of excluded programs
- Crop production [*see* 01.0304 Crop Production]
- Horticulture [*see* 01.0601 Applied Horticulture/Horticulture Operations, General]
- Plant sciences [*see* 01.1101 Plant Sciences, General]
- Plant breeding [*see* 01.1104 Agricultural and Horticultural Plant Breeding]
- Botany [*see* 26.0301 Botany/Plant Biology, General]
- Plant physiology [*see* 26.0307 Plant Physiology]
- Plant biotechnology [*see* 26.1201 Biotechnology]

01.12 Soil Sciences

This subseries comprises instructional program classes 01.1201 to 01.1299.

01.1201 Soil Science and Agronomy, General

This instructional program class comprises any program that generally focuses on the scientific classification of soils, soil properties, and their relationship to agricultural crops. These programs include courses in soil chemistry, soil physics, soil biology, soil fertility, morphogenesis, mineralogy, hydrology, agronomy, and soil conservation and management.

Examples of included programs
- Agricultural soils
- Agriculture soil science
- Agrology
- Soil science
- Soil science and agronomy

Examples of excluded programs
- Agricultural science [*see* 01.0000 Agriculture, General]
- Agronomy and crop science [*see* 01.1102 Agronomy and Crop Science]
- Earth sciences [*see* 40.0601 Geology/Earth Science, General]

01.1202 Soil Chemistry and Physics

This instructional program class comprises any program that focuses on the application of chemical and physical principles to research and analysis concerning the nature and properties of soils and the conservation and management of soils. These programs include courses in soil and fluid mechanics, mineralogy, sedimentology, thermodynamics, geomorphology, environmental systems, analytical methods, and organic and inorganic chemistry.

Examples of included programs
- Soil chemistry
- Soil physics

Examples of excluded programs
- Agronomy and crop science [*see* 01.1102 Agronomy and Crop Science]
- Agrology [*see* 01.1201 Soil Science and Agronomy, General]
- Soil microbiology [*see* 01.1203 Soil Microbiology]
- Organic chemistry [*see* 40.0504 Organic Chemistry]
- Environmental chemistry [*see* 40.0599 Chemistry, Other]
- Earth sciences [*see* 40.0601 Geology/Earth Science, General]

01.1203 Soil Microbiology

This instructional program class comprises any program that focuses on the application of microbiological theory and methods to the study of the organismic properties of soils, soil-plant and soil-animal interactions, and the biological components and effects of soil management strategies. These programs include courses in microbiology and related biological sciences, applicable animal and plant sciences, soil chemistry and physics as related to biological characteristics, and environmental science.

Example of included programs
- Soil microbiology

Examples of excluded programs
- Agronomy and crop science [*see* 01.1102 Agronomy and Crop Science]
- Agrology [*see* 01.1201 Soil Science and Agronomy, General]
- Agricultural biology [*see* 01.9999 Agriculture, Agriculture Operations and Related Sciences, Other]
- Environmental science [*see* 03.0104 Environmental Science]
- Microbiology [*see* 26.0502 Microbiology, General]

01.1299 Soil Sciences, Other

This instructional program class comprises any program not listed above that relates to Soil Sciences.

Examples of included programs
- Environmental soil science
- Farm drainage
- Irrigation
- Irrigation technology
- Soil conservation
- Soil technology

Examples of excluded programs
- Soil science [*see* 01.1201 Soil Science and Agronomy, General]
- Soil chemistry [*see* 01.1202 Soil Chemistry and Physics]
- Soil physics [*see* 01.1202 Soil Chemistry and Physics]
- Soil microbiology [*see* 01.1203 Soil Microbiology]

01.99 Agriculture, Agriculture Operations and Related Sciences, Other

This subseries comprises instructional program class 01.9999.

01.9999 Agriculture, Agriculture Operations and Related Sciences, Other

This instructional program class comprises any program not listed above that relates to Agriculture, Agriculture Operations and Related Sciences.

Examples of included programs
- Agricultural biology
- Agricultural chemistry
- Agroecology

Examples of excluded programs
- Soil microbiology [*see* 01.1203 Soil Microbiology]
- Agricultural engineering [*see* 14.0301 Agricultural/Biological Engineering and Bioengineering]
- Ecology [*see* 26.1301 Ecology]
- Organic chemistry [*see* 40.0504 Organic Chemistry]

03. Natural Resources and Conservation

This series comprises instructional programs that focus on the various natural resources and conservation fields and prepare individuals for related occupations.

03.01 Natural Resources Conservation and Research

This subseries comprises instructional program classes 03.0101 to 03.0199.

03.0101 Natural Resources/Conservation, General

This instructional program class comprises any general program that focuses on the studies and activities relating to the natural environment and its conservation, use, and improvement. These programs include courses in subjects such as climate, air, soil, water, land, fish and wildlife, and plant resources; in the basic principles of environmental science and natural resources management; and the recreational and economic uses of renewable and non-renewable natural resources.

Examples of included programs
- Environmental and conservation science
- Environmental conservation
- Environmental systems
- Natural resource science
- Natural resources
- Natural resources conservation
- Natural resources technology
- Resource technology

Examples of excluded programs
- Natural resource management [*see* 03.0201 Natural Resources Management and Policy, General]
- Conservation officer [*see* 03.0299 Natural Resources Management and Policy, Other]
- Natural resources law (graduate level) [*see* 22.0207 Energy, Environment and Natural Resources Law (LLM, MSc, JSD/SJD)]

03.0103 Environmental Studies

This instructional program class comprises any program that focuses on environment-related issues using scientific, social scientific, and/or humanistic approaches. These programs include courses in the basic principles of ecology and environmental science and related subjects such as policy, politics, law, economics, social aspects, planning, pollution control, natural resources, and the interactions of human beings and nature.

Examples of included programs
- Environmental resource studies
- Environmental studies

Examples of excluded programs
- Environmental science [*see* 03.0104 Environmental Science]
- Environmental engineering [*see* 14.1401 Environmental/Environmental Health Engineering]
- Environmental technology [*see* 15.0507 Environmental Engineering Technology/Environmental Technology]
- Environmental law (graduate level) [*see* 22.0207 Energy, Environment and Natural Resources Law (LLM, MSc, JSD/SJD)]

03.0104 Environmental Science

This instructional program class comprises any program that focuses on the application of biological, chemical, and physical principles to the study of the physical environment and the solution of environmental problems, including subjects such as abating or controlling environmental pollution and degradation; the interaction between human society and the natural environment; and natural resources management. These programs include courses in biology, chemistry, physics, geosciences, climatology, statistics, and mathematical modelling.

Example of included programs
- Environmental science

Examples of excluded programs
- Environmental studies [*see* 03.0103 Environmental Studies]
- Environmental engineering [*see* 14.1401 Environmental/Environmental Health Engineering]
- Environmental engineering technology [*see* 15.0507 Environmental Engineering Technology/Environmental Technology]
- Environmental toxicology [*see* 26.1006 Environmental Toxicology]
- Environmental biology [*see* 26.1305 Environmental Biology]
- Environmental health [*see* 51.2202 Environmental Health]

03.0199 Natural Resources Conservation and Research, Other

This instructional program class comprises any program not listed above that relates to Natural Resources Conservation and Research.

Examples of included programs
- Renewable resources
- Renewable resources technology

Example of excluded programs
- Conservation biology [*see* 26.1307 Conservation Biology]

03.02 Natural Resources Management and Policy

This subseries comprises instructional program classes 03.0201 to 03.0299.

03.0201 Natural Resources Management and Policy, General

This instructional program class comprises any program that prepares individuals to plan, develop, manage, and evaluate programs to protect and regulate natural habitats and renewable natural resources. These programs include courses in the principles of wildlife and conservation biology, environmental science, animal population surveying, natural resource economics, management techniques for various habitats, applicable law and policy, administrative and communications skills, and public relations.

Examples of included programs
- Conservation management
- Environmental management
- Integrated resource management
- Natural resource management
- Natural resources management technology
- Renewable resource management
- Resource management

Example of excluded programs
- Natural resources conservation [*see* 03.0101 Natural Resources/Conservation, General]

03.0204 Natural Resource Economics

This instructional program class comprises any program that focuses on the application of economic concepts and methods to the analysis of issues such as air and water pollution, land use planning, waste disposal, invasive species and pest control, conservation policies, and related environmental problems. These programs include courses in cost-benefit analysis; environmental impact assessment; evaluation and assessment of alternative resource management strategies; policy evaluation and monitoring; and descriptive and analytic tools for studying how environmental developments affect the economic system.

Examples of included programs
- Environmental economics
- Forest economics
- Mineral economics
- Natural resource economics

Examples of excluded programs
- Agricultural economics [*see* 01.0103 Agricultural Economics]
- Economics [*see* 45.0601 Economics, General]
- Applied economics [*see* 45.0602 Applied Economics]
- Development economics [*see* 45.0604 Development Economics and International Development]
- International economics [*see* 45.0605 International Economics]

03.0205 Water, Wetlands and Marine Resources Management

This instructional program class comprises any program that prepares individuals to apply the principles of marine/aquatic biology, oceanography, natural resource economics, and natural resources management to the development, conservation, and management of freshwater and saltwater environments. These programs include courses in subjects such as wetlands, riverine, lacustrian, coastal, and oceanic water resources; water conservation and use; flood control; pollution control; water supply logistics; wastewater management; aquatic and marine ecology; aquatic and marine life conservation; and the economic and recreational uses of water resources.

Examples of included programs
- Marine environment technology
- Marine resources management
- Water resources technology

Examples of excluded programs
- Water resources engineering [*see* 14.0805 Water Resources Engineering]
- Water quality technology [*see* 15.0506 Water Quality and Wastewater Treatment Management and Recycling Technology/Technician]
- Water resources sciences [*see* 40.0605 Hydrology and Water Resources Science]

03.0206 Land Use Planning and Management/Development

This instructional program class comprises any program that focuses on how public and/or private land and associated resources can be preserved, developed, and used for maximum social, economic, and environmental benefit. These programs include courses in natural resources management, natural resource economics, public policy, regional and land use planning, environmental impact assessment, applicable laws and regulations, government and politics, principles of business and real estate land use, statistical and analytical tools, computer applications, mapping and report preparation, site analysis, cost analysis, and communications skills.

Examples of included programs
- Integrated land management
- Land management
- Land use planning

Examples of excluded programs
- City and regional planning [*see* 04.0301 City/Urban, Community and Regional Planning]
- Regional and urban development [*see* 04.0301 City/Urban, Community and Regional Planning]
- Economic development [*see* 45.0604 Development Economics and International Development]
- Real property development [*see* 52.1501 Real Estate]

03.0299 Natural Resources Management and Policy, Other

This instructional program class comprises any program not listed above that relates to Natural Resources Management and Policy.

Examples of included programs
- Conservation law enforcement
- Conservation officer
- Environmental law enforcement
- Environmental monitoring and enforcement
- Fish and wildlife law enforcement
- Forest ranger
- Forestry law enforcement
- Game warden
- Natural resources law enforcement
- Wildlife officer

Examples of excluded programs
- Natural resources conservation [*see* 03.0101 Natural Resources/Conservation, General]
- Environmental technology [*see* 15.0507 Environmental Engineering Technology/Environmental Technology]

03.03 Fishing and Fisheries Sciences and Management

This subseries comprises instructional program class 03.0301.

03.0301 Fishing and Fisheries Sciences and Management

This instructional program class comprises any program that focuses on the scientific study of the husbandry and production of non-domesticated fish and shellfish populations for recreational and commercial purposes and the management of fishing and marine/aquatic product processing to ensure adequate conservation and efficient utilization. These programs include courses in the principles of marine/aquatic biology, freshwater and saltwater ecosystems, water resources, fishing production operations and management, fishing policy and regulation, and the management of recreational and commercial fishing activities.

Examples of included programs
- Fisheries development
- Fisheries management
- Fisheries science

Examples of excluded programs
- Aquaculture [*see* 01.0303 Aquaculture]
- Fish farming [*see* 01.0303 Aquaculture]
- Fishing [*see* 49.0303 Commercial Fishing]

03.05 Forestry

This subseries comprises instructional program classes 03.0501 to 03.0599.

03.0501 Forestry, General

This instructional program class comprises any program that generally prepares individuals to manage and develop forest areas for economic, recreational, and ecological purposes. These programs include courses

in forest-related sciences, mapping, statistics, harvesting and production technology, natural resources management and economics, wildlife sciences, administration, and public relations.

Examples of included programs
- Forester
- Forestry

Examples of excluded programs
- Forest ranger [*see* 03.0299 Natural Resources Management and Policy, Other]
- Forest engineering [*see* 14.3401 Forest Engineering]
- Forest recreation technician [*see* 31.0101 Parks, Recreation and Leisure Studies]
- Hunting and fishing guide [*see* 31.0101 Parks, Recreation and Leisure Studies]

03.0502 Forest Sciences and Biology

This instructional program class comprises any program that focuses on the application of one or more forest-related sciences to the study of environmental factors affecting forests and the growth and management of forest resources. These programs include courses in forest biology, forest hydrology, forest mensuration, silviculture, forest soils, water resources, environmental science, forest resources management, and wood science.

Examples of included programs
- Forest biology
- Forest ecology
- Forest entomology
- Forest genetics
- Forest pathology
- Forest science

Examples of excluded programs
- Urban forestry [*see* 03.0508 Urban Forestry]
- Forest engineering [*see* 14.3401 Forest Engineering]
- Plant biology [*see* 26.0301 Botany/Plant Biology, General]
- Conservation biology [*see* 26.1307 Conservation Biology]

03.0506 Forest Management/Forest Resources Management

This instructional program class comprises any program that prepares individuals to apply principles of forestry and natural resources management to the administration of forest lands and related resources. These programs include courses in silviculture, forest mensuration, forest protection, inventorying, biometrics, geographic information systems, remote sensing, photogrammetry, forest policy and economics, forest land use planning, fire protection and management, and related administrative skills.

Examples of included programs
- Forest management
- Forest resource management
- Silviculture

Examples of excluded programs
- Forest resources production and management [*see* 03.0510 Forest Resources Production and Management]
- Forest engineering [*see* 14.3401 Forest Engineering]
- Parks management [*see* 31.0301 Parks, Recreation and Leisure Facilities Management]

03.0508 Urban Forestry

This instructional program class comprises any program that prepares individuals to apply the principles of forestry and related sciences to the development, care, and maintenance of individual trees and forested areas within or close to areas of dense human habitation. These programs include courses in urban environments; effects of pollution on tree species; environmental design and landscaping; urban pest infestation; urban forest management; and applicable policies and regulations.

Example of included programs
- Urban forestry

Examples of excluded programs
- Environmental landscape management [*see* 01.0605 Landscaping and Groundskeeping]
- Urban arboriculture [*see* 01.0699 Applied Horticulture/Horticultural Business Services, Other]

03.0509 Wood Science and Wood Products/Pulp and Paper Technology

This instructional program class comprises any program that focuses on the application of chemical, physical, and engineering principles to the analysis of the properties and behaviour of wood and wood products and the development of processes for converting wood into paper and other products. These programs include courses in wood classification and testing, product development, manufacturing and processing technologies, and the design and development of related equipment and systems.

Examples of included programs
- Log scaling
- Lumber grading
- Lumber inspection
- Milling
- Paper making
- Pulp and paper technology
- Pulp and papermaking operations
- Wood products processing
- Wood science
- Wood science and technology

Examples of excluded programs
- Forest products technology [*see* 03.0511 Forest Technology/Technician]
- Forest engineering [*see* 14.3401 Forest Engineering]
- Pulp and paper engineering [*see* 14.9999 Engineering, Other]
- Woodworking [*see* 48.0701 Woodworking, General]

03.0510 Forest Resources Production and Management

This instructional program class comprises any program that focuses on the application of forestry principles to the production, harvesting, and processing of forest resources and that prepares individuals to perform associated technical and managerial functions. These programs include courses in forest production and utilization, industrial forestry, agroforestry, transplantation, timber harvesting, selection and identification of trees, processing technologies and systems, equipment operations and maintenance, and related management skills.

Example of included programs
- Forest resources production and management

Example of excluded programs
- Forest resource management [*see* 03.0506 Forest Management/Forest Resources Management]

03.0511 Forest Technology/Technician

This instructional program class comprises any program that prepares individuals to assist foresters in the management and production of forest resources. These programs include courses in woods and field skills, tree identification, timber measurement, logging and timber harvesting, forest propagation and regeneration, forest firefighting, resource management, equipment operation and maintenance, record-keeping, sales and purchasing operations, and personnel supervision.

Examples of included programs
- Chain saw operator
- Forest firefighting
- Forest harvesting technology
- Forest products technology
- Forest technician
- Forest technology
- Forestry crew person
- Forestry technician
- Forestry technology
- Logging
- Lumber jack
- Power saw operator
- Skidder operator

Examples of excluded programs
- Forester [*see* 03.0501 Forestry, General]
- Forest engineering [*see* 14.3401 Forest Engineering]

03.0599 Forestry, Other

This instructional program class comprises any program not listed above that relates to Forestry.

Example of included programs
- Cutter and skidder

Examples of excluded programs
- Forest recreation technician [*see* 31.0101 Parks, Recreation and Leisure Studies]
- Hunting and fishing guide [*see* 31.0101 Parks, Recreation and Leisure Studies]
- Bush pilot [*see* 49.0102 Airline/Commercial/Professional Pilot and Flight Crew]

03.06 Wildlife and Wildlands Science and Management

This subseries comprises instructional program class 03.0601.

03.0601 Wildlife and Wildlands Science and Management

This instructional program class comprises any program that prepares individuals to conserve and manage wilderness areas and the flora and fauna therein, and manage wildlife reservations and zoological facilities for recreational, commercial, and ecological purposes. These programs include courses in wildlife biology; environmental science; natural resources management and policy; outdoor recreation and parks management; the design and operation of natural and artificial wildlife habitats; applicable laws and regulations; and related administrative and communications skills.

Examples of included programs
- Wildlife management
- Wildlife studies
- Wildlife technician

Examples of excluded programs
- Range science [*see* 01.1106 Range Science and Management]
- Fish and wildlife law enforcement [*see* 03.0299 Natural Resources Management and Policy, Other]
- Wildlife biology [*see* 26.0709 Wildlife Biology]

03.99 Natural Resources and Conservation, Other

This subseries comprises instructional program class 03.9999.

03.9999 Natural Resources and Conservation, Other

This instructional program class comprises any program not listed above that relates to Natural Resources and Conservation.

Examples of included programs
- Fur trade
- Hunting
- Trapping

Examples of excluded programs
- Forest recreation technician [*see* 31.0101 Parks, Recreation and Leisure Studies]
- Parks management [*see* 31.0301 Parks, Recreation and Leisure Facilities Management]

04. Architecture and Related Services

This series comprises instructional programs that prepare individuals for professional practice in the various architecture-related fields and focus on the study of related aesthetic and socioeconomic aspects of the built environment.

04.02 Architecture (BArch, BA/BSc, MArch, MA/MSc, PhD)

This subseries comprises instructional program class 04.0201.

04.0201 Architecture (BArch, BA/BSc, MArch, MA/MSc, PhD)

This instructional program class comprises any program that prepares individuals for the independent professional practice of architecture and to conduct research in various aspects of the field or that provides instruction in basic principles, methods and concepts related to architecture. These programs include courses in architectural design, history, and theory; building structures and environmental systems; project and site planning; construction; professional responsibilities and standards; and related cultural, social, economic, and environmental issues.

Example of included programs
- Architectural science

Examples of excluded programs
- Architectural engineering [*see* 14.0401 Architectural Engineering]
- Naval architecture [*see* 14.2201 Naval Architecture and Marine Engineering]
- Architectural and building technology [*see* 15.0101 Architectural Engineering Technology/Technician]
- Architectural drafting [*see* 15.1303 Architectural Drafting and Architectural CAD/CADD]

04.03 City/Urban, Community and Regional Planning

This subseries comprises instructional program class 04.0301.

04.0301 City/Urban, Community and Regional Planning

This instructional program class comprises any program that prepares individuals to apply principles of planning, analysis, and architecture to the development and improvement of urban areas and surrounding regions, and to function as professional planners. These programs include courses in principles of architecture; master plan development; service, communications, and transportation systems design; community and commercial development; zoning; land use planning; applied economics; policy analysis; applicable laws and regulations; and professional responsibilities and managerial duties.

Examples of included programs
- Architecture and urban planning
- Architecture city planning
- Architecture planning
- Architecture town planning
- City and regional planning
- City planning
- Community and regional planning
- Community planning
- Municipal planning
- Municipal planning and development
- Planning and community development
- Regional and urban development
- Town planning
- Transportation planning
- Urban and regional planning
- Urban and rural planning
- Urban design
- Urban development
- Urban planning
- Urbanology

Examples of excluded programs
- Integrated land management [*see* 03.0206 Land Use Planning and Management/Development]
- Urban forestry [*see* 03.0508 Urban Forestry]
- Transportation engineering [*see* 14.0804 Transportation and Highway Engineering]
- Urban affairs [*see* 45.1201 Urban Studies/Affairs]

04.04 Environmental Design/Architecture

This subseries comprises instructional program class 04.0401.

04.0401 Environmental Design/Architecture

This instructional program class comprises any program that prepares individuals to design public and private spaces, indoor and outdoor, for leisure, recreational, commercial, and living purposes, and for professional practice as environmental designers and architects. These programs include courses in the design and planning of public and private open spaces and their relationship to buildings and other aspects of the built environment; facilities management; related aspects of interior design and architecture, landscape architecture, and urban planning; and professional responsibilities and standards.

Examples of included programs
- Environmental design
- Environmental design studies

Examples of excluded programs
- Environmental landscape management [*see* 01.0605 Landscaping and Groundskeeping]
- Landscape design [*see* 01.0605 Landscaping and Groundskeeping]
- Urban forestry [*see* 03.0508 Urban Forestry]
- Architectural drafting [*see* 15.1303 Architectural Drafting and Architectural CAD/CADD]
- Residential drafting and design [*see* 15.1303 Architectural Drafting and Architectural CAD/CADD]
- Human environments [*see* 19.0601 Housing and Human Environments, General]
- Interior environments [*see* 19.0601 Housing and Human Environments, General]
- Home decorating [*see* 19.0605 Home Furnishings and Equipment Installers]
- Interior decorating [*see* 19.0605 Home Furnishings and Equipment Installers]
- Industrial design [*see* 50.0404 Industrial Design]
- Interior design [*see* 50.0408 Interior Design]

04.05 Interior Architecture

This subseries comprises instructional program class 04.0501.

04.0501 Interior Architecture

This instructional program class comprises any program that prepares individuals to apply architectural principles in the design of structural interiors for living, recreational, and business purposes and to function as professional interior architects. These programs include courses in architecture, structural systems design, heating and cooling systems, occupational and safety standards, interior design, specific end-use applications, and professional responsibilities and standards.

Example of included programs
- Interior architecture

Examples of excluded programs
- Interior environments [*see* 19.0601 Housing and Human Environments, General]
- Interior decoration [*see* 19.0605 Home Furnishings and Equipment Installers]
- Interior design [*see* 50.0408 Interior Design]

04.06 Landscape Architecture (BSc, BSLA, BLA, MSLA, MLA, PhD)

This subseries comprises instructional program class 04.0601.

04.0601 Landscape Architecture (BSc, BSLA, BLA, MSLA, MLA, PhD)

This instructional program class comprises any program that prepares individuals for the independent professional practice of landscape architecture and research in various aspects of the field. These programs include courses in geology and hydrology; soils, groundcovers, and horticultural elements; project and site planning; landscape design, history, and theory; environmental design; applicable laws and regulations; and professional responsibilities and standards.

Examples of included programs
- Landscape architectural technology
- Landscaping architecture

Examples of excluded programs
- Horticulture [*see* 01.0601 Applied Horticulture/Horticulture Operations, General]
- Landscaping [*see* 01.0605 Landscaping and Groundskeeping]
- Horticultural science [*see* 01.1103 Horticultural Science]
- Environmental design [*see* 04.0401 Environmental Design/Architecture]

04.08 Architectural History and Criticism

This subseries comprises instructional program class 04.0801.

04.0801 Architectural History and Criticism

This instructional program class comprises any general program that focuses on the aesthetic, technical, and social development of the built environment and the architectural profession from earliest times to the present. These programs include courses in the principles of architecture and related fields; art history; historiography of architecture; architectural theory and criticism; related aspects of the history of technology and social and economic history; and various period, cultural, and stylistic specializations.

Examples of included programs
- Architectural history
- Architectural history and theory
- History and theory of architecture

Examples of excluded programs
- Historic preservation and conservation [*see* 30.1201 Historic Preservation and Conservation, General]
- Art history and criticism [*see* 50.0703 Art History, Criticism and Conservation]
- Historical studies [*see* 54.0101 History, General]

04.09 Architectural Technology/Technician

This subseries comprises instructional program class 04.0901.

04.0901 Architectural Technology/Technician

This instructional program class comprises any program that prepares individuals to assist architects in developing plans and related documentation and in performing architectural office services. These programs include courses in architectural drafting, computer-assisted drafting and design, construction methods and materials, environmental systems, building codes and standards, structural principles, cost estimation, planning documentation, visual communication skills, display production, and architectural office management.

Examples of included programs
- Architectural design
- Architectural design technology
- Architectural technology

Examples of excluded programs
- Architectural engineering [*see* 14.0401 Architectural Engineering]
- Naval architecture [*see* 14.2201 Naval Architecture and Marine Engineering]
- Architectural and building technology [*see* 15.0101 Architectural Engineering Technology/Technician]
- Architectural drafting [*see* 15.1303 Architectural Drafting and Architectural CAD/CADD]

04.99 Architecture and Related Services, Other

This subseries comprises instructional program class 04.9999.

04.9999 Architecture and Related Services, Other

This instructional program class comprises any program not listed above that relates to Architecture and Related Services.

05. Area, Ethnic, Cultural and Gender Studies

This series comprises instructional programs that focus on defined areas, regions, and countries of the world; defined minority groups within and across societies; and issues relevant to collective gender experience.

05.01 Area Studies

This subseries comprises instructional program classes 05.0101 to 05.0199.

05.0101 African Studies

This instructional program class comprises any program that focuses on the history, society, politics, culture, and economics of one or more of the peoples of the African Continent, usually with an emphasis on Africa south of the Sahara, and including the African diasporas overseas.

Example of included programs
- African studies

Examples of excluded programs
- African American studies [*see* 05.0201 African American/Black Studies]
- African languages and literature [*see* 16.0201 African Languages, Literatures and Linguistics]

05.0102 American/United States Studies/Civilization

This instructional program class comprises any program that focuses on the history, society, politics, culture, and economics of the United States and its pre-Columbian and colonial predecessors, and including the flow of immigrants from other societies.

Example of included programs
- American studies

Examples of excluded programs
- African American studies [*see* 05.0201 African American/Black Studies]
- Native American studies [*see* 05.0202 Aboriginal Studies]
- Hispanic American studies [*see* 05.0203 Hispanic American, Puerto Rican and Mexican American/Chicano Studies]
- Asian American studies [*see* 05.0206 Asian American Studies]
- American literature [*see* 23.0701 American Literature]
- American politics [*see* 45.1002 American Government and Politics (United States)]
- American history [*see* 54.0102 American History (United States)]

05.0103 Asian Studies/Civilization

This instructional program class comprises any program that focuses on the history, society, politics, culture, and economics of one or more of the peoples of the Asian Continent, including the study of the Asian diasporas overseas.

Examples of included programs
- Asian area studies
- Asian studies

Examples of excluded programs
- East Asian studies [*see* 05.0104 East Asian Studies]
- Asia Pacific studies [*see* 05.0109 Pacific Area/Pacific Rim Studies]
- South Asian studies [*see* 05.0112 South Asian Studies]
- Southeast Asian studies [*see* 05.0113 Southeast Asian Studies]
- Central Asian studies [*see* 05.0120 Ural-Altaic and Central Asian Studies]
- Asian history [*see* 54.0106 Asian History]

05.0104 East Asian Studies

This instructional program class comprises any program that focuses on the history, society, politics, culture, and economics of one or more of the peoples of East Asia, defined as including China, Korea, Japan, Mongolia, Taiwan, Tibet, related borderlands and island groups, and including the study of the East Asian diasporas overseas.

Example of included programs
- East Asian studies

Examples of excluded programs
- East Asian languages [*see* 16.0300 East Asian Languages, Literatures and Linguistics, General]
- Korean [*see* 16.0303 Korean Language and Literature]
- Korean language [*see* 16.0303 Korean Language and Literature]
- Korean literature [*see* 16.0303 Korean Language and Literature]
- Asian history [*see* 54.0106 Asian History]

05.0105 Central/Middle and Eastern European Studies

This instructional program class comprises any program that focuses on the history, society, politics, culture, and economics of one or more of the peoples of what is historically known as Central/Middle and Eastern Europe, defined as including Austria, the Balkans, the Baltic States, Belarus, Czech Republic, Hungary, Romania, Poland, Russia, Slovakia, Ukraine, related borderlands and island groups, and migration patterns.

Examples of included programs
- East European studies
- European and Russian studies
- Slavic and East European studies
- Soviet and East European studies

Examples of excluded programs
- Russian studies [*see* 05.0110 Russian Studies]
- Soviet studies [*see* 05.0110 Russian Studies]
- Balkan studies [*see* 05.0116 Balkan Studies]
- Baltic studies [*see* 05.0117 Baltic Studies]
- Polish studies [*see* 05.0129 Polish Studies]
- Ukrainian studies [*see* 05.0132 Ukraine Studies]

05.0106 European Studies/Civilization

This instructional program class comprises any program that focuses on the history, society, politics, culture, and economics of one or more of the peoples of the European Continent, including the study of European migration patterns and colonial empires.

Examples of included programs
- European integration studies
- European studies
- Modern European studies

Examples of excluded programs
- Scandinavian studies [*see* 05.0111 Scandinavian Studies]
- Western European studies [*see* 05.0114 Western European Studies]
- French studies [*see* 05.0124 French Studies]
- German studies [*see* 05.0125 German Studies]
- Italian studies [*see* 05.0126 Italian Studies]
- Spanish studies [*see* 05.0130 Spanish and Iberian Studies]
- European history [*see* 54.0103 European History]

05.0107 Latin American Studies

This instructional program class comprises any program that focuses on the history, society, politics, culture, and economics of one or more of the Hispanic peoples of the North and South American Continents outside Canada and the United States, including the study of the pre-Columbian period and the flow of immigrants from other societies.

Example of included programs
- Latin American studies

Examples of excluded programs
- Caribbean studies [*see* 05.0119 Caribbean Studies]
- Cuban American studies [*see* 05.0203 Hispanic American, Puerto Rican and Mexican American/Chicano Studies]
- Hispanic American studies [*see* 05.0203 Hispanic American, Puerto Rican and Mexican American/Chicano Studies]
- Mexican American studies [*see* 05.0203 Hispanic American, Puerto Rican and Mexican American/Chicano Studies]
- Puerto Rican studies [*see* 05.0203 Hispanic American, Puerto Rican and Mexican American/Chicano Studies]

05.0108 Near and Middle Eastern Studies

This instructional program class comprises any program that focuses on the history, society, politics, culture, and economics of one or more of the peoples of North Africa, Southwestern Asia, Asia Minor, and the Arabian Peninsula, related borderlands and island groups, and including emigrant and immigrant groups.

Examples of included programs
- Middle Eastern studies
- Near and Middle Eastern civilizations
- Near Eastern studies

Examples of excluded programs
- African studies [*see* 05.0101 African Studies]
- Asian studies [*see* 05.0103 Asian Studies/Civilization]
- Islamic studies [*see* 38.0205 Islamic Studies]
- Jewish studies [*see* 38.0206 Jewish/Judaic Studies]
- Middle East history [*see* 54.0199 History, Other]

05.0109 Pacific Area/Pacific Rim Studies

This instructional program class comprises any program that focuses on the history, society, politics, culture, and economics of one or more of the peoples of Australasia and the Pacific Ocean, related island groups and bordering coastal regions, and including precolonial and postcolonial migration patterns.

Examples of included programs
- Asia Pacific studies
- Pacific and Asian studies
- Pacific Rim studies

Examples of excluded programs
- Asian area studies [*see* 05.0103 Asian Studies/Civilization]
- Indo-Pacific languages [*see* 16.1401 Australian/Oceanic/Pacific Languages, Literatures and Linguistics]
- Oceanic languages and literature [*see* 16.1401 Australian/Oceanic/Pacific Languages, Literatures and Linguistics]

05.0110 Russian Studies

This instructional program class comprises any program that focuses on the history, society, politics, culture, and economics of one or more of the peoples of the Russian Federation and its Soviet, Czarist, and medieval predecessors and related borderlands.

Examples of included programs
- Russian studies
- Soviet studies

Examples of excluded programs
- European and Russian studies [*see* 05.0105 Central/Middle and Eastern European Studies]
- Soviet and East European studies [*see* 05.0105 Central/Middle and Eastern European Studies]
- Russian language and literature [*see* 16.0402 Russian Language and Literature]
- Russian history [*see* 54.0103 European History]

05.0111 Scandinavian Studies

This instructional program class comprises any program that focuses on the history, society, politics, culture, and economics of one or more of the peoples of Scandinavia, defined as Northern Europe including Denmark, Finland, Iceland, Norway, Sweden, related island groups (including Greenland), and borderlands.

Example of included programs
- Scandinavian studies

Examples of excluded programs
- Germanic languages [*see* 16.0500 Germanic Languages, Literatures and Linguistics, General]
- Scandinavian languages, literatures and linguistics [*see* 16.0502 Scandinavian Languages, Literatures and Linguistics]
- European history [*see* 54.0103 European History]

05.0112 South Asian Studies

This instructional program class comprises any program that focuses on the history, society, politics, culture, and economics of one or more of the peoples of South Asia, defined as including Afghanistan, India, the Maldives, Myanmar (Burma), Pakistan, and Sri Lanka and related borderlands and island groups; and including the study of migration patterns and overseas diasporas.

Example of included programs
- South Asian studies

Examples of excluded programs
- Asian area studies [*see* 05.0103 Asian Studies/Civilization]
- South Asian languages [*see* 16.0700 South Asian Languages, Literatures and Linguistics, General]
- Asian history [*see* 54.0106 Asian History]

05.0113 Southeast Asian Studies

This instructional program class comprises any program that focuses on the history, society, politics, culture, and economics of one or more of the peoples of Southeast Asia, defined as including Brunei, Cambodia, Indonesia, Laos, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam; related borderlands and island groups; and including the study of migration patterns and overseas diasporas.

Example of included programs
- Southeast Asian studies

Examples of excluded programs
- Asian area studies [*see* 05.0103 Asian Studies/Civilization]
- Southeast Asian languages [*see* 16.1400 Southeast Asian Languages, Literatures and Linguistics, General]
- Asian history [*see* 54.0106 Asian History]

05.0114 Western European Studies

This instructional program class comprises any program that focuses on the history, society, politics, culture, and economics of one or more of the peoples of historical Western Europe, defined as including Britain, Ireland, France, the Low Countries, the Iberian Peninsula, Italy, the Western Mediterranean, and related island groups and borderlands.

Examples of included programs
- West European studies
- Western European studies

Examples of excluded programs
- European studies [*see* 05.0106 European Studies/Civilization]
- European history [*see* 54.0103 European History]

05.0115 Canadian Studies

This instructional program class comprises any program that focuses on the history, society, politics, culture, and economics of one or more of the peoples of Canada and its pre-Columbian, colonial, and pre-Confederation predecessors, including immigrant flows and related borderlands and island groups.

Example of included programs
- Canadian studies

Examples of excluded programs
- Atlantic Canada studies [*see* 05.0122 Regional Studies (U.S., Canadian, Foreign)]
- English Canadian studies [*see* 05.0122 Regional Studies (U.S., Canadian, Foreign)]
- French studies [*see* 05.0124 French Studies]
- Canadian literature [*see* 23.0702 English Canadian Literature]
- Canadian government and politics [*see* 45.1003 Canadian Government and Politics]
- Canadian history [*see* 54.0107 Canadian History]

05.0116 Balkan Studies

This instructional program class comprises any program that focuses on the history, society, politics, culture, and economics of one or more of the peoples inhabiting the Balkan Peninsula and associated island groups and borderlands, Southern Slavic and non-Slavic, during the medieval, Ottoman, and modern periods.

Example of included programs
- Balkan studies

Examples of excluded programs
- Slavic and East European studies [*see* 05.0105 Central/Middle and Eastern European Studies]
- European history [*see* 54.0103 European History]

05.0117 Baltic Studies

This instructional program class comprises any program that focuses on the history, society, politics, culture, and economics of one or more of the peoples inhabiting the coastlands of the Baltic Sea, including Baltic, Germanic, Scandinavian, and Slavic populations, related borderlands and island groups, and problems of cultural survival and assimilation.

Example of included programs
- Baltic studies

Examples of excluded programs
- European studies [*see* 05.0106 European Studies/Civilization]
- Baltic languages [*see* 16.0401 Baltic Languages, Literatures and Linguistics]
- European history [*see* 54.0103 European History]

05.0118 Slavic Studies

This instructional program class comprises any program that focuses on the history, society, politics, culture, and economics of one or more of the Slavic peoples inhabiting Europe and Asia, and immigrant groups elsewhere, including the study of the emergence and migration patterns of Slavic culture, languages, and populations.

Example of included programs
- Slavic studies

Examples of excluded programs
- Slavic and East European studies [*see* 05.0105 Central/Middle and Eastern European Studies]
- Slavic languages and literature [*see* 16.0400 Slavic Languages, Literatures and Linguistics, General]
- European history [*see* 54.0103 European History]

05.0119 Caribbean Studies

This instructional program class comprises any program that focuses on the history, society, politics, culture, and economics of one or more of the peoples inhabiting the major islands and archipelagos of the Caribbean Sea and related coastal borderlands, including immigration patterns and pre-Columbian, colonial, and modern societies.

Example of included programs
- Caribbean studies

Examples of excluded programs
- Black studies [*see* 05.0201 African American/Black Studies]
- Aboriginal studies [*see* 05.0202 Aboriginal Studies]

05.0120 Ural-Altaic and Central Asian Studies

This instructional program class comprises any program that focuses on the history, society, politics, culture, and economics of one or more of the peoples and countries of Inner/Central Asia, including the Turkic and Mongolian inhabitants of the Caspian, Amur, Tien Shan, Baikal, Gobi, Siberian, and Manchurian areas and the historical Silk Road, in terms of their past and present development.

Example of included programs
- Central Asian studies

Examples of excluded programs
- East Asian studies [*see* 05.0104 East Asian Studies]
- Russian studies [*see* 05.0110 Russian Studies]
- Turkish [*see* 16.1501 Turkish Language and Literature]
- Mongolian [*see* 16.1504 Mongolian Language and Literature]
- Altaic [*see* 16.1599 Turkic, Ural-Altaic, Caucasian and Central Asian Languages, Literatures and Linguistics, Other]
- Asian history [*see* 54.0106 Asian History]

05.0121 Commonwealth Studies

This instructional program class comprises any program that focuses on the history, society, politics, culture, and economics of one or more of the peoples and countries comprising components of the historical British Empire and modern British Commonwealth, including migration patterns, shared sociocultural and political features and problems, and contemporary relations.

Example of included programs
- Commonwealth studies

Examples of excluded programs
- Western European studies [*see* 05.0114 Western European Studies]
- British history [*see* 54.0103 European History]

05.0122 Regional Studies (U.S., Canadian, Foreign)

This instructional program class comprises any program that focuses on the defined geographic subregions and subcultures within modern and historical countries and societies. These programs include courses on such topics as Acadian Studies, French Canadian and Quebec Studies, Southern (U.S.) Studies, Appalachian (U.S.) Studies, New England Studies, Southwestern Studies, Northern Studies, and others.

Examples of included programs
- Atlantic Canada studies
- English Canadian studies

Examples of excluded programs
- American studies [*see* 05.0102 American/United States Studies/Civilization]
- Canadian studies [*see* 05.0115 Canadian Studies]
- African American studies [*see* 05.0201 African American/Black Studies]
- Black Canadian studies [*see* 05.0201 African American/Black Studies]
- Native studies [*see* 05.0202 Aboriginal Studies]
- Hispanic American studies [*see* 05.0203 Hispanic American, Puerto Rican and Mexican American/Chicano Studies]
- Asian American studies [*see* 05.0206 Asian American Studies]

05.0123 Chinese Studies

This instructional program class comprises any program that focuses on the history, society, politics, culture, and economics of one or more of the peoples of present-day China and its historical predecessors, related borderlands and island groups, and the overseas Chinese diasporas.

Example of included programs
- Chinese studies

Examples of excluded programs
- Asian area studies [*see* 05.0103 Asian Studies/Civilization]
- Chinese language and literature [*see* 16.0301 Chinese Language and Literature]
- Chinese history [*see* 54.0106 Asian History]

05.0124 French Studies

This instructional program class comprises any program that focuses on the history, society, politics, culture, and economics of France, other Francophone countries inside and outside Europe, and the French colonial experience and the associated French minorities around the world.

Example of included programs
- French studies

Examples of excluded programs
- Western European studies [*see* 05.0114 Western European Studies]
- Canadian studies [*see* 05.0115 Canadian Studies]
- French language and literature [*see* 55.0101 French Language and Literature, General]
- French Canadian literature [*see* 55.0501 French Canadian Literature]
- Literature of France [*see* 55.0601 French Literature (France and the French Community)]

05.0125 German Studies

This instructional program class comprises any program that focuses on the history, society, politics, culture, and economics of Germany, the neighbouring countries of Austria and Switzerland, the German minorities in neighbouring European countries, and the historical areas of German influence across Europe and overseas.

Examples of included programs
- German studies
- Germanic studies

Examples of excluded programs
- Western European studies [*see* 05.0114 Western European Studies]
- German language and literature [*see* 16.0501 German Language and Literature]
- German history [*see* 54.0103 European History]

05.0126 Italian Studies

This instructional program class comprises any program that focuses on the history, society, politics, culture, and economics of modern Italy and its predecessors on the Italian Peninsula, including overseas migrations of Italian peoples.

Example of included programs
- Italian studies

Examples of excluded programs
- European studies [*see* 05.0106 European Studies/Civilization]
- Italian [*see* 16.0902 Italian Language and Literature]
- European history [*see* 54.0103 European History]

05.0127 Japanese Studies

This instructional program class comprises any program that focuses on the history, society, politics, culture, and economics of the peoples of Japan, and related island groups and coastal neighbours.

Example of included programs
- Japanese studies

Examples of excluded programs
- East Asian studies [*see* 05.0104 East Asian Studies]
- Japanese [*see* 16.0302 Japanese Language and Literature]
- Asian history [*see* 54.0106 Asian History]

05.0128 Korean Studies

This instructional program class comprises any program that focuses on the history, society, politics, culture, and economics of the peoples of Korea, including related island groups and borderlands.

Example of included programs
- Korean studies

Examples of excluded programs
- East Asian studies [*see* 05.0104 East Asian Studies]
- Korean [*see* 16.0303 Korean Language and Literature]
- Korean history [*see* 54.0106 Asian History]

05.0129 Polish Studies

This instructional program class comprises any program that focuses on the history, society, politics, culture, and economics of Poland and the current and historical inhabitants of the Polish lands, including borderlands, from earliest times to the present.

Example of included programs
- Polish studies

Examples of excluded programs
- European and Russian studies [*see* 05.0105 Central/Middle and Eastern European Studies]
- Polish [*see* 16.0407 Polish Language and Literature]
- European history [*see* 54.0103 European History]

05.0130 Spanish and Iberian Studies

This instructional program class comprises any program that focuses on the history, society, politics, culture, and economics of the peoples of the Iberian Peninsula and related island groups and border regions from earliest times to the present, with particular emphasis on the development of Spain and Portugal but including other historical and current cultures.

Examples of included programs
• Hispanic studies
• Spanish studies

Examples of excluded programs
• Western European studies [*see* 05.0114 Western European Studies]
• Portuguese language and literature [*see* 16.0904 Portuguese Language and Literature]
• Spanish language and literature [*see* 16.0905 Spanish Language and Literature]
• European history [*see* 54.0103 European History]

05.0131 Tibetan Studies

This instructional program class comprises any program that focuses on the history, society, politics, culture, and economics of Tibet and its borderlands, with emphasis on both premodern and modern Tibet and associated religious and exile movements.

Example of included programs
• Tibetan studies

Examples of excluded programs
• East Asian studies [*see* 05.0104 East Asian Studies]
• Tibetan language and literature [*see* 16.0304 Tibetan Language and Literature]
• Asian history [*see* 54.0106 Asian History]

05.0132 Ukraine Studies

This instructional program class comprises any program that focuses on the history, society, politics, culture, and economics of the Ukraine and its inhabitants, and related border regions, from earliest times to the present.

Example of included programs
• Ukrainian studies

Examples of excluded programs
• East European studies [*see* 05.0105 Central/Middle and Eastern European Studies]
• Ukrainian language and literature [*see* 16.0410 Ukrainian Language and Literature]
• European history [*see* 54.0103 European History]

05.0199 Area Studies, Other

This instructional program class comprises any program not listed above that relates to Area Studies.

Examples of excluded programs
• International studies [*see* 30.2001 International/Global Studies]
• Intercultural studies [*see* 30.2301 Intercultural/Multicultural and Diversity Studies]

05.02 Ethnic, Cultural Minority and Gender Studies

This subseries comprises instructional program classes 05.0201 to 05.0299.

05.0201 African American/Black Studies

This instructional program class comprises any program that focuses on the history, sociology, politics, culture, and economics of the North American peoples descended from the African diaspora; focusing on the United States, Canada, and the Caribbean, but also including reference to Latin American elements of the diaspora.

Examples of included programs
- African American studies
- Black Canadian studies
- Black studies

Examples of excluded programs
- African studies [*see* 05.0101 African Studies]
- American studies [*see* 05.0102 American/United States Studies/Civilization]
- African languages and literature [*see* 16.0201 African Languages, Literatures and Linguistics]

05.0202 Aboriginal Studies

This instructional program class comprises any program that focuses on the history, sociology, politics, culture, and economics of the aboriginal peoples of the Americas from earliest times until the present, with particular emphasis on U.S. and Canadian populations and their problems but including reference to Caribbean and Latin American native peoples.

Examples of included programs
- Aboriginal studies
- First Nations studies
- Inuit studies
- Native American studies
- Native studies

Examples of excluded programs
- American studies [*see* 05.0102 American/United States Studies/Civilization]
- Canadian studies [*see* 05.0115 Canadian Studies]
- Aboriginal language [*see* 16.1001 Aboriginal Languages, Literatures and Linguistics]

05.0203 Hispanic American, Puerto Rican and Mexican American/Chicano Studies

This instructional program class comprises any program that focuses on the history, sociology, politics, culture, and economics of one or more of the Hispanic American immigrant populations within the U.S., including Mexican American Studies, Cuban American Studies, Puerto Rican Studies, and others.

Examples of included programs
- Chicano studies
- Cuban American studies
- Hispanic American studies
- Mexican American studies
- Puerto Rican studies

Examples of excluded programs
- Latin American studies [*see* 05.0107 Latin American Studies]
- Hispanic studies [*see* 05.0130 Spanish and Iberian Studies]
- Spanish language and literature [*see* 16.0905 Spanish Language and Literature]

05.0206 Asian American Studies

This instructional program class comprises any program that focuses on the history, sociology, politics, culture, and economics of Asian population groups who have immigrated to the United States, or sought refugee asylum, from the colonial period to the present, and including Chinese Americans, Japanese Americans, Korean Americans, Vietnamese Americans, Cambodian Americans, and others.

Example of included programs
- Asian American studies

Examples of excluded programs
- American studies [*see* 05.0102 American/United States Studies/Civilization]
- Asian studies [*see* 05.0103 Asian Studies/Civilization]
- Oriental languages [*see* 16.0300 East Asian Languages, Literatures and Linguistics, General]

05.0207 Women's Studies

This instructional program class comprises any program that focuses on the history, sociology, politics, culture, and economics of women, and the development of modern feminism in relation to the roles played by women in different periods and locations in North America and the world. Programs may focus on literature, philosophy, and the arts as much as on social studies and policy.

Examples of included programs
- Women's studies
- Women's/gender studies

Examples of excluded programs
- Gender studies [*see* 05.0299 Ethnic, Cultural Minority and Gender Studies, Other]
- Political history [*see* 54.0199 History, Other]
- Women's history [*see* 54.0199 History, Other]

05.0208 Gay/Lesbian Studies

This instructional program class comprises any program that focuses on homosexuality in history, society, politics, and cultural life; usually with an emphasis on the modern emergence of gays and lesbians as a sociocultural minority movement, the identification of social, literary, and artistic themes and the definition of, and public policy and legal issues surrounding the gay and lesbian community.

Example of included programs
- Gay and lesbian studies

Example of excluded programs
- Intercultural studies [*see* 30.2301 Intercultural/Multicultural and Diversity Studies]

05.0299 Ethnic, Cultural Minority and Gender Studies, Other

This instructional program class comprises any program not listed above that relates to Ethnic, Cultural Minority and Gender Studies.

Example of included programs
- Gender studies

Examples of excluded programs
- International studies [*see* 30.2001 International/Global Studies]
- Intercultural studies [*see* 30.2301 Intercultural/Multicultural and Diversity Studies]

05.99 Area, Ethnic, Cultural and Gender Studies, Other

This subseries comprises instructional program class 05.9999.

05.9999 Area, Ethnic, Cultural and Gender Studies, Other

This instructional program class comprises any program not listed above that relates to Area, Ethnic, Cultural and Gender Studies.

Examples of excluded programs
- International studies [*see* 30.2001 International/Global Studies]
- Intercultural studies [*see* 30.2301 Intercultural/Multicultural and Diversity Studies]

09. Communication, Journalism and Related Programs

This series comprises instructional programs that focus on how messages in various media are produced, used, and interpreted within and across different contexts, channels, and cultures, and that prepare individuals to apply communication knowledge and skills professionally.

09.01 Communication and Media Studies

This subseries comprises instructional program classes 09.0101 to 09.0199.

09.0101 Communication Studies/Speech Communication and Rhetoric

This instructional program class comprises any program that focuses on the scientific, humanistic, and critical study of human communication in a variety of formats, media, and contexts. These programs include courses in the theory and practice of interpersonal, group, organizational, professional, and intercultural communication; speaking and listening; verbal and non-verbal interaction; rhetorical theory and criticism; performance studies; argumentation and persuasion; technologically mediated communication; popular culture; and various contextual applications.

Examples of included programs
- Communication studies
- Communications
- Speech communication

Examples of excluded programs
- Agricultural journalism [*see* 01.0802 Agricultural Communication/Journalism]
- Organizational communication [*see* 09.0901 Organizational Communication, General]
- Political communication [*see* 09.0904 Political Communication]
- Health communication [*see* 09.0905 Health Communication]
- Communications technician [*see* 10.0105 Communications Technology/Technician]
- Speech and rhetorical studies [*see* 23.1001 English Speech and Rhetorical Studies]
- Literacy and communication skills [*see* 32.0108 Literacy and Communication Skills]
- Communication sciences and disorders [*see* 51.0201 Communication Disorders, General]
- Speech therapy [*see* 51.0203 Speech-language Pathology/Pathologist]
- Business communications [*see* 52.0501 Business/Corporate Communications]

09.0102 Mass Communication/Media Studies

This instructional program class comprises any program that focuses on the analysis and criticism of media institutions and media texts, how people experience and understand media content, and the roles of media in producing and transforming culture. These programs include courses in communications regulation, law, and policy; media history; media aesthetics, interpretation, and criticism; the social and cultural effects of mass media; cultural studies; the economics of media industries; visual and media literacy; and the psychology and behavioural aspects of media messages, interpretation, and utilization.

Examples of included programs
- Mass communication
- Mass media
- Media communication
- Media studies

Examples of excluded programs
- Instructional media [*see* 13.0501 Educational/Instructional Media Design]
- Visual communications [*see* 50.0401 Design and Visual Communications, General]
- Film studies [*see* 50.0601 Film/Cinema Studies]
- Intermedia [*see* 50.0706 Intermedia/Multimedia]

09.0199 Communication and Media Studies, Other

This instructional program class comprises any program not listed above that relates to Communication and Media Studies.

Examples of included programs
- Communication and social justice
- Public communications
- Social communication

Example of excluded programs
- Family and consumer sciences/human sciences [*see* 19.0202 Family and Consumer Sciences/Human Sciences Communication]

09.04 Journalism

This subseries comprises instructional program classes 09.0401 to 09.0499.

09.0401 Journalism, General

This instructional program class comprises any program that focuses on the theory and practice of gathering, processing, and delivering news and that prepares individuals to be professional print journalists, news editors, and news managers. These programs include courses in news writing and editing; reporting; photojournalism; layout and graphic design; journalism law and policy; professional standards and ethics; research methods; and journalism history and criticism.

Examples of included programs
- Communication arts—journalism
- Communication arts—print journalism
- Journalism
- Print journalism

Examples of excluded programs
- Agricultural journalism [*see* 01.0802 Agricultural Communication/Journalism]
- Broadcast journalism [*see* 09.0402 Broadcast Journalism]
- Technical and professional writing [*see* 23.1101 English Technical and Business Writing]
- French technical and business writing [*see* 55.0801 French Technical and Business Writing]

09.0402 Broadcast Journalism

This instructional program class comprises any program that focuses on the methods and techniques for reporting, producing, and delivering news and news programs via radio, television, and video/film media; and that prepares individuals to be professional broadcast journalists, editors, producers, directors, and managers. These programs include courses in the principles of broadcast technology; broadcast reporting; on- and off-camera and microphone procedures and techniques; program, sound, and video/film editing; program design and production; media law and policy; and professional standards and ethics.

Examples of included programs
- Broadcast journalism
- Communication arts—broadcast journalism
- Communication arts—radio journalism
- Journalism and communications media
- Radio journalism

Examples of excluded programs
- Print journalism [*see* 09.0401 Journalism, General]
- Photojournalism [*see* 09.0404 Photojournalism]
- Radio and television arts [*see* 09.0701 Radio and Television]
- Broadcast technology [*see* 10.0202 Radio and Television Broadcasting Technology/Technician]

09.0404 Photojournalism

This instructional program class comprises any program that focuses on the use of still and motion photography in journalism and prepares individuals to function as news photographers and photographic editors. These programs include courses in photography, journalism, studio procedures and techniques, camera and equipment operation and technique, news editing, print and film editing, news scene composition, subject surveillance, media law and policy, news team field operations, and professional standards and ethics.

Example of included programs
- Photojournalism

Examples of excluded programs
- Photofinishing [*see* 10.0201 Photographic and Film/Video Technology/Technician and Assistant]
- Commercial photography [*see* 50.0406 Commercial Photography]
- Photographic arts [*see* 50.0605 Photography]

09.0499 Journalism, Other

This instructional program class comprises any program not listed above that relates to Journalism.

Example of included programs
- Journalism and communication

09.07 Radio, Television and Digital Communication

This subseries comprises instructional program classes 09.0701 to 09.0799.

09.0701 Radio and Television

This instructional program class comprises any program that focuses on the theories, methods, and techniques used to plan, produce, and distribute audio and video programs and messages, and that prepares

individuals to function as staff, producers, directors, and managers of radio and television shows and media organizations. These programs include courses in media aesthetics; planning, scheduling, and production; writing and editing; performing and directing; personnel and facilities management; marketing and distribution; media regulations, law, and policy; and principles of broadcast technology.

Examples of included programs
- Radio and television
- Radio and television arts
- Television and new media production
- Television producing and writing

Examples of excluded programs
- Broadcasting—television and communications media [*see* 10.0202 Radio and Television Broadcasting Technology/Technician]
- Radio technology [*see* 10.0202 Radio and Television Broadcasting Technology/Technician]
- Recording arts [*see* 10.0203 Recording Arts Technology/Technician]
- Film studies [*see* 50.0601 Film/Cinema Studies]
- Film production [*see* 50.0602 Cinematography and Film/Video Production]

09.0702 Digital Communication and Media/Multimedia

This instructional program class comprises any program that focuses on the development, use, and regulation of new electronic communication technologies using computer applications and that prepares individuals to function as developers and managers of digital communications media. These programs include courses in the principles of computers and telecommunications technologies and processes; design and development of digital communications; marketing and distribution; digital communications regulation, law, and policy; the study of human interaction with, and use of, digital media; and emerging trends and issues.

Examples of included programs
- Digital communications
- Digital media

Examples of excluded programs
- Communications technology [*see* 10.0105 Communications Technology/Technician]
- Digital media technology [*see* 11.0801 Web Page, Digital/Multimedia and Information Resources Design]
- Instructional media [*see* 13.0501 Educational/Instructional Media Design]
- Wireless communications technology [*see* 15.0305 Telecommunications Technology/Technician]
- Computer systems—digital processing [*see* 15.1202 Computer Technology/Computer Systems Technology]
- Multimedia art [*see* 50.0706 Intermedia/Multimedia]

09.0799 Radio, Television and Digital Communication, Other

This instructional program class comprises any program not listed above that relates to Radio, Television and Digital Communication.

09.09 Public Relations, Advertising and Applied Communication

This subseries comprises instructional program classes 09.0901 to 09.0999.

09.0901 Organizational Communication, General

This instructional program class comprises any program that focuses on general communication processes and dynamics within organizations. These programs include courses in the development and maintenance

of interpersonal group relations within organizations; decision-making and conflict management; the use of symbols to create and maintain organizational images, missions, and values; power and politics within organizations; human interaction with computer technology; and how communications socialize and support employees and team members.

Example of included programs
- Organizational communication

Examples of excluded programs
- Organizational psychology [*see* 42.0901 Industrial and Organizational Psychology]
- Non-profit management [*see* 52.0206 Non-profit/Public/Organizational Management]
- Business communications [*see* 52.0501 Business/Corporate Communications]
- Organizational behaviour [*see* 52.1003 Organizational Behaviour Studies]

09.0902 Public Relations/Image Management

This instructional program class comprises any program that focuses on the theories and methods for managing the media image of a business, organization, or individual and the communication process with stakeholders, constituencies, audiences, and the general public; and that prepares individuals to function as public relations assistants, technicians, and managers. These programs include courses in public relations theory; related principles of advertising, marketing, and journalism; message/image design; image management; special event management; media relations; community relations; public affairs; and internal communications.

Examples of included programs
- Public relations
- Public relations and communication management
- Public relations management

Examples of excluded programs
- Creative advertising [*see* 09.0903 Advertising]
- Political communication [*see* 09.0904 Political Communication]
- Government administration [*see* 44.0401 Public Administration]
- Political science [*see* 45.1001 Political Science and Government, General]
- Marketing [*see* 52.1401 Marketing/Marketing Management, General]

09.0903 Advertising

This instructional program class comprises any program that focuses on the creation, execution, transmission, and evaluation of commercial messages in various media intended to promote and sell products, services, and brands; and that prepares individuals to function as advertising assistants, technicians, and managers. These programs include courses in advertising theory, marketing strategy, advertising design and production methods, campaign methods and techniques, media management, related principles of business management, and applicable technical and equipment skills.

Examples of included programs
- Advertising
- Communication arts—creative advertising
- Creative advertising
- Marketing communication

Examples of excluded programs
- Advertising design [*see* 50.0402 Commercial and Advertising Art]
- Marketing [*see* 52.1401 Marketing/Marketing Management, General]
- Marketing research [*see* 52.1402 Marketing Research]
- Media marketing and sales [*see* 52.1909 Special Products Marketing Operations]

09.0904 Political Communication

This instructional program class comprises any program that focuses on human and media communication in the political process and that prepares individuals to function as members of political and public affairs organizations, political campaign staffs, and related government and media entities. These programs include courses in media effects, political speaking and debating, political advertising and marketing, image management, political journalism, opinion polling, and aspects of print and broadcast media related to the production and distribution of media messages in political settings.

Example of included programs
- Political communication

Examples of excluded programs
- Public relations [*see* 09.0902 Public Relations/Image Management]
- Creative advertising [*see* 09.0903 Advertising]
- Government administration [*see* 44.0401 Public Administration]
- Political science [*see* 45.1001 Political Science and Government, General]
- American politics [*see* 45.1002 American Government and Politics (United States)]
- Canadian government and politics [*see* 45.1003 Canadian Government and Politics]

09.0905 Health Communication

This instructional program class comprises any program that focuses on how people, individually and collectively, understand and accommodate to health and illness and the role of communication and media in shaping professional health care messages and public acceptance of these messages. These programs include courses in the development and use of health-related and care-related messages and media; the goals and strategies of health care promotion; relationships, roles, situations, and social structures in the context of health maintenance and promotion; and applications to disease prevention, health advocacy, and communications concerning treatments.

Examples of included programs
- Biomedical communications
- Health communication

Examples of excluded programs
- Family and consumer sciences/human sciences [*see* 19.0202 Family and Consumer Sciences/Human Sciences Communication]
- Fitness and health promotion [*see* 31.0501 Health and Physical Education, General]
- Community health representative [*see* 51.1504 Community Health Services/Liaison/Counselling]
- Public health (MPH, DPH) [*see* 51.2201 Public Health, General (MPH, DPH)]
- Health promotion [*see* 51.2207 Public Health Education and Promotion]
- Community health management [*see* 51.2208 Community Health and Preventive Medicine]

09.0999 Public Relations, Advertising and Applied Communication, Other

This instructional program class comprises any program not listed above that relates to Public Relations, Advertising and Applied Communication.

Example of included programs
- Applied communication

Example of excluded programs
- Communications [*see* 09.0101 Communication Studies/Speech Communication and Rhetoric]

09.10 Publishing

This subseries comprises instructional program class 09.1001.

09.1001 Publishing

This instructional program class comprises any program that focuses on the process of managing the creation, publication, and distribution of print and electronic books and other text products and prepares individuals to manage the editorial, technical, and business aspects of publishing operations. These programs include courses in product planning and design, editing, author relations, business and copyright law, publishing industry operations, contracting and purchasing, product marketing, electronic publishing and commerce, history of publishing, and professional standards and ethics.

Examples of included programs
- Book and magazine publishing
- Communication arts—book and magazine publishing
- Copywriting
- Publishing
- Publishing—techniques and technologies

Examples of excluded programs
- Graphic communications management [*see* 10.0302 Printing Management]
- Desktop publishing [*see* 10.0303 Prepress/Desktop Publishing and Digital Imaging Design]

09.99 Communication, Journalism and Related Programs, Other

This subseries comprises instructional program class 09.9999.

09.9999 Communication, Journalism and Related Programs, Other

This instructional program class comprises any program not listed above that relates to Communication, Journalism and Related Programs.

10. Communications Technologies/Technicians and Support Services

This series comprises instructional programs that prepare individuals to function as equipment operators, support technicians, and operations managers in the film/video, recording, and graphic communications industries.

10.01 Communications Technology/Technician

This subseries comprises instructional program class 10.0105.

10.0105 Communications Technology/Technician

This instructional program class comprises any program that generally prepares individuals to function as workers and managers within communications industries. These programs include courses in business economics; basic management; principles of interpersonal and mediated communications; radio, television, and digital media production; and related aspects of technology and communications systems.

Examples of included programs
- Communications technician
- Communications technology

Examples of excluded programs
- Communication studies [*see* 09.0101 Communication Studies/Speech Communication and Rhetoric]
- Digital communications [*see* 09.0702 Digital Communication and Media/Multimedia]
- Communication engineering technology [*see* 15.0303 Electrical, Electronic and Communications Engineering Technology/Technician]
- Telecommunications technology [*see* 15.0305 Telecommunications Technology/Technician]

10.02 Audiovisual Communications Technologies/Technicians

This subseries comprises instructional program classes 10.0201 to 10.0299.

10.0201 Photographic and Film/Video Technology/Technician and Assistant

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to the operation and maintenance of camera and lighting equipment and the production of finished still, video, and film products under the supervision of photographers, directors, and editors. These programs include courses in equipment setup and maintenance; lighting; power supplies; studio and film set tasks such as camera operator, grip, and best boy; plate and negative handling and development; laboratory procedures; and digital software applications.

Examples of included programs
- Photo lab technician
- Photofinishing

Examples of excluded programs
- Photojournalism [*see* 09.0404 Photojournalism]
- Commercial photography [*see* 50.0406 Commercial Photography]
- Film and video production [*see* 50.0602 Cinematography and Film/Video Production]
- Photography [*see* 50.0605 Photography]

10.0202 Radio and Television Broadcasting Technology/Technician

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to the production of radio and television programs, and related operations, under the supervision of broadcast and studio managers, directors, editors, and producers. These programs include courses in sound, lighting, and camera operation and maintenance; power and feed control; studio operations; production preparation; broadcast engineering; related computer applications; and specialized applications such as news, entertainment, live talk, sports, commercials, and taping.

Examples of included programs
- Broadcast engineering technology
- Broadcast technology
- Broadcasting—television and communications media
- Radio technology

Examples of excluded programs
- Broadcast journalism [*see* 09.0402 Broadcast Journalism]
- Radio and television [*see* 09.0701 Radio and Television]
- Communications engineering [*see* 14.1001 Electrical, Electronics and Communications Engineering]
- Communication engineering technology [*see* 15.0303 Electrical, Electronic and Communications Engineering Technology/Technician]

10.0203 Recording Arts Technology/Technician

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to the production of sound recordings as finished products or as components of film/video, broadcast, live, or mixed media productions. These programs include courses in sound equipment operation and maintenance; music, dialogue, and sound effects recording; sound track editing; dubbing and mixing; sound engineering; tape, disk, and CD production; digital recording and transmission; amplification and modulation; and working with producers, editors, directors, artists, and production managers.

Examples of included programs
- Audio engineering
- Audio recording technology
- Music recording
- Music recording engineering
- Recording arts
- Recording engineering
- Sound engineering
- Sound technology

Examples of excluded programs
- Acoustic engineering [*see* 14.9999 Engineering, Other]
- Film and video production [*see* 50.0602 Cinematography and Film/Video Production]
- Music—interactive digital design [*see* 50.0904 Music Theory and Composition]
- Music production [*see* 50.0999 Music, Other]

10.0299 Audiovisual Communications Technologies/Technicians, Other

This instructional program class comprises any program not listed above that relates to Audiovisual Communications Technologies/Technicians.

Examples of included programs
- Audiovisual communications
- Audiovisual technician
- Projectionist

Examples of excluded programs
- 3D animation [*see* 10.0304 Animation, Interactive Technology, Video Graphics and Special Effects]
- Educational media [*see* 13.0501 Educational/Instructional Media Design]
- Film and video production [*see* 50.0602 Cinematography and Film/Video Production]

10.03 Graphic Communications

This subseries comprises instructional program classes 10.0301 to 10.0399.

10.0301 Graphic Communications, General

This instructional program class comprises any program that generally prepares individuals to apply technical knowledge and skills in the manufacture and distribution or transmission of graphic communications products. These programs include courses in the prepress, press, and postpress phases of production operations and processes such as offset lithography, flexography, gravure, letterpress, screen printing, foil stamping, digital imaging, and other reproduction methods.

Examples of included programs
- Graphic arts production
- Graphic communications
- Graphic production and printing

Examples of excluded programs
- Communication arts—creative advertising [*see* 09.0903 Advertising]
- Computer graphics [*see* 11.0803 Computer Graphics]
- Visual communications [*see* 50.0401 Design and Visual Communications, General]
- Creative advertising design [*see* 50.0402 Commercial and Advertising Art]
- Graphic design [*see* 50.0409 Graphic Design]

10.0302 Printing Management

This instructional program class comprises any program that prepares individuals to apply technical and managerial knowledge and skills to the processes and procedures of managing printing operations from initial design through finished product distribution. These programs include courses in the principles of graphic communications design and production; quality control; printing operations management; computerization; printing plant management; business finance and marketing; logistics and distribution; personnel supervision and leadership; and professional standards in the graphic communications industry.

Examples of included programs
- Graphic communications management
- Printing management
- Printing management technology

Examples of excluded programs
- Printing [*see* 10.0305 Graphic and Printing Equipment Operator, General Production]
- Printing press operator [*see* 10.0307 Printing Press Operator]
- Printmaking [*see* 50.0710 Printmaking]

10.0303 Prepress/Desktop Publishing and Digital Imaging Design

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to the layout, design and typographic arrangement of printed and/or electronic graphic and textual products. These programs include courses in printing and lithographic equipment and operations; computer hardware and software; digital imaging; print preparation; page layout and design; desktop publishing; and applicable principles of graphic design and web page design.

Examples of included programs
- Desktop publishing
- Digital imaging
- Electronic prepress
- Electronic publishing
- Graphic arts and prepress technology
- Graphic arts electronic prepress
- Graphic arts/printing (prepress)
- Graphic design for print and web
- Prepress
- Typesetting

Examples of excluded programs
- Digital media [*see* 09.0702 Digital Communication and Media/Multimedia]
- Publishing [*see* 09.1001 Publishing]
- Digital media technology [*see* 11.0801 Web Page, Digital/Multimedia and Information Resources Design]
- Web page design [*see* 11.0801 Web Page, Digital/Multimedia and Information Resources Design]

10.0304 Animation, Interactive Technology, Video Graphics and Special Effects

This instructional program class comprises any program that prepares individuals to use computer applications and related visual and sound imaging techniques to manipulate images and information originating as film, video, still photographs, digital copy, soundtracks, and physical objects in order to communicate messages simulating real-world content. These programs include courses in specialized camerawork and equipment operation and maintenance, image capture, computer programming, dubbing, CAD applications, and applications to specific commercial, industrial, and entertainment needs.

Examples of included programs
- 3D animation
- 3D animation and management
- 3D for production—broadcast design and animation
- 3D for production—games and interactive entertainment
- Classical animation
- Computer animation
- Digital animation
- Digital production and animation

Examples of excluded programs
- Photofinishing [*see* 10.0201 Photographic and Film/Video Technology/Technician and Assistant]
- 3D graphics technology [*see* 11.0803 Computer Graphics]
- Film and video production [*see* 50.0602 Cinematography and Film/Video Production]

10.0305 Graphic and Printing Equipment Operator, General Production

This instructional program class comprises any program that generally prepares individuals to apply technical knowledge and skills to plan, prepare, and execute a variety of commercial and industrial graphic communications jobs. These programs include courses in the operation and maintenance of mechanical, electronic, and digital graphic, printing, and finishing equipment; and related processes.

Examples of included programs
- Printing
- Printing production
- Printing technology
- Screen printing

Examples of excluded programs
- Graphic production and printing [*see* 10.0301 Graphic Communications, General]
- Printing press operator [*see* 10.0307 Printing Press Operator]
- Computer graphics [*see* 11.0803 Computer Graphics]
- Graphic design [*see* 50.0409 Graphic Design]

10.0306 Platemaker/Imager

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to prepare film, digital data, and surfaces to reproduce printed or graphic images. These programs include courses in platemaking, stripping, camerawork, imposition, digital imaging, computer direct-to-plate and direct-to-press, and related processes.

Examples of included programs
- Photo engraving
- Platemaking

Examples of excluded programs
- Digital imaging [*see* 10.0303 Prepress/Desktop Publishing and Digital Imaging Design]
- Graphic arts/printing (prepress) [*see* 10.0303 Prepress/Desktop Publishing and Digital Imaging Design]
- Printmaking [*see* 50.0710 Printmaking]

10.0307 Printing Press Operator

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to set up, operate, and maintain printing presses.

Examples of included programs
- Offset press operator
- Offset printing
- Press operator
- Printing press operator
- Printing pressman/woman

Examples of excluded programs
- Desktop publishing [*see* 10.0303 Prepress/Desktop Publishing and Digital Imaging Design]
- Printing production [*see* 10.0305 Graphic and Printing Equipment Operator, General Production]
- Printing technology [*see* 10.0305 Graphic and Printing Equipment Operator, General Production]

10.0308 Computer Typography and Composition Equipment Operator

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to design and execute page formats, layouts and text composition, and to make typographical selections using computer graphics and other computer-assisted design programs.

Examples of included programs
- Printing compositor
- Typography

Examples of excluded programs
- Desktop publishing [*see* 10.0303 Prepress/Desktop Publishing and Digital Imaging Design]
- Prepress [*see* 10.0303 Prepress/Desktop Publishing and Digital Imaging Design]
- Typesetting [*see* 10.0303 Prepress/Desktop Publishing and Digital Imaging Design]
- Computer graphics [*see* 11.0803 Computer Graphics]

10.0399 Graphic Communications, Other

This instructional program class comprises any program not listed above that relates to Graphic Communications.

Examples of included programs
- Bookbinding
- Graphic communications and production technology

Example of excluded programs
- Publishing—techniques and technologies [*see* 09.1001 Publishing]

10.99 Communications Technologies/Technicians and Support Services, Other

This subseries comprises instructional program class 10.9999.

10.9999 Communications Technologies/Technicians and Support Services, Other

This instructional program class comprises any program not listed above that relates to Communications Technologies/Technicians and Support Services.

11. Computer and Information Sciences and Support Services

This series comprises instructional programs that focus on the computer and information sciences and prepare individuals for various occupations in information technology and computer operations fields.

11.01 Computer and Information Sciences and Support Services, General

This subseries comprises instructional program class 11.0101 to 11.0199.

11.0101 Computer and Information Sciences, General

This instructional program class comprises any general program that focuses on computing, computer science, and information science and systems as part of a broad and/or interdisciplinary program. Such programs are undifferentiated as to title and content and are not to be confused with specific programs in computer science, information science, or related support services.

Examples of included programs
- Computing and information science
- Computing and information systems

Examples of excluded programs
- Computer information systems [*see* 11.0103 Information Technology]
- Information science [*see* 11.0401 Information Science/Studies]
- Computer science [*see* 11.0701 Computer Science]
- Computer technology [*see* 15.1202 Computer Technology/Computer Systems Technology]
- Library and information studies [*see* 25.0101 Library Science/Librarianship]
- Mathematics and computer science [*see* 30.0801 Mathematics and Computer Science]
- Accounting and computer science [*see* 30.1601 Accounting and Computer Science]
- Logic [*see* 38.0102 Logic]
- Information resources management [*see* 52.1206 Information Resources Management/Chief Information Officer (CIO) Training]

11.0102 Artificial Intelligence and Robotics

This instructional program class comprises any program that focuses on the symbolic inference, representation, and simulation by computers and software of human learning and reasoning processes and capabilities, and the modelling of human motor control and motions by computer-driven machinery. These programs include courses in computing theory, cybernetics, human factors, natural language processing, robot design, and applicable aspects of engineering, technology, and specific end-use applications.

Examples of included programs
- Artificial intelligence
- Robotics programming

Examples of excluded programs
- Hardware engineering [*see* 14.0902 Computer Hardware Engineering]
- Mechatronics engineering [*see* 14.9999 Engineering, Other]
- Robotic engineering [*see* 14.9999 Engineering, Other]
- Robotics and automation technology [*see* 15.0405 Robotics Technology/Technician]
- Computer hardware technology [*see* 15.1203 Computer Hardware Technology/Technician]

11.0103 Information Technology

This instructional program class comprises any program that focuses on the design of technological information systems, including computing systems, as solutions to business and research data and communications support needs. These programs include courses in the principles of computer hardware and software components, algorithms, databases, telecommunications, user tactics, application testing, and human interface design.

Examples of included programs
- Business information management
- Business information processing
- Business information systems
- Business information technology
- Computer information systems
- Information systems
- Information technology
- Technology information

Examples of excluded programs
- Computing and information systems [*see* 11.0101 Computer and Information Sciences, General]
- Information science [*see* 11.0401 Information Science/Studies]
- Computer science [*see* 11.0701 Computer Science]
- Computer systems technology [*see* 15.1202 Computer Technology/Computer Systems Technology]
- Computer hardware technology [*see* 15.1203 Computer Hardware Technology/Technician]
- Management information systems [*see* 52.1201 Management Information Systems, General]

11.0199 Computer and Information Sciences and Support Services, General, Other

This instructional program class comprises any program not listed above that relates to Computer and Information Sciences and Support Services, General.

Examples of excluded programs
- Computing and information science [*see* 11.0101 Computer and Information Sciences, General]
- Information technology [*see* 11.0103 Information Technology]
- Computer science [*see* 11.0701 Computer Science]

11.02 Computer Programming

This subseries comprises instructional program classes 11.0201 to 11.0299.

11.0201 Computer Programming/Programmer, General

This instructional program class comprises any program that focuses on the general writing and implementation of generic and customized programs to drive operating systems and that generally prepares individuals to apply the methods and procedures of software design and programming to software installation and maintenance. These programs include courses in software design, low- and high-level

languages and program writing; program customization and linking; prototype testing; troubleshooting; and related aspects of operating systems and networks.

Examples of included programs
- Computer applications development
- Computer programmer
- Computer programming
- Computer programming technology
- Programming

Examples of excluded programs
- Business computer programming [*see* 11.0202 Computer Programming, Specific Applications]
- Microsoft certified systems engineer (MCSE) [*see* 11.0203 Computer Programming, Vendor/Product Certification]
- Programmer-analyst [*see* 11.0501 Computer Systems Analysis/Analyst]
- Web design and development [*see* 11.0801 Web Page, Digital/Multimedia and Information Resources Design]
- Database developer [*see* 11.0802 Data Modelling/Warehousing and Database Administration]
- Computer systems technology [*see* 15.1202 Computer Technology/Computer Systems Technology]
- Software systems development [*see* 15.1204 Computer Software Technology/Technician]

11.0202 Computer Programming, Specific Applications

This instructional program class comprises any program that prepares individuals to apply the knowledge and skills of general computer programming to the solution of specific operational problems and customization requirements presented by individual software users and organizational users. Includes training in specific types of software and its installation and maintenance.

Example of included programs
- Business computer programming

Examples of excluded programs
- Computer programming [*see* 11.0201 Computer Programming/Programmer, General]
- Microsoft certified systems engineer (MCSE) [*see* 11.0203 Computer Programming, Vendor/Product Certification]
- E-media development technology [*see* 11.0801 Web Page, Digital/Multimedia and Information Resources Design]
- Web design and development [*see* 11.0801 Web Page, Digital/Multimedia and Information Resources Design]
- Database developer [*see* 11.0802 Data Modelling/Warehousing and Database Administration]
- Software engineering [*see* 14.0903 Computer Software Engineering]
- Computer software technology [*see* 15.1204 Computer Software Technology/Technician]

11.0203 Computer Programming, Vendor/Product Certification

This instructional program class comprises any program that prepares individuals to fulfill the requirements set by vendors for professional qualification as certified installation, customization, and maintenance engineers for specific software products and/or processes. Includes training in specific vendor supported software products and their installation and maintenance.

Examples of included programs
- Microsoft certification (programming)
- Microsoft certified systems engineer (MCSE)
- Sun certified Java programmer

Examples of excluded programs
- Computer programming [*see* 11.0201 Computer Programming/Programmer, General]
- Business computer programming [*see* 11.0202 Computer Programming, Specific Applications]
- Software engineering [*see* 14.0903 Computer Software Engineering]
- Computer software technology [*see* 15.1204 Computer Software Technology/Technician]

11.0299 Computer Programming, Other

This instructional program class comprises any program not listed above that relates to Computer Programming.

Examples of excluded programs
- Computer programming [*see* 11.0201 Computer Programming/Programmer, General]
- Business computer programming [*see* 11.0202 Computer Programming, Specific Applications]
- Microsoft certified systems engineer (MCSE) [*see* 11.0203 Computer Programming, Vendor/Product Certification]
- E-media development technology [*see* 11.0801 Web Page, Digital/Multimedia and Information Resources Design]
- Web design and development [*see* 11.0801 Web Page, Digital/Multimedia and Information Resources Design]
- Database developer [*see* 11.0802 Data Modelling/Warehousing and Database Administration]

11.03 Data Processing and Data Processing Technology/Technician

This subseries comprises instructional program class 11.0301.

11.0301 Data Processing and Data Processing Technology/Technician

This instructional program class comprises any program that prepares individuals to master and use computer software programs and applications for inputting, verifying, organizing, storing, retrieving, transforming (changing, updating, and deleting), and extracting information. These programs include courses in using various operating system configurations and in types of data entry such as word processing, spreadsheets, calculators, management programs, design programs, database programs, and research programs.

Examples of included programs
- Data processing
- Data processing technology
- Data processor
- Electronic data processing

Examples of excluded programs
- Data entry [*see* 11.0601 Data Entry/Microcomputer Applications, General]
- Word processing [*see* 11.0602 Word Processing]
- Applied business technology [*see* 52.0407 Business/Office Automation/Technology/Data Entry]

11.04 Information Science/Studies

This subseries comprises instructional program class 11.0401.

11.0401 Information Science/Studies

This instructional program class comprises any program that focuses on the theory, organization, and process of information collection, transmission, and utilization in traditional and electronic forms.

These programs include courses in information classification and organization; information storage and processing; transmission, transfer, and signalling; communications and networking; systems planning and design; human interfacing and use analysis; database development; information policy analysis; and related aspects of hardware, software, economics, social factors, and capacity.

Examples of included programs
- Health information science
- Information science
- Information studies

Examples of excluded programs
- Computing and information science [*see* 11.0101 Computer and Information Sciences, General]
- Information technology [*see* 11.0103 Information Technology]
- Computer science [*see* 11.0701 Computer Science]
- Library and information studies [*see* 25.0101 Library Science/Librarianship]
- Systems science [*see* 30.0601 Systems Science and Theory]
- Management information systems [*see* 52.1201 Management Information Systems, General]

11.05 Computer Systems Analysis/Analyst

This subseries comprises instructional program class 11.0501.

11.0501 Computer Systems Analysis/Analyst

This instructional program class comprises any program that prepares individuals to apply programming and systems analysis principles to the selection, implementation, and troubleshooting of customized computer and software installations across the life cycle. These programs include courses in computer hardware and software; compilation, composition, execution, and operating systems; low- and high-level languages and language programming; programming and debugging techniques; installation and maintenance testing and documentation; process and data flow analysis; user needs analysis and documentation; cost-benefit analysis; and specification design.

Examples of included programs
- Computer analyst
- Computer programmer-analyst
- Programmer analyst—business
- Programmer-analyst
- Systems analyst

Examples of excluded programs
- Computer programming [*see* 11.0201 Computer Programming/Programmer, General]
- Computer science [*see* 11.0701 Computer Science]
- Computer systems—computer systems foundations [*see* 15.1202 Computer Technology/Computer Systems Technology]
- Software systems development [*see* 15.1204 Computer Software Technology/Technician]
- Systems science [*see* 30.0601 Systems Science and Theory]

11.06 Data Entry/Microcomputer Applications

This subseries comprises instructional program classes 11.0601 to 11.0699.

11.0601 Data Entry/Microcomputer Applications, General

This instructional program class comprises any program that generally prepares individuals to perform basic data and text entry using standard and customized software products. These programs include

courses in keyboarding skills, personal computer and work station operation, reading draft texts and raw data forms, audio and tape dictation, and various interactive software programs used for tasks such as word processing, spreadsheets, databases, and others.

Examples of included programs
- Data entry
- Data entry clerk
- Data entry operator
- Keypunch
- Keypunch operator

Examples of excluded programs
- Typesetting [*see* 10.0303 Prepress/Desktop Publishing and Digital Imaging Design]
- Data processing [*see* 11.0301 Data Processing and Data Processing Technology/Technician]
- Word processing [*see* 11.0602 Word Processing]
- Medical insurance coding [*see* 51.0713 Medical Insurance Coding Specialist/Coder]
- Applied business technology [*see* 52.0407 Business/Office Automation/Technology/Data Entry]

11.0602 Word Processing

This instructional program class comprises any program that prepares individuals to perform text typing, table construction, and document formatting tasks on personal computers at a high rate of accuracy and proficiency. These programs include courses in keyboarding skills, word processor operation, textual draft interpretation, audio and tape dictation, and specific word processing program software.

Example of included programs
- Word processing

Examples of excluded programs
- Desktop publishing [*see* 10.0303 Prepress/Desktop Publishing and Digital Imaging Design]
- Data processing [*see* 11.0301 Data Processing and Data Processing Technology/Technician]
- Data entry [*see* 11.0601 Data Entry/Microcomputer Applications, General]
- Secretarial science [*see* 52.0401 Administrative Assistant and Secretarial Science, General]
- Applied business technology [*see* 52.0407 Business/Office Automation/Technology/Data Entry]
- Dicta-typing [*see* 52.0408 General Office Occupations and Clerical Services]

11.0699 Data Entry/Microcomputer Applications, Other

This instructional program class comprises any program not listed above that relates to Data Entry/Microcomputer Applications.

Examples of excluded programs
- Data processing [*see* 11.0301 Data Processing and Data Processing Technology/Technician]
- Data entry [*see* 11.0601 Data Entry/Microcomputer Applications, General]
- Word processing [*see* 11.0602 Word Processing]
- Applied business technology [*see* 52.0407 Business/Office Automation/Technology/Data Entry]

11.07 Computer Science

This subseries comprises instructional program class 11.0701.

11.0701 Computer Science

This instructional program class comprises any general program that focuses on computers, computing problems and solutions, and the design of computer systems and user interfaces from a scientific

perspective. These programs include courses in the principles of computational science, and computing theory; computer hardware design; computer development and programming; and applications to a variety of end-use situations.

Examples of included programs
- Computer science
- Computer science technology
- Computing science

Examples of excluded programs
- Computing and information science [*see* 11.0101 Computer and Information Sciences, General]
- Programmer-analyst [*see* 11.0501 Computer Systems Analysis/Analyst]
- Computer systems engineering [*see* 14.0901 Computer Engineering, General]
- Hardware engineering [*see* 14.0902 Computer Hardware Engineering]
- Software engineering [*see* 14.0903 Computer Software Engineering]
- Computer electronics technician [*see* 15.1201 Computer Engineering Technology/Technician, General]
- Computer systems—computer systems foundations [*see* 15.1202 Computer Technology/Computer Systems Technology]
- Computer hardware technology [*see* 15.1203 Computer Hardware Technology/Technician]
- Software systems development [*see* 15.1204 Computer Software Technology/Technician]
- Bioinformatics [*see* 26.1103 Bioinformatics]
- Mathematics and computer science [*see* 30.0801 Mathematics and Computer Science]
- Accounting and computer science [*see* 30.1601 Accounting and Computer Science]
- Medical informatics [*see* 51.2706 Medical Informatics]

11.08 Computer Software and Media Applications

This subseries comprises instructional program classes 11.0801 to 11.0899.

11.0801 Web Page, Digital/Multimedia and Information Resources Design

This instructional program class comprises any program that prepares individuals to apply HTML, XML, Javascript, graphics applications, and other authoring tools to the design, editing, and publishing (launching) of documents, images, graphics, sound, and multimedia products on the World Wide Web. These programs include courses in Internet theory; web page standards and policies; elements of web page design; user interfaces; vector tools; special effects; interactive and multimedia components; search engines; navigation; morphing; e-commerce tools; and emerging web technologies.

Examples of included programs
- Digital media technology
- E-media development technology
- Interactive multimedia and design
- Internet website development
- Web design
- Web design and development
- Web developer
- Web page design
- Web site design

Examples of excluded programs
- Digital media [*see* 09.0702 Digital Communication and Media/Multimedia]
- Graphic design for print and web [*see* 10.0303 Prepress/Desktop Publishing and Digital Imaging Design]
- Digital production and animation [*see* 10.0304 Animation, Interactive Technology, Video Graphics and Special Effects]
- Computer programmer [*see* 11.0201 Computer Programming/Programmer, General]
- Webmaster [*see* 11.1004 Web/Multimedia Management and Webmaster]
- Graphic design [*see* 50.0409 Graphic Design]
- Multimedia art [*see* 50.0706 Intermedia/Multimedia]
- E-commerce [*see* 52.0208 E-commerce/Electronic Commerce]

11.0802 Data Modelling/Warehousing and Database Administration

This instructional program class comprises any program that prepares individuals to design and manage the construction of databases and related software programs and applications, including the linking of individual data sets to create complex searchable databases (warehousing) and the use of analytical search tools (mining). These programs include courses in database theory, logic, and semantics; operational and warehouse modelling; dimensionality; attributes and hierarchies; data definition; technical architecture; access and security design; integration; formatting and extraction; data delivery; index design; implementation problems; planning and budgeting; and client and networking issues.

Examples of included programs
- Data warehousing
- Database administration
- Database developer
- Database management
- Enterprise database management

Examples of excluded programs
- Computer programming [*see* 11.0201 Computer Programming/Programmer, General]
- Business computer programming [*see* 11.0202 Computer Programming, Specific Applications]
- Computer software engineering [*see* 14.0903 Computer Software Engineering]
- Computer software technology [*see* 15.1204 Computer Software Technology/Technician]
- Warehouse technician [*see* 47.0409 Parts and Warehousing Operations and Maintenance Technology/Technician]
- Warehouse management [*see* 52.0409 Parts, Warehousing and Inventory Management Operations]
- Management information systems [*see* 52.1201 Management Information Systems, General]

11.0803 Computer Graphics

This instructional program class comprises any program that focuses on the software, hardware, and mathematical tools used to represent, display, and manipulate topological two- and three-dimensional objects on a computer screen and that prepares individuals to function as computer graphics specialists. These programs include courses in graphics software and systems; digital multimedia; graphic design; graphics devices, processors, and standards; attributes and transformations; projections; surface identification and rendering; colour theory and application; and applicable geometry and algorithms.

Examples of included programs
- 3D graphics technology
- Computer graphics

Examples of excluded programs
- Graphic design for print and web [*see* 10.0303 Prepress/Desktop Publishing and Digital Imaging Design]
- 3D animation [*see* 10.0304 Animation, Interactive Technology, Video Graphics and Special Effects]
- Computer animation [*see* 10.0304 Animation, Interactive Technology, Video Graphics and Special Effects]
- Digital media technology [*see* 11.0801 Web Page, Digital/Multimedia and Information Resources Design]
- Computer software technology [*see* 15.1204 Computer Software Technology/Technician]
- Computer-aided design [*see* 15.1302 CAD/CADD Drafting and/or Design Technology/Technician]
- Graphic design [*see* 50.0409 Graphic Design]

11.0899 Computer Software and Media Applications, Other

This instructional program class comprises any program not listed above that relates to Computer Software and Media Applications.

Examples of excluded programs
- Digital media [*see* 09.0702 Digital Communication and Media/Multimedia]
- Interactive multimedia and design [*see* 11.0801 Web Page, Digital/Multimedia and Information Resources Design]
- Instructional media [*see* 13.0501 Educational/Instructional Media Design]
- Computer software technology [*see* 15.1204 Computer Software Technology/Technician]
- Multimedia art [*see* 50.0706 Intermedia/Multimedia]

11.09 Computer Systems Networking and Telecommunications

This subseries comprises instructional program class 11.0901.

11.0901 Computer Systems Networking and Telecommunications

This instructional program class comprises any program that focuses on the design, implementation, and management of linked systems of computers, peripherals, and associated software to maximize efficiency and productivity, and that prepares individuals to function as network specialists and managers at various levels. These programs include courses in operating systems and applications; systems design and analysis; networking theory and solutions; types of networks; network management and control; network and flow optimization; security; configuring; and troubleshooting.

Examples of included programs
- Computer networking technology
- Network technology
- Wide area technology

Examples of excluded programs
- Computer and network support technician [*see* 11.1001 System Administration/Administrator]
- Network management [*see* 11.1002 System, Networking and LAN/WAN Management/Manager]
- Network engineering [*see* 14.0999 Computer Engineering, Other]
- Network telecommunications engineering technology [*see* 15.0305 Telecommunications Technology/Technician]
- Computer systems—client server [*see* 15.1202 Computer Technology/Computer Systems Technology]
- Computer hardware technology [*see* 15.1203 Computer Hardware Technology/Technician]
- Computer systems service technician [*see* 47.0104 Computer Installation and Repair Technology/Technician]

11.10 Computer/Information Technology Administration and Management

This subseries comprises instructional program classes 11.1001 to 11.1099.

11.1001 System Administration/Administrator

This instructional program class comprises any program that prepares individuals to manage the computer operations and control the system configurations emanating from a specific site or network hub. These programs include courses in computer hardware and software and applications; local area (LAN) and wide area (WAN) networking; principles of information systems security; disk space and traffic load monitoring; data backup; resource allocation; and setup and takedown procedures.

Examples of included programs
- Computer and network support technician
- Computer networking and technical support
- Computer support specialist
- Computer systems technician—networking
- Local area network (LAN)
- Network design and administrative technician
- Network support technician
- Systems administration

Examples of excluded programs
- Wide area technology [*see* 11.0901 Computer Systems Networking and Telecommunications]
- Network management [*see* 11.1002 System, Networking and LAN/WAN Management/Manager]
- Computer systems—client server [*see* 15.1202 Computer Technology/Computer Systems Technology]
- Computer hardware technology [*see* 15.1203 Computer Hardware Technology/Technician]
- Computer systems service technician [*see* 47.0104 Computer Installation and Repair Technology/Technician]
- Management information systems [*see* 52.1201 Management Information Systems, General]

11.1002 System, Networking and LAN/WAN Management/Manager

This instructional program class comprises any program that prepares individuals to oversee and regulate the computer system and performance requirements of an entire organization or network of satellite users. These programs include courses in performance balancing; redundancy; local area (LAN) and wide area (WAN) network management; system migration and upgrading; outage control; problem diagnosis and troubleshooting; and system maintenance budgeting and management.

Example of included programs
- Network management

Examples of excluded programs
- Systems analyst [*see* 11.0501 Computer Systems Analysis/Analyst]
- Wide area technology [*see* 11.0901 Computer Systems Networking and Telecommunications]
- Local area network (LAN) [*see* 11.1001 System Administration/Administrator]
- Network security and connectivity [*see* 11.1003 Computer and Information Systems Security]
- Network engineering [*see* 14.0999 Computer Engineering, Other]
- Management information systems [*see* 52.1201 Management Information Systems, General]

11.1003 Computer and Information Systems Security

This instructional program class comprises any program that prepares individuals to assess the security needs of computer and network systems, recommend safeguard solutions, and manage the implementation and maintenance of security devices, systems, and procedures. These programs include courses in computer

architecture, programming, and systems analysis; networking; telecommunications; cryptography; security system design; applicable laws and regulations; risk assessment and policy analysis; contingency planning; user access issues; investigation techniques; and troubleshooting.

Examples of included programs
- Computer security and investigations
- Cyberspace security
- Information systems security
- Network security and connectivity

Examples of excluded programs
- Systems analyst [*see* 11.0501 Computer Systems Analysis/Analyst]
- Systems administration [*see* 11.1001 System Administration/Administrator]
- Security [*see* 43.0109 Security and Loss Prevention Services]

11.1004 Web/Multimedia Management and Webmaster

This instructional program class comprises any program that prepares individuals to develop and maintain web servers and the hosted web pages at one or a group of web sites, and to function as designated webmasters. These programs include courses in computer systems and networks; server installation and maintenance; web page design and editing; information resources management; web policy and procedures; Internet applications of information systems security; user interfacing and usability research; and relevant management and communications skills.

Examples of included programs
- Web site administration
- Webmaster

Examples of excluded programs
- Graphic design for print and web [*see* 10.0303 Prepress/Desktop Publishing and Digital Imaging Design]
- Web design and development [*see* 11.0801 Web Page, Digital/Multimedia and Information Resources Design]

11.1099 Computer/Information Technology Administration and Management, Other

This instructional program class comprises any program not listed above that relates to Computer/Information Technology Administration and Management.

Examples of excluded programs
- Systems administration [*see* 11.1001 System Administration/Administrator]
- Network management [*see* 11.1002 System, Networking and LAN/WAN Management/Manager]
- Web site administration [*see* 11.1004 Web/Multimedia Management and Webmaster]
- Management information systems [*see* 52.1201 Management Information Systems, General]
- Information resources management [*see* 52.1206 Information Resources Management/Chief Information Officer (CIO) Training]

11.99 Computer and Information Sciences and Support Services, Other

This subseries comprises instructional program class 11.9999.

11.9999 Computer and Information Sciences and Support Services, Other

This instructional program class comprises any program not listed above that relates to Computer and Information Sciences and Support Services.

12. Personal and Culinary Services

This series comprises instructional programs that prepare individuals to provide professional services related to cosmetology, funeral services, and food preparation and service.

12.03 Funeral Service and Mortuary Science

This subseries comprises instructional program classes 12.0301 to 12.0399.

12.0301 Funeral Service and Mortuary Science, General

This instructional program class comprises any program that generally prepares individuals for careers in the funeral service industry and for licensure as funeral service directors or morticians. These programs include courses in the basic elements of mortuary science and the business, counselling, and operational aspects of funeral service.

Examples of included programs
- Funeral and allied health services
- Funeral directing and embalming
- Funeral industry
- Mortician
- Mortuary science

Examples of excluded programs
- Funeral director [*see* 12.0302 Funeral Direction/Service]
- Embalmer [*see* 12.0303 Mortuary Science and Embalming/Embalmer]

12.0302 Funeral Direction/Service

This instructional program class comprises any program that prepares individuals for professional licensure as funeral directors and as managers of funeral homes, cemeteries, and related services. These programs include courses in the sociology of death and dying, psychology of grief and grief counselling, history of funeral service, funeral direction, business law, funeral service law, funeral home management, accounting and related computer operations, and funeral services marketing and merchandising.

Examples of included programs
- Funeral directing
- Funeral director
- Funeral services director

Examples of excluded programs
- Mortuary science [*see* 12.0301 Funeral Service and Mortuary Science, General]
- Embalmer [*see* 12.0303 Mortuary Science and Embalming/Embalmer]

12.0303 Mortuary Science and Embalming/Embalmer

This instructional program class comprises any program that prepares individuals for licensure as embalmers and morticians. These programs include courses in pathogenic microbiology, systematic pathology, thanatochemistry, gross anatomy, clinical mortuary science, embalming, restorative art, applicable laws and regulations, and special services such as cremation and preparations required by specific religious communities.

Examples of included programs
- Embalmer
- Embalming

Examples of excluded programs
- Funeral industry [*see* 12.0301 Funeral Service and Mortuary Science, General]
- Funeral director [*see* 12.0302 Funeral Direction/Service]

12.0399 Funeral Service and Mortuary Science, Other

This instructional program class comprises any program not listed above that relates to Funeral Service and Mortuary Science.

Example of excluded programs
- Embalmer [*see* 12.0303 Mortuary Science and Embalming/Embalmer]

12.04 Cosmetology and Related Personal Grooming Services

This subseries comprises instructional program classes 12.0401 to 12.0499.

12.0401 Cosmetology/Cosmetologist, General

This instructional program class comprises any program that generally prepares individuals to cut, trim, style, or remove scalp, facial, and body hair; apply cosmetic preparations; perform manicures and pedicures; massage the head and extremities; and prepare for practice as licensed cosmetologists in specialized or full-service salons. These programs include courses in hair cutting and styling, manicuring, pedicuring, facial treatments, shampooing, chemical applications, esthetics, shop management, sanitation and safety, customer service, and applicable professional and labour laws and regulations.

Examples of included programs
- Cosmetician
- Cosmetologist
- Cosmetology

Examples of excluded programs
- Facial therapy [*see* 12.0408 Facial Treatment Specialist/Facialist]
- Esthetics—skin and beauty care [*see* 12.0409 Aesthetician/Esthetician and Skin Care Specialist]
- Massage therapy [*see* 51.3501 Massage Therapy/Therapeutic Massage]

12.0402 Barbering/Barber

This instructional program class comprises any program that prepares individuals to shave and trim facial/neck hair and beards, cut and dress hair, fit hairpieces, give facial and scalp massages, apply cosmetic treatments, and to prepare for licensure as professional barbers at various levels. These programs include courses in facial shaving; beard and moustache shaping and trimming; shampooing; hair cutting; hair styles and styling art; facial treatments and massage; chemical applications; hair and scalp anatomy and physiology; hairpiece and toupee fitting; equipment operation; health and safety; customer service; and shop business practices.

Examples of included programs
- Barber
- Barber hairstylist
- Barber stylist
- Barbering

Examples of excluded programs
- Hairstylist [*see* 12.0407 Hair Styling/Stylist and Hair Design]
- Hairdresser instructor [*see* 12.0413 Cosmetology, Barber/Styling and Nail Instructor]

12.0404 Electrolysis/Electrology and Electrolysis Technician

This instructional program class comprises any program that prepares individuals to permanently remove hair from the human scalp, face, and body using specialized charged solid needle probes, and to function as licensed electrologists and electrolysis technicians. These programs include courses in direct current electrolysis, alternating current/high frequency thermolysis, blend/dual modality treatments, equipment theory and operation, safety and sanitation, client evaluation and care, laws and regulations, and business practices.

Examples of included programs
- Electrologist
- Electrology
- Electrolysis

Example of excluded programs
- Metallurgy technology [*see* 15.0611 Metallurgical Technology/Technician]

12.0406 Makeup Artist/Specialist

This instructional program class comprises any program that prepares individuals to professionally apply cosmetic makeup preparations and perform complete and specialized appearance makeovers including hairdressing, wig work, masking, temporary prosthesis applications, cosmetic applications, and related costuming for leisure or for professional stage, camera, clinical, or security purposes. These programs include courses in period and contemporary hairstyling and costuming; wig work and hairpiece application; synthetic hair and masks; cosmetic preparations and treatments; makeup artistry; attachment, removal, and camouflaging of prostheses; health and safety; client consultation and care; preproduction and postproduction operations; set and crew conduct and relations; script, instruction, and prescription interpretation; labour relations; and business practices.

Examples of included programs
- Artistic makeup
- Makeup
- Makeup artist
- Makeup artistry

Examples of excluded programs
- Cosmetology [*see* 12.0401 Cosmetology/Cosmetologist, General]
- Esthetics—skin and beauty care [*see* 12.0409 Aesthetician/Esthetician and Skin Care Specialist]
- Permanent makeup [*see* 12.0411 Permanent Cosmetics/Makeup and Tattooing]
- Design, scenery, costume and lighting [*see* 50.0502 Technical Theatre/Theatre Design and Technology]

12.0407 Hair Styling/Stylist and Hair Design

This instructional program class comprises any program that prepares individuals to shampoo, cut, style, set, and dress the scalp hair of women and/or men, braid hair, apply hair cosmetics and wigs, and prepare for licensure as professional cosmetologists, hairdressers, and barbers at various levels. These programs include courses in hair design theory and concepts, hair cleaning and shampooing, hair colouring, chemical applications and permanent reconstructions, hair anatomy and physiology, scalp diseases and treatments, wig and hairpiece fitting, hair braiding, customer service, shop management, equipment operation, health and safety, and applicable laws and regulations.

Examples of included programs
- Hairdresser
- Hairdressing
- Hairstyling
- Hairstylist
- Specialized hairdressing

Examples of excluded programs
- Pet stylist [*see* 01.0504 Dog/Pet/Animal Grooming]
- Barber [*see* 12.0402 Barbering/Barber]
- Hairdresser instructor [*see* 12.0413 Cosmetology, Barber/Styling and Nail Instructor]

12.0408 Facial Treatment Specialist/Facialist

This instructional program class comprises any program that prepares individuals to massage and treat the face, neck, and scalp with chemical and cosmetic preparations, and to function as licensed facial specialists in specialized and full service salons. These programs include courses in facial surface anatomy; skin properties; skin decontamination and infection control; facial massage; facial makeup; facial wrapping; selection and application of creams, lotions, oils, and other chemicals and cosmetics; European and other facial techniques; client evaluation and care, applicable laws and regulations, and business practices.

Example of included programs
- Facial therapy

Examples of excluded programs
- Cosmetology [*see* 12.0401 Cosmetology/Cosmetologist, General]
- Makeup [*see* 12.0406 Makeup Artist/Specialist]
- Esthetics [*see* 12.0409 Aesthetician/Esthetician and Skin Care Specialist]
- Skin care [*see* 12.0409 Aesthetician/Esthetician and Skin Care Specialist]

12.0409 Aesthetician/Esthetician and Skin Care Specialist

This instructional program class comprises any program that prepares individuals to cleanse, depilate, massage, and beautify the human body and to function as licensed estheticians and skin care specialists. These programs include courses in skin anatomy, physiology, and health; principles of nutrition; decontamination and infection control; health and safety; facial and body massage; body wrapping and spa treatments; temporary hair removal including waxing and tweezing; colour and skin analysis; client consultation and care; applicable laws and regulations; business practices; and sometimes related alternative healing regimens.

Examples of included programs
- Aesthetics
- Esthetician
- Esthetics
- Esthetics—skin and beauty care
- Esthetics—skin care
- Skin care

Examples of excluded programs
- Cosmetician [*see* 12.0401 Cosmetology/Cosmetologist, General]
- Aesthetic philosophy [*see* 38.0199 Philosophy, Logic and Ethics, Other]
- Massage therapy [*see* 51.3501 Massage Therapy/Therapeutic Massage]

12.0410 Nail Technician/Specialist and Manicurist

This instructional program class comprises any program that prepares individuals to shape fingernails and toenails, remove unwanted skin and blemishes, apply polish and cosmetics to nails, and function as licensed manicurists or nail technicians/specialists. These programs include courses in manicuring theory; skin anatomy; nail growth, irregularities, and diseases; sterilization and sanitation; equipment and table maintenance; cuticle, blemish, and rough skin removal; nail filing, shaping, and polishing; cream application and extremity massage; nail sculpture and design art; product storage and use; customer service; laws and regulations; and business practices.

Examples of included programs
- Manicure
- Manicurist
- Nail application specialist
- Nail technician
- Nail technology
- Pedicure

Examples of excluded programs
- Cosmetician [*see* 12.0401 Cosmetology/Cosmetologist, General]
- Esthetics—skin and beauty care [*see* 12.0409 Aesthetician/Esthetician and Skin Care Specialist]

12.0411 Permanent Cosmetics/Makeup and Tattooing

This instructional program class comprises any program that prepares individuals to prepare and apply permanent markings, colour, and cosmetic products to the face and body for aesthetic or clinical purposes; to remove unwanted markings; and to function as licensed permanent makeup artists and tattooists. These programs include courses in client consultation; sterilization and sanitation; skin anatomy, diseases, and disorders; skin preparation and anesthetics; colour theory; machine theory and operation; needle selection; applications such as eyebrows, eyeliners, lips, lipliners, beauty marks, and blemish/mark removal; after care; laws and regulations; and business practices.

Examples of included programs
- Permanent makeup
- Tattooing

Examples of excluded programs
- Cosmetology [*see* 12.0401 Cosmetology/Cosmetologist, General]
- Makeup [*see* 12.0406 Makeup Artist/Specialist]

12.0412 Salon/Beauty Salon Management/Manager

This instructional program class comprises any program that prepares cosmetologists, hairstylists, and other personal grooming specialists to manage beauty parlours, shops, and full-service or specialized salons and to prepare for licensure as professional salon owners and operators. These programs include courses in cosmetic services marketing and retailing; advertising and promotion; salon management; the cosmetic and salon supply industries; hiring, supervision, and labour relations; applicable business and professional laws and regulations; professional standards and image; and customer service.

Examples of included programs
- Beauty parlour management
- Cosmetic techniques and management
- Salon management

Examples of excluded programs
- Business management [*see* 52.0201 Business Administration and Management, General]
- Customer service management [*see* 52.0207 Customer Service Management]
- Small business management and ownership [*see* 52.0703 Small Business Administration/Management]

12.0413 Cosmetology, Barber/Styling and Nail Instructor

This instructional program class comprises any program that prepares cosmetologists, barbers, stylists, nail technicians, and other grooming specialists to teach their specializations in licensed and accredited schools of cosmetology and barbering, and to prepare for licensure as instructors. These programs include courses in cosmetology arts and sciences teaching principles; student learning styles; professional curricula development; instructional planning; instructional methods and aids; student counselling and career assistance; test development; and classroom/clinic management.

Examples of included programs
- Cosmetology instructor
- Hairdresser instructor
- Hairdressing teacher

Example of excluded programs
- Vocational technical education [*see* 13.1320 Trade and Industrial Teacher Education]

12.0499 Cosmetology and Related Personal Grooming Services, Other

This instructional program class comprises any program not listed above that relates to Cosmetology and Related Personal Grooming Services.

Examples of excluded programs
- Animal grooming [*see* 01.0504 Dog/Pet/Animal Grooming]
- Gerontological services [*see* 19.0702 Adult Development and Aging]
- Home care aide [*see* 51.2602 Home Health Aide/Home Attendant]
- Massage therapist [*see* 51.3501 Massage Therapy/Therapeutic Massage]

12.05 Culinary Arts and Related Services

This subseries comprises instructional program classes 12.0500 to 12.0599.

12.0500 Cooking and Related Culinary Arts, General

This instructional program class comprises any program that focuses on the general study of the cooking and related culinary arts, and that prepares individuals for a variety of jobs within the food service industry. These programs include courses in food preparation; cooking techniques; equipment operation and maintenance; sanitation and safety; communication skills; applicable regulations; and principles of food service management.

Examples of included programs
- Commercial cooking
- Cook
- Cooking
- Institutional cook
- Institutional cooking
- Short order cooking

Examples of excluded programs
- Food processing [*see* 01.1002 Food Technology and Processing]
- Food technology [*see* 01.1002 Food Technology and Processing]
- Chef [*see* 12.0503 Culinary Arts/Chef Training]
- Assistant cook [*see* 12.0505 Food Preparation/Professional Cooking/Kitchen Assistant]
- Cooking and other domestic skills [*see* 36.0112 Cooking and Other Domestic Skills]

12.0501 Baking and Pastry Arts/Baker/Pastry Chef

This instructional program class comprises any program that prepares individuals to serve as professional bakers and pastry specialists in restaurants or other commercial baking establishments. These programs include courses in bread and pastry making, bread and pastry handling and storage, cake and pastry decorating, baking industry operations, product packaging and marketing operations, and counter display and service.

Examples of included programs
- Baker
- Bakery
- Baking
- Baking and pastry arts
- Commercial baking
- Pastry chef

Examples of excluded programs
- Commercial cooking [*see* 12.0500 Cooking and Related Culinary Arts, General]
- Institutional cook [*see* 12.0500 Cooking and Related Culinary Arts, General]
- Chef [*see* 12.0503 Culinary Arts/Chef Training]
- Assistant cook [*see* 12.0505 Food Preparation/Professional Cooking/Kitchen Assistant]

12.0502 Bartending/Bartender

This instructional program class comprises any program that prepares individuals to professionally prepare mixed alcoholic and non-alcoholic beverages and related products and manage bars, lounges, and beverage service operations in the hospitality industry. These programs include courses in mixology, oenology, accounting and cash management, inventory and cellar management, bar and lounge management, applicable laws and regulations, customer service, and labour/employment regulations.

Examples of included programs
- Bar management
- Barman/woman
- Bartender
- Bartending
- Mixology

Examples of excluded programs
- Food and beverage service [*see* 12.0507 Food Service, Waiter/Waitress and Dining Room Management/Manager]
- Waiter [*see* 12.0507 Food Service, Waiter/Waitress and Dining Room Management/Manager]
- Waitress [*see* 12.0507 Food Service, Waiter/Waitress and Dining Room Management/Manager]
- Advanced wines and beverage management [*see* 12.0599 Culinary Arts and Related Services, Other]

12.0503 Culinary Arts/Chef Training

This instructional program class comprises any program that prepares individuals to provide professional chef and related cooking services in restaurants and other commercial food establishments. These programs include courses in recipe and menu planning, preparing and cooking of foods, supervising and training kitchen assistants, the management of food supplies and kitchen resources, aesthetics of food presentation, and familiarity with or mastery of a wide variety of cuisines and culinary techniques.

Examples of included programs
- Chef
- Chef training
- Cooking chef
- Culinary arts
- Master chef

Examples of excluded programs
- Cook [*see* 12.0500 Cooking and Related Culinary Arts, General]
- Short order cooking [*see* 12.0500 Cooking and Related Culinary Arts, General]
- Kitchen help [*see* 12.0505 Food Preparation/Professional Cooking/Kitchen Assistant]

12.0504 Restaurant, Culinary and Catering Management/Manager

This instructional program class comprises any program that prepares individuals to plan, supervise, and manage food and beverage preparation and service operations, restaurant facilities, and catering services. These programs include courses in food/beverage industry operations, cost control, purchasing and storage, business administration, logistics, personnel management, culinary arts, restaurant and menu planning, executive chef functions, event planning and management, health and safety, insurance, and applicable laws and regulations.

Examples of included programs
- Catering management
- Culinary administration
- Culinary management
- Restaurant/catering management
- Supervisory development and applied culinary diploma

Examples of excluded programs
- Dietary and food service management [*see* 19.0505 Foodservice Systems Administration/Management]
- Restaurant manager [*see* 52.0905 Restaurant/Food Services Management]

12.0505 Food Preparation/Professional Cooking/Kitchen Assistant

This instructional program class comprises any program that prepares individuals to serve under the supervision of chefs and other food service professionals as kitchen support staff and commercial food preparation workers. These programs include courses in kitchen organization and operations, sanitation and quality control, basic food preparation and cooking skills, kitchen and kitchen equipment maintenance, and quantity food measurement and monitoring.

Examples of included programs
- Assistant cook
- Commercial cooking aide
- Food preparation
- Kitchen help

Examples of excluded programs
- Food processing [*see* 01.1002 Food Technology and Processing]
- Cook [*see* 12.0500 Cooking and Related Culinary Arts, General]
- Chef [*see* 12.0503 Culinary Arts/Chef Training]
- Food service worker [*see* 12.0508 Institutional Food Workers]
- Cooking and other domestic skills [*see* 36.0112 Cooking and Other Domestic Skills]

12.0506 Meat Cutting/Meat Cutter

This instructional program class comprises any program that prepares individuals to receive, cut, and package animal meat products in commercial establishments and to function as licensed meat cutters/butchers. These programs include courses in product recognition for beef, veal, lamb, pork, poultry, and fancy and smoked meats; retail and wholesale cutting and specialty cuts; packaging and

counter display; shop safety; meat sanitation, storage and rotation; quality control; meat handling laws and regulations; and customer service.

Examples of included programs
- Butcher
- Butchering
- Butchery
- Institutional meat cutting
- Meat cutter
- Meat cutting
- Retail meat cutting

Examples of excluded programs
- Food processing [*see* 01.1002 Food Technology and Processing]
- Food technology [*see* 01.1002 Food Technology and Processing]

12.0507 Food Service, Waiter/Waitress and Dining Room Management/Manager

This instructional program class comprises any program that prepares individuals to serve food to customers in formal or informal settings. These programs include courses in the nutritional, sensory, and functional properties of food and its ingredients; food services principles; table and counter services; dining room operations and procedures; service personnel supervision and management; communication skills; business math; safety and sanitation.

Examples of included programs
- Dining room services
- Food and beverage service
- Waiter
- Waitress
- Waitressing

Examples of excluded programs
- Bartender [*see* 12.0502 Bartending/Bartender]
- Restaurant/catering management [*see* 12.0504 Restaurant, Culinary and Catering Management/Manager]
- Food service worker [*see* 12.0508 Institutional Food Workers]

12.0508 Institutional Food Workers

This instructional program class comprises any program that prepares individuals in food production and service for governmental, commercial or independently owned institutional food establishments, and related food industry occupations. These programs include courses in selecting, storing, preparing, and serving food and food products; basic nutrition; sanitation, and food safety; the use and care of commercial equipment; serving techniques; and the operation of institutional food establishments.

Example of included programs
- Food service worker

Examples of excluded programs
- Food processing [*see* 01.1002 Food Technology and Processing]
- Cook [*see* 12.0500 Cooking and Related Culinary Arts, General]
- Chef [*see* 12.0503 Culinary Arts/Chef Training]
- Food preparation [*see* 12.0505 Food Preparation/Professional Cooking/Kitchen Assistant]

12.0599 Culinary Arts and Related Services, Other

This instructional program class comprises any program not listed above that relates to Culinary Arts and Related Services.

Example of included programs
- Advanced wines and beverage management

Examples of excluded programs
- Bar management [*see* 12.0502 Bartending/Bartender]
- Mixology [*see* 12.0502 Bartending/Bartender]
- Dining room services [*see* 12.0507 Food Service, Waiter/Waitress and Dining Room Management/Manager]

12.99 Personal and Culinary Services, Other

This subseries comprises instructional program class 12.9999.

12.9999 Personal and Culinary Services, Other

This instructional program class comprises any program not listed above that relates to Personal and Culinary Services.

Examples of excluded programs
- Animal grooming [*see* 01.0504 Dog/Pet/Animal Grooming]
- Dress maker [*see* 19.0999 Apparel and Textiles, Other]
- Dry cleaning [*see* 19.0999 Apparel and Textiles, Other]
- Tailoring [*see* 19.0999 Apparel and Textiles, Other]
- Home care aide [*see* 51.2602 Home Health Aide/Home Attendant]

13. Education

This series comprises instructional programs that focus on the theory and practice of learning and teaching, and related research, administrative and support services.

13.01 Education, General

This subseries comprises instructional program class 13.0101.

13.0101 Education, General

This instructional program class comprises any program that focuses on the general theory and practice of learning and teaching; the basic principles of educational psychology; the art of teaching; the planning and administration of educational activities; school safety and health issues; and the social foundations of education.

Examples of included programs
- Education
- Pedagogy
- School teacher
- Teacher
- Teacher development
- Teacher education
- Teacher training
- Teaching

Examples of excluded programs
- Religious education [*see* 39.0401 Religious Education]
- Educational psychology [*see* 42.1801 Educational Psychology]
- Psychoeducation [*see* 42.1801 Educational Psychology]

13.02 Bilingual, Multilingual and Multicultural Education

This subseries comprises instructional program classes 13.0201 to 13.0299.

13.0201 Bilingual and Multilingual Education

This instructional program class comprises any program that focuses on the design and provision of teaching and other educational services to bilingual/bicultural children or adults, and/or the design and implementation of educational programs having the goal of producing bilingual/bicultural individuals. Includes preparation to serve as teachers and administrators in bilingual/bicultural education programs.

Example of included programs
- Bilingual and multilingual education

Examples of excluded programs
- English teacher [*see* 13.1305 English/English Language Arts Teacher Education]
- Teaching foreign languages [*see* 13.1306 Aboriginal and Foreign Language Teacher Education]
- French teacher [*see* 13.1325 French Language/French Language Arts Teacher Education]
- Teaching English as a second language [*see* 13.1401 Teaching English as a Second or Foreign Language/ESL Language Instructor]
- Teaching French as a second language [*see* 13.1402 Teaching French as a Second or Foreign Language]

13.0202 Multicultural Education

This instructional program class comprises any program that focuses on the design, and implementation of instructional and advising services for culturally diverse learning populations. These programs include courses in cultural diversity, at risk populations, multilingual and ESL education, program and curriculum design, instructional technology, information resources, Language Instruction for Newcomers to Canada (LINC), and minority education strategies, counselling and communicating with multicultural populations, laws and regulations, and applications to specific cultural groups, educational services, and research issues.

Examples of included programs
- Multicultural education
- Multicultural pedagogy

Examples of excluded programs
- Bilingual and multilingual education [*see* 13.0201 Bilingual and Multilingual Education]
- First Nations education [*see* 13.0203 Aboriginal Education]
- Teaching foreign languages [*see* 13.1306 Aboriginal and Foreign Language Teacher Education]

13.0203 Aboriginal Education

This instructional program class comprises any program that focuses on the design and implementation of instructional and advising services for First Nations, Inuit and Métis students at various learning levels and that prepares individuals to perform teaching and administrative functions. These programs include courses in the cultural traditions and social patterns, history and politics, learning styles and issues, curriculum design and minority education strategies, counselling techniques and social issues, rural

education services, distance education, adult education techniques, school administration, applicable laws and regulations, and research issues.

Examples of included programs
- Certificate in Aboriginal education for certified teachers
- Certificate in education for First Nations and Inuit
- First Nations education
- Indian and northern education
- Indian education
- Native education

Examples of excluded programs
- Aboriginal studies [*see* 05.0202 Aboriginal Studies]
- Bilingual and multilingual education [*see* 13.0201 Bilingual and Multilingual Education]
- Native classroom assistant [*see* 13.1501 Teaching Assistants/Aides, General]
- Aboriginal language [*see* 16.1001 Aboriginal Languages, Literatures and Linguistics]
- Native as a second language [*see* 16.1799 Second Language Learning, Other]

13.0299 Bilingual, Multilingual and Multicultural Education, Other

This instructional program class comprises any program not listed above that relates to Bilingual, Multilingual and Multicultural Education.

Examples of excluded programs
- Bilingual and multilingual education [*see* 13.0201 Bilingual and Multilingual Education]
- Teaching foreign languages [*see* 13.1306 Aboriginal and Foreign Language Teacher Education]

13.03 Curriculum and Instruction

This subseries comprises instructional program class 13.0301.

13.0301 Curriculum and Instruction

This instructional program class comprises any program that focuses on the curriculum and related instructional processes and tools, and that prepares individuals to serve as professional curriculum specialists. These programs include courses in curriculum theory, curriculum design and planning, instructional material design and evaluation, curriculum evaluation, and applications to specific subject matter, programs or educational levels.

Examples of included programs
- Curriculum
- Curriculum and instruction
- Curriculum development
- Curriculum studies
- Curriculum theory
- Curriculum, teaching and learning
- Education curriculum

Examples of excluded programs
- Curriculum and administration [*see* 13.0404 Educational, Instructional and Curriculum Supervision]
- Courseware development [*see* 13.0501 Educational/Instructional Media Design]

13.04 Educational Administration and Supervision

This subseries comprises instructional program classes 13.0401 to 13.0499.

13.0401 Educational Leadership and Administration, General

This instructional program class comprises any program that focuses on the general principles and techniques of administering a wide variety of schools and other educational organizations and facilities, supervising educational personnel at the school or staff level, and that prepares individuals as general administrators and supervisors.

Examples of included programs
- Education administration
- Educational administration
- Educational administration and foundations
- Educational leadership
- Educational leadership and policy
- Educational leadership studies
- Organizational and administrative studies in education
- School administration
- School leadership
- School management

Examples of excluded programs
- Administration [*see* 52.0201 Business Administration and Management, General]
- Office management [*see* 52.0204 Office Management and Supervision]
- Non-profit management [*see* 52.0206 Non-profit/Public/Organizational Management]
- Institutional administration [*see* 52.0299 Business Administration, Management and Operations, Other]

13.0402 Administration of Special Education

This instructional program class comprises any program that prepares individuals to plan, supervise, and manage programs for exceptional students and their parents. These programs include courses in special education theory and practice, special education program development, evaluation and assessment in special education, applicable laws and regulations, managing individual education plans, problems of low- and high- disability students, mainstreaming, special education curricula, staff management, parent education, communications and community relations, budgeting, and professional standards and ethics.

Example of included programs
- Administration of special education

Examples of excluded programs
- Educational administration [*see* 13.0401 Educational Leadership and Administration, General]
- Teaching special education [*see* 13.1001 Special Education and Teaching, General]

13.0403 Adult and Continuing Education Administration

This instructional program class comprises any program that focuses on the principles and techniques of administering programs and facilities designed to serve the basic education needs of undereducated adults, or the continuing education needs of adults seeking further or specialized instruction, and that prepares individuals to serve as administrators of such programs. These programs include courses in adult education principles, program and facilities planning, personnel management, community and client relations, budgeting and administration, professional standards, and applicable laws and policies.

Example of included programs
- Adult and continuing education administration

Examples of excluded programs
- Higher education administration [*see* 13.0406 Higher Education/Higher Education Administration]
- Community college and general and vocational college (CEGEP) administration [*see* 13.0407 Community College and General and Vocational College (CEGEP) Administration]

13.0404 Educational, Instructional and Curriculum Supervision

This instructional program class comprises any program that prepares individuals to supervise instructional and support personnel at the school building, facility or staff level. These programs include courses in the principles of staffing and organization, the supervision of learning activities, personnel relations, administrative duties related to departmental or unit management, and specific applications to various educational settings and curricula.

Example of included programs
- Curriculum and administration

Example of excluded programs
- Curriculum development [*see* 13.0301 Curriculum and Instruction]

13.0406 Higher Education/Higher Education Administration

This instructional program class comprises any program that focuses on the principles and practice of administration in universities and higher education systems, the study of higher education as an object of applied research, and which prepares individuals to function as administrators in such settings. These programs include courses in higher education economics and finance; policy and planning studies; curriculum; faculty and labour relations; higher education law; college student services; research on higher education; institutional research; marketing and promotion; and issues of evaluation, accountability and philosophy.

Examples of included programs
- Higher education
- Higher education administration
- Postsecondary institutional research

Example of excluded programs
- Community college and general and vocational college (CEGEP) administration [*see* 13.0407 Community College and General and Vocational College (CEGEP) Administration]

13.0407 Community College and General and Vocational College (CEGEP) Administration

This instructional program class comprises any program that focuses on the principles and techniques of administering community colleges and related postsecondary systems, the study of community colleges as objects of applied research, and that prepares individuals to function as administrators in such settings. These programs include courses in community college finance; policy and planning studies; curriculum; faculty and labour relations; higher education law; student services; research on community colleges; institutional research; marketing and promotion; and issues of evaluation, accountability and philosophy.

Example of included programs
- Community college and general and vocational college (CEGEP) administration

Example of excluded programs
- Higher education administration [*see* 13.0406 Higher Education/Higher Education Administration]

13.0408 Elementary and Middle School Administration/Principalship

This instructional program class comprises any program that focuses on educational administration at the elementary and middle school levels, and prepares individuals to serve as principals and headmasters of elementary and middle schools. These programs include courses in elementary and/or middle school education, program and facilities planning, budgeting and administration, public relations, human resources management, childhood and pre-adolescent growth and development, counselling skills, applicable laws and regulations, school safety, policy studies, and professional standards and ethics.

Examples of included programs
- Elementary principal
- Elementary school principal

Example of excluded programs
- High school principal [*see* 13.0409 Secondary School Administration/Principalship]

13.0409 Secondary School Administration/Principalship

This instructional program class comprises any program that focuses on educational administration at the junior high, secondary, or senior high school levels, and prepares individuals to serve as principals and headmasters of secondary schools. These programs include courses in secondary school education, program and facilities planning, budgeting and administration, public relations, human resources management, adolescent growth and development, counselling skills, applicable laws and regulations, school safety, policy studies, and professional standards and ethics.

Examples of included programs
- High school principal
- Secondary school administration

Example of excluded programs
- Elementary school principal [*see* 13.0408 Elementary and Middle School Administration/Principalship]

13.0410 Urban Education and Leadership

This instructional program class comprises any program that focuses on issues and problems specific to the educational needs of populations and communities located in metropolitan and related areas and prepares individuals to provide educational services and administrative leadership in urban contexts. These programs include courses in multicultural education, at-risk studies, urban sociology, multilingual education, urban studies and planning, human services, health services and nutrition, cross-cultural communication, diversity studies, safety and security, and urban educational administration and leadership.

Example of included programs
- Urban education leadership

Examples of excluded programs
- Bilingual and multilingual education [*see* 13.0201 Bilingual and Multilingual Education]
- Multicultural education [*see* 13.0202 Multicultural Education]
- Urban studies [*see* 45.1201 Urban Studies/Affairs]

13.0411 Superintendency and Educational System Administration

This instructional program class comprises any program that focuses on leading and managing multi-school educational systems and school districts, and prepares individuals to serve as systems administrators and district superintendents. These programs include courses in educational administration; education of students at various levels; system planning and budgeting; educational policy; educational laws and regulations; public relations; professional standards and ethics; and applications to specific issues, cultural context, and geographic locales.

Examples of excluded programs
- Organizational and administrative studies in education [*see* 13.0401 Educational Leadership and Administration, General]
- Office management [*see* 52.0204 Office Management and Supervision]
- Operations management [*see* 52.0205 Operations Management and Supervision]
- Institutional administration [*see* 52.0299 Business Administration, Management and Operations, Other]

13.0499 Educational Administration and Supervision, Other

This instructional program class comprises any program not listed above that relates to Educational Administration and Supervision.

Examples of excluded programs
- Education administration [*see* 13.0401 Educational Leadership and Administration, General]
- Administration [*see* 52.0201 Business Administration and Management, General]

13.05 Educational/Instructional Media Design

This subseries comprises instructional program class 13.0501.

13.0501 Educational/Instructional Media Design

This instructional program class comprises any program that focuses on the principles and techniques of creating instructional products and related educational resources in various formats or combinations such as film, video, recording, text, art, CD-ROM, computer software, virtual reality technology, and three-dimensional objects, and that prepares individuals to function as instructional media designers. These programs include courses in the techniques specific to creating in various media; the behavioural principles applicable to using various media in learning and teaching; the design, testing and production of instructional materials; and the management of educational/instructional media facilities and programs.

Examples of included programs
- Courseware authoring
- Courseware development
- Educational media
- Educational technology
- Instructional media
- Instructional technology

Examples of excluded programs
- Digital media [*see* 09.0702 Digital Communication and Media/Multimedia]
- Audiovisual technician [*see* 10.0299 Audiovisual Communications Technologies/Technicians, Other]
- Digital media technology [*see* 11.0801 Web Page, Digital/Multimedia and Information Resources Design]
- Computer graphics [*see* 11.0803 Computer Graphics]
- School librarian [*see* 13.1334 School Librarian/School Library Media Specialist]

13.06 Educational Assessment, Evaluation and Research

This subseries comprises instructional program classes 13.0601 to 13.0699.

13.0601 Educational Evaluation and Research

This instructional program class comprises any program that focuses on the principles and procedures for generating information about educational programs, personnel and methods, and the analysis of such information for planning purposes. These programs include courses in evaluation theory, evaluation research design and planning, administering evaluations and related data collection activities, data reporting requirements, data analysis and interpretation, and related economic and policy issues.

Example of included programs
- Educational research

Examples of excluded programs
- Educational statistics and research methods [*see* 13.0603 Educational Statistics and Research Methods]
- Measurement, evaluation and research methodology in education [*see* 13.0604 Educational Assessment, Testing and Measurement]

13.0603 Educational Statistics and Research Methods

This instructional program class comprises any program that focuses on the application of statistics to the analysis and solution of educational research problems, and the development of technical designs for research studies. These programs include courses in mathematical statistics, research design, computer applications, instrument design, research methodologies, and applications to research problems in specific education subjects.

Example of included programs
- Educational statistics and research methods

Examples of excluded programs
- Educational research [*see* 13.0601 Educational Evaluation and Research]
- Measurement, evaluation and research methodology in education [*see* 13.0604 Educational Assessment, Testing and Measurement]
- Applied statistics [*see* 27.0501 Statistics, General]
- Mathematical statistics [*see* 27.0502 Mathematical Statistics and Probability]

13.0604 Educational Assessment, Testing and Measurement

This instructional program class comprises any program that focuses on the principles and procedures for designing, developing, implementing and evaluating tests and other mechanisms used to measure learning, evaluate student progress, and assess the performance of specific teaching tools, strategies and curricula. These programs include courses in psychometric measurement, instrument design, test implementation techniques, research evaluation, data reporting requirements, and data analysis and interpretation.

Example of included programs
- Measurement, evaluation and research methodology in education

Examples of excluded programs
- Educational research [*see* 13.0601 Educational Evaluation and Research]
- Educational statistics and research methods [*see* 13.0603 Educational Statistics and Research Methods]
- Psychometrics [*see* 42.1901 Psychometrics and Quantitative Psychology]

13.0699 Educational Assessment, Evaluation and Research, Other

This instructional program class comprises any program not listed above that relates to Educational Assessment, Evaluation and Research.

Examples of excluded programs
- Educational research [*see* 13.0601 Educational Evaluation and Research]
- Educational statistics and research methods [*see* 13.0603 Educational Statistics and Research Methods]
- Measurement, evaluation and research methodology in education [*see* 13.0604 Educational Assessment, Testing and Measurement]

13.07 International and Comparative Education

This subseries comprises instructional program class 13.0701.

13.0701 International and Comparative Education

This instructional program class comprises any program that focuses on the educational phenomena, practices and institutions within different societies and states in comparative perspective, and the study of international educational issues. These programs include courses in comparative research methods, country- or area-specific studies, cross-national studies of learning and teaching styles, international educational policy and development, and analyses of educational migration patterns and experiences.

Example of included programs
- International and comparative education

Examples of excluded programs
- Bilingual and multilingual education [*see* 13.0201 Bilingual and Multilingual Education]
- Multicultural education [*see* 13.0202 Multicultural Education]

13.09 Social and Philosophical Foundations of Education

This subseries comprises instructional program class 13.0901.

13.0901 Social and Philosophical Foundations of Education

This instructional program class comprises any program that focuses on the systematic study of education as a social and cultural institution, and the educational process as an object of humanistic inquiry. These programs include courses in such subjects as the philosophy of education, history of education, educational literature, educational anthropology, sociology of education, economics and politics of education, educational policy studies, and studies of education in relation to specific populations, issues, social phenomena, and types of work.

Examples of included programs
- Culture and values in education
- Educational contexts
- Educational foundations
- Educational studies
- Educational theory
- History and philosophy of education
- History of education
- Philosophy of education
- Sociology in education
- Sociology of education
- Sociology/anthropology of education

Examples of excluded programs
- Philosophy [*see* 38.0101 Philosophy]
- Educational psychology [*see* 42.1801 Educational Psychology]
- Sociology [*see* 45.1101 Sociology]

13.10 Special Education and Teaching

This subseries comprises instructional program classes 13.1001 to 13.1099.

13.1001 Special Education and Teaching, General

This instructional program class comprises any general program that focuses on the design and provision of teaching and other educational services to children or adults with special learning needs or disabilities, and that prepares individuals to function as special education teachers. These programs include courses in diagnosing learning disabilities, developing individual education plans, teaching and supervising special education students, special education counselling, and applicable laws and policies.

Examples of included programs
- Special education
- Special education teaching
- Special needs education
- Teaching special education

Examples of excluded programs
- Administration of special education [*see* 13.0402 Administration of Special Education]
- Special education assistant [*see* 13.1501 Teaching Assistants/Aides, General]

13.1003 Education/Teaching of Individuals with Hearing Impairments Including Deafness

This instructional program class comprises any program that focuses on the design of educational services for children or adults with hearing impairments including deafness which adversely affect their educational performance, and that prepares individuals to teach such students. These programs include courses in identifying students with hearing impairments, including deafness, developing individual education plans, teaching and supervising hearing-impaired students, counselling, and applicable laws and policies.

Examples of included programs
- Deaf education
- Education of the deaf
- Teacher of the deaf

Examples of excluded programs
- Sign language [*see* 16.1601 American Sign Language (ASL)]
- Audiology [*see* 51.0202 Audiology/Audiologist and Hearing Sciences]
- Speech pathology and audiology [*see* 51.0204 Audiology/Audiologist and Speech-language Pathology/Pathologist]

13.1004 Education/Teaching of the Gifted and Talented

This instructional program class comprises any program that focuses on the design of educational services for children or adults exhibiting exceptional intellectual, psychomotor or artistic talent or potential, or who exhibit exceptional maturity or social leadership talents, and that prepares individuals to teach such students. These programs include courses in identifying gifted and talented students, developing individual education plans, teaching and supervising gifted and talented students, counselling, and applicable laws and policies.

Examples of included programs
- Education of exceptional children
- Gifted education

Example of excluded programs
- Administration of special education [*see* 13.0402 Administration of Special Education]

13.1005 Education/Teaching of Individuals with Emotional Disturbances

This instructional program class comprises any program that focuses on the design of educational services for children or adults with emotional conditions which adversely affect their educational performance and that prepares individuals to teach such students. These programs include courses in identifying students with emotional disturbances, developing individual education plans, teaching and supervising emotionally disturbed students, counselling, and applicable laws and policies.

Example of included programs
- Education/teaching of individuals with emotional disturbances

Example of excluded programs
- Special education [*see* 13.1001 Special Education and Teaching, General]

13.1006 Education/Teaching of Intellectually-impaired Individuals

This instructional program class comprises any program that focuses on the design of educational services for children or adults with mental disabilities which adversely affect their educational performance and that prepares individuals to teach such students. These programs include courses in identifying students who are intellectually impaired, developing individual education plans, teaching and supervising mentally-handicapped students, counselling, and applicable laws and policies.

Example of included programs
- Education/teaching of intellectually-impaired individuals

Examples of excluded programs
- Education of individuals who are developmentally delayed [*see* 13.1014 Education/Teaching of Individuals Who are Developmentally Delayed]
- Education of individuals with traumatic brain injuries [*see* 13.1016 Education/Teaching of Individuals with Traumatic Brain Injuries]

13.1007 Education/Teaching of Individuals with Multiple Disabilities

This instructional program class comprises any program that focuses on the design of educational services for children or adults with multiple disabilities which adversely affect their educational performance and that prepares individuals to teach such students. These programs include courses in identifying students with multiple disabilities, developing individual education plans, teaching and supervising multiple handicapped students, counselling, and applicable laws and policies.

Example of included programs
- Education of individuals with multiple disabilities

Examples of excluded programs
- Occupational therapist [*see* 51.2306 Occupational Therapy/Therapist]
- Vocational rehabilitation counselling [*see* 51.2310 Vocational Rehabilitation Counselling/Counsellor]
- Assistive/augmentative technology and rehabilitation engineering [*see* 51.2312 Assistive/Augmentative Technology and Rehabilitation Engineering]

13.1008 Education/Teaching of Individuals with Orthopedic and Other Physical Health Impairments

This instructional program class comprises any program that focuses on the design of educational services for children or adults with orthopedic and other health impairments which adversely affect their educational performance and that prepares individuals to teach such students. These programs include courses in identifying physically disabled students, developing individual education plans, teaching and supervising students with orthopedic and other health impairments, counselling, and applicable laws and policies.

Example of included programs
- Education of individuals with orthopedic and other physical health impairments

Examples of excluded programs
- Occupational therapy [*see* 51.2306 Occupational Therapy/Therapist]
- Vocational rehabilitation counselling [*see* 51.2310 Vocational Rehabilitation Counselling/Counsellor]
- Assistive/augmentative technology and rehabilitation engineering [*see* 51.2312 Assistive/Augmentative Technology and Rehabilitation Engineering]

13.1009 Education/Teaching of Individuals with Vision Impairments Including Blindness

This instructional program class comprises any program that focuses on the design of educational services for children or adults with visual disabilities which adversely affect their educational performance and that prepares individuals to teach such students. These programs include courses in identifying students with visual impairments, developing individual education plans, teaching and supervising blind or visually handicapped students, counselling, and applicable laws and policies.

Example of included programs
- Education of individuals with vision impairments

Examples of excluded programs
- Education of individuals with multiple disabilities [*see* 13.1007 Education/Teaching of Individuals with Multiple Disabilities]
- Orthoptics [*see* 51.1804 Orthoptics/Orthoptist]

13.1011 Education/Teaching of Individuals with Specific Learning Disabilities

This instructional program class comprises any program that focuses on the design of educational services for children or adults with specific learning disabilities which adversely affect their educational performance and that prepares individuals to teach such students. These programs include courses in identifying students with specific learning disabilities, developing individual education plans, teaching and supervising students with specific learning disabilities, counselling, and applicable laws and policies.

Example of included programs
- Education of individuals with specific learning disabilities

Example of excluded programs
- Special education [*see* 13.1001 Special Education and Teaching, General]

13.1012 Education/Teaching of Individuals with Speech or Language Impairments

This instructional program class comprises any program that focuses on the study and design of educational services for children or adults with speech and language impairments which adversely affect their educational performance and that prepares individuals to teach such students. These programs include courses in identifying students with speech and language impairments, developing individual education

plans, teaching and supervising students with speech disabilities, counselling, and applicable laws and policies.

Example of included programs
- Education of individuals with speech or language impairments

Examples of excluded programs
- Speech communication [*see* 09.0101 Communication Studies/Speech Communication and Rhetoric]
- Speech and rhetorical studies [*see* 23.1001 English Speech and Rhetorical Studies]
- Speech therapy [*see* 51.0203 Speech-language Pathology/Pathologist]

13.1013 Education/Teaching of Individuals with Autism

This instructional program class comprises any program that focuses on the design of educational services for children or adults with autism, and that prepares individuals to teach such students. These programs include courses in identifying students with autism, developing individual education plans, teaching and supervising autistic students, counselling, and applicable laws and policies.

Example of included programs
- Education of individuals with autism

Example of excluded programs
- Early childhood education special needs [*see* 13.1015 Education/Teaching of Individuals in Early Childhood Special Education Programs]

13.1014 Education/Teaching of Individuals Who are Developmentally Delayed

This instructional program class comprises any program that focuses on the design of educational services for children or adults who exhibit slow social, physical, cognitive, and/or emotional growth patterns that affect learning, and that prepares individuals to teach such students. These programs include courses in identification of developmental delay patterns, developing individual education plans, teaching and supervising developmentally delayed students, counselling, and applicable laws and policies.

Example of included programs
- Education of individuals who are developmentally delayed

Examples of excluded programs
- Education/teaching of intellectually-impaired individuals [*see* 13.1006 Education/Teaching of Intellectually-impaired Individuals]
- Early childhood education special needs [*see* 13.1015 Education/Teaching of Individuals in Early Childhood Special Education Programs]

13.1015 Education/Teaching of Individuals in Early Childhood Special Education Programs

This instructional program class comprises any program that focuses on the design and provision of teaching and other educational services to infant and preschool age children with special learning needs or disabilities, and that prepares individuals to teach such students. These programs include courses in diagnosing learning disabilities, developing individual education plans, teaching and supervising special education students, special education counselling, and applicable laws and policies.

Examples of included programs
- Early childhood education special needs
- Early childhood special education

Examples of excluded programs
- Early childhood education teaching [*see* 13.1210 Early Childhood Education and Teaching]
- Early childhood development [*see* 19.0706 Child Development]
- Child care [*see* 19.0709 Child Care Provider/Assistant]
- Early childhood education assistant [*see* 19.0709 Child Care Provider/Assistant]

13.1016 Education/Teaching of Individuals with Traumatic Brain Injuries

This instructional program class comprises any program that focuses on the design of educational services for children or adults who are surviving and recovering from brain and brain stem injuries affecting their cognitive, perceptive, and motor functions, and that prepares individuals to teach such students. These programs include courses in neurophysiology and neuropathology; speech, other sensory, and motor pathologies; emotional and cognitive disabilities; physical and occupational rehabilitation techniques; developing individual education plans, teaching and supervising brain-injured students, counselling, and applicable laws and policies.

Example of included programs
- Education of individuals with traumatic brain injuries

Examples of excluded programs
- Vocational rehabilitation counselling [*see* 51.2310 Vocational Rehabilitation Counselling/Counsellor]
- Kinesiotherapy [*see* 51.2311 Kinesiotherapy/Kinesiotherapist]

13.1099 Special Education and Teaching, Other

This instructional program class comprises any program not listed above that relates to Special Education and Teaching.

13.11 Student Counselling and Personnel Services

This subseries comprises instructional program classes 13.1101 to 13.1199.

13.1101 Counsellor Education/School Counselling and Guidance Services

This instructional program class comprises any program that prepares individuals to apply the theory and principles of guidance and counselling to the provision of support for the personal, social, educational, and vocational development of students, and the organizing of guidance services within elementary, middle and secondary educational institutions. These programs include courses in legal and professional requirements, therapeutic counsellor intervention, vocational counselling, and related sociological and psychological foundations.

Examples of included programs
- Education counselling
- Education guidance
- Guidance and counselling
- Guidance counselling
- School counselling

Examples of excluded programs
- College student counselling and personnel services [*see* 13.1102 College Student Counselling and Personnel Services]
- Pastoral counselling [*see* 39.0701 Pastoral Studies/Counselling]
- Psychological counselling [*see* 42.0601 Counselling Psychology]
- Drug and alcohol counselling [*see* 51.1501 Substance Abuse/Addiction Counselling]
- Marriage and family counselling [*see* 51.1505 Marriage and Family Therapy/Counselling]
- Clinical pastoral counselling [*see* 51.1506 Clinical Pastoral Counselling/Patient Counselling]

13.1102 College Student Counselling and Personnel Services

This instructional program class comprises any program that focuses on the organization and provision of counselling, referral, assistance and administrative services to students in postsecondary educational institutions and adult education facilities, and that prepares individuals to function as professional counsellors in such settings. These programs include courses in applicable laws and policies, residential counselling and services, vocational counselling and placement services, remedial skills counselling, and therapeutic counsellor intervention.

Example of included programs
- College student counselling and personnel services

Examples of excluded programs
- School counselling [*see* 13.1101 Counsellor Education/School Counselling and Guidance Services]
- Pastoral counselling [*see* 39.0701 Pastoral Studies/Counselling]
- Psychological counselling [*see* 42.0601 Counselling Psychology]
- Substance abuse counselling [*see* 51.1501 Substance Abuse/Addiction Counselling]
- Marriage and family counselling [*see* 51.1505 Marriage and Family Therapy/Counselling]
- Clinical pastoral counselling [*see* 51.1506 Clinical Pastoral Counselling/Patient Counselling]

13.1199 Student Counselling and Personnel Services, Other

This instructional program class comprises any program not listed above that relates to Student Counselling and Personnel Services.

Examples of excluded programs
- Pastoral counselling [*see* 39.0701 Pastoral Studies/Counselling]
- Psychological counselling [*see* 42.0601 Counselling Psychology]
- Substance abuse counselling [*see* 51.1501 Substance Abuse/Addiction Counselling]
- Marriage and family counselling [*see* 51.1505 Marriage and Family Therapy/Counselling]

13.12 Teacher Education and Professional Development, Specific Levels and Methods

This subseries comprises instructional program classes 13.1201 to 13.1299.

13.1201 Adult and Continuing Education and Teaching

This instructional program class comprises any program that prepares individuals to teach adult students in various settings, including basic and remedial education programs, continuing education programs, and programs designed to develop or upgrade specific employment-related knowledge and skills.

Examples of included programs
- Adult and vocational education
- Adult education
- Adult teacher education
- Adult training and development
- Adult, community and higher education
- Continuing education
- Extension education

Example of excluded programs
- Adult literacy instructor [*see* 13.1502 Adult Literacy Tutor/Instructor]

13.1202 Elementary Education and Teaching

This instructional program class comprises any program that prepares individuals to teach students in the elementary grades, which may include kindergarten through grade eight, depending on the school system and applicable regulations. Includes preparation to teach all elementary education subject matter.

Examples of included programs
- Elementary education
- Elementary school teacher
- Elementary teacher training
- Primary education
- Teaching elementary school

Examples of excluded programs
- Kindergarten and elementary education [*see* 13.1206 Teacher Education, Multiple Levels]
- Primary and junior education [*see* 13.1206 Teacher Education, Multiple Levels]
- Montessori teaching [*see* 13.1207 Montessori Teacher Education]
- Waldorf/Steiner teacher education [*see* 13.1208 Waldorf/Steiner Teacher Education]
- Kindergarten teacher [*see* 13.1209 Kindergarten/Preschool Education and Teaching]
- Preschool teacher [*see* 13.1209 Kindergarten/Preschool Education and Teaching]
- Early childhood education teaching [*see* 13.1210 Early Childhood Education and Teaching]
- Day care [*see* 19.0709 Child Care Provider/Assistant]

13.1203 Junior High/Intermediate/Middle School Education and Teaching

This instructional program class comprises any program that prepares individuals to teach students in the middle, intermediate or junior high grades, which may include grades four through ten, depending on applicable regulations.

Examples of included programs
- Intermediate education
- Junior and intermediate education

Examples of excluded programs
- Elementary school teacher [*see* 13.1202 Elementary Education and Teaching]
- Secondary school teacher [*see* 13.1205 Secondary Education and Teaching]
- Intermediate and senior education [*see* 13.1206 Teacher Education, Multiple Levels]
- Primary and junior education [*see* 13.1206 Teacher Education, Multiple Levels]

13.1205 Secondary Education and Teaching

This instructional program class comprises any program that prepares individuals to teach students in the secondary grades, which may include grades seven through twelve, depending on the school system and applicable regulations. May include preparation to teach a comprehensive curriculum or specific subject matter.

Examples of included programs
- High school teacher
- Secondary education
- Secondary school teacher
- Secondary school teacher training
- Senior secondary school education

Examples of excluded programs
- Junior and intermediate education [*see* 13.1203 Junior High/Intermediate/Middle School Education and Teaching]
- Intermediate and senior education [*see* 13.1206 Teacher Education, Multiple Levels]
- Postsecondary education [*see* 13.1299 Teacher Education and Professional Development, Specific Levels and Methods, Other]

13.1206 Teacher Education, Multiple Levels

This instructional program class comprises any program that prepares individuals to teach students at more than one educational level, such as a combined program in elementary/secondary, early childhood/elementary, elementary/middle school, or junior high/high school teacher education.

Examples of included programs
- Intermediate and senior education
- Kindergarten and elementary education
- Primary and junior education

Examples of excluded programs
- Early childhood education special needs [*see* 13.1015 Education/Teaching of Individuals in Early Childhood Special Education Programs]
- Elementary school teacher [*see* 13.1202 Elementary Education and Teaching]
- Secondary school teacher [*see* 13.1205 Secondary Education and Teaching]
- Montessori teaching [*see* 13.1207 Montessori Teacher Education]
- Waldorf/Steiner teacher education [*see* 13.1208 Waldorf/Steiner Teacher Education]
- Kindergarten teacher [*see* 13.1209 Kindergarten/Preschool Education and Teaching]
- Early childhood education teaching [*see* 13.1210 Early Childhood Education and Teaching]
- Postsecondary education [*see* 13.1299 Teacher Education and Professional Development, Specific Levels and Methods, Other]

13.1207 Montessori Teacher Education

This instructional program class comprises any program that prepares individuals to teach students at various grade levels according to the pedagogical principles and methods developed by Maria Montessori and her followers.

Examples of included programs
- Montessori preschool teacher
- Montessori teacher
- Montessori teaching

Examples of excluded programs
- Early childhood special education [*see* 13.1015 Education/Teaching of Individuals in Early Childhood Special Education Programs]
- Elementary school teacher [*see* 13.1202 Elementary Education and Teaching]
- Waldorf/Steiner teacher education [*see* 13.1208 Waldorf/Steiner Teacher Education]
- Kindergarten teaching [*see* 13.1209 Kindergarten/Preschool Education and Teaching]
- Early childhood education teaching [*see* 13.1210 Early Childhood Education and Teaching]

13.1208 Waldorf/Steiner Teacher Education

This instructional program class comprises any program that prepares individuals to teach students at various grade levels according to the pedagogical principles and methods developed by Rudolf Steiner and his followers.

Example of included programs
- Waldorf/Steiner teacher education

Examples of excluded programs
- Early childhood special education [*see* 13.1015 Education/Teaching of Individuals in Early Childhood Special Education Programs]
- Elementary school teacher [*see* 13.1202 Elementary Education and Teaching]
- Kindergarten teacher [*see* 13.1209 Kindergarten/Preschool Education and Teaching]
- Early childhood education teaching [*see* 13.1210 Early Childhood Education and Teaching]

13.1209 Kindergarten/Preschool Education and Teaching

This instructional program class comprises any program that prepares individuals to teach children, in formal settings, prior to beginning regular elementary school. Depending on the school system and applicable regulations, students may range in age from three to six years. Includes preparation to teach all relevant subject matter.

Examples of included programs
- Kindergarten teacher
- Kindergarten teaching
- Preschool education
- Preschool teacher

Examples of excluded programs
- Early childhood special education [*see* 13.1015 Education/Teaching of Individuals in Early Childhood Special Education Programs]
- Kindergarten and elementary education [*see* 13.1206 Teacher Education, Multiple Levels]
- Montessori preschool teacher [*see* 13.1207 Montessori Teacher Education]
- Early childhood education teaching [*see* 13.1210 Early Childhood Education and Teaching]
- Day care [*see* 19.0709 Child Care Provider/Assistant]

13.1210 Early Childhood Education and Teaching

This instructional program class comprises any program that prepares individuals to teach students that can range in age from infancy through eight years, depending on the school system and applicable regulations. Includes preparation to teach all relevant subject matter.

Example of included programs
- Early childhood education teaching

Examples of excluded programs
- Early childhood special education [*see* 13.1015 Education/Teaching of Individuals in Early Childhood Special Education Programs]
- Elementary school teacher [*see* 13.1202 Elementary Education and Teaching]
- Primary education [*see* 13.1202 Elementary Education and Teaching]
- Kindergarten and elementary education [*see* 13.1206 Teacher Education, Multiple Levels]
- Day care [*see* 19.0709 Child Care Provider/Assistant]

13.1299 Teacher Education and Professional Development, Specific Levels and Methods, Other

This instructional program class comprises any program not listed above that relates to Teacher Education and Professional Development, Specific Levels and Methods.

Example of included programs
- Postsecondary education

Example of excluded programs
- Teacher librarian [*see* 13.1399 Teacher Education and Professional Development, Specific Subject Areas, Other]

13.13 Teacher Education and Professional Development, Specific Subject Areas

This subseries comprises instructional program classes 13.1301 to 13.1399.

13.1301 Agricultural Teacher Education

This instructional program class comprises any program that prepares individuals to teach vocational agricultural programs at various educational levels.

Examples of included programs
- Agricultural teacher education
- Agriculture education

Examples of excluded programs
- Agricultural extension [*see* 01.0801 Agricultural and Extension Education Services]
- Rural extension studies [*see* 01.0801 Agricultural and Extension Education Services]

13.1302 Art Teacher Education

This instructional program class comprises any program that prepares individuals to teach art and art appreciation programs at various educational levels.

Examples of included programs
- Art education
- Art history education
- Art teacher
- Art teaching
- Ceramic teacher
- Fine arts education
- Fine arts teaching
- Teaching art
- Visual arts education

Examples of excluded programs
- Industrial arts teacher [*see* 13.1309 Technology Teacher Education/Industrial Arts Teacher Education]
- Music teacher [*see* 13.1312 Music Teacher Education]
- Dance instructor [*see* 13.1324 Drama and Dance Teacher Education]
- Drama education [*see* 13.1324 Drama and Dance Teacher Education]
- Handicrafts and model-making [*see* 36.0102 Handicrafts and Model-making]
- Art (not for credit) [*see* 36.0110 Art (not for credit)]
- Art studies [*see* 50.0701 Art/Art Studies, General]

13.1303 Business Teacher Education

This instructional program class comprises any program that prepares individuals to teach vocational business programs at various educational levels.

Examples of included programs
- Accounting teaching
- Administration teaching
- Business and industrial trainer development
- Business education
- Commerce education
- Office education
- Teaching accounting
- Teaching insurance
- Teaching real estate
- Teaching secretarial

Examples of excluded programs
- Marketing education [*see* 13.1310 Sales and Marketing Operations/Marketing and Distribution Teacher Education]
- Business studies [*see* 52.0101 Business/Commerce, General]

13.1304 Driver and Safety Teacher Education

This instructional program class comprises any program that prepares individuals to teach driver and safety education programs at various educational levels.

Examples of included programs
- Driver instructor
- Driving instructor

Examples of excluded programs
- Bus driving [*see* 49.0205 Truck and Bus Driver/Commercial Vehicle Operation]
- Heavy truck driving [*see* 49.0205 Truck and Bus Driver/Commercial Vehicle Operation]
- Taxi driver [*see* 49.0205 Truck and Bus Driver/Commercial Vehicle Operation]
- Truck driving [*see* 49.0205 Truck and Bus Driver/Commercial Vehicle Operation]

13.1305 English/English Language Arts Teacher Education

This instructional program class comprises any program that prepares individuals to teach English grammar, composition and literature programs at various educational levels.

Examples of included programs
- English education
- English language arts education
- English literature education
- English teacher
- English teaching
- Teaching English

Examples of excluded programs
- Teaching English as a second language [*see* 13.1401 Teaching English as a Second or Foreign Language/ESL Language Instructor]
- Second language teaching [*see* 13.1499 Teaching English or French as a Second or Foreign Language, Other]
- English as a second language (ESL) teaching [*see* 16.1701 English as a Second Language]
- English language and literature [*see* 23.0101 English Language and Literature, General]

13.1306 Aboriginal and Foreign Language Teacher Education

This instructional program class comprises any program that prepares individuals to teach aboriginal and foreign languages at various educational levels. This class does not include the teaching of English, French, Spanish, German or Latin.

Examples of included programs
- Chinese teacher
- Hebrew teacher
- Teaching foreign languages

Examples of excluded programs
- Foreign languages and literature [*see* 16.0101 Aboriginal and Foreign Languages and Literatures, General]
- Native as a second language [*see* 16.1799 Second Language Learning, Other]
- Second language learning [*see* 16.1799 Second Language Learning, Other]
- Second language learning (not for credit) [*see* 32.0109 Second Language Learning (not for credit)]

13.1307 Health Teacher Education

This instructional program class comprises any program that prepares individuals to teach health education programs at various educational levels.

Example of included programs
- Health teacher education

Examples of excluded programs
- Education health care [*see* 13.1327 Health Occupations Teacher Education]
- Health and fitness studies [*see* 31.0501 Health and Physical Education, General]
- Physical and health education [*see* 31.0501 Health and Physical Education, General]
- Public health education [*see* 51.2207 Public Health Education and Promotion]

13.1308 Family and Consumer Sciences/Home Economics Teacher Education

This instructional program class comprises any program that prepares individuals to teach vocational home economics programs at various educational levels.

Examples of included programs
- Family and consumer studies teaching
- Family life education
- Family studies education
- Home economics education
- Home economics teacher
- Home economics teaching

Examples of excluded programs
- Family social sciences [*see* 19.0101 Family and Consumer Sciences/Human Sciences, General]
- Home economics [*see* 19.0101 Family and Consumer Sciences/Human Sciences, General]

13.1309 Technology Teacher Education/Industrial Arts Teacher Education

This instructional program class comprises any program that prepares individuals to teach technology education/industrial arts programs at various educational levels.

Examples of included programs
- Industrial arts education
- Industrial arts teacher
- Technology education

Examples of excluded programs
- Auto mechanic teacher [*see* 13.1320 Trade and Industrial Teacher Education]
- Industrial education [*see* 13.1320 Trade and Industrial Teacher Education]
- Vocational technical education [*see* 13.1320 Trade and Industrial Teacher Education]

13.1310 Sales and Marketing Operations/Marketing and Distribution Teacher Education

This instructional program class comprises any program that prepares individuals to teach vocational sales and marketing operations/marketing and distributive education programs at various educational levels.

Examples of included programs
- Marketing education
- Teaching marketing

Examples of excluded programs
- Marketing communication [*see* 09.0903 Advertising]
- Business education [*see* 13.1303 Business Teacher Education]
- Sales and marketing [*see* 52.1801 Sales, Distribution and Marketing Operations, General]

13.1311 Mathematics Teacher Education

This instructional program class comprises any program that prepares individuals to teach mathematics programs at various educational levels.

Examples of included programs
- Mathematics education
- Secondary mathematics education
- Teaching mathematics

13.1312 Music Teacher Education

This instructional program class comprises any program that prepares individuals to teach music and music appreciation programs at various educational levels.

Examples of included programs
- Music education
- Music teacher
- Music teaching

Examples of excluded programs
- Music (not for credit) [*see* 36.0115 Music (not for credit)]
- Religious music [*see* 39.0501 Religious/Sacred Music]
- Music [*see* 50.0901 Music, General]
- Music pedagogy [*see* 50.0912 Music Pedagogy]

13.1314 Physical Education Teaching and Coaching

This instructional program class comprises any program that prepares individuals to teach physical education programs and/or to coach sports at various educational levels.

Examples of included programs
- Physical education teacher
- Physical education teaching

Examples of excluded programs
- Equestrian coaching [*see* 01.0507 Equestrian/Equine Studies]
- Coaching [*see* 31.0501 Health and Physical Education, General]
- Physical education [*see* 31.0501 Health and Physical Education, General]
- Sport and exercise studies [*see* 31.0501 Health and Physical Education, General]
- Athletic training/trainer [*see* 51.0913 Athletic Training/Trainer]

13.1315 Reading Teacher Education

This instructional program class comprises any program that prepares individuals to diagnose reading difficulties and to teach reading programs at various educational levels.

Examples of included programs
- Education reading specialist
- Reading education

Examples of excluded programs
- Literacy and communication skills [*see* 32.0108 Literacy and Communication Skills]
- Reading [*see* 36.0116 Reading]

13.1316 Science Teacher Education/General Science Teacher Education

This instructional program class comprises any program that prepares individuals to teach general science programs, or a combination of the biological and physical science subject matter areas, at various educational levels.

Examples of included programs
- Geology education
- Science education
- Science teacher
- Science teaching

Examples of excluded programs
- Biology teacher [*see* 13.1322 Biology Teacher Education]
- Chemistry teaching [*see* 13.1323 Chemistry Teacher Education]
- Physics teacher [*see* 13.1329 Physics Teacher Education]
- Biological and physical sciences [*see* 30.0101 Biological and Physical Sciences]

13.1317 Social Science Teacher Education

This instructional program class comprises any program that prepares individuals to teach specific social science subjects and programs at various educational levels.

Examples of included programs
- Anthropology education
- Economics education
- Political science teaching education
- Social sciences education
- Social sciences teacher training
- Sociology education
- Sociology teaching

Example of excluded programs
- Social studies education [*see* 13.1318 Social Studies Teacher Education]

13.1318 Social Studies Teacher Education

This instructional program class comprises any program that prepares individuals to teach general social studies programs at various educational levels.

Examples of included programs
- Social studies education
- Social studies teaching

Examples of excluded programs
- Social sciences education [*see* 13.1317 Social Science Teacher Education]
- Social studies [*see* 45.0101 Social Sciences, General]

13.1319 Technical Teacher Education

This instructional program class comprises any program that prepares individuals to teach specific vocational technical education programs at various educational levels.

Examples of included programs
- Technical education
- Technical teacher

Examples of excluded programs
- Vocational technical education [*see* 13.1320 Trade and Industrial Teacher Education]
- Computer education [*see* 13.1321 Computer Teacher Education]

13.1320 Trade and Industrial Teacher Education

This instructional program class comprises any program that prepares individuals to teach specific vocational trades and industries programs at various educational levels.

Examples of included programs
- Auto mechanic teacher
- Carpentry teaching
- Electronics education
- Electronics teaching
- Industrial education
- Teaching cooking
- Vocational technical education
- Welding instructor

Examples of excluded programs
- Industrial arts teacher [*see* 13.1309 Technology Teacher Education/Industrial Arts Teacher Education]
- Technology education [*see* 13.1309 Technology Teacher Education/Industrial Arts Teacher Education]
- Computer education [*see* 13.1321 Computer Teacher Education]

13.1321 Computer Teacher Education

This instructional program class comprises any program that prepares individuals to teach computer education programs at various educational levels.

Examples of included programs
- Computer education
- Education computer science

Examples of excluded programs
- Computing and information science [*see* 11.0101 Computer and Information Sciences, General]
- Technical teacher [*see* 13.1319 Technical Teacher Education]
- Vocational technical education [*see* 13.1320 Trade and Industrial Teacher Education]

13.1322 Biology Teacher Education

This instructional program class comprises any program that prepares individuals to teach biology programs at various educational levels.

Examples of included programs
- Biochemistry education
- Biology education
- Biology teacher
- Biology teaching

Examples of excluded programs
- Science teacher [*see* 13.1316 Science Teacher Education/General Science Teacher Education]
- Biology [*see* 26.0101 Biology/Biological Sciences, General]

13.1323 Chemistry Teacher Education

This instructional program class comprises any program that prepares individuals to teach chemistry programs at various educational levels.

Examples of included programs
- Chemistry education
- Chemistry teaching

Examples of excluded programs
- Science teacher [*see* 13.1316 Science Teacher Education/General Science Teacher Education]
- Chemistry [*see* 40.0501 Chemistry, General]

13.1324 Drama and Dance Teacher Education

This instructional program class comprises any program that prepares individuals to teach drama and/or dance programs at various educational levels.

Examples of included programs
- Ballet teacher
- Dance instructor
- Drama education

Examples of excluded programs
- Art teacher [*see* 13.1302 Art Teacher Education]
- Fine arts teaching [*see* 13.1302 Art Teacher Education]
- Dancing (not for credit) [*see* 36.0114 Dancing (not for credit)]
- Theatre (not for credit) [*see* 36.0117 Theatre (not for credit)]
- Dance [*see* 50.0301 Dance, General]
- Dramatic arts [*see* 50.0501 Drama and Dramatics/Theatre Arts, General]

13.1325 French Language/French Language Arts Teacher Education

This instructional program class comprises any program that prepares individuals to teach French grammar, composition and literature programs at various educational levels.

Examples of included programs
- French education
- French teacher
- French teaching
- Teaching French

Examples of excluded programs
- French studies [*see* 05.0124 French Studies]
- Teaching French as a second language [*see* 13.1402 Teaching French as a Second or Foreign Language]
- French as a second language [*see* 16.1702 French as a Second Language]
- Second language learning (not for credit) [*see* 32.0109 Second Language Learning (not for credit)]
- French language and literature [*see* 55.0101 French Language and Literature, General]

13.1326 German Language Teacher Education

This instructional program class comprises any program that prepares individuals to teach German language programs at various educational levels.

Examples of included programs
- German teacher
- German teaching

Examples of excluded programs
- German studies [*see* 05.0125 German Studies]
- Germanic languages [*see* 16.0500 Germanic Languages, Literatures and Linguistics, General]
- German language and literature [*see* 16.0501 German Language and Literature]
- Second language learning (not for credit) [*see* 32.0109 Second Language Learning (not for credit)]

13.1327 Health Occupations Teacher Education

This instructional program class comprises any program that prepares individuals to teach specific vocational health occupations programs at various educational levels.

Examples of included programs
- Dental hygiene education
- Dietetics education
- Dietetics teaching
- Education health care
- Education pharmacy
- Nursing education
- Nursing teaching
- Teaching nursing

Examples of excluded programs
- Health teacher education [*see* 13.1307 Health Teacher Education]
- Dental public health and education [*see* 51.0504 Dental Public Health and Education (Cert., MSc, MPH, PhD, DPH)]
- Public health education [*see* 51.2207 Public Health Education and Promotion]

13.1328 History Teacher Education

This instructional program class comprises any program that prepares individuals to teach history programs at various educational levels.

Examples of included programs
- History teacher
- Teaching history

Examples of excluded programs
- History of education [*see* 13.0901 Social and Philosophical Foundations of Education]
- Social sciences education [*see* 13.1317 Social Science Teacher Education]
- History [*see* 54.0101 History, General]

13.1329 Physics Teacher Education

This instructional program class comprises any program that prepares individuals to teach physics programs at various educational levels.

Examples of included programs
- Physics education
- Physics teacher
- Physics teaching

Examples of excluded programs
- Physical education teacher [*see* 13.1314 Physical Education Teaching and Coaching]
- Science teacher [*see* 13.1316 Science Teacher Education/General Science Teacher Education]
- Engineering physics [*see* 14.1201 Engineering Physics]
- Physics [*see* 40.0801 Physics, General]

13.1330 Spanish Language Teacher Education

This instructional program class comprises any program that prepares individuals to teach Spanish language programs at various educational levels.

Examples of included programs
- Spanish education
- Spanish teacher

Examples of excluded programs
- Spanish studies [*see* 05.0130 Spanish and Iberian Studies]
- Teaching foreign languages [*see* 13.1306 Aboriginal and Foreign Language Teacher Education]
- Spanish language and literature [*see* 16.0905 Spanish Language and Literature]
- Spanish as a second language [*see* 16.1799 Second Language Learning, Other]
- Second language learning (not for credit) [*see* 32.0109 Second Language Learning (not for credit)]

13.1331 Speech Teacher Education

This instructional program class comprises any program that prepares individuals to teach speech and language arts programs at various educational levels.

Example of included programs
- Speech teacher education

Examples of excluded programs
- Speech communication [*see* 09.0101 Communication Studies/Speech Communication and Rhetoric]
- Education of individuals with speech or language impairments [*see* 13.1012 Education/Teaching of Individuals with Speech or Language Impairments]
- Speech and rhetorical studies [*see* 23.1001 English Speech and Rhetorical Studies]
- Speech therapy [*see* 51.0203 Speech-language Pathology/Pathologist]
- Speech therapy and audiology [*see* 51.0204 Audiology/Audiologist and Speech-language Pathology/Pathologist]

13.1332 Geography Teacher Education

This instructional program class comprises any program that prepares individuals to teach geography at various grade levels.

Examples of included programs
- Geography education
- Geography teacher
- Teaching geography

Examples of excluded programs
- Social sciences education [*see* 13.1317 Social Science Teacher Education]
- Geography [*see* 45.0701 Geography]

13.1333 Latin Teacher Education

This instructional program class comprises any program that prepares individuals to teach Latin at various grade levels.

Example of included programs
- Latin teacher education

Examples of excluded programs
- Classical languages [*see* 16.1200 Classics and Classical Languages, Literatures and Linguistics, General]
- Latin [*see* 16.1203 Latin Language and Literature]

13.1334 School Librarian/School Library Media Specialist

This instructional program class comprises any program that prepares individuals to serve as librarians and media specialists in elementary and secondary schools as well as special instructional centres.

Example of included programs
- School librarian

Examples of excluded programs
- Library and information studies [*see* 25.0101 Library Science/Librarianship]
- Library science [*see* 25.0101 Library Science/Librarianship]
- Library assistant [*see* 25.0301 Library Assistant/Technician]
- Library technology [*see* 25.0301 Library Assistant/Technician]

13.1335 Psychology Teacher Education

This instructional program class comprises any program that prepares individuals to teach general psychology at the secondary school level.

Examples of included programs
- Psychology teacher
- Psychology teaching

Examples of excluded programs
- Psychology [*see* 42.0101 Psychology, General]
- Educational psychology [*see* 42.1801 Educational Psychology]

13.1399 Teacher Education and Professional Development, Specific Subject Areas, Other

This instructional program class comprises any program not listed above that relates to Teacher Education and Professional Development, Specific Subject Areas.

Examples of included programs
- Classics education
- Communication education
- Education law
- Education library science
- Education recreation
- Engineering education
- Engineering teaching
- Environmental education
- Forestry education
- Kinesiology teaching
- Linguistics teaching
- Native language teacher
- Teacher librarian

Examples of excluded programs
- Teaching English as a second language [*see* 13.1401 Teaching English as a Second or Foreign Language/ESL Language Instructor]
- Teaching French as a second language [*see* 13.1402 Teaching French as a Second or Foreign Language]
- Second language teaching [*see* 13.1499 Teaching English or French as a Second or Foreign Language, Other]
- Religious education [*see* 39.0401 Religious Education]
- Dental public health and education [*see* 51.0504 Dental Public Health and Education (Cert., MSc, MPH, PhD, DPH)]

13.14 Teaching English or French as a Second or Foreign Language

This subseries comprises instructional program classes 13.1401 to 13.1499.

13.1401 Teaching English as a Second or Foreign Language/ESL Language Instructor

This instructional program class comprises any program that focuses on the principles and practice of teaching English to students who are not proficient in English or who do not speak, read or write English, and that prepares individuals to function as teachers and administrators in such programs.

Examples of included programs
- Teachers of English as a Second Language (TESL)
- Teachers of English to Speakers of Other Languages (TESOL)
- Teaching English as a second language
- Teaching ESL

Examples of excluded programs
- Bilingual and multilingual education [*see* 13.0201 Bilingual and Multilingual Education]
- English teacher [*see* 13.1305 English/English Language Arts Teacher Education]
- Second language teaching [*see* 13.1499 Teaching English or French as a Second or Foreign Language, Other]
- English as a second language (ESL) teaching [*see* 16.1701 English as a Second Language]
- English language and literature [*see* 23.0101 English Language and Literature, General]
- Second language learning (not for credit) [*see* 32.0109 Second Language Learning (not for credit)]

13.1402 Teaching French as a Second or Foreign Language

This instructional program class comprises any program that focuses on the principles and practice of teaching French to students who are not proficient in French or who do not speak, read, or write French, and prepares individuals to serve as teachers and administrators.

Example of included programs
- Teaching French as a second language

Examples of excluded programs
- Bilingual and multilingual education [*see* 13.0201 Bilingual and Multilingual Education]
- Teaching foreign languages [*see* 13.1306 Aboriginal and Foreign Language Teacher Education]
- French teacher [*see* 13.1325 French Language/French Language Arts Teacher Education]
- French as a second language [*see* 16.1702 French as a Second Language]
- Second language learning (not for credit) [*see* 32.0109 Second Language Learning (not for credit)]

13.1499 Teaching English or French as a Second or Foreign Language, Other

This instructional program class comprises any program not listed above that relates to Teaching English or French as a Second or Foreign Language.

Example of included programs
- Second language teaching

Examples of excluded programs
- Bilingual and multilingual education [*see* 13.0201 Bilingual and Multilingual Education]
- English teacher [*see* 13.1305 English/English Language Arts Teacher Education]
- French teacher [*see* 13.1325 French Language/French Language Arts Teacher Education]
- Teaching English as a second language [*see* 13.1401 Teaching English as a Second or Foreign Language/ESL Language Instructor]
- Teaching French as a second language [*see* 13.1402 Teaching French as a Second or Foreign Language]
- Second language learning (not for credit) [*see* 32.0109 Second Language Learning (not for credit)]

13.15 Teaching Assistants/Aides

This subseries comprises instructional program classes 13.1501 to 13.1599.

13.1501 Teaching Assistants/Aides, General

This instructional program class comprises any program that prepares individuals to assist a teacher in regular classroom settings or in providing instruction and supervision to special student populations,

such as bilingual/bicultural students, special education students, adult learners, and students learning English. These programs include courses in techniques of general classroom supervision, maintaining order, assisting with lessons and carrying out related assignments.

Examples of included programs
- Certified education assistant
- Education assistant
- Educational assistant
- Native classroom assistant
- Special education assistant
- Special needs teacher assistant
- Teacher aide
- Teaching assistant

Examples of excluded programs
- Adult literacy instructor [*see* 13.1502 Adult Literacy Tutor/Instructor]
- Child care assistant [*see* 19.0709 Child Care Provider/Assistant]
- Early childhood education assistant [*see* 19.0709 Child Care Provider/Assistant]

13.1502 Adult Literacy Tutor/Instructor

This instructional program class comprises any program that prepares individuals to serve as instructors and mentors for adults in basic or functional literacy programs in school, institutional, community, and private settings.

Examples of included programs
- Adult literacy instructor
- Literacy education
- Literacy instruction
- Literacy tutor

Examples of excluded programs
- Adult education [*see* 13.1201 Adult and Continuing Education and Teaching]
- Educational assistant [*see* 13.1501 Teaching Assistants/Aides, General]
- Tutor [*see* 13.1599 Teaching Assistants/Aides, Other]
- Literacy and communication skills [*see* 32.0108 Literacy and Communication Skills]

13.1599 Teaching Assistants/Aides, Other

This instructional program class comprises any program not listed above that relates to Teaching Assistants/Aides.

Example of included programs
- Tutor

Examples of excluded programs
- Teaching assistant [*see* 13.1501 Teaching Assistants/Aides, General]
- Adult literacy instructor [*see* 13.1502 Adult Literacy Tutor/Instructor]

13.99 Education, Other

This subseries comprises instructional program class 13.9999.

13.9999 Education, Other

This instructional program class comprises any program not listed above that relates to Education.

Examples of excluded programs
- Agricultural extension [*see* 01.0801 Agricultural and Extension Education Services]
- Hairdresser instructor [*see* 12.0413 Cosmetology, Barber/Styling and Nail Instructor]
- Religious education [*see* 39.0401 Religious Education]
- Flight instructor [*see* 49.0108 Flight Instructor]
- Diving instructor [*see* 49.0304 Diver, Professional and Instructor]
- Dental public health and education [*see* 51.0504 Dental Public Health and Education (Cert., MSc, MPH, PhD, DPH)]
- Athletic training/trainer [*see* 51.0913 Athletic Training/Trainer]
- Public health education [*see* 51.2207 Public Health Education and Promotion]
- Yoga teacher [*see* 51.3602 Yoga Teacher Training/Yoga Therapy]

14. Engineering

This series comprises instructional programs that prepare individuals to apply mathematical and scientific principles to the solution of practical problems.

14.01 Engineering, General

This subseries comprises instructional program class 14.0101.

14.0101 Engineering, General

This instructional program class comprises any program that generally prepares individuals to apply mathematical and scientific principles to solve a wide variety of practical problems in industry, social organization, public works, and commerce.

Examples of included programs
- Engineering
- General engineering
- Integrated engineering

14.02 Aerospace, Aeronautical and Astronautical Engineering

This subseries comprises instructional program class 14.0201.

14.0201 Aerospace, Aeronautical and Astronautical Engineering

This instructional program class comprises any program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of aircraft, space vehicles, and their systems; applied research on flight characteristics; and the development of systems and procedures for the launching, guidance, and control of air and space vehicles.

Examples of included programs
- Aeronautical engineering
- Aerospace engineering
- Aircraft design engineering
- Aircraft engineering
- Astronautical engineering
- Aviation engineering
- Avionics engineering

Examples of excluded programs
- Aerospace engineering technology [*see* 15.0801 Aeronautical/Aerospace Engineering Technology/Technician]
- Aircraft mechanic [*see* 47.0607 Airframe Mechanics and Aircraft Maintenance Technology/Technician]
- Aviation sciences [*see* 49.0101 Aeronautics/Aviation/Aerospace Science and Technology, General]

14.03 Agricultural/Biological Engineering and Bioengineering

This subseries comprises instructional program class 14.0301.

14.0301 Agricultural/Biological Engineering and Bioengineering

This instructional program class comprises any program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of systems, equipment and facilities used to produce, process and store agricultural products; to improve the productivity of agricultural methods; and to develop improved agricultural biological systems.

Examples of included programs
- Agricultural engineering
- Bio-resource engineering
- Bioengineering
- Biological engineering
- Bioprocess engineering
- Biosystems engineering
- Food engineering
- Food processing engineering

Examples of excluded programs
- Agricultural mechanization [*see* 01.0201 Agricultural Mechanization, General]
- Food science [*see* 01.1001 Food Science]
- Soil science [*see* 01.1201 Soil Science and Agronomy, General]
- Biomedical engineering [*see* 14.0501 Biomedical/Medical Engineering]
- Biotechnology [*see* 26.1201 Biotechnology]

14.04 Architectural Engineering

This subseries comprises instructional program class 14.0401.

14.0401 Architectural Engineering

This instructional program class comprises any program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of materials, systems, and methods used to construct and equip buildings intended for human habitation or other purposes.

Example of included programs
- Architectural engineering

Examples of excluded programs
- Architectural science [*see* 04.0201 Architecture (BArch, BA/BSc, MArch, MA/MSc, PhD)]
- Interior architecture [*see* 04.0501 Interior Architecture]
- Naval architecture [*see* 14.2201 Naval Architecture and Marine Engineering]
- Architectural engineering technology [*see* 15.0101 Architectural Engineering Technology/Technician]
- Architectural drafting [*see* 15.1303 Architectural Drafting and Architectural CAD/CADD]

14.05 Biomedical/Medical Engineering

This subseries comprises instructional program class 14.0501.

14.0501 Biomedical/Medical Engineering

This instructional program class comprises any program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of biological and health systems and products such as integrated biological systems, instrumentation, medical information systems, artificial organs and prostheses, and health management and care delivery systems.

Examples of included programs
- Biomedical engineering
- Medical engineering

Examples of excluded programs
- Bioengineering [*see* 14.0301 Agricultural/Biological Engineering and Bioengineering]
- Biochemical engineering [*see* 14.9999 Engineering, Other]
- Genetic engineering [*see* 14.9999 Engineering, Other]
- Biomedical engineering technology [*see* 15.0401 Biomedical Technology/Technician]
- Medical biology [*see* 26.0102 Biomedical Sciences, General]

14.06 Ceramic Sciences and Engineering

This subseries comprises instructional program class 14.0601.

14.0601 Ceramic Sciences and Engineering

This instructional program class comprises any program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of inorganic non-metallic materials, such as porcelains, cements, industrial ceramics, ceramic superconductors, abrasives, and related materials and systems.

Examples of included programs
- Ceramic engineering
- Ceramic sciences

Examples of excluded programs
- Materials engineering [*see* 14.1801 Materials Engineering]
- Materials science and engineering [*see* 14.3101 Materials Science]
- Ceramics [*see* 50.0711 Ceramic Arts and Ceramics]

14.07 Chemical Engineering

This subseries comprises instructional program class 14.0701.

14.0701 Chemical Engineering

This instructional program class comprises any program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of systems employing chemical processes, such as chemical reactors, kinetic systems, electrochemical systems, energy conservation processes, heat and mass transfer systems, and separation processes; and the applied analysis of chemical problems such as corrosion, particle abrasion, energy loss, pollution, and fluid mechanics.

Example of included programs
- Chemical engineering

Examples of excluded programs
- Chemical and petroleum engineering [*see* 14.2501 Petroleum Engineering]
- Biochemistry [*see* 26.0202 Biochemistry]
- Chemistry [*see* 40.0501 Chemistry, General]
- Physical chemistry [*see* 40.0506 Physical and Theoretical Chemistry]

14.08 Civil Engineering

This subseries comprises instructional program classes 14.0801 to 14.0899.

14.0801 Civil Engineering, General

This instructional program class comprises any program that generally prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of structural, load-bearing, material moving, transportation, water resource, and material control systems; and environmental safety measures.

Example of included programs
- Civil engineering

Examples of excluded programs
- Civil and structural engineering [*see* 14.0803 Structural Engineering]
- Construction engineering [*see* 14.3301 Construction Engineering]
- Civil engineering technology [*see* 15.0201 Civil Engineering Technology/Technician]
- Civil engineering drafting [*see* 15.1304 Civil Drafting and Civil Engineering CAD/CADD]

14.0802 Geotechnical Engineering

This instructional program class comprises any program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of systems for manipulating and controlling surface and subsurface features at or incorporated into structural sites, including earth and rock moving and stabilization, land fills, structural use and environmental stabilization of wastes and by-products, underground construction, and groundwater and hazardous material containment.

Example of included programs
- Geotechnical engineering

Examples of excluded programs
- Geological engineering [*see* 14.3901 Geological/Geophysical Engineering]
- Mining engineering technology [*see* 15.0901 Mining Technology/Technician]
- Geological sciences [*see* 40.0601 Geology/Earth Science, General]

14.0803 Structural Engineering

This instructional program class comprises any program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of materials and systems used in building load-bearing structures for various purposes and in different environments, including buildings, roads, rail lines, bridges, dams, conduits, offshore platforms and work stations, and other structural shells; and the analysis of structural problems such as, failure, fabrication, safety, and natural hazards.

Examples of included programs
- Bridge engineering
- Civil and structural engineering
- Structural engineering

Examples of excluded programs
- Architectural science [*see* 04.0201 Architecture (BArch, BA/BSc, MArch, MA/MSc, PhD)]
- Construction engineering [*see* 14.3301 Construction Engineering]
- Architectural engineering technician [*see* 15.0101 Architectural Engineering Technology/Technician]
- Construction engineering technician [*see* 15.1001 Construction Engineering Technology/Technician]

14.0804 Transportation and Highway Engineering

This instructional program class comprises any program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of total systems for the physical movement of people, materials and information, including general network design and planning, facilities planning, site evaluation, transportation management systems, needs projections and analysis, and analysis of costs.

Examples of included programs
- Highway engineering
- Traffic engineering
- Transportation engineering
- Transportation systems, highways

Examples of excluded programs
- Transportation planning [*see* 04.0301 City/Urban, Community and Regional Planning]
- Locomotive engineer [*see* 49.0299 Ground Transportation, Other]
- Transportation management [*see* 52.0209 Transportation/Transportation Management]
- Transportation clerk [*see* 52.0410 Traffic, Customs and Transportation Clerk/Technician]

14.0805 Water Resources Engineering

This instructional program class comprises any program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of systems for collecting, storing, moving, conserving and controlling surface water and groundwater, including water quality control, water cycle management, management of human and industrial water requirements, water delivery, and flood control.

Example of included programs
- Water resources engineering

Examples of excluded programs
- Natural resources technology [*see* 03.0101 Natural Resources/Conservation, General]
- Water resources technology [*see* 03.0205 Water, Wetlands and Marine Resources Management]
- Ocean engineering [*see* 14.2401 Ocean Engineering]
- Water quality technology [*see* 15.0506 Water Quality and Wastewater Treatment Management and Recycling Technology/Technician]
- Water resources sciences [*see* 40.0605 Hydrology and Water Resources Science]

14.0899 Civil Engineering, Other

This instructional program class comprises any program not listed above that relates to Civil Engineering.

14.09 Computer Engineering

This subseries comprises instructional program classes 14.0901 to 14.0999.

14.0901 Computer Engineering, General

This instructional program class comprises any program that generally prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of computer hardware and software systems and related equipment and facilities; and the analysis of specific problems of computer applications to various tasks.

Examples of included programs
- Computer engineering
- Computer systems engineering

Examples of excluded programs
- Computer science [*see* 11.0701 Computer Science]
- Hardware engineering [*see* 14.0902 Computer Hardware Engineering]
- Software engineering [*see* 14.0903 Computer Software Engineering]
- Network engineering [*see* 14.0999 Computer Engineering, Other]
- Systems engineering [*see* 14.2701 Systems Engineering]
- Computer engineering technology [*see* 15.1201 Computer Engineering Technology/Technician, General]

14.0902 Computer Hardware Engineering

This instructional program class comprises any program that prepares individuals to apply mathematical and scientific principles to the design, development, and evaluation of computer hardware and related peripheral equipment. These programs include courses in computer circuit and chip design, circuitry, computer systems design, computer equipment design, computer layout planning, testing procedures, and related computer theory and software topics.

Examples of included programs
- Computer electronics engineering
- Computer hardware engineering
- Hardware engineering

Examples of excluded programs
- Computer science [*see* 11.0701 Computer Science]
- Computer systems engineering [*see* 14.0901 Computer Engineering, General]
- Computer network engineering [*see* 14.0999 Computer Engineering, Other]
- Systems engineering [*see* 14.2701 Systems Engineering]
- Computer engineering technology [*see* 15.1201 Computer Engineering Technology/Technician, General]
- Computer hardware technology [*see* 15.1203 Computer Hardware Technology/Technician]

14.0903 Computer Software Engineering

This instructional program class comprises any program that prepares individuals to apply scientific and mathematical principles to the design, analysis, verification, validation, implementation, and maintenance of computer software systems using a variety of computer languages. These programs include courses in discrete mathematics, probability and statistics, computer science, managerial science, and applications to complex computer systems.

Examples of included programs
- Computer software engineering
- Software engineering

Examples of excluded programs
- Computer science [*see* 11.0701 Computer Science]
- Computer systems engineering [*see* 14.0901 Computer Engineering, General]
- Computer network engineering [*see* 14.0999 Computer Engineering, Other]
- Systems engineering [*see* 14.2701 Systems Engineering]
- Computer engineering technology [*see* 15.1201 Computer Engineering Technology/Technician, General]
- Software systems development [*see* 15.1204 Computer Software Technology/Technician]

14.0999 Computer Engineering, Other

This instructional program class comprises any program not listed above that relates to Computer Engineering, General.

Examples of included programs
- Computer network engineering
- Network engineering

Examples of excluded programs
- Computer systems engineering [*see* 14.0901 Computer Engineering, General]
- Hardware engineering [*see* 14.0902 Computer Hardware Engineering]
- Software engineering [*see* 14.0903 Computer Software Engineering]
- Systems engineering [*see* 14.2701 Systems Engineering]
- Computer engineering technology [*see* 15.1201 Computer Engineering Technology/Technician, General]
- Networking engineering technology [*see* 15.1299 Computer Engineering Technologies/Technicians, Other]

14.10 Electrical, Electronics and Communications Engineering

This subseries comprises instructional program class 14.1001.

14.1001 Electrical, Electronics and Communications Engineering

This instructional program class comprises any program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of electrical, electronic and related communications systems and their components, including electrical power generation systems; and the analysis of problems such as superconductor, wave propagation, energy storage and retrieval, and reception and amplification.

Examples of included programs
- Communications engineering
- Electrical and electronic engineering
- Electrical engineering
- Electrical power engineering
- Electronic engineering
- Electronics and communications engineering
- Telecommunication engineering

Examples of excluded programs
- Digital communications [*see* 09.0702 Digital Communication and Media/Multimedia]
- Communications technician [*see* 10.0105 Communications Technology/Technician]
- Broadcast engineering technology [*see* 10.0202 Radio and Television Broadcasting Technology/Technician]
- Audio engineering [*see* 10.0203 Recording Arts Technology/Technician]
- Sound engineering [*see* 10.0203 Recording Arts Technology/Technician]
- Electro-mechanical engineering [*see* 14.9999 Engineering, Other]
- Communication engineering technology [*see* 15.0303 Electrical, Electronic and Communications Engineering Technology/Technician]
- Electrical engineering technology [*see* 15.0303 Electrical, Electronic and Communications Engineering Technology/Technician]
- Electronic engineering technology [*see* 15.0303 Electrical, Electronic and Communications Engineering Technology/Technician]
- Telecommunications engineering technology [*see* 15.0305 Telecommunications Technology/Technician]
- Electromechanical engineering technology [*see* 15.0403 Electromechanical Technology/Electromechanical Engineering Technology]

14.11 Engineering Mechanics

This subseries comprises instructional program class 14.1101.

14.1101 Engineering Mechanics

This instructional program class comprises any program with a general focus on the application of the mathematical and scientific principles of classical mechanics to the analysis and evaluation of the behaviour of structures, forces and materials in engineering problems. These programs include courses in statics, kinetics, dynamics, kinematics, celestial mechanics, stress and failure, and electromagnetism.

Example of included programs
- Engineering mechanics

Examples of excluded programs
- Mechanical engineering [*see* 14.1901 Mechanical Engineering]
- Electromechanical engineering technology [*see* 15.0403 Electromechanical Technology/Electromechanical Engineering Technology]
- Mechanical engineering technology [*see* 15.0805 Mechanical Engineering/Mechanical Technology/Technician]
- Mechanical drafting [*see* 15.1306 Mechanical Drafting and Mechanical Drafting CAD/CADD]

14.12 Engineering Physics

This subseries comprises instructional program class 14.1201.

14.1201 Engineering Physics

This instructional program class comprises any program with a general focus on the general application of mathematical and scientific principles of physics to the analysis and evaluation of engineering problems. These programs include courses in high- and low-temperature phenomena, computational physics, superconductivity, applied thermodynamics, molecular and particle physics applications, and space science research.

Examples of included programs
- Engineering physics
- Optical engineering
- Physics engineering

Examples of excluded programs
- Nuclear engineering [*see* 14.2301 Nuclear Engineering]
- Physics [*see* 40.0801 Physics, General]
- Molecular physics [*see* 40.0802 Atomic/Molecular Physics]
- Particle physics [*see* 40.0804 Elementary Particle Physics]
- High-temperature physics [*see* 40.0805 Plasma and High-temperature Physics]
- Low-temperature physics [*see* 40.0808 Solid State and Low-temperature Physics]

14.13 Engineering Science

This subseries comprises instructional program class 14.1301.

14.1301 Engineering Science

This instructional program class comprises any program with a general focus on the general application of various combinations of mathematical and scientific principles to the analysis and evaluation of engineering problems, including applied research in human behaviour, statistics, biology, chemistry, the earth and planetary sciences, atmospherics and meteorology, and computer applications.

Example of included programs
- Engineering science

Examples of excluded programs
- Engineering technology [*see* 15.0000 Engineering Technology, General]
- Behavioural sciences [*see* 30.1701 Behavioural Sciences]
- Atmospheric physics [*see* 40.0403 Atmospheric Physics and Dynamics]

14.14 Environmental/Environmental Health Engineering

This subseries comprises instructional program class 14.1401.

14.1401 Environmental/Environmental Health Engineering

This instructional program class comprises any program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of systems for controlling contained living environments and for monitoring and controlling factors in the external natural environment, including pollution control, waste and hazardous material disposal, health and safety protection, conservation, life support, and requirements for protection of special materials and related work environments.

Examples of included programs
- Environmental engineering
- Environmental health engineering

Examples of excluded programs
- Environmental systems [*see* 03.0101 Natural Resources/Conservation, General]
- Environmental science [*see* 03.0104 Environmental Science]
- Environmental systems engineering technology [*see* 15.0501 Heating, Air Conditioning and Refrigeration Technology/Technician (ACH/ACR/ACHR/HRAC/HVAC/AC Technology)]
- Water quality technology [*see* 15.0506 Water Quality and Wastewater Treatment Management and Recycling Technology/Technician]
- Environmental engineering technology [*see* 15.0507 Environmental Engineering Technology/Environmental Technology]

14.18 Materials Engineering

This subseries comprises instructional program class 14.1801.

14.1801 Materials Engineering

This instructional program class comprises any program that prepares individuals to apply mathematical and materials science principles to the design, development and operational evaluation of materials and related processes used in manufacturing in a wide variety of settings; the synthesis of new industrial materials, including marrying and bonding composites; analysis of materials requirements and specifications; and related problems of system design dependent on materials factors.

Examples of included programs
- Chemical and materials engineering
- Materials engineering
- Metals and materials engineering

Examples of excluded programs
- Ceramic engineering [*see* 14.0601 Ceramic Sciences and Engineering]
- Metallurgical engineering [*see* 14.2001 Metallurgical Engineering]
- Materials science [*see* 14.3101 Materials Science]
- Plastics engineering [*see* 14.3201 Polymer/Plastics Engineering]

14.19 Mechanical Engineering

This subseries comprises instructional program class 14.1901.

14.1901 Mechanical Engineering

This instructional program class comprises any program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of physical systems used in manufacturing and end-product systems used for specific uses, including machine tools, jigs and other manufacturing equipment; stationary power units and appliances; engines; self-propelled vehicles; housings and containers; hydraulic and electric systems for controlling movement; and the integration of computers and remote control with operating systems.

Example of included programs
- Mechanical engineering

Examples of excluded programs
- Engineering mechanics [*see* 14.1101 Engineering Mechanics]
- Mechanical engineering technology [*see* 15.0805 Mechanical Engineering/Mechanical Technology/Technician]
- Mechanical engineering drafting technician [*see* 15.1306 Mechanical Drafting and Mechanical Drafting CAD/CADD]

14.20 Metallurgical Engineering

This subseries comprises instructional program class 14.2001.

14.2001 Metallurgical Engineering

This instructional program class comprises any program that prepares individuals to apply mathematical and metallurgical principles to the design, development and operational evaluation of metal components of structural, load-bearing, power, transmission, and moving systems; and the analysis of engineering problems such as stress, creep, failure, alloy behaviour, environmental fluctuations, stability, electromagnetic and thermodynamic characteristics, optimal manufacturing processes, and related design considerations.

Examples of included programs
- Metal engineering
- Metallurgical engineering
- Metallurgy engineering

Examples of excluded programs
- Metals and materials engineering [*see* 14.1801 Materials Engineering]
- Metallurgy technology [*see* 15.0611 Metallurgical Technology/Technician]

14.21 Mining and Mineral Engineering

This subseries comprises instructional program class 14.2101.

14.2101 Mining and Mineral Engineering

This instructional program class comprises any program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of mineral extraction, processing and refining systems, including open pit and shaft mines, prospecting and site analysis equipment and instruments, environmental and safety systems, mine equipment and facilities, mineral processing and refining methods and systems, and logistics and communications systems.

Examples of included programs
- Mineral engineering
- Mining and mineral engineering
- Mining and mineral process engineering
- Mining engineering

Examples of excluded programs
- Oil and gas engineering [*see* 14.2501 Petroleum Engineering]
- Geological engineering [*see* 14.3901 Geological/Geophysical Engineering]
- Mining engineering technology [*see* 15.0901 Mining Technology/Technician]
- Petroleum engineering technology [*see* 15.0903 Petroleum Technology/Technician]
- Geological sciences [*see* 40.0601 Geology/Earth Science, General]
- Oil and gas drilling [*see* 46.0504 Well Drilling/Driller]

14.22 Naval Architecture and Marine Engineering

This subseries comprises instructional program class 14.2201.

14.2201 Naval Architecture and Marine Engineering

This instructional program class comprises any program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of self-propelled, stationary,

or towed vessels operating on or under the water, including inland, coastal and ocean environments; and the analysis of related engineering problems such as corrosion, power transfer, pressure, hull efficiency, stress factors, safety and life support, environmental hazards and factors, and specific use requirements.

Examples of included programs
- Marine engineering
- Nautical engineering
- Naval architecture
- Naval engineering
- Shipbuilding engineering

Examples of excluded programs
- Architectural science [*see* 04.0201 Architecture (BArch, BA/BSc, MArch, MA/MSc, PhD)]
- Marine engineering technology [*see* 15.0899 Mechanical Engineering Related Technologies/Technicians, Other]
- Outboard mechanics [*see* 47.0616 Marine Maintenance/Fitter and Ship Repair Technology/Technician]
- Nautical science [*see* 49.0309 Nautical Science/Merchant Marine Officer]

14.23 Nuclear Engineering

This subseries comprises instructional program class 14.2301.

14.2301 Nuclear Engineering

This instructional program class comprises any program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of systems for controlling and manipulating nuclear energy, including nuclear power plant design, fission reactor design, fusion reactor design, reactor control and safety systems design, power transfer systems, containment vessels and structures design; and the analysis of related engineering problems such as fission and fusion processes, human and environmental factors, construction, and operational considerations.

Example of included programs
- Nuclear engineering

Examples of excluded programs
- Hazardous materials management [*see* 15.0508 Hazardous Materials Management and Waste Technology/Technician]
- Nuclear engineering technology [*see* 15.1401 Nuclear Engineering Technology/Technician]
- Nuclear physics [*see* 40.0806 Nuclear Physics]
- Nuclear power technology [*see* 41.0205 Nuclear/Nuclear Power Technology/Technician]

14.24 Ocean Engineering

This subseries comprises instructional program class 14.2401.

14.2401 Ocean Engineering

This instructional program class comprises any program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of systems to monitor, control, manipulate and operate within coastal or ocean environments, such as underwater platforms, flood control systems, dikes, hydroelectric power systems, tide and current control and warning systems, and communications equipment; the planning and design of total systems for working and functioning in water or underwater environments; and the analysis of related engineering problems such as the action of

water properties and behaviour on physical systems and people, tidal forces, current movements, and wave motion.

Example of included programs
- Ocean engineering

Examples of excluded programs
- Marine resources management [*see* 03.0205 Water, Wetlands and Marine Resources Management]
- Water resources engineering [*see* 14.0805 Water Resources Engineering]
- Biological oceanography [*see* 26.1302 Marine Biology and Biological Oceanography]
- Hydrology [*see* 40.0605 Hydrology and Water Resources Science]
- Physical oceanography [*see* 40.0607 Oceanography, Chemical and Physical]

14.25 Petroleum Engineering

This subseries comprises instructional program class 14.2501.

14.2501 Petroleum Engineering

This instructional program class comprises any program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of systems for locating, extracting, processing and refining crude petroleum and natural gas, including prospecting instruments and equipment, mining and drilling systems, processing and refining systems and facilities, storage facilities, transportation systems, and related environmental and safety systems.

Examples of included programs
- Chemical and petroleum engineering
- Oil and gas engineering
- Petrochemical engineering
- Petroleum engineering

Examples of excluded programs
- Chemical engineering [*see* 14.0701 Chemical Engineering]
- Mining and mineral engineering [*see* 14.2101 Mining and Mineral Engineering]
- Plastics engineering [*see* 14.3201 Polymer/Plastics Engineering]
- Petroleum engineering technology [*see* 15.0903 Petroleum Technology/Technician]
- Oil and gas drilling [*see* 46.0504 Well Drilling/Driller]

14.27 Systems Engineering

This subseries comprises instructional program class 14.2701.

14.2701 Systems Engineering

This instructional program class comprises any program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of total systems solutions to a wide variety of engineering problems, including the integration of human, physical, energy, communications, management, and information requirements as needed, and the application of requisite analytical methods to specific situations.

Examples of included programs
- Automation engineering
- Control engineering
- Systems design engineering
- Systems engineering

Examples of excluded programs
- Computer networking technology [*see* 11.0901 Computer Systems Networking and Telecommunications]
- Industrial systems engineering [*see* 14.3501 Industrial Engineering]
- Manufacturing engineering [*see* 14.3601 Manufacturing Engineering]
- Energy systems technology [*see* 15.0503 Energy Management and Systems Technology/Technician]
- Systems science [*see* 30.0601 Systems Science and Theory]
- Management information systems [*see* 52.1201 Management Information Systems, General]

14.28 Textile Sciences and Engineering

This subseries comprises instructional program class 14.2801.

14.2801 Textile Sciences and Engineering

This instructional program class comprises any program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of systems to test and manufacture fibres and fibre products, both synthetic and natural; to develop new and improved fibres, textiles and their uses; and to the analysis of related engineering problems such as structural factors, molecular synthesis, chemical manufacturing, weaves, strength and stress, useful life, dyes, and applications to composite systems.

Example of included programs
- Textile engineering

Examples of excluded programs
- Clothing and textiles [*see* 19.0901 Apparel and Textiles, General]
- Textile manufacturing [*see* 19.0902 Apparel and Textile Manufacture]
- Textile science [*see* 19.0904 Textile Science]
- Textile design [*see* 50.0712 Fibre, Textile and Weaving Arts]

14.31 Materials Science

This subseries comprises instructional program class 14.3101.

14.3101 Materials Science

This instructional program class comprises any program that focuses on the general application of mathematical and scientific principles to the analysis and evaluation of the characteristics and behaviour of solids, including internal structure, chemical properties, transport and energy flow properties, thermodynamics of solids, stress and failure factors, chemical transformation states and processes, compound materials, and research on industrial applications of specific materials.

Examples of included programs
- Chemical and materials science
- Materials science
- Materials science and engineering

Examples of excluded programs
- Ceramic engineering [*see* 14.0601 Ceramic Sciences and Engineering]
- Chemical engineering [*see* 14.0701 Chemical Engineering]
- Materials engineering [*see* 14.1801 Materials Engineering]
- Textile engineering [*see* 14.2801 Textile Sciences and Engineering]
- Plastics engineering [*see* 14.3201 Polymer/Plastics Engineering]

14.32 Polymer/Plastics Engineering

This subseries comprises instructional program class 14.3201.

14.3201 Polymer/Plastics Engineering

This instructional program class comprises any program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of synthesized macromolecular compounds and their application to specific engineering uses, including the development of industrial materials with tailored properties, the design of lightweight structural components, the use of liquid or solid polymers, and the analysis and control of polymerization processes.

Examples of included programs
- Plastics engineering
- Polymer engineering

Examples of excluded programs
- Chemical engineering [*see* 14.0701 Chemical Engineering]
- Materials engineering [*see* 14.1801 Materials Engineering]
- Materials science [*see* 14.3101 Materials Science]
- Polymer engineering technology [*see* 15.0607 Plastics Engineering Technology/Technician]
- Polymer chemistry [*see* 40.0507 Polymer Chemistry]

14.33 Construction Engineering

This subseries comprises instructional program class 14.3301.

14.3301 Construction Engineering

This instructional program class comprises any program that prepares individuals to apply scientific, mathematical, and management principles to the planning, design, and building of facilities and structures. These programs include courses in civil engineering, structural principles, site analysis, computer-assisted design, geology, evaluation and testing, materials, contracting, project management, graphic communications, and applicable laws and regulations.

Example of included programs
- Construction engineering

Examples of excluded programs
- Architectural science [*see* 04.0201 Architecture (BArch, BA/BSc, MArch, MA/MSc, PhD)]
- Civil engineering [*see* 14.0801 Civil Engineering, General]
- Structural engineering [*see* 14.0803 Structural Engineering]
- Construction engineering technology [*see* 15.1001 Construction Engineering Technology/Technician]
- Construction management [*see* 52.2001 Construction Management]

14.34 Forest Engineering

This subseries comprises instructional program class 14.3401.

14.3401 Forest Engineering

This instructional program class comprises any program that prepares individuals to apply scientific, mathematical, and forestry principles to the design of mechanical devices and processes for efficient forest management, timber production and related forest logistics systems. These programs include courses

in forest products processing, forest management, forest harvesting, timber structure design, production analysis, road and bridge construction, vehicle adaptation and design, and harvesting equipment design.

Example of included programs
- Forest engineering

Examples of excluded programs
- Forestry [*see* 03.0501 Forestry, General]
- Forest science [*see* 03.0502 Forest Sciences and Biology]
- Wood products processing [*see* 03.0509 Wood Science and Wood Products/Pulp and Paper Technology]
- Forest technology [*see* 03.0511 Forest Technology/Technician]

14.35 Industrial Engineering

This subseries comprises instructional program class 14.3501.

14.3501 Industrial Engineering

This instructional program class comprises any program that prepares individuals to apply scientific and mathematical principles to the design, improvement, and installation of integrated systems of people, material, information, and energy. These programs include courses in applied mathematics, physical sciences, the social sciences, engineering analysis, systems design, computer applications, and forecasting and evaluation methodology.

Examples of included programs
- Ergonomics engineering
- Human factors engineering
- Industrial engineering
- Industrial systems engineering

Examples of excluded programs
- Manufacturing engineering [*see* 14.3601 Manufacturing Engineering]
- Industrial engineering technology [*see* 15.0612 Industrial Technology/Technician]
- Manufacturing engineering technology [*see* 15.0613 Manufacturing Technology/Technician]
- Industrial mechanics [*see* 47.0303 Industrial Mechanics and Maintenance Technology]
- Industrial design [*see* 50.0404 Industrial Design]
- Industrial management [*see* 52.0205 Operations Management and Supervision]

14.36 Manufacturing Engineering

This subseries comprises instructional program class 14.3601.

14.3601 Manufacturing Engineering

This instructional program class comprises any program that prepares individuals to apply scientific and mathematical principles to the design, development, and implementation of manufacturing systems. These programs include courses in materials science and engineering, manufacturing processes, process engineering, assembly and product engineering, manufacturing systems design, and manufacturing competitiveness.

Example of included programs
- Manufacturing engineering

Examples of excluded programs
- Systems engineering [*see* 14.2701 Systems Engineering]
- Industrial engineering [*see* 14.3501 Industrial Engineering]
- Industrial engineering technology [*see* 15.0612 Industrial Technology/Technician]
- Manufacturing engineering technology [*see* 15.0613 Manufacturing Technology/Technician]

14.37 Operations Research

This subseries comprises instructional program class 14.3701.

14.3701 Operations Research

This instructional program class comprises any program that focuses on the development and application of complex mathematical or simulation models to solve problems involving operational systems, where the system concerned is subject to human intervention. These programs include courses in advanced multivariate analysis, application of judgment and statistical tests, optimization theory and techniques, resource allocation theory, mathematical modelling, control theory, statistical analysis, and applications to specific research problems.

Examples of included programs
- Operational research
- Operations research

Examples of excluded programs
- Systems analyst [*see* 11.0501 Computer Systems Analysis/Analyst]
- Analysis [*see* 27.0103 Analysis and Functional Analysis]
- Mathematics science [*see* 27.0301 Applied Mathematics, General]
- Management science [*see* 52.1301 Management Science, General]

14.38 Surveying Engineering

This subseries comprises instructional program class 14.3801.

14.3801 Surveying Engineering

This instructional program class comprises any program that prepares individuals to apply scientific and mathematical principles to the determination of the location, elevations, and alignment of natural and man-made topographic features. These programs include courses in property line location, surveying, surface measurement, aerial and terrestrial photogrammetry, remote sensing, satellite imagery, global positioning systems, computer applications, and photographic data processing.

Examples of included programs
- Geodesy and geomatics engineering
- Geodetic engineering
- Geodetic sciences
- Geomatics engineering
- Survey engineering
- Surveying engineering

Examples of excluded programs
- Surveying [*see* 15.1102 Surveying Technology/Surveying]
- Topology [*see* 27.0105 Topology and Foundations]
- Physical geography [*see* 45.0701 Geography]
- Photogrammetry [*see* 45.0702 Cartography]

14.39 Geological/Geophysical Engineering

This subseries comprises instructional program class 14.3901.

14.3901 Geological/Geophysical Engineering

This instructional program class comprises any program that prepares individuals to apply mathematical and geological principles to the analysis and evaluation of engineering problems, including the geological evaluation of construction sites, the analysis of geological forces acting on structures and systems, the analysis of potential natural resource recovery sites, and applied research on geological phenomena.

Examples of included programs
- Geological engineering
- Geophysical engineering

Examples of excluded programs
- Geotechnical engineering [*see* 14.0802 Geotechnical Engineering]
- Mining engineering technician [*see* 15.0901 Mining Technology/Technician]
- Geological sciences [*see* 40.0601 Geology/Earth Science, General]
- Geophysics [*see* 40.0603 Geophysics and Seismology]

14.99 Engineering, Other

This subseries comprises instructional program class 14.9999.

14.9999 Engineering, Other

This instructional program class comprises any program not listed above that relates to Engineering.

Examples of included programs
- Acoustic engineering
- Automobile engineering
- Automotive engineering
- Biochemical engineering
- Design engineering
- Electro-mechanical engineering
- Engineering design
- Fire safety engineering
- Genetic engineering
- Heating, ventilation and air conditioning (HVAC) engineering (university level)
- Instrumentation engineering
- Mechatronics engineering
- Metallurgical engineering and materials science
- Military engineering
- Mining and materials engineering
- Motor vehicle engineering
- Nanoengineering
- Power engineering (university level)
- Power plant engineering (university level)
- Pulp and paper engineering
- Robotic engineering
- Sanitary engineering (university level)
- Tool engineering
- Welding engineering (university level)

Examples of excluded programs
- Recording engineering [*see* 10.0203 Recording Arts Technology/Technician]
- Sound engineering [*see* 10.0203 Recording Arts Technology/Technician]
- Nuclear engineering [*see* 14.2301 Nuclear Engineering]
- Engineering management [*see* 15.1501 Engineering/Industrial Management]
- Power engineering technology [*see* 47.0501 Stationary Energy Sources Installer and Operator]
- Stationary engineering [*see* 47.0501 Stationary Energy Sources Installer and Operator]

15. Engineering Technologies/Technicians

This series comprises instructional programs that prepare individuals to apply basic engineering principles and technical skills in support of engineering and related projects.

15.00 Engineering Technology, General

This subseries comprises instructional program class 15.0000.

15.0000 Engineering Technology, General

This instructional program class comprises any program that generally prepares individuals to apply basic engineering principles and technical skills in support of engineers engaged in a wide variety of projects. These programs include courses in various engineering support functions for research, production, and operations, and applications to specific engineering specialties.

Examples of included programs
- Certified engineer technologist
- Certified engineering technology
- Engineering technician
- Engineering technology

Example of excluded programs
- Engineering [*see* 14.0101 Engineering, General]

15.01 Architectural Engineering Technology/Technician

This subseries comprises instructional program class 15.0101.

15.0101 Architectural Engineering Technology/Technician

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills in support of architects, engineers and planners engaged in designing and developing buildings, urban complexes, and related systems. These programs include courses in design testing procedures, building site analysis, model building and computer graphics, engineering drawing, structural systems testing, analysis of prototype mechanical and interior systems, test equipment operation and maintenance, and report preparation.

Examples of included programs
- Architectural and building technology
- Architectural engineering technician
- Architectural engineering technology

Examples of excluded programs
- Environmental design [*see* 04.0401 Environmental Design/Architecture]
- Landscape architectural technology [*see* 04.0601 Landscape Architecture (BSc, BSLA, BLA, MSLA, MLA, PhD)]
- Architectural design technology [*see* 04.0901 Architectural Technology/Technician]
- Architectural engineering [*see* 14.0401 Architectural Engineering]
- Building design and architecture CAD [*see* 15.1303 Architectural Drafting and Architectural CAD/CADD]
- Housing [*see* 19.0601 Housing and Human Environments, General]

15.02 Civil Engineering Technology/Technician

This subseries comprises instructional program class 15.0201.

15.0201 Civil Engineering Technology/Technician

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills in support of civil engineers engaged in designing and executing public works projects such as highways, dams, bridges, tunnels and other facilities. These programs include courses in site analysis, structural testing procedures, field and laboratory testing procedures, plan and specification preparation, test equipment operation and maintenance, and report preparation.

Examples of included programs
- Civil and structural engineering technology
- Civil engineering technology
- Civil technology
- Structural engineering technology
- Structural technology

Examples of excluded programs
- Civil engineering [*see* 14.0801 Civil Engineering, General]
- Geotechnical engineering [*see* 14.0802 Geotechnical Engineering]
- Civil and structural engineering [*see* 14.0803 Structural Engineering]
- Transportation engineering [*see* 14.0804 Transportation and Highway Engineering]
- Water resources engineering [*see* 14.0805 Water Resources Engineering]

15.03 Electrical and Electronic Engineering Technologies/Technicians

This subseries comprises instructional program classes 15.0303 to 15.0399.

15.0303 Electrical, Electronic and Communications Engineering Technology/Technician

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills in support of electrical, electronics and communication engineers. These programs include courses in electrical circuitry, prototype development and testing; systems analysis and testing, systems maintenance, instrument calibration, and report preparation.

Examples of included programs
- Communication engineering technology
- Electrical control engineering technology
- Electrical engineering technology
- Electrical technician
- Electrician/electronic technician
- Electronic engineering technology
- Electronic engineering technology—communication
- Electronic systems technician

Examples of excluded programs
- Communications technician [*see* 10.0105 Communications Technology/Technician]
- Electronics and communications engineering [*see* 14.1001 Electrical, Electronics and Communications Engineering]
- Telecommunications technology [*see* 15.0305 Telecommunications Technology/Technician]
- Electromechanical technology [*see* 15.0403 Electromechanical Technology/Electromechanical Engineering Technology]
- Electrical systems installation [*see* 46.0301 Electrical and Power Transmission Installation/Installer, General]
- Electrician [*see* 46.0302 Electrician]
- Electrical repair [*see* 47.0101 Electrical/Electronics Equipment Installation and Repair, General]

15.0304 Laser and Optical Technology/Technician

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing and using lasers and other optical instruments for commercial or research purposes. These programs include courses in laser and optical principles, testing and maintenance procedures, safety precautions, specific applications to various tasks, and report preparation.

Examples of included programs
- Laser and optical technician
- Laser and optical technology
- Photonics engineering technology

Examples of excluded programs
- Optical engineering [*see* 14.1201 Engineering Physics]
- Optical science [*see* 40.0807 Optics/Optical Sciences]
- Opticianry [*see* 51.1801 Opticianry/Ophthalmic Dispensing Optician]
- Orthoptics [*see* 51.1804 Orthoptics/Orthoptist]

15.0305 Telecommunications Technology/Technician

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills to help design and implement telecommunications systems. These programs include courses in communications protocol, data networking, digital compression algorithms, digital signal processing, Internet access, object-oriented and relational databases, and programming languages.

Examples of included programs
- Network telecommunications engineering technology
- Telecommunications engineering technology
- Telecommunications technician
- Telecommunications technology
- Wireless communications technology

Examples of excluded programs
- Digital communications [*see* 09.0702 Digital Communication and Media/Multimedia]
- Communications technician [*see* 10.0105 Communications Technology/Technician]
- Electronic engineering technology—communication [*see* 15.0303 Electrical, Electronic and Communications Engineering Technology/Technician]
- Telephone installation [*see* 47.0103 Communications Systems Installation and Repair Technology]

15.0399 Electrical and Electronic Engineering Technologies/Technicians, Other

This instructional program class comprises any program not listed above that relates to Electrical and Electronic Engineering Technologies/Technicians.

Examples of included programs
- Electronic and network technician
- Network and electronics technician

Example of excluded programs
- Computer networking technology [*see* 11.0901 Computer Systems Networking and Telecommunications]

15.04 Electromechanical and Instrumentation and Maintenance Technologies/Technicians

This subseries comprises instructional program classes 15.0401 to 15.0499.

15.0401 Biomedical Technology/Technician

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills in support of engineers engaged in developing biological or medical systems and products. These programs include courses in instrument calibration, design and installation testing, system safety and maintenance procedures, procurement and installation procedures, and report preparation.

Examples of included programs
- Biomedical electronics
- Biomedical engineering technology
- Biomedical technician
- Biomedical technology

Examples of excluded programs
- Biomedical engineering [*see* 14.0501 Biomedical/Medical Engineering]
- Medical biology [*see* 26.0102 Biomedical Sciences, General]
- Forensic science [*see* 43.0106 Forensic Science and Technology]

15.0403 Electromechanical Technology/Electromechanical Engineering Technology

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills in support of engineers engaged in developing and testing automated, servomechanical, and other electromechanical systems. These programs include courses in prototype testing, manufacturing and operational testing, systems analysis and maintenance procedures, and report preparation.

Examples of included programs
- Electromechanical engineering technology
- Electromechanical technician
- Electromechanical technology

Examples of excluded programs
- Electrical and electronic engineering [*see* 14.1001 Electrical, Electronics and Communications Engineering]
- Mechanical engineering [*see* 14.1901 Mechanical Engineering]
- Electrical engineering technology [*see* 15.0303 Electrical, Electronic and Communications Engineering Technology/Technician]
- Mechanical engineering technology [*see* 15.0805 Mechanical Engineering/Mechanical Technology/Technician]
- Electrical systems installation [*see* 46.0301 Electrical and Power Transmission Installation/Installer, General]
- Industrial electronics technician [*see* 47.0105 Industrial Electronics Technology/Technician]

15.0404 Instrumentation Technology/Technician

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills in support of engineers engaged in developing control and measurement systems and procedures. These programs include courses in instrumentation design and maintenance, calibration, design and production testing and scheduling, automated equipment functions, applications to specific industrial tasks, and report preparation.

Examples of included programs
- Electrical instrumentation
- Industrial control technician
- Industrial instrumentation
- Industrial instrumentation technology
- Instrument mechanic
- Instrument technology
- Instrumentation
- Instrumentation and control engineering technician
- Instrumentation engineering technology
- Instrumentation mechanic
- Instrumentation technician
- Instrumentation technology

Examples of excluded programs
- Instrumentation engineering [*see* 14.9999 Engineering, Other]
- Quality control technology [*see* 15.0702 Quality Control Technology/Technician]
- Industrial electronics technology [*see* 47.0105 Industrial Electronics Technology/Technician]

15.0405 Robotics Technology/Technician

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing and using robots. These programs include courses in the principles of robotics, design and operational testing, system maintenance and repair procedures, robot computer systems and control language, specific system types and applications to specific industrial tasks, and report preparation.

Examples of included programs
- Robotics and automation technology
- Robotics technician
- Robotics technology

Examples of excluded programs
- Robotics programming [*see* 11.0102 Artificial Intelligence and Robotics]
- Industrial engineering [*see* 14.3501 Industrial Engineering]
- Industrial technology [*see* 15.0612 Industrial Technology/Technician]

15.0499 Electromechanical and Instrumentation and Maintenance Technologies/Technicians, Other

This instructional program class comprises any program not listed above that relates to Electromechanical and Instrumentation and Maintenance Technologies/Technicians.

15.05 Environmental Control Technologies/Technicians

This subseries comprises instructional program classes 15.0501 to 15.0599.

15.0501 Heating, Air Conditioning and Refrigeration Technology/Technician (ACH/ACR/ACHR/HRAC/HVAC/AC Technology)

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing and using air conditioning, refrigeration, and heating systems. These programs include courses in principles of heating and cooling technology, design and operational testing, inspection and maintenance procedures, installation and operation procedures, and report preparation.

Examples of included programs
- Air conditioning and refrigeration engineering technician
- Environmental systems engineering technology
- Heating, ventilation and air conditioning (HVAC) technology

Examples of excluded programs
- Building service technician [*see* 46.0401 Building/Property Maintenance and Management]
- Electronics repair [*see* 47.0101 Electrical/Electronics Equipment Installation and Repair, General]
- Heating, air conditioning and refrigeration (HACR) technician [*see* 47.0201 Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/Technician (HAC, HACR, HVAC, HVACR)]

15.0503 Energy Management and Systems Technology/Technician

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing energy-efficient systems or monitoring energy use. These programs include courses in principles of energy conservation, instrumentation calibration, monitoring systems and test procedures, energy loss inspection procedures, energy conservation techniques, and report preparation.

Examples of included programs
- Energy management
- Energy systems
- Energy systems technology
- Environmental systems engineering technology—energy management

Examples of excluded programs
- Environmental systems [*see* 03.0101 Natural Resources/Conservation, General]
- Environmental engineering [*see* 14.1401 Environmental/Environmental Health Engineering]
- Systems engineering [*see* 14.2701 Systems Engineering]
- Environmental engineering technology [*see* 15.0507 Environmental Engineering Technology/Environmental Technology]

15.0505 Solar Energy Technology/Technician

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing solar-powered energy systems. These programs include courses in solar energy principles, energy storage and transfer technologies, testing and inspection procedures, system maintenance procedures, and report preparation.

Example of included programs
- Solar energy technology

Examples of excluded programs
- Environmental science [*see* 03.0104 Environmental Science]
- Environmental engineering [*see* 14.1401 Environmental/Environmental Health Engineering]
- Environmental engineering technology [*see* 15.0507 Environmental Engineering Technology/Environmental Technology]

15.0506 Water Quality and Wastewater Treatment Management and Recycling Technology/Technician

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing and using water storage, waterpower, and wastewater treatment systems. These programs include courses in water storage, power and/or treatment systems and equipment; testing and inspection procedures; system maintenance procedures; and report preparation.

Examples of included programs
- Waste water treatment
- Water and waste water treatment
- Water maintenance
- Water purification
- Water quality technology
- Water technician
- Water treatment

Examples of excluded programs
- Marine environment technology [*see* 03.0205 Water, Wetlands and Marine Resources Management]
- Water resources engineering [*see* 14.0805 Water Resources Engineering]
- Environmental toxicology [*see* 26.1006 Environmental Toxicology]
- Hydrology [*see* 40.0605 Hydrology and Water Resources Science]
- Water wells drilling [*see* 46.0504 Well Drilling/Driller]

15.0507 Environmental Engineering Technology/Environmental Technology

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing and using indoor and outdoor environmental pollution control systems. These programs include courses in environmental safety principles, testing and sampling procedures, laboratory techniques, instrumentation calibration, safety and protection procedures, equipment maintenance, and report preparation.

Examples of included programs
- Environmental engineering technology
- Environmental science technology
- Environmental technology

Examples of excluded programs
- Environmental systems [*see* 03.0101 Natural Resources/Conservation, General]
- Environmental science [*see* 03.0104 Environmental Science]
- Natural resource management [*see* 03.0201 Natural Resources Management and Policy, General]
- Environmental engineering [*see* 14.1401 Environmental/Environmental Health Engineering]
- Hazardous waste technology [*see* 15.0508 Hazardous Materials Management and Waste Technology/Technician]
- Environmental toxicology [*see* 26.1006 Environmental Toxicology]
- Environmental health [*see* 51.2202 Environmental Health]

15.0508 Hazardous Materials Management and Waste Technology/Technician

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in identifying and disposing of hazardous materials. These programs include courses in environmental safety principles, biohazard identification, testing and sampling procedures, laboratory techniques, instrumentation calibration, hazardous waste disposal procedures and systems, safety and protection procedures, equipment maintenance, and report preparation.

Examples of included programs
- Hazardous materials management
- Hazardous waste technology

Examples of excluded programs
- Environmental health engineering [*see* 14.1401 Environmental/Environmental Health Engineering]
- Waste water treatment [*see* 15.0506 Water Quality and Wastewater Treatment Management and Recycling Technology/Technician]
- Occupational safety and health technology [*see* 15.0701 Occupational Safety and Health Technology/Technician]
- Safety engineering technology [*see* 15.0703 Industrial Safety Technology/Technician]
- Hazardous materials information systems technology [*see* 15.0704 Hazardous Materials Information Systems Technology/Technician]

15.0599 Environmental Control Technologies/Technicians, Other

This instructional program class comprises any program not listed above that relates to Environmental Control Technologies/Technicians.

Example of included programs
- Water resources engineering technology

Examples of excluded programs
- Occupational health and safety nursing [*see* 51.1618 Occupational and Environmental Health Nursing]
- Environmental health [*see* 51.2202 Environmental Health]

15.06 Industrial Production Technologies/Technicians

This subseries comprises instructional program classes 15.0607 to 15.0699.

15.0607 Plastics Engineering Technology/Technician

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged

in developing and using industrial polymers. These programs include courses in the principles of macromolecular chemistry, polymerization and plastic manufacturing processes and equipment, design and operational testing procedures, equipment maintenance and repair procedures, safety procedures, applications to specific products, and report preparation.

Examples of included programs
- Plastics engineering technician
- Plastics engineering technology
- Plastics technician
- Plastics technology
- Polymer engineering technology
- Polymer processing technology

Examples of excluded programs
- Petrochemical engineering [*see* 14.2501 Petroleum Engineering]
- Plastics engineering [*see* 14.3201 Polymer/Plastics Engineering]
- Petroleum technician [*see* 15.0903 Petroleum Technology/Technician]
- Polymer chemistry [*see* 40.0507 Polymer Chemistry]
- Petrology [*see* 40.0606 Geochemistry and Petrology]

15.0611 Metallurgical Technology/Technician

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and metallurgists engaged in developing and using industrial metals and manufacturing processes. These programs include courses in principles of metallurgy, related manufacturing systems, laboratory techniques, testing and inspection procedures, instrument calibration, system and equipment maintenance and repair, applications to specific processes, and report preparation.

Example of included programs
- Metallurgy technology

Examples of excluded programs
- Metallurgical engineering [*see* 14.2001 Metallurgical Engineering]
- Manufacturing technology [*see* 15.0613 Manufacturing Technology/Technician]
- Mining engineering technology [*see* 15.0901 Mining Technology/Technician]
- Sheet metal [*see* 48.0506 Sheet Metal Technology/Sheetworking]
- Jewellery design [*see* 50.0713 Metal and Jewellery Arts]

15.0612 Industrial Technology/Technician

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills in support of industrial engineers and managers. These programs include courses in optimization theory, human factors, organizational behaviour, industrial processes, industrial planning procedures, computer applications, and report and presentation preparation.

Examples of included programs
- Industrial engineering technology
- Industrial technician
- Industrial technology

Examples of excluded programs
- Industrial education [*see* 13.1320 Trade and Industrial Teacher Education]
- Industrial engineering [*see* 14.3501 Industrial Engineering]
- Industrial electronics technician [*see* 47.0105 Industrial Electronics Technology/Technician]
- Industrial mechanics [*see* 47.0303 Industrial Mechanics and Maintenance Technology]
- Industrial management [*see* 52.0205 Operations Management and Supervision]

15.0613 Manufacturing Technology/Technician

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills to the identification and resolution of production problems in the manufacture of products. These programs include courses in machine operations, production line operations, engineering analysis, systems analysis, instrumentation, physical controls, automation, computer-aided manufacturing (CAM), manufacturing planning, quality control, and informational infrastructure.

Examples of included programs
- Computer-aided manufacturing technology
- Manufacturing engineering technician
- Manufacturing engineering technology
- Manufacturing technician
- Manufacturing technology
- Mechanical manufacturing

Examples of excluded programs
- Manufacturing engineering [*see* 14.3601 Manufacturing Engineering]
- Industrial engineering technology [*see* 15.0612 Industrial Technology/Technician]

15.0699 Industrial Production Technologies/Technicians, Other

This instructional program class comprises any program not listed above that relates to Industrial Production Technologies/Technicians.

Examples of included programs
- Materials engineering technology
- Welding engineering technology

Examples of excluded programs
- Metals and materials engineering [*see* 14.1801 Materials Engineering]
- Metallurgical engineering and materials science [*see* 14.9999 Engineering, Other]

15.07 Quality Control and Safety Technologies/Technicians

This subseries comprises instructional program classes 15.0701 to 15.0799.

15.0701 Occupational Safety and Health Technology/Technician

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in maintaining job-related health and safety standards. These programs include courses in safety engineering principles, inspection and monitoring procedures, testing and sampling procedures, laboratory techniques, applications to specific work environments, and report preparation.

Examples of included programs
- Occupational safety and health
- Occupational safety and health technology

Examples of excluded programs
- Industrial safety technology [*see* 15.0703 Industrial Safety Technology/Technician]
- Occupational health and industrial hygiene [*see* 51.2206 Occupational Health and Industrial Hygiene]

15.0702 Quality Control Technology/Technician

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in maintaining consistent manufacturing and construction standards. These programs include courses in quality control systems management principles, technical standards applicable to specific engineering and manufacturing projects, testing procedures, inspection procedures, related instrumentation and equipment operation and maintenance, and report preparation.

Examples of included programs
- Quality assurance
- Quality assurance technician
- Quality control technician
- Quality control technology
- Quality inspector training
- Quality technician

Examples of excluded programs
- Water quality technology [*see* 15.0506 Water Quality and Wastewater Treatment Management and Recycling Technology/Technician]
- Materials management [*see* 52.0203 Logistics and Materials Management]
- Production management [*see* 52.0205 Operations Management and Supervision]

15.0703 Industrial Safety Technology/Technician

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills to assist engineers and other professionals in implementing and enforcing industrial safety standards. These programs include courses in industrial processes, industrial hygiene, toxicology, ergonomics, system and process safety, safety performance measurement, human factors, human behaviour, and applicable laws and regulations.

Examples of included programs
- Industrial hygiene technology
- Industrial safety technology
- Safety engineering technology

Examples of excluded programs
- Industrial engineering [*see* 14.3501 Industrial Engineering]
- Occupational safety and health [*see* 15.0701 Occupational Safety and Health Technology/Technician]
- Security and loss prevention services [*see* 43.0109 Security and Loss Prevention Services]
- Occupational health and industrial hygiene [*see* 51.2206 Occupational Health and Industrial Hygiene]

15.0704 Hazardous Materials Information Systems Technology/Technician

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills to assist engineers and other professionals in implementing, monitoring, and enforcing hazardous materials management and removal. These programs include courses in environmental science, environmental health, human behaviour, economics, management science, information systems and applications, and communication skills.

Example of included programs
- Hazardous materials information systems technology

Examples of excluded programs
- Hazardous waste technology [*see* 15.0508 Hazardous Materials Management and Waste Technology/Technician]
- Occupational safety and health [*see* 15.0701 Occupational Safety and Health Technology/Technician]
- Environmental toxicology [*see* 26.1006 Environmental Toxicology]
- Occupational health and industrial hygiene [*see* 51.2206 Occupational Health and Industrial Hygiene]

15.0799 Quality Control and Safety Technologies/Technicians, Other

This instructional program class comprises any program not listed above that relates to Quality Control and Safety Technologies/Technicians.

Example of included programs
- Non-destructive testing technology

15.08 Mechanical Engineering Related Technologies/Technicians

This subseries comprises instructional program classes 15.0801 to 15.0899.

15.0801 Aeronautical/Aerospace Engineering Technology/Technician

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing, manufacturing and testing aircraft, spacecraft and their systems. These programs include courses in aircraft/spacecraft systems technology, design and development testing, prototype and operational testing, inspection and maintenance procedures, instrument calibration, test equipment operation and maintenance, and report preparation.

Examples of included programs
- Aeronautical engineering technology
- Aerospace engineering technology
- Aerospace manufacturing
- Aerospace technician
- Aerospace technology

Examples of excluded programs
- Aeronautical engineering [*see* 14.0201 Aerospace, Aeronautical and Astronautical Engineering]
- Aircraft mechanic [*see* 47.0607 Airframe Mechanics and Aircraft Maintenance Technology/Technician]
- Aircraft engine technician [*see* 47.0608 Aircraft Powerplant Technology/Technician]
- Avionics technician [*see* 47.0609 Avionics Maintenance Technology/Technician]
- Aviation sciences [*see* 49.0101 Aeronautics/Aviation/Aerospace Science and Technology, General]

15.0803 Automotive Engineering Technology/Technician

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing, manufacturing and testing self-propelled ground vehicles and their systems. These programs include courses in vehicular systems technology, design and development testing, prototype and operational testing, inspection and maintenance procedures, instrument calibration, test equipment operation and maintenance, and report preparation.

Examples of included programs
- Automotive engineering technician
- Automotive engineering technology
- Mechanical engineering technology—automotive manufacturing

Examples of excluded programs
- Automotive engineering [*see* 14.9999 Engineering, Other]
- Mechanical engineering technology [*see* 15.0805 Mechanical Engineering/Mechanical Technology/Technician]
- Auto service technician [*see* 47.0604 Automobile/Automotive Mechanics Technology/Technician]
- Automotive electronics [*see* 47.0604 Automobile/Automotive Mechanics Technology/Technician]

15.0805 Mechanical Engineering/Mechanical Technology/Technician

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills in support of engineers engaged in the design and development phases of a wide variety of projects involving mechanical systems. These programs include courses in principles of mechanics, applications to specific engineering systems, design testing procedures, prototype and operational testing and inspection procedures, manufacturing system-testing procedures, test equipment operation and maintenance, and report preparation.

Examples of included programs
- Mechanical engineering technician
- Mechanical engineering technology
- Mechanical systems
- Mechanical technician
- Mechanical technology

Examples of excluded programs
- Agricultural mechanics [*see* 01.0205 Agricultural Mechanics and Equipment/Machine Technology]
- Mechanical engineering [*see* 14.1901 Mechanical Engineering]
- Instrumentation engineering [*see* 14.9999 Engineering, Other]
- Robotic engineering [*see* 14.9999 Engineering, Other]
- Electromechanical technology [*see* 15.0403 Electromechanical Technology/Electromechanical Engineering Technology]
- Mechanical engineering drafting technician [*see* 15.1306 Mechanical Drafting and Mechanical Drafting CAD/CADD]
- Industrial mechanics [*see* 47.0303 Industrial Mechanics and Maintenance Technology]

15.0899 Mechanical Engineering Related Technologies/Technicians, Other

This instructional program class comprises any program not listed above that relates to Mechanical Engineering Related Technologies/Technicians.

Example of included programs
- Marine engineering technology

Examples of excluded programs
- Mechanical engineering technology [*see* 15.0805 Mechanical Engineering/Mechanical Technology/Technician]
- Industrial mechanics [*see* 47.0303 Industrial Mechanics and Maintenance Technology]

15.09 Mining and Petroleum Technologies/Technicians

This subseries comprises instructional program classes 15.0901 to 15.0999.

15.0901 Mining Technology/Technician

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in the development and operation of mines and related mineral processing facilities. These programs include courses in principles of mineral extraction and related geology, mineral field mapping and site analysis, testing and sampling methods, instrument calibration, assay analysis, test equipment operation and maintenance, mine environment and safety monitoring procedures, mine inspection procedures, and report preparation.

Examples of included programs
- Coal mining
- Diamond drilling
- Hard rock mining
- Mining
- Mining and mineral processing
- Mining engineering technician
- Mining engineering technology
- Mining technology

Examples of excluded programs
- Mining and mineral engineering [*see* 14.2101 Mining and Mineral Engineering]
- Geological engineering [*see* 14.3901 Geological/Geophysical Engineering]
- Geology [*see* 40.0601 Geology/Earth Science, General]
- Mineralogy [*see* 40.0606 Geochemistry and Petrology]
- Blasting technician [*see* 46.0505 Blasting/Blaster]

15.0903 Petroleum Technology/Technician

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in the development and operation of oil and natural gas extraction and processing facilities. These programs include courses in principles of petroleum extraction and related geology, petroleum field mapping and site analysis, testing and sampling methods, instrument calibration, laboratory analysis, test equipment operation and maintenance, environment and safety monitoring procedures for oil/gas fields and facilities, facility inspection procedures, and report preparation.

Examples of included programs
- Gas processing
- Oil and gas field operations
- Oil field safety
- Oil field technology
- Oil refining
- Petroleum and natural gas
- Petroleum engineering technology
- Petroleum technician
- Petroleum technology

Examples of excluded programs
- Polymer engineering [*see* 14.3201 Polymer/Plastics Engineering]
- Mining engineering technology [*see* 15.0901 Mining Technology/Technician]
- Geologist [*see* 40.0601 Geology/Earth Science, General]
- Petrology [*see* 40.0606 Geochemistry and Petrology]
- Oil and gas drilling [*see* 46.0504 Well Drilling/Driller]
- Gas and oil burner technician [*see* 47.0201 Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/Technician (HAC, HACR, HVAC, HVACR)]

15.0999 Mining and Petroleum Technologies/Technicians, Other

This instructional program class comprises any program not listed above that relates to Mining and Petroleum Technologies/Technicians.

15.10 Construction Engineering Technology/Technician

This subseries comprises instructional program class 15.1001.

15.1001 Construction Engineering Technology/Technician

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills in support of engineers, engineering contractors and other professionals engaged in the construction of buildings and related structures. These programs include courses in basic structural engineering principles and construction techniques, building site inspection, site supervision, construction personnel supervision, plan and specification interpretation, supply logistics and procurement, applicable building codes, and report preparation.

Examples of included programs
- Building construction engineering technology
- Building construction technology
- Building engineering technology
- Construction engineering technician
- Construction engineering technology
- Construction technology
- Residential construction technician

Examples of excluded programs
- Civil and structural engineering [*see* 14.0803 Structural Engineering]
- Construction engineering [*see* 14.3301 Construction Engineering]
- Architectural engineering technician [*see* 15.0101 Architectural Engineering Technology/Technician]
- Construction drafting [*see* 15.1303 Architectural Drafting and Architectural CAD/CADD]
- Building inspection [*see* 46.0403 Building/Home/Construction Inspection/Inspector]
- Construction supervision [*see* 46.0412 Building/Construction Site Management/Manager]
- Construction management [*see* 52.2001 Construction Management]

15.11 Engineering-related Technologies

This subseries comprises instructional program classes 15.1102 to 15.1199.

15.1102 Surveying Technology/Surveying

This instructional program class comprises any program that prepares individuals to apply mathematical and scientific principles to the delineation, determination, planning and positioning of land tracts, land and water boundaries, land contours and features; and the preparation of related maps, charts and reports.

These programs include courses in applied geodesy, computer graphics, photointerpretation, plane and geodetic surveying, mensuration, traversing, survey equipment operation and maintenance, instrument calibration, and basic cartography.

Examples of included programs
- Construction surveying
- Hydrographic survey
- Land surveying
- Legal surveying
- Mapping, charting and geodesy
- Marine geomatics
- Survey technician
- Survey technology
- Surveying
- Surveying and mapping

Examples of excluded programs
- Surveying engineering [*see* 14.3801 Surveying Engineering]
- Topology [*see* 27.0105 Topology and Foundations]
- Physical geography [*see* 45.0701 Geography]
- Cartography [*see* 45.0702 Cartography]

15.1103 Hydraulics and Fluid Power Technology/Technician

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing and using fluid power and transportation systems. These programs include courses in fluid mechanics and hydraulics principles, fluid power systems, pipeline and pumping systems, design and operational testing, inspection and maintenance procedures, related instrumentation, and report preparation.

Examples of included programs
- Fluid power technician
- Hydraulic technician
- Mechanical engineering technician—fluid power automation

Examples of excluded programs
- Mechanical engineering [*see* 14.1901 Mechanical Engineering]
- Electromechanical engineering technology [*see* 15.0403 Electromechanical Technology/Electromechanical Engineering Technology]
- Mechanical engineering technology [*see* 15.0805 Mechanical Engineering/Mechanical Technology/Technician]
- Industrial mechanics [*see* 47.0303 Industrial Mechanics and Maintenance Technology]

15.1199 Engineering-related Technologies, Other

This instructional program class comprises any program not listed above that relates to Engineering-related Technologies.

15.12 Computer Engineering Technologies/Technicians

This subseries comprises instructional program classes 15.1201 to 15.1299.

15.1201 Computer Engineering Technology/Technician, General

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills in support of computer engineers engaged in designing and developing computer systems and installations. These programs include courses in computer electronics and programming, prototype development and testing, systems installation and testing, solid state and microminiature circuitry, peripheral equipment, and report preparation.

Examples of included programs
- Computer electronics technician
- Computer engineering technology

Examples of excluded programs
- Computer programming technology [*see* 11.0201 Computer Programming/Programmer, General]
- Computer science technology [*see* 11.0701 Computer Science]
- Computer systems engineering [*see* 14.0901 Computer Engineering, General]
- Computer hardware engineering [*see* 14.0902 Computer Hardware Engineering]
- Computer systems technology [*see* 15.1202 Computer Technology/Computer Systems Technology]
- Computer hardware technology [*see* 15.1203 Computer Hardware Technology/Technician]

15.1202 Computer Technology/Computer Systems Technology

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills in support of professionals who use computer systems. These programs include courses in basic computer design and architecture, programming, problems of specific computer applications, component and system maintenance and inspection procedures, hardware and software problem diagnosis and repair, and report preparation.

Examples of included programs
- Applied computer technology
- Computer systems technology
- Computer systems—client server
- Computer systems—computer systems foundations
- Computer systems—digital processing
- Computer systems—small systems architecture
- Computer technologies
- Computer technology
- Computer technology—process control
- Electronic information systems technology—computer systems option
- Microcomputer technician

Examples of excluded programs
- Systems analyst [*see* 11.0501 Computer Systems Analysis/Analyst]
- Computer science technology [*see* 11.0701 Computer Science]
- Computer systems engineering [*see* 14.0901 Computer Engineering, General]
- Systems engineering [*see* 14.2701 Systems Engineering]
- Computer engineering technology [*see* 15.1201 Computer Engineering Technology/Technician, General]
- Computer hardware technology [*see* 15.1203 Computer Hardware Technology/Technician]

15.1203 Computer Hardware Technology/Technician

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills to support engineers in designing computer hardware and peripheral systems. These programs include courses in computer systems design, computer architecture, computer electronics, processors, peripherals, testing equipment, and computer manufacturing processes.

Examples of included programs
- Computer hardware technician
- Computer hardware technology

Examples of excluded programs
- Systems analyst [*see* 11.0501 Computer Systems Analysis/Analyst]
- Computer science technology [*see* 11.0701 Computer Science]
- Computer engineering [*see* 14.0901 Computer Engineering, General]
- Computer hardware engineering [*see* 14.0902 Computer Hardware Engineering]
- Computer technology [*see* 15.1202 Computer Technology/Computer Systems Technology]
- Manufacturing design CAD technology [*see* 15.1302 CAD/CADD Drafting and/or Design Technology/Technician]

15.1204 Computer Software Technology/Technician

This instructional program class comprises any program that prepares individuals to apply basic engineering principles and technical skills to support engineers in developing, implementing, and evaluating computer software and program applications. These programs include courses in computer programming, programming languages, databases, user interfaces, networking and warehousing, encryption and security, software testing and evaluation, and customization.

Examples of included programs
- Computer software technician
- Computer software technology
- Software systems development

Examples of excluded programs
- Information systems [*see* 11.0103 Information Technology]
- Computer programming [*see* 11.0201 Computer Programming/Programmer, General]
- Computer science technology [*see* 11.0701 Computer Science]
- Database management [*see* 11.0802 Data Modelling/Warehousing and Database Administration]
- Computer security and investigations [*see* 11.1003 Computer and Information Systems Security]
- Computer software engineering [*see* 14.0903 Computer Software Engineering]

15.1299 Computer Engineering Technologies/Technicians, Other

This instructional program class comprises any program not listed above that relates to Computer Engineering Technologies/Technicians.

Example of included programs
- Networking engineering technology

Example of excluded programs
- Computer network engineering [*see* 14.0999 Computer Engineering, Other]

15.13 Drafting/Design Engineering Technologies/Technicians

This subseries comprises instructional program classes 15.1301 to 15.1399.

15.1301 Drafting and Design Technology/Technician, General

This instructional program class comprises any program that prepares individuals to generally apply technical skills to create working drawings and computer simulations for a variety of applications. These programs include courses in specification interpretation, dimensioning techniques, drafting calculations,

material estimation, technical communications, computer applications, and interpersonal communications.

Examples of included programs
- Design and drafting technology
- Design drafting technician
- Drafting
- Drafting industrial
- Drafting technician
- Drafting technology
- General drafting
- Industrial drafting
- Technical drafting
- Technical drawing

Examples of excluded programs
- Environmental design [*see* 04.0401 Environmental Design/Architecture]
- Digital imaging [*see* 10.0303 Prepress/Desktop Publishing and Digital Imaging Design]
- Computer graphics [*see* 11.0803 Computer Graphics]
- Design engineering [*see* 14.9999 Engineering, Other]
- Computer-aided design [*see* 15.1302 CAD/CADD Drafting and/or Design Technology/Technician]
- Design arts [*see* 50.0401 Design and Visual Communications, General]
- Graphic design [*see* 50.0409 Graphic Design]
- Drawing [*see* 50.0705 Drawing]

15.1302 CAD/CADD Drafting and/or Design Technology/Technician

This instructional program class comprises any program that prepares individuals to apply technical skills and advanced computer software and hardware to the creation of graphic representations and simulations in support of engineering projects. These programs include courses in engineering graphics, two-dimensional and three-dimensional engineering design, solids modelling, engineering animation, computer-aided drafting (CAD), computer-aided design (CADD), and auto-CAD techniques.

Examples of included programs
- AutoCAD
- AutoCAD drafting
- CAD drafting
- CAD programming
- CAD technology
- CAD/CAM
- Computer drafting
- Computer-aided design
- Computer-aided design and drafting technology
- Computer-aided drafting
- Computer-assisted drafting
- Drafting CAD
- Manufacturing design CAD technology

Examples of excluded programs
- Computer graphics [*see* 11.0803 Computer Graphics]
- Design engineering [*see* 14.9999 Engineering, Other]
- Design and drafting technology [*see* 15.1301 Drafting and Design Technology/Technician, General]
- Industrial design [*see* 50.0404 Industrial Design]
- Drawing [*see* 50.0705 Drawing]

15.1303 Architectural Drafting and Architectural CAD/CADD

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to develop working drawings and electronic simulations for architectural and related construction projects. These programs include courses in basic construction and structural design, architectural rendering, architectural-aided drafting (CAD), layout and designs, architectural blueprint interpretation, building materials, and basic structural wiring diagramming.

Examples of included programs
- Architectural CAD technology
- Architectural drafting
- Building design and architecture CAD
- Building design CAD technology
- Construction drafting
- Residential drafting and design

Examples of excluded programs
- Architectural design technology [*see* 04.0901 Architectural Technology/Technician]
- Architectural engineering [*see* 14.0401 Architectural Engineering]
- Design engineering [*see* 14.9999 Engineering, Other]
- Architectural engineering technician [*see* 15.0101 Architectural Engineering Technology/Technician]
- Design and drafting technology [*see* 15.1301 Drafting and Design Technology/Technician, General]
- CAD technology [*see* 15.1302 CAD/CADD Drafting and/or Design Technology/Technician]
- Drawing [*see* 50.0705 Drawing]

15.1304 Civil Drafting and Civil Engineering CAD/CADD

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to develop working drawings and electronic simulations in support of civil engineers, geological engineers, and related professionals. These programs include courses in basic civil engineering principles, geological and seismographic mapping, machine drafting, computer-aided drafting (CAD), pipe drafting, survey interpretation, and blueprint reading.

Examples of included programs
- Civil drafting
- Civil engineering drafting
- Drafting surveying
- Drafting—civil and municipal
- Structural CAD technology
- Structural drafting

Examples of excluded programs
- Civil engineering [*see* 14.0801 Civil Engineering, General]
- Civil engineering technology [*see* 15.0201 Civil Engineering Technology/Technician]
- Drafting [*see* 15.1301 Drafting and Design Technology/Technician, General]
- CAD drafting [*see* 15.1302 CAD/CADD Drafting and/or Design Technology/Technician]
- Industrial design [*see* 50.0404 Industrial Design]
- Drawing [*see* 50.0705 Drawing]

15.1305 Electrical/Electronics Drafting and Electrical/Electronics CAD/CADD

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to develop working schematics and representations in support of electrical/electronic engineers, computer engineers, and related professionals. These programs include courses in basic electronics, electrical systems and computer layouts; electrode-mechanical drafting; manufacturing circuitry; computer-aided drafting (CAD); and electrical systems specification interpretation.

Examples of included programs
- Electrical CAD
- Electrical drafting
- Electronics CAD
- Electronics drafting

Examples of excluded programs
- Electrical and electronic engineering [*see* 14.1001 Electrical, Electronics and Communications Engineering]
- Electrical engineering technology [*see* 15.0303 Electrical, Electronic and Communications Engineering Technology/Technician]
- Electromechanical engineering technology [*see* 15.0403 Electromechanical Technology/Electromechanical Engineering Technology]
- Computer engineering technology [*see* 15.1201 Computer Engineering Technology/Technician, General]
- Drafting technology [*see* 15.1301 Drafting and Design Technology/Technician, General]
- Drawing [*see* 50.0705 Drawing]

15.1306 Mechanical Drafting and Mechanical Drafting CAD/CADD

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to develop working drawings and electronic simulations in support of mechanical and industrial engineers, and related professionals. These programs include courses in manufacturing materials and processes, mechanical drafting, electrode-mechanical drafting, basic metallurgy, geometric dimensioning and tolerancing, blueprint reading and technical communication.

Examples of included programs
- Mechanical CAD/CAM
- Mechanical drafting
- Mechanical engineering drafting technician
- Mechanical engineering technology—automotive product design

Examples of excluded programs
- Mechanical engineering technology [*see* 15.0805 Mechanical Engineering/Mechanical Technology/Technician]
- Drafting [*see* 15.1301 Drafting and Design Technology/Technician, General]
- CAD technology [*see* 15.1302 CAD/CADD Drafting and/or Design Technology/Technician]
- Drawing [*see* 50.0705 Drawing]

15.1399 Drafting/Design Engineering Technologies/Technicians, Other

This instructional program class comprises any program not listed above that relates to Drafting/Design Engineering Technologies/Technicians.

Examples of included programs
- Architectural and civil drafting
- Drafting—architectural/electrical
- Drafting—architectural/industrial
- Engineering design and drafting technology
- Engineering design technologist
- Engineering drafting technology

Examples of excluded programs
- Architectural design technology [*see* 04.0901 Architectural Technology/Technician]
- Design and drafting technology [*see* 15.1301 Drafting and Design Technology/Technician, General]
- Design arts [*see* 50.0401 Design and Visual Communications, General]
- Illustration [*see* 50.0410 Illustration]
- Drawing [*see* 50.0705 Drawing]

15.14 Nuclear Engineering Technology/Technician

This subseries comprises instructional program class 15.1401.

15.1401 Nuclear Engineering Technology/Technician

This instructional program class comprises any program that prepares individuals to apply basic engineering, knowledge and technical skills in support of engineers and other professionals operating nuclear facilities and engaged in nuclear applications and safety procedures. These programs include courses in physics, nuclear science, nuclear systems, nuclear plant and systems design, radiological safety, radiological applications, and applicable laws and regulations.

Example of included programs
- Nuclear engineering technology

Examples of excluded programs
- Nuclear engineering [*see* 14.2301 Nuclear Engineering]
- Nuclear power technology [*see* 41.0205 Nuclear/Nuclear Power Technology/Technician]
- Nuclear medicine technology [*see* 51.0905 Nuclear Medical Technology/Technologist]

15.15 Engineering/Industrial Management

This subseries comprises instructional program class 15.1501.

15.1501 Engineering/Industrial Management

This instructional program class comprises any program that focuses on the application of engineering principles to the planning and operational management of industrial and manufacturing operations, and prepares individuals to plan and manage such operations. These programs include courses in accounting, engineering economy, financial management, industrial and human resources management, industrial psychology, management information systems, mathematical modelling and optimization, quality control, operations research, safety and health issues, and environmental program management.

Examples of included programs
- Engineering management
- Technology management—engineering

Examples of excluded programs
- Industrial engineering technology [*see* 15.0612 Industrial Technology/Technician]
- Business administration [*see* 52.0201 Business Administration and Management, General]
- Operations management [*see* 52.0205 Operations Management and Supervision]
- Human resources management [*see* 52.1001 Human Resources Management/Personnel Administration, General]

15.99 Engineering Technologies/Technicians, Other

This subseries comprises instructional program class 15.9999.

15.9999 Engineering Technologies/Technicians, Other

This instructional program class comprises any program not listed above that relates to Engineering Technologies/Technicians.

Examples of included programs
- Agricultural engineering technology
- Chemical engineering technology
- Fire protection engineering technician
- Fire protection engineering technologist
- Geological engineering technology
- Resources engineering technology
- Technician—agricultural engineering
- Technician—bio-resources engineering

Examples of excluded programs
- Bioengineering [*see* 14.0301 Agricultural/Biological Engineering and Bioengineering]
- Naval engineering [*see* 14.2201 Naval Architecture and Marine Engineering]

16. Aboriginal and Foreign Languages, Literatures and Linguistics

This series comprises instructional programs that focus on foreign languages and literatures, the humanistic and scientific study of linguistics, and the provision of professional interpretation and translation services.

16.01 Linguistic, Comparative and Related Language Studies and Services

This subseries comprises instructional program classes 16.0101 to 16.0199.

16.0101 Aboriginal and Foreign Languages and Literatures, General

This instructional program class comprises any general program that focuses on one or more modern aboriginal or foreign languages that is not specific as to the name of the language(s) studied; that is otherwise undifferentiated; or that introduces students to language studies at the basic/elementary level.

Examples of included programs
- Foreign languages
- Foreign languages and literature
- Modern languages

Examples of excluded programs
- Teaching foreign languages [*see* 13.1306 Aboriginal and Foreign Language Teacher Education]
- Native as a second language [*see* 16.1799 Second Language Learning, Other]
- Spanish as a second language [*see* 16.1799 Second Language Learning, Other]
- Intercultural studies [*see* 30.2301 Intercultural/Multicultural and Diversity Studies]

16.0102 Linguistics

This instructional program class comprises any program that focuses on language, language development, and relationships among languages and language groups from a humanistic and/or scientific perspective. These programs include courses in subjects such as psycholinguistics, behavioural linguistics, language acquisition, sociolinguistics, mathematical and computational linguistics, grammatical theory and theoretical linguistics, philosophical linguistics, philology and historical linguistics, comparative linguistics, phonetics, phonemics, dialectology, semantics, functional grammar and linguistics, language typology, lexicography, morphology and syntax, orthography, stylistics, structuralism, rhetoric, and applications to artificial intelligence.

Examples of included programs
- Applied linguistics
- English linguistics
- French linguistics
- Linguistics
- Philology
- Semiology
- Semiotics

Example of excluded programs
- Psycholinguistics [*see* 42.0301 Cognitive Psychology and Psycholinguistics]

16.0103 Language Interpretation and Translation

This instructional program class comprises any program that prepares individuals to be professional interpreters and/or translators of documents and data files, either from English or French into another language or languages or vice versa. These programs include courses of an intensive nature in one or more languages plus courses in subjects such as single and multiple-language interpretation, one- or two-way interpretation, simultaneous interpretation, general and literary translation, business translation, technical translation, and other specific applications of linguistic skills.

Examples of included programs
- Interpreter translator
- Translation

Examples of excluded programs
- Sign language interpretation [*see* 16.1603 Sign Language Interpretation and Translation]
- Music performance [*see* 50.0903 Music Performance, General]

16.0104 Comparative Literature

This instructional program class comprises any program that focuses on two or more literary traditions in the original languages or in translation. These programs include courses in comparative linguistics; applicable foreign languages; English/French language and literature; literary criticism; and applications to genre, period, national, and textual studies as well as literary forms such as poetry, prose, and drama.

Examples of included programs
- Comparative Canadian literature
- Comparative literature

Example of excluded programs
- Intercultural studies [*see* 30.2301 Intercultural/Multicultural and Diversity Studies]

16.0199 Linguistic, Comparative and Related Language Studies and Services, Other

This instructional program class comprises any program not listed above that relates to Linguistic, Comparative and Related Language Studies and Services.

Example of excluded programs
- Interpreter translator [*see* 16.0103 Language Interpretation and Translation]

16.02 African Languages, Literatures and Linguistics

This subseries comprises instructional program class 16.0201.

16.0201 African Languages, Literatures and Linguistics

This instructional program class comprises any program that focuses on one or more of the languages native to the African continent, with an emphasis on sub-Saharan Africa but including some Saharan languages and dialects. These programs include courses in African linguistic philology and diffusion; African literatures (oral and written); Bantu languages (Swahili, Lingala, Tswana, Kongo, Zulu, Xhosa, Luba, Kikuyu, Sotho, Rundi, Rwanda, Swazi, and others); Nilo-Saharan languages (Kanuri, Ibo, Zande, Bagirmi, Dinka, Nubian, Maasai, and others); Niger-Congo languages (Wolof, Temne, Fon, Sango, Mossi, Senufo, Yoruba, Igbo, Akan, Ewe, Fulani, Mande, and others; Khoisan languages (!Kung and others); and the Chadic (Hausa, Margi, and others) and Ethiopic (Amharic, Galla, Ge'ez, Tigre, Tigrinya, and others) languages of the Hamito-Semitic language family.

Examples of included programs
- African languages
- African languages and literature

Example of excluded programs
- African studies [*see* 05.0101 African Studies]

16.03 East Asian Languages, Literatures and Linguistics

This subseries comprises instructional program classes 16.0300 to 16.0399.

16.0300 East Asian Languages, Literatures and Linguistics, General

This instructional program class comprises any general program that focuses on the Sino-Tibetan, Japanese, and Korean languages of East Asia. These programs include courses in philology, linguistics, dialects and pidgins, literature, and applications to business, science/technology, and other settings.

Examples of included programs
- East Asian languages
- Oriental languages

Example of excluded programs
- East Asian studies [*see* 05.0104 East Asian Studies]

16.0301 Chinese Language and Literature

This instructional program class comprises any program that focuses on the Chinese language and its associated dialects and literature. These programs include courses in Chinese philology, Archaic and Classical Chinese, Modern Standard Chinese (Guoyu), Mandarin, Cantonese, Taiwanese, Wu, Min, Hunanese, Hakka, other dialects and pidgins, and applications to business, science/technology, and other settings.

Examples of included programs
- Chinese
- Chinese language
- Chinese language and literature
- Chinese literature
- Mandarin

Example of excluded programs
- Chinese studies [*see* 05.0123 Chinese Studies]

16.0302 Japanese Language and Literature

This instructional program class comprises any program that focuses on the Japanese language. These programs include courses in Japanese philology; Ancient, Medieval, and Modern Japanese; Japanese dialects; and applications to business, science/technology, and other settings.

Examples of included programs
- Japanese
- Japanese language
- Japanese literature

Example of excluded programs
- Japanese studies [*see* 05.0127 Japanese Studies]

16.0303 Korean Language and Literature

This instructional program class comprises any program that focuses on the Korean language. These programs include courses in Korean philology; pre-Modern and Modern Korean; Korean dialects; and applications to business, science/technology, and other settings.

Examples of included programs
- Korean
- Korean language
- Korean literature

Example of excluded programs
- Korean studies [*see* 05.0128 Korean Studies]

16.0304 Tibetan Language and Literature

This instructional program class comprises any program that focuses on the Tibetan language. These programs include courses in Tibetan philology, secular and religious Tibetan, Tibetan dialects, and applications to business, science/technology, and other settings.

Example of included programs
- Tibetan language and literature

Examples of excluded programs
- Tibetan studies [*see* 05.0131 Tibetan Studies]
- Tibetan Buddhism [*see* 38.0202 Buddhist Studies]

16.0399 East Asian Languages, Literatures and Linguistics, Other

This instructional program class comprises any program not listed above that relates to East Asian Languages, Literatures and Linguistics.

Examples of included programs
- Ainu
- Formosan
- Manchu
- Miao
- Yuan

Example of excluded programs
- East Asian languages [*see* 16.0300 East Asian Languages, Literatures and Linguistics, General]

16.04 Slavic, Baltic and Albanian Languages, Literatures and Linguistics

This subseries comprises instructional program classes 16.0400 to 16.0499.

16.0400 Slavic Languages, Literatures and Linguistics, General

This instructional program class comprises any general program that focuses on the Slavic languages of Central and Eastern Europe. These programs include courses in philology, linguistics, dialects and pidgins, literature, and applications to business, science/technology, and other settings.

Examples of included programs
- Slavic languages
- Slavic languages and literature
- Slavic linguistics
- Slavic literature
- Slavic philology

Examples of excluded programs
- Slavic and East European studies [*see* 05.0105 Central/Middle and Eastern European Studies]
- Slavic studies [*see* 05.0118 Slavic Studies]

16.0401 Baltic Languages, Literatures and Linguistics

This instructional program class comprises any program that focuses on the languages of the Baltic peoples and the relationship of Baltic philology to comparative linguistics and Indo-European origins. These programs include courses in the modern languages of Latvian and Lithuanian, their literature, and applications to business, science/technology, and other settings; and extinct languages such as Old Prussian and Curionian.

Examples of included programs
- Baltic languages
- Latvian
- Lithuanian

Example of excluded programs
- Baltic studies [*see* 05.0117 Baltic Studies]

16.0402 Russian Language and Literature

This instructional program class comprises any program that focuses on the Russian language. These programs include courses in Russian philology, Old Russian, Modern Russian and dialects, literature, and applications to business, science/technology, and other settings.

Examples of included programs
- Russian
- Russian language
- Russian language and literature
- Russian literature
- Russian philology

Examples of excluded programs
- European and Russian studies [*see* 05.0105 Central/Middle and Eastern European Studies]
- Soviet and East European studies [*see* 05.0105 Central/Middle and Eastern European Studies]
- Russian studies [*see* 05.0110 Russian Studies]
- Soviet studies [*see* 05.0110 Russian Studies]

16.0404 Albanian Language and Literature

This instructional program class comprises any program that focuses on the Albanian language. These programs include courses in Albanian/Illyrian philology, Ghegg and Tosk dialects, Modern Standard Albanian, and applications to business, science/technology, and other settings.

Examples of included programs
- Albanian
- Albanian language and literature

Example of excluded programs
- Balkan studies [*see* 05.0116 Balkan Studies]

16.0405 Bulgarian Language and Literature

This instructional program class comprises any program that focuses on the Bulgarian language. These programs include courses in Bulgarian philology, literature, and applications to business, science/technology, and other settings.

Examples of included programs
- Bulgarian
- Bulgarian literature

Examples of excluded programs
- Balkan studies [*see* 05.0116 Balkan Studies]
- Slavic studies [*see* 05.0118 Slavic Studies]

16.0406 Czech Language and Literature

This instructional program class comprises any program that focuses on the Czech language. These programs include courses in Czech philology, literature, and applications to business, science/technology, and other settings.

Examples of included programs
- Czech
- Czech language and literature

Examples of excluded programs
- Slavic and East European studies [*see* 05.0105 Central/Middle and Eastern European Studies]
- Slavic studies [*see* 05.0118 Slavic Studies]
- Slavic languages and literature [*see* 16.0400 Slavic Languages, Literatures and Linguistics, General]

16.0407 Polish Language and Literature

This instructional program class comprises any program that focuses on the Polish language. These programs include courses in Polish philology, dialects, literature, and applications to business, science/technology, and other settings.

Examples of included programs
- Polish
- Polish language
- Polish literature
- Polish philology

Examples of excluded programs
- Polish studies [*see* 05.0129 Polish Studies]
- Slavic languages and literature [*see* 16.0400 Slavic Languages, Literatures and Linguistics, General]

16.0408 Serbian, Croatian and Serbo-Croatian Languages and Literatures

This instructional program class comprises any program that focuses on the Serbian and/or Croatian languages, either separately or considered as related derivatives of a common ancestor language. These programs include courses in Serbo-Croatian philology, dialects such as Bosnian, Modern Croatian, Modern Serbian, and applications to business, science/technology, and other settings.

Examples of included programs
- Croatian
- Serbian
- Serbo-Croatian

Examples of excluded programs
- Balkan studies [*see* 05.0116 Balkan Studies]
- Slavic studies [*see* 05.0118 Slavic Studies]
- Slavic languages and literature [*see* 16.0400 Slavic Languages, Literatures and Linguistics, General]

16.0409 Slovak Language and Literature

This instructional program class comprises any program that focuses on the Slovak language. These programs include courses in Slovak philology, dialects, literature, and applications to business, science/technology, and other settings.

Examples of included programs
- Slovak
- Slovak language and literature

Examples of excluded programs
- Slavic studies [*see* 05.0118 Slavic Studies]
- Slavic languages and literature [*see* 16.0400 Slavic Languages, Literatures and Linguistics, General]

16.0410 Ukrainian Language and Literature

This instructional program class comprises any program that focuses on the Ukrainian language. These programs include courses in Ukrainian philology, dialects, literature, and applications to business, science/technology, and other settings.

Examples of included programs
- Ukrainian
- Ukrainian language and literature

Examples of excluded programs
- Ukrainian studies [*see* 05.0132 Ukraine Studies]
- Slavic languages and literature [*see* 16.0400 Slavic Languages, Literatures and Linguistics, General]

16.0499 Slavic, Baltic and Albanian Languages, Literatures and Linguistics, Other

This instructional program class comprises any program not listed above that relates to Slavic, Baltic and Albanian Languages, Literatures and Linguistics.

Examples of included programs
- Belarussian
- Kashubian
- Lusatian (Sorbian/Wendish)
- Macedonian
- Old Church Slavonic
- Slovenian

Examples of excluded programs
- Slavic languages and literature [*see* 16.0400 Slavic Languages, Literatures and Linguistics, General]
- Baltic languages [*see* 16.0401 Baltic Languages, Literatures and Linguistics]
- Albanian language and literature [*see* 16.0404 Albanian Language and Literature]

16.05 Germanic Languages, Literatures and Linguistics

This subseries comprises instructional program classes 16.0500 to 16.0599.

16.0500 Germanic Languages, Literatures and Linguistics, General

This instructional program class comprises any general program that focuses on the Germanic languages of Western, Central, and Northern Europe. These programs include courses in philology, linguistics, dialects and pidgins, literature, and applications to business, science/technology, and other settings.

Examples of included programs
- Germanic languages
- Germanic philology

Examples of excluded programs
- Germanic studies [*see* 05.0125 German Studies]
- German teacher [*see* 13.1326 German Language Teacher Education]
- German language and literature [*see* 16.0501 German Language and Literature]

16.0501 German Language and Literature

This instructional program class comprises any program that focuses on the German language and related dialects as used in Austria, Germany, Switzerland, neighbouring European countries containing German-speaking minorities, and elsewhere. These programs include courses in German philology; Old, Middle, and High German; Plattdeutsch and other regional dialects; and applications to business, science/technology, and other settings.

Examples of included programs
- German
- German language
- German language and literature
- German linguistics
- German literature
- German philology

Examples of excluded programs
- German studies [*see* 05.0125 German Studies]
- German teacher [*see* 13.1326 German Language Teacher Education]
- Germanic languages [*see* 16.0500 Germanic Languages, Literatures and Linguistics, General]

16.0502 Scandinavian Languages, Literatures and Linguistics

This instructional program class comprises any program that focuses on one or more of the languages, literatures, and linguistics of the peoples of Scandinavia and associated Northern European island groups. These programs include courses that may involve multiple languages and language families, not be specific as to the name of the language(s) studied, or be otherwise undifferentiated.

Examples of included programs
- Scandinavian
- Scandinavian languages, literatures and linguistics

Example of excluded programs
- Scandinavian studies [*see* 05.0111 Scandinavian Studies]

16.0503 Danish Language and Literature

This instructional program class comprises any program that focuses on the Danish language and related dialects as used in Denmark and Greenland (Kaalit Nuniat). These programs include courses in Danish philology, literature, and applications to business, science/technology, and other settings.

Examples of included programs
- Danish
- Danish language and literature

Examples of excluded programs
- Scandinavian studies [*see* 05.0111 Scandinavian Studies]
- Scandinavian languages, literatures and linguistics [*see* 16.0502 Scandinavian Languages, Literatures and Linguistics]

16.0504 Dutch/Flemish Language and Literature

This instructional program class comprises any program that focuses on the Dutch language and related dialects as used in the Netherlands, Flemish-speaking Belgium, the Netherlands Antilles, and Surinam. These programs include courses in Dutch/Flemish philology, literature, Dutch Creoles, and applications to business, science/technology, and other settings.

Examples of included programs
- Dutch
- Dutch language and literature
- Flemish

Examples of excluded programs
- European studies [*see* 05.0106 European Studies/Civilization]
- Germanic languages [*see* 16.0500 Germanic Languages, Literatures and Linguistics, General]

16.0505 Norwegian Language and Literature

This instructional program class comprises any program that focuses on the Norwegian language and related dialects. These programs include courses in Norwegian philology, Bokmal and Nynorsk dialects, literature, and applications to business, science/technology, and other settings.

Examples of included programs
- Norwegian
- Norwegian language
- Norwegian language and literature

Examples of excluded programs
- Scandinavian studies [*see* 05.0111 Scandinavian Studies]
- Scandinavian languages, literatures and linguistics [*see* 16.0502 Scandinavian Languages, Literatures and Linguistics]

16.0506 Swedish Language and Literature

This instructional program class comprises any program that focuses on the Swedish language and related dialects as used in Sweden, Finland, and related island groups. These programs include courses in Swedish philology, literature, and applications to business, science/technology, and other settings.

Examples of included programs
- Swedish
- Swedish language

Examples of excluded programs
- Scandinavian studies [*see* 05.0111 Scandinavian Studies]
- Scandinavian languages, literatures and linguistics [*see* 16.0502 Scandinavian Languages, Literatures and Linguistics]

16.0599 Germanic Languages, Literatures and Linguistics, Other

This instructional program class comprises any program not listed above that relates to Germanic Languages, Literatures and Linguistics.

Examples of included programs
- Afrikaans
- Faeroese
- Frisian
- Gothic
- Icelandic
- Luxembourgetsch
- Old Norse
- Old Saxon
- Yiddish

Examples of excluded programs
- Germanic studies [*see* 05.0125 German Studies]
- Germanic languages [*see* 16.0500 Germanic Languages, Literatures and Linguistics, General]
- German language and literature [*see* 16.0501 German Language and Literature]

16.06 Modern Greek Language and Literature

This subseries comprises instructional program class 16.0601.

16.0601 Modern Greek Language and Literature

This instructional program class comprises any program that focuses on the development and use of the Greek language in the period dating from the late 15th century to the present. These programs include courses in modern Greek literature, current Greek dialects, and applications to business, science/technology, and other settings.

Examples of included programs
- Greek
- Modern Greek

Examples of excluded programs
- Classical languages [*see* 16.1200 Classics and Classical Languages, Literatures and Linguistics, General]
- Ancient Greek [*see* 16.1202 Ancient/Classical Greek Language and Literature]

16.07 South Asian Languages, Literatures and Linguistics

This subseries comprises instructional program classes 16.0700 to 16.0799.

16.0700 South Asian Languages, Literatures and Linguistics, General

This instructional program class comprises any general program that focuses on the languages, literatures, and linguistics of the peoples speaking the Indo-Aryan (Indic), Dravidian, and other languages of the Indian subcontinent and associated borderlands and island groups. These programs include courses that may involve multiple languages and language families, not be specific as to the name of the language(s) studied, or be otherwise undifferentiated.

Examples of included programs
- South Asian languages
- South Asian languages and civilizations

Examples of excluded programs
- South Asian studies [*see* 05.0112 South Asian Studies]
- Southeast Asian languages [*see* 16.1400 Southeast Asian Languages, Literatures and Linguistics, General]

16.0701 Hindi Language and Literature

This instructional program class comprises any program that focuses on the Hindi language, antecedents, and related dialects as spoken in India. These programs include courses in Hindi philology, Modern Hindi, Hindustani, related dialects, and applications in business, science/technology, and other settings.

Examples of included programs
- Hindi
- Hindi language
- Hindi literature

Examples of excluded programs
- South Asian studies [*see* 05.0112 South Asian Studies]
- Hinduism [*see* 38.0204 Hindu Studies]

16.0702 Sanskrit and Classical Indian Languages, Literatures and Linguistics

This instructional program class comprises any program that focuses on Sanskrit and related ancient and classical Indo-Aryan languages. These programs include courses in Vedic and Classical Sanskrit, Pali and other Prakrits, and the historical development of Indo-Aryan languages and their relation to Indo-European languages such as Greek, Latin and the Baltic languages.

Example of included programs
- Sanskrit

Examples of excluded programs
- South Asian studies [*see* 05.0112 South Asian Studies]
- South Asian languages and civilizations [*see* 16.0700 South Asian Languages, Literatures and Linguistics, General]

16.0704 Bengali Language and Literature

This instructional program class comprises any program that focuses on the Bengali language (Bangla) and related dialects as spoken in India and Bangladesh. These programs include courses in Bengali philology, Modern Bangla, Bengali dialects, and applications in business, science/technology, and other settings.

Examples of included programs
- Bengali
- Bengali literature

Example of excluded programs
- South Asian languages [*see* 16.0700 South Asian Languages, Literatures and Linguistics, General]

16.0705 Punjabi Language and Literature

This instructional program class comprises any program that focuses on the Punjabi language and related dialects as spoken in India and Pakistan. These programs include courses in Punjabi philology, Modern Punjabi, Punjabi dialects, and applications in business, science/technology, and other settings.

Examples of included programs
- Punjabi
- Punjabi language

Example of excluded programs
- South Asian languages [*see* 16.0700 South Asian Languages, Literatures and Linguistics, General]

16.0706 Tamil Language and Literature

This instructional program class comprises any program that focuses on the Tamil language and related dialects as spoken in South India and Sri Lanka. These programs include courses in Tamil philology, Classical and Modern Tamil, Tamil dialects, and applications in business, science/technology, and other settings.

Examples of included programs
- Tamil
- Tamil language

Example of excluded programs
- South Asian languages [*see* 16.0700 South Asian Languages, Literatures and Linguistics, General]

16.0707 Urdu Language and Literature

This instructional program class comprises any program that focuses on the Urdu language and related dialects as spoken in Pakistan and portions of India and Afghanistan. These programs include courses in Urdu philology, Modern Urdu, Urdu dialects, and applications in business, science/technology, and other settings.

Examples of included programs
- Urdu
- Urdu literature

Example of excluded programs
- South Asian languages [*see* 16.0700 South Asian Languages, Literatures and Linguistics, General]

16.0799 South Asian Languages, Literatures and Linguistics, Other

This instructional program class comprises any program not listed above that relates to South Asian Languages, Literatures and Linguistics.

Examples of included programs
- Assamese
- Bihari
- Gujarati
- Kannanda
- Malayalam
- Marathi
- Nepalese
- Oriya
- Rajasthani
- Romany
- Sindhi
- Sinhalese
- Telugu

Examples of excluded programs
- South Asian studies [*see* 05.0112 South Asian Studies]
- South Asian languages [*see* 16.0700 South Asian Languages, Literatures and Linguistics, General]

16.08 Iranian/Persian Languages, Literatures and Linguistics

This subseries comprises instructional program class 16.0801.

16.0801 Iranian/Persian Languages, Literatures and Linguistics

This instructional program class comprises any program that focuses on the languages used in ancient, medieval, and modern Iran and its border regions. These programs include courses in modern Farsi/Persian; Avestan/Old Persian; related modern languages such as Pashto, Kurdish, Baluchi, Dari, Tadzhik, Ossetian, and others; related extinct languages such as Median, Parthian, Bactrian, Sogdian, and Khwarezmian; and applications of modern Farsi and other languages to applications in business, science/technology, and other settings.

Examples of included programs
- Persian
- Persian literature

Examples of excluded programs
- Middle Eastern studies [*see* 05.0108 Near and Middle Eastern Studies]
- Near Eastern studies [*see* 05.0108 Near and Middle Eastern Studies]

16.09 Romance Languages, Literatures and Linguistics

This subseries comprises instructional program classes 16.0900 to 16.0999.

16.0900 Romance Languages, Literatures and Linguistics, General

This instructional program class comprises any general program that focuses on the Romance languages of Western, Central, and Southern Europe. These programs include courses in philology, linguistics, dialects and pidgins, literature, and applications to business, science/technology, and other settings.

Examples of included programs
- Romance languages
- Romance languages, literatures and linguistics
- Romance linguistics

Examples of excluded programs
- European studies [*see* 05.0106 European Studies/Civilization]
- Romanian language and literature [*see* 16.0906 Romanian Language and Literature]

16.0902 Italian Language and Literature

This instructional program class comprises any program that focuses on the Italian language and related dialects. These programs include courses in Italian philology, Modern Italian, Italian regional dialects, and applications in business, science/technology, and other settings.

Examples of included programs
- Italian
- Italian language
- Italian literature

Examples of excluded programs
- Italian studies [*see* 05.0126 Italian Studies]
- Romance languages, literatures and linguistics [*see* 16.0900 Romance Languages, Literatures and Linguistics, General]

16.0904 Portuguese Language and Literature

This instructional program class comprises any program that focuses on the Portuguese language and related dialects. These programs include courses in Portuguese philology, Metropolitan Portuguese, Luso-Brazilian Portuguese, regional dialects, and applications in business, science/technology, and other settings.

Examples of included programs
- Portuguese
- Portuguese language and literature

Examples of excluded programs
- Spanish studies [*see* 05.0130 Spanish and Iberian Studies]
- Romance languages, literatures and linguistics [*see* 16.0900 Romance Languages, Literatures and Linguistics, General]

16.0905 Spanish Language and Literature

This instructional program class comprises any program that focuses on the Spanish language and related dialects. These programs include courses in Spanish philology, Modern Castillan, various Latin American dialects, regional Spanish dialects, and applications in business, science/technology, and other settings.

Examples of included programs
- Spanish
- Spanish language
- Spanish language and literature
- Spanish literature

Examples of excluded programs
- Spanish studies [*see* 05.0130 Spanish and Iberian Studies]
- Spanish teacher [*see* 13.1330 Spanish Language Teacher Education]
- Romance languages, literatures and linguistics [*see* 16.0900 Romance Languages, Literatures and Linguistics, General]
- Spanish as a second language [*see* 16.1799 Second Language Learning, Other]

16.0906 Romanian Language and Literature

This instructional program class comprises any program that focuses on the Romanian language and related dialects. These programs include courses in Romanian philology, Modern Romanian, Romanian regional dialects, and applications in business, science/technology, and other settings.

Examples of included programs
- Romanian
- Romanian language and literature

Examples of excluded programs
- East European studies [*see* 05.0105 Central/Middle and Eastern European Studies]
- Romance languages, literatures and linguistics [*see* 16.0900 Romance Languages, Literatures and Linguistics, General]

16.0907 Catalan Language and Literature

This instructional program class comprises any program that focuses on the Catalan language and related dialects. These programs include courses in Catalan philology, Modern Catalan, Catalan dialects, and applications in business, science/technology, and other settings.

Examples of included programs
- Catalan
- Catalan language and literature

Examples of excluded programs
- Spanish studies [*see* 05.0130 Spanish and Iberian Studies]
- Romance languages, literatures and linguistics [*see* 16.0900 Romance Languages, Literatures and Linguistics, General]

16.0999 Romance Languages, Literatures and Linguistics, Other

This instructional program class comprises any program not listed above that relates to Romance Languages, Literatures and Linguistics.

Examples of included programs
- Friulian
- Galician
- Provencal/langue d'Oc
- Rhaeto-Romansch
- Sardinian

Examples of excluded programs
- Romance languages, literatures and linguistics [*see* 16.0900 Romance Languages, Literatures and Linguistics, General]
- Romanian language and literature [*see* 16.0906 Romanian Language and Literature]

16.10 Aboriginal Languages, Literatures and Linguistics

This subseries comprises instructional program class 16.1001.

16.1001 Aboriginal Languages, Literatures and Linguistics

This instructional program class comprises any program that focuses on the languages native to the Western Hemisphere. These programs include courses in linguistic philology; oral and written literatures; Inuit and Aleut languages; Hawaiian (Polynesian language family); North American language families such as Algonkian (Arapaho, Blackfoot, Cheyenne, Cree, Micmac, Ojibwa, and others), Athabascan (Apache, Chipewyan, Kiowa, Navajo, Na-Dene, and others), Siouan (Crow, Dakota, Hidatsa, Osage, Winnebago, and others), Muskogean (Choctaw, Creek, and others), Iroquoian (Cherokee, Mohawk, Oneida, Senecan, and others); Yuman; Mayan (Classical Mayan, Quiché, Huastec, and others); Zapotecan (Zapotec, Mixtec, Otomi, Popolacan, and others), and Uto-Aztecan (Hopi, Shoshone, Zuñi, Nahuatl, and others); South American language families such as Andean-Equatorial (Quechua, Aymará, Tupí, Guaraní, Arawak, Island Carib, and others); Ge-Pano-Carib (Carib and others); and Macro-Chibchan (Chibcha and others); and other minor languages.

Examples of included programs
- Aboriginal language
- Cree language
- Cree language studies
- Cree linguistics
- Dakota language studies
- First Nations language
- Native language
- Native language studies
- Saulteaux language studies

Examples of excluded programs
- Aboriginal studies [*see* 05.0202 Aboriginal Studies]
- Native studies [*see* 05.0202 Aboriginal Studies]

16.11 Middle/Near Eastern and Semitic Languages, Literatures and Linguistics

This subseries comprises instructional program classes 16.1100 to 16.1199.

16.1100 Semitic Languages, Literatures and Linguistics, General

This instructional program class comprises any general program that focuses on the Semitic languages of Western Asia, North Africa, and Europe. These programs include courses in philology, linguistics, dialects and pidgins, literature, and applications to business, science/technology, and other settings.

Example of included programs
- Semitic languages and literatures

Examples of excluded programs
- Middle Eastern studies [*see* 05.0108 Near and Middle Eastern Studies]
- Near Eastern studies [*see* 05.0108 Near and Middle Eastern Studies]
- Yiddish [*see* 16.0599 Germanic Languages, Literatures and Linguistics, Other]
- Arabic language, literature and linguistics [*see* 16.1101 Arabic Language and Literature]
- Hebrew language [*see* 16.1102 Hebrew Language and Literature]

16.1101 Arabic Language and Literature

This instructional program class comprises any program that focuses on the Arabic language as spoken by the Arab and other peoples from earliest times to the present. These programs include courses in Arabic philology, Classical Arabic, Modern Standard Arabic, Arabic dialects, and applications to business, science/technology, and other settings.

Examples of included programs
- Arabic
- Arabic language
- Arabic language, literature and linguistics
- Arabic literature

Examples of excluded programs
- Middle Eastern studies [*see* 05.0108 Near and Middle Eastern Studies]
- Near Eastern studies [*see* 05.0108 Near and Middle Eastern Studies]
- Islamic studies [*see* 38.0205 Islamic Studies]

16.1102 Hebrew Language and Literature

This instructional program class comprises any program that focuses on the Hebrew language in either pre-modern or modern forms. These programs include courses in Hebrew philology, Biblical Hebrew (including pre- and post-Exilic scripts), Modern Hebrew, dialects and offshoots such as Samaritan, and applications to business, science/technology, and other settings.

Examples of included programs
- Hebrew
- Hebrew language

Examples of excluded programs
- Semitic languages and literatures [*see* 16.1100 Semitic Languages, Literatures and Linguistics, General]
- Biblical languages [*see* 16.1103 Ancient Near Eastern and Biblical Languages, Literatures and Linguistics]
- Jewish studies [*see* 38.0206 Jewish/Judaic Studies]

16.1103 Ancient Near Eastern and Biblical Languages, Literatures and Linguistics

This instructional program class comprises any program that focuses on one or more of the extinct Semitic and/or non-Semitic languages spoken in the ancient Near East, including those used to write historical Jewish and Christian religious texts. These programs include courses in languages such as Egyptian/Coptic, Sumerian, Akkadian, Babylonian, Assyrian, Aramaic, Cannanite, Phonecian, Samarian, Ugaritic, Syriac, Mandean, Hattic, Elamite, Hurrian, Hittite, Urartian, Lydian, Luwian, Lycian, Palaic, Sabaean/South Arabian, and other associated languages, plus allied disciplines such as philology, epigraphy, papyrology, numismatics, and textual studies.

Examples of included programs
- Biblical languages
- Biblical literature

Examples of excluded programs
- Semitic languages and literatures [*see* 16.1100 Semitic Languages, Literatures and Linguistics, General]
- Biblical studies [*see* 39.0201 Bible/Biblical Studies]

16.1199 Middle/Near Eastern and Semitic Languages, Literatures and Linguistics, Other

This instructional program class comprises any program not listed above that relates to Middle/Near Eastern and Semitic Languages, Literatures and Linguistics.

Examples of included programs
- Berber languages
- Cushitic languages
- Maltese
- Modern Assyrian

Example of excluded programs
- Semitic languages and literatures [*see* 16.1100 Semitic Languages, Literatures and Linguistics, General]

16.12 Classics and Classical Languages, Literatures and Linguistics

This subseries comprises instructional program classes 16.1200 to 16.1299.

16.1200 Classics and Classical Languages, Literatures and Linguistics, General

This instructional program class comprises any general program that focuses on the literary culture of the ancient Graeco-Roman world and the Greek and Latin languages and literatures and their development prior to the fall of the Roman Empire.

Examples of included programs
- Classical languages
- Classics

Examples of excluded programs
- Latin teacher education [*see* 13.1333 Latin Teacher Education]
- Modern Greek [*see* 16.0601 Modern Greek Language and Literature]
- Classical Greek [*see* 16.1202 Ancient/Classical Greek Language and Literature]
- Latin [*see* 16.1203 Latin Language and Literature]
- Medieval studies [*see* 30.1301 Medieval and Renaissance Studies]
- Renaissance studies [*see* 30.1301 Medieval and Renaissance Studies]
- Classical studies [*see* 30.2202 Classical, Ancient Mediterranean and Near Eastern Studies and Archeology]

16.1202 Ancient/Classical Greek Language and Literature

This instructional program class comprises any program that focuses on the Greek language and literature from its origins through the fall of the Byzantine (Eastern Roman) Empire, as a secular and/or theological subject. These programs include courses in Greek philology, Attic dialects, Hellenistic dialects, Koine (Biblical) Greek, and Medieval or Byzantine Greek.

Examples of included programs
- Ancient Greek
- Classical Greek

Examples of excluded programs
- Modern Greek [*see* 16.0601 Modern Greek Language and Literature]
- Classical languages [*see* 16.1200 Classics and Classical Languages, Literatures and Linguistics, General]
- Ancient Greek and Roman studies [*see* 30.2202 Classical, Ancient Mediterranean and Near Eastern Studies and Archeology]
- Byzantine civilization [*see* 30.2202 Classical, Ancient Mediterranean and Near Eastern Studies and Archeology]

16.1203 Latin Language and Literature

This instructional program class comprises any program that focuses on the Latin language and literature from its origins through its decline and its current ecclesiastical usage, as a secular and/or theological subject. These programs include courses in Latin philology, related Italic dialects, Late Roman and Medieval Latin, and modern Church Latin.

Examples of included programs
- Latin
- Latin studies

Examples of excluded programs
- Latin teacher education [*see* 13.1333 Latin Teacher Education]
- Classical languages [*see* 16.1200 Classics and Classical Languages, Literatures and Linguistics, General]
- Medieval studies [*see* 30.1301 Medieval and Renaissance Studies]
- Renaissance studies [*see* 30.1301 Medieval and Renaissance Studies]
- Religious studies [*see* 38.0201 Religion/Religious Studies, General]

16.1299 Classics and Classical Languages, Literatures and Linguistics, Other

This instructional program class comprises any program not listed above that relates to Classics and Classical Languages, Literatures and Linguistics.

Examples of included programs
- Etruscan
- Oscan
- Samnian

Examples of excluded programs
- Classical languages [*see* 16.1200 Classics and Classical Languages, Literatures and Linguistics, General]
- Ancient Greek [*see* 16.1202 Ancient/Classical Greek Language and Literature]
- Latin [*see* 16.1203 Latin Language and Literature]

16.13 Celtic Languages, Literatures and Linguistics

This subseries comprises instructional program class 16.1301.

16.1301 Celtic Languages, Literatures and Linguistics

This instructional program class comprises any program that focuses on the historical and modern languages spoken by the Celtic peoples of the British Isles, Continental Europe, and Asia Minor. These programs include courses in Celtic philology; modern languages such as Irish, Scots Gaelic, Welsh, and Breton; and extinct or revived languages such as Cornish, Manx, Galatian, and others.

Examples of included programs
- Celtic languages
- Welsh

Example of excluded programs
- Western European studies [*see* 05.0114 Western European Studies]

16.14 Southeast Asian and Australasian/Pacific Languages, Literatures and Linguistics

This subseries comprises instructional program classes 16.1400 to 16.1499.

16.1400 Southeast Asian Languages, Literatures and Linguistics, General

This instructional program class comprises any program that generally focuses on the modern or historical languages spoken or originating in mainland Southeast Asia and the Indonesian and Philippines Archipelagos, including members of the Thai, Tibeto-Burman, and Malayo-Polynesian language families. These programs include courses that may involve multiple languages and language families, not be specific as to the name of the language(s) studied, or be otherwise undifferentiated.

Example of included programs
• Southeast Asian languages

Example of excluded programs
• Southeast Asian studies [*see* 05.0113 Southeast Asian Studies]

16.1401 Australian/Oceanic/Pacific Languages, Literatures and Linguistics

This instructional program class comprises any program that focuses on the languages spoken by the Melanesian, Micronesian, and Polynesian peoples inhabiting Papua/New Guinea, Australia, New Zealand, and the island groups of the Pacific Ocean. These programs include courses in such languages as the Papuan languages (Pidgin, Police Motu, and others); the Australian languages; Micronesian languages (Nauruan, Fijian, Mola, and others); and the Polynesian languages (Maori, Tahitian, Tongan, Samoan, and others); their oral and written literature; and applications to business, science/technology, and other settings.

Examples of included programs
• Australian languages
• Indo-Pacific languages
• Oceanic languages
• Oceanic languages and literature

Examples of excluded programs
• Pacific and Asian studies [*see* 05.0109 Pacific Area/Pacific Rim Studies]
• Southeast Asian languages [*see* 16.1400 Southeast Asian Languages, Literatures and Linguistics, General]

16.1402 Bahasa Indonesian/Bahasa Malay Languages and Literatures

This instructional program class comprises any program that focuses on the modern Bahasa Malay and Bahasa Indonesian languages spoken in Indonesia, Malaysia, and Singapore. These programs include courses in Malay and Indonesian philology, Bahasa Indonesian, Bahasa Malay, historical Malay and Javanese, Bahasa dialects, and applications to business, science/technology, and other settings.

Example of included programs
• Bahasa Indonesian

Examples of excluded programs
• Southeast Asian studies [*see* 05.0113 Southeast Asian Studies]
• Southeast Asian languages [*see* 16.1400 Southeast Asian Languages, Literatures and Linguistics, General]

16.1403 Burmese Language and Literature

This instructional program class comprises any program that focuses on the Burmese language. These programs include courses in Burmese philology, literature, and applications to business, science/technology, and other settings.

Example of included programs
• Burmese language

Examples of excluded programs
• South Asian studies [*see* 05.0112 South Asian Studies]
• Southeast Asian languages [*see* 16.1400 Southeast Asian Languages, Literatures and Linguistics, General]

16.1404 Philippine/Tagalog Language and Literature

This instructional program class comprises any program that focuses on the modern Philippine/Tagalog language as used in the Philippines. These programs include courses in Philippine philology, literature, and applications to business, science/technology, and other settings.

Examples of included programs
- Filipino
- Tagalog

Examples of excluded programs
- Southeast Asian studies [*see* 05.0113 Southeast Asian Studies]
- Southeast Asian languages [*see* 16.1400 Southeast Asian Languages, Literatures and Linguistics, General]

16.1405 Khmer/Cambodian Language and Literature

This instructional program class comprises any program that focuses on the Khmer language as spoken in Cambodia. These programs include courses in Mon-Khmer philology, Classical and Modern Khmer, literature, and applications to business, science/technology, and other settings.

Examples of included programs
- Cambodian
- Khmer

Examples of excluded programs
- Southeast Asian studies [*see* 05.0113 Southeast Asian Studies]
- Southeast Asian languages [*see* 16.1400 Southeast Asian Languages, Literatures and Linguistics, General]

16.1406 Lao/Laotian Language and Literature

This instructional program class comprises any program that focuses on the Laotian language. These programs include courses in Laotian philology, Modern Laotian and dialects, literature, and applications to business, science/technology, and other settings.

Examples of included programs
- Lao
- Laotian language

Examples of excluded programs
- Southeast Asian studies [*see* 05.0113 Southeast Asian Studies]
- Southeast Asian languages [*see* 16.1400 Southeast Asian Languages, Literatures and Linguistics, General]

16.1407 Thai Language and Literature

This instructional program class comprises any program that focuses on the Thai languages. These programs include courses in Thai philology, dialects, literature, and applications to business, science/technology, and other settings.

Examples of included programs
- Thai
- Thai literature

Examples of excluded programs
- Southeast Asian studies [*see* 05.0113 Southeast Asian Studies]
- Southeast Asian languages [*see* 16.1400 Southeast Asian Languages, Literatures and Linguistics, General]

16.1408 Vietnamese Language and Literature

This instructional program class comprises any program that focuses on the Vietnamese language. These programs include courses in Vietnamese philology, Classical and Modern Vietnamese, dialects, literature, and applications to business, science/technology, and other settings.

Examples of included programs
- Vietnamese
- Vietnamese literature

Examples of excluded programs
- Southeast Asian studies [*see* 05.0113 Southeast Asian Studies]
- Oriental languages [*see* 16.0300 East Asian Languages, Literatures and Linguistics, General]
- Southeast Asian languages [*see* 16.1400 Southeast Asian Languages, Literatures and Linguistics, General]

16.1499 Southeast Asian and Australasian/Pacific Languages, Literatures and Linguistics, Other

This instructional program class comprises any program not listed above that relates to Southeast Asian and Australasian/Pacific Languages, Literatures and Linguistics.

Examples of included programs
- Achinese
- Batak
- Bisayan
- Bodo
- Dayak
- Ilokano
- Kachin
- Karen
- Lolo-Moso
- Madurese
- Makassarese
- Malagasy
- Naga
- Shan
- Sundan

Examples of excluded programs
- Southeast Asian studies [*see* 05.0113 Southeast Asian Studies]
- Southeast Asian languages [*see* 16.1400 Southeast Asian Languages, Literatures and Linguistics, General]

16.15 Turkic, Ural-Altaic, Caucasian and Central Asian Languages, Literatures and Linguistics

This subseries comprises instructional program classes 16.1501 to 16.1599.

16.1501 Turkish Language and Literature

This instructional program class comprises any program that focuses on the Turkish language in either or both of its premodern and modern variants. These programs include courses in Turkish philology, Ottoman

Turkish, Modern Turkish, Turkish dialects, and applications to business, science/technology, and other settings.

Examples of included programs
- Turkish
- Turkish literature

Examples of excluded programs
- East European studies [*see* 05.0105 Central/Middle and Eastern European Studies]
- Near Eastern studies [*see* 05.0108 Near and Middle Eastern Studies]

16.1502 Finnish and Related Languages, Literatures and Linguistics

This instructional program class comprises any program that focuses on Finnish and related Finnic languages such as Estonian, Karelian, Sami, and others. These programs include courses in Finnish and Finnic philology, oral and written literatures, and applications to business, science/technology, and other settings.

Examples of included programs
- Estonian
- Finnish

Examples of excluded programs
- Scandinavian studies [*see* 05.0111 Scandinavian Studies]
- Scandinavian languages, literatures and linguistics [*see* 16.0502 Scandinavian Languages, Literatures and Linguistics]

16.1503 Hungarian/Magyar Language and Literature

This instructional program class comprises any program that focuses on the Hungarian language. These programs include courses in Hungarian philology, Hungarian literature, and applications to business, science/technology, and other settings.

Examples of included programs
- Hungarian
- Hungarian literature

Example of excluded programs
- East European studies [*see* 05.0105 Central/Middle and Eastern European Studies]

16.1504 Mongolian Language and Literature

This instructional program class comprises any program that focuses on the Mongolian language. These programs include courses in Mongolian philology, Mongolian dialects, oral and written literature, and applications to business, science/technology, and other settings.

Examples of included programs
- Mongolian
- Mongolian literature

Examples of excluded programs
- Central Asian studies [*see* 05.0120 Ural-Altaic and Central Asian Studies]
- Oriental languages [*see* 16.0300 East Asian Languages, Literatures and Linguistics, General]

16.1599 Turkic, Ural-Altaic, Caucasian and Central Asian Languages, Literatures and Linguistics, Other

This instructional program class comprises any program not listed above that relates to Turkic, Ural-Altaic, Caucasian and Central Asian Languages, Literatures and Linguistics.

Examples of included programs
- Altaic
- Armenian
- Avaric
- Azeri
- Bashkir
- Chechen-Ingushetian
- Georgian
- Kazakh
- Kirghiz
- Tatar
- Turkmen
- Uighur
- Uzbek

16.16 Sign Language

This subseries comprises instructional program classes 16.1601 to 16.1699.

16.1601 American Sign Language (ASL)

This instructional program class comprises any program that focuses on American Sign Language as a visual and motor medium of communication and discourse for deaf individuals and deaf culture. These programs include courses in the development of ASL, ASL morphology and syntax, signing technique, English translation of ASL, formal and colloquial ASL, and ASL transcription.

Examples of included programs
- American Sign Language (ASL)
- Langage des signes québécois (LSQ)
- Sign language

Examples of excluded programs
- Teacher of the deaf [*see* 13.1003 Education/Teaching of Individuals with Hearing Impairments Including Deafness]
- Linguistics of signed languages [*see* 16.1602 Linguistics of Sign Language]
- Sign language interpretation [*see* 16.1603 Sign Language Interpretation and Translation]

16.1602 Linguistics of Sign Language

This instructional program class comprises any program that focuses on the scientific and scholarly study of the development, structure, and use of American Sign Language (ASL), le langage des signes québécois (LSQ), and other visual signed languages, both as vehicles for communication within the deaf community and in relation to spoken and written languages. These programs include courses in cognitive linguistics; sign language phonology, syntax, and morphology; sociolinguistics of the deaf community; comparative linguistics; and studies of specific sign languages such as ASL, Auslan (Australian Sign Language), LSF (French Sign Language), LSQ, Shuwa jiten (Japanese Sign Language), HamNoSys (German Sign Language), Gestuno, and others.

Example of included programs
- Linguistics of signed languages

Examples of excluded programs
- American Sign Language (ASL) [*see* 16.1601 American Sign Language (ASL)]
- Sign language interpretation [*see* 16.1603 Sign Language Interpretation and Translation]

16.1603 Sign Language Interpretation and Translation

This instructional program class comprises any program that prepares individuals to function as simultaneous interpreters of American Sign Language (ASL), le langage des signes québécois (LSQ), and other sign language systems employed to assist the hearing impaired, both one-way and two-way. These programs include courses in sign language, finger spelling, vocabulary and expressive nuances, oral and physical translation skills, cross-cultural communications, slang and colloquialisms, and technical interpretation.

Examples of included programs
- American Sign Language (ASL) interpreting
- ASL interpreting
- Sign language communicator
- Sign language interpretation

16.1699 Sign Language, Other

This instructional program class comprises any program not listed above that relates to Sign Language.

16.17 Second Language Learning^CAN

This subseries comprises instructional program classes 16.1701 to 16.1799.

16.1701 English as a Second Language^CAN

This instructional program class comprises any program that focuses on the development of proficiency in reading, writing, and speaking English for those for whom English is not their mother tongue. These programs include courses in the use of basic communication skills to develop and transmit ideas and thoughts in English as well as specialized programs that focus on the development of proficiency in English sufficient to meet specific occupational or academic demands.

Example of included programs
- English as a second language (ESL) teaching

Examples of excluded programs
- Bilingual and multilingual education [*see* 13.0201 Bilingual and Multilingual Education]
- English teacher [*see* 13.1305 English/English Language Arts Teacher Education]
- Teaching English as a second language [*see* 13.1401 Teaching English as a Second or Foreign Language/ESL Language Instructor]
- Second language learning (not for credit) [*see* 32.0109 Second Language Learning (not for credit)]

16.1702 French as a Second Language^CAN

This instructional program class comprises any program that focuses on the development of proficiency in reading, writing, and speaking French for those for whom French is not their mother tongue. These programs include courses in the use of basic communication skills to develop and transmit ideas and thoughts in French as well as specialized programs that focus on the development of proficiency in French sufficient to meet specific occupational or academic demands.

Example of included programs
- French as a second language

Examples of excluded programs
- Bilingual and multilingual education [*see* 13.0201 Bilingual and Multilingual Education]
- French teacher [*see* 13.1325 French Language/French Language Arts Teacher Education]
- Teaching French as a second language [*see* 13.1402 Teaching French as a Second or Foreign Language]
- Second language learning (not for credit) [*see* 32.0109 Second Language Learning (not for credit)]

16.1799 Second Language Learning, Other^CAN

This instructional program class comprises any program not listed above that relates to Second Language Learning.

Examples of included programs
- Native as a second language
- Second language
- Second language learning
- Spanish as a second language

Example of excluded programs
- Second language learning (not for credit) [*see* 32.0109 Second Language Learning (not for credit)]

16.99 Aboriginal and Foreign Languages, Literatures and Linguistics, Other

This subseries comprises instructional program class 16.9999.

16.9999 Aboriginal and Foreign Languages, Literatures and Linguistics, Other

This instructional program class comprises any program not listed above that relates to Aboriginal and Foreign Languages, Literatures and Linguistics.

Example of included programs
- Basque

Example of excluded programs
- Teaching foreign languages [*see* 13.1306 Aboriginal and Foreign Language Teacher Education]

19. Family and Consumer Sciences/Human Sciences

This series comprises instructional programs that focus on the human interface with the physical, social, emotional, and intellectual environments and the developmental stages and needs of individuals in the interrelated spheres of family, workplace, and community.

19.00 Work and Family Studies

This subseries comprises instructional program class 19.0000.

19.0000 Work and Family Studies

This instructional program class comprises any introductory program that focuses on family and consumer science concepts and principles at the basic and vocational levels, and the various potential career paths open to interested students. These programs include courses in career, community, and family connections;

family and family/consumer resources; human development; interpersonal relationships; nutrition and wellness; parenting; and career possibilities in various related areas.

Example of included programs
- Family studies

Examples of excluded programs
- Family science [*see* 19.0101 Family and Consumer Sciences/Human Sciences, General]
- Home economics [*see* 19.0101 Family and Consumer Sciences/Human Sciences, General]
- Family and consumer studies [*see* 19.0201 Business, Family and Consumer Sciences/Human Sciences]
- Family and consumer sciences/human sciences [*see* 19.0202 Family and Consumer Sciences/Human Sciences Communication]
- Family and child studies [*see* 19.0701 Human Development and Family Studies, General]
- Family systems [*see* 19.0704 Family Systems]
- Human services [*see* 44.0000 Human Services, General]

19.01 Family and Consumer Sciences/Human Sciences, General

This subseries comprises instructional program class 19.0101.

19.0101 Family and Consumer Sciences/Human Sciences, General

This instructional program class comprises any general program that focuses on family and consumer sciences, including how individuals develop and function in family, work, and community settings and how they relate to their physical, social, emotional, and intellectual environments.

Examples of included programs
- Applied human sciences
- Domestic science
- Family science
- Family social sciences
- Home economics
- Home science
- Household science

Examples of excluded programs
- Family and consumer studies teaching [*see* 13.1308 Family and Consumer Sciences/Home Economics Teacher Education]
- Family and consumer studies [*see* 19.0201 Business, Family and Consumer Sciences/Human Sciences]
- Family resource management [*see* 19.0401 Family Resource Management Studies, General]
- Consumer economics and science [*see* 19.0402 Consumer Economics]
- Consumer services [*see* 19.0403 Consumer Services and Advocacy]
- Human services [*see* 44.0000 Human Services, General]

19.02 Family and Consumer Sciences/Human Sciences Business Services

This subseries comprises instructional program classes 19.0201 to 19.0299.

19.0201 Business, Family and Consumer Sciences/Human Sciences

This instructional program class comprises any program that focuses on the relationship between the economy and the consuming individual and family. These programs include courses in consumption theory

and practice, the production and distribution of retail goods and services, and the management of business enterprises.

Examples of included programs
- Consumer behaviour
- Consumer studies
- Family and consumer studies

Examples of excluded programs
- Family and consumer studies teaching [*see* 13.1308 Family and Consumer Sciences/Home Economics Teacher Education]
- Family and consumer sciences/human sciences [*see* 19.0202 Family and Consumer Sciences/Human Sciences Communication]

19.0202 Family and Consumer Sciences/Human Sciences Communication

This instructional program class comprises any program that focuses on communication of human sciences subject matter and related consumer information to a variety of audiences through print and non-print media.

Example of included programs
- Family and consumer sciences/human sciences

Examples of excluded programs
- Communication studies [*see* 09.0101 Communication Studies/Speech Communication and Rhetoric]
- Family and consumer studies teaching [*see* 13.1308 Family and Consumer Sciences/Home Economics Teacher Education]
- Family and consumer studies [*see* 19.0201 Business, Family and Consumer Sciences/Human Sciences]

19.0203 Consumer Merchandising/Retailing Management

This instructional program class comprises any program that focuses on product and service promotion from the perspective of individual and family consumers and that prepares individuals to function as consumer management and marketing consultants in for-profit and non-profit enterprises. These programs include courses in applied market research; consumer behaviour; product sourcing and distribution; profitability; customer feedback and evaluation methods; promotion and retailing campaign development; and applications to specific domestic and international consumer markets.

Examples of excluded programs
- Marketing [*see* 52.1401 Marketing/Marketing Management, General]
- Marketing research [*see* 52.1402 Marketing Research]
- Retail merchandising [*see* 52.1802 Merchandising and Buying Operations]

19.0299 Family and Consumer Sciences/Human Sciences Business Services, Other

This instructional program class comprises any program not listed above that relates to Family and Consumer Sciences/Human Sciences Business Services.

19.04 Family and Consumer Economics and Related Services

This subseries comprises instructional program classes 19.0401 to 19.0499.

19.0401 Family Resource Management Studies, General

This instructional program class comprises any general program that focuses on the design and implementation of policies and processes contributing to successful individual and family resource management. These programs include courses in financial goal-setting and strategies; household income, assets, and debt management; preventing and resolving financial difficulties; and the use of relevant public resources.

Example of included programs
- Family resource management

Examples of excluded programs
- Home economics education [*see* 13.1308 Family and Consumer Sciences/Home Economics Teacher Education]
- Consumer economics [*see* 19.0402 Consumer Economics]
- Financial planning [*see* 52.0804 Financial Planning and Services]

19.0402 Consumer Economics

This instructional program class comprises any program that focuses on the application of micro- and macro-economic theory to consumer behaviour and individual and family consumption of goods and services. These programs include courses in modelling, economic forecasting, indexing, price theory, and analysis of individual commodities and services and/or groups of related commodities and services.

Examples of included programs
- Consumer economics
- Consumer economics and science

Examples of excluded programs
- Family science [*see* 19.0101 Family and Consumer Sciences/Human Sciences, General]
- Family resource management [*see* 19.0401 Family Resource Management Studies, General]
- Economics [*see* 45.0601 Economics, General]

19.0403 Consumer Services and Advocacy

This instructional program class comprises any program that focuses on providing end-use advice and representational services to individuals and groups within a variety of settings, and the analytical and research techniques needed to protect consumers from unsafe, unreliable, and/or unhealthy products and services. These programs include courses in consumer advocacy, family management systems, ecological impacts of consumption practices, and analyzing and testing product quality and safety.

Examples of included programs
- Consumer education and advocacy
- Consumer services

Examples of excluded programs
- Consumer studies [*see* 19.0201 Business, Family and Consumer Sciences/Human Sciences]
- Family and consumer sciences/human sciences [*see* 19.0202 Family and Consumer Sciences/Human Sciences Communication]

19.0499 Family and Consumer Economics and Related Services, Other

This instructional program class comprises any program not listed above that relates to Family and Consumer Economics and Related Services.

19.05 Foods, Nutrition and Related Services

This subseries comprises instructional program classes 19.0501 to 19.0599.

19.0501 Foods, Nutrition and Wellness Studies, General

This instructional program class comprises any general program that focuses on the role of foods and nutrition in human health and wellness. These programs include courses in nutritional care and education, the planning and provision of food services, the development of consumable food products, life-span nutrition and wellness, the principles of nutritional assessment, and food safety and food composition.

Examples of included programs
- Food and nutrition
- Food, nutrition and health
- Health and nutrition
- Nutrition

Examples of excluded programs
- Food science [*see* 01.1001 Food Science]
- Food preparation [*see* 12.0505 Food Preparation/Professional Cooking/Kitchen Assistant]
- Nutrition science [*see* 30.1901 Nutrition Sciences]

19.0504 Human Nutrition

This instructional program class comprises any program that focuses on the relationships between food consumption and human development and health. These programs include courses in the cellular and molecular processes of food processing in the human body, related metabolic processes, the relationship of food and nutrition to disease, and nutritional needs across the lifespan.

Examples of included programs
- Applied human nutrition
- Food and human nutrition
- Human nutrition

Examples of excluded programs
- Food science [*see* 01.1001 Food Science]
- Food preparation [*see* 12.0505 Food Preparation/Professional Cooking/Kitchen Assistant]
- Nutrition science [*see* 30.1901 Nutrition Sciences]

19.0505 Foodservice Systems Administration/Management

This instructional program class comprises any program that focuses on the principles and practices relating to the administration of food service systems in institutional settings, and that prepares individuals to manage such operations in public and private facilities. These programs include courses in human nutrition, food safety, the design and organization of food service systems, purchasing, personnel management, and related business practices.

Examples of included programs
- Dietary and food service management
- Food and nutrition management
- Nutrition and food service management

Examples of excluded programs
- Restaurant/catering management [*see* 12.0504 Restaurant, Culinary and Catering Management/Manager]
- Food and beverage service [*see* 12.0507 Food Service, Waiter/Waitress and Dining Room Management/Manager]
- Hospitality administration [*see* 52.0901 Hospitality Administration/Management, General]
- Hotel management [*see* 52.0904 Hotel/Motel Administration/Management]
- Restaurant manager [*see* 52.0905 Restaurant/Food Services Management]

19.0599 Foods, Nutrition and Related Services, Other

This instructional program class comprises any program not listed above that relates to Foods, Nutrition and Related Services.

19.06 Housing and Human Environments

This subseries comprises instructional program classes 19.0601 to 19.0699.

19.0601 Housing and Human Environments, General

This instructional program class comprises any general program that focuses on the behavioural, social, economic, functional, and aesthetic aspects of housing, interiors, and other built environments. These programs include courses in analyzing, planning, designing, furnishing, and equipping residential, work, and leisure spaces to meet user needs and the study of related public policies.

Examples of included programs
- Housing
- Human environments
- Interior environments

Examples of excluded programs
- Environmental design [*see* 04.0401 Environmental Design/Architecture]
- Interior architecture [*see* 04.0501 Interior Architecture]
- Home decorating [*see* 19.0605 Home Furnishings and Equipment Installers]
- Interior design [*see* 50.0408 Interior Design]

19.0604 Facilities Planning and Management

This instructional program class comprises any program that focuses on strategic workplace and facility planning and that prepares individuals to function as facility and event managers and workplace consultants. These programs include courses in the principles of aesthetic and functional design; environmental psychology and organizational behaviour; real estate planning; principles of occupational health and safety; event planning and management; operations management; and applicable regulatory and policy issues.

Examples of included programs
- Facilities management
- Facility planning

Examples of excluded programs
- Recreation facilities management [*see* 31.0301 Parks, Recreation and Leisure Facilities Management]
- Leisure and sport management [*see* 31.0504 Sport and Fitness Administration/Management]
- Building service technician [*see* 46.0401 Building/Property Maintenance and Management]

19.0605 Home Furnishings and Equipment Installers

This instructional program class comprises any program that prepares individuals to assist in home furnishings and decorations. These programs include courses in selecting, purchasing, designing and decorating; home furnishings and equipment; floral design; accessory construction; textiles; and upholstery.

Examples of included programs
- Home decorating
- Interior decorating
- Interior decoration

Examples of excluded programs
- Floral design [*see* 01.0608 Floriculture/Floristry Operations and Management]
- Environmental design [*see* 04.0401 Environmental Design/Architecture]
- Interior architecture [*see* 04.0501 Interior Architecture]
- House painting [*see* 46.0408 Painting/Painter and Wall Coverer]
- Interior design [*see* 50.0408 Interior Design]

19.0699 Housing and Human Environments, Other

This instructional program class comprises any program not listed above that relates to Housing and Human Environments.

19.07 Human Development, Family Studies and Related Services

This subseries comprises instructional program classes 19.0701 to 19.0799.

19.0701 Human Development and Family Studies, General

This instructional program class comprises any general program that focuses on basic human developmental and behavioural characteristics of the individual within the context of the family. These programs include courses in the conditions that influence human growth and development; strategies that promote growth and development across the lifespan; and the study of family systems.

Examples of included programs
- Family and child studies
- Human development
- Human development studies
- Native child and family development

Examples of excluded programs
- Family studies [*see* 19.0000 Work and Family Studies]
- Applied human sciences [*see* 19.0101 Family and Consumer Sciences/Human Sciences, General]
- Family systems [*see* 19.0704 Family Systems]
- Child development [*see* 19.0706 Child Development]

19.0702 Adult Development and Aging

This instructional program class comprises any program that focuses on the characteristics of aging populations and the needs of older individuals in family and institutional settings. These programs include courses in the biological and psychological stages of aging; the provision of dependent care; serving the social, economic, and psychological needs of aging adults; related public policy issues; and adult community resources.

Examples of included programs
- Adult development
- Gerontological services

Examples of excluded programs
- Gerontology [*see* 30.1101 Gerontology]
- Geropsychology [*see* 42.2201 Geropsychology]
- Geriatric nursing [*see* 51.1699 Nursing, Other]
- Home support aide [*see* 51.2602 Home Health Aide/Home Attendant]
- Geriatric medicine—residency [*see* 60.0222 Geriatric Medicine Residency Programs]

19.0704 Family Systems

This instructional program class comprises any program that focuses on the family as a social unit in its developmental, dynamic, comparative, and structural aspects, and the significance of the family as a system that impacts individuals and society. These programs include courses in related principles of sociology, psychology, behavioural sciences, and the humanities.

Examples of included programs
- Family and social relations
- Family relations
- Family systems

Examples of excluded programs
- Family studies [*see* 19.0000 Work and Family Studies]
- Family and child studies [*see* 19.0701 Human Development and Family Studies, General]
- Behavioural science [*see* 30.1701 Behavioural Sciences]
- Family psychology [*see* 42.2501 Family Psychology]

19.0706 Child Development

This instructional program class comprises any program that focuses on the intellectual, social, emotional, and biological development of children and the planning and design of related human services. These programs include courses in parent-child relations; parenting practices; special needs of children; parental and environmental influences on child development; external support services; and related public policy issues.

Examples of included programs
- Applied child studies
- Child and youth studies
- Child development
- Child growth, care and development studies
- Child studies
- Childhood development
- Early child development
- Early childhood development

Examples of excluded programs
- Early childhood education teaching [*see* 13.1210 Early Childhood Education and Teaching]
- Child care [*see* 19.0709 Child Care Provider/Assistant]
- Birthing and parenting knowledge and skills [*see* 34.0102 Birthing and Parenting Knowledge and Skills]
- Child psychology [*see* 42.0701 Developmental and Child Psychology]
- Child and youth care [*see* 44.0702 Youth Services/Administration]

19.0707 Family and Community Services

This instructional program class comprises any program that focuses on the development and implementation of public, private, and voluntary support services for individuals, families, and localities and that prepares individuals to function in a variety of occupations promoting family life, and family/community development. These programs include courses in family systems, human development, social services, community social and economic development, social policy, voluntary sector activities, and outreach and community education.

Examples of included programs
- Community development
- Community service worker
- Community services
- Community support worker
- Community wellness
- Community worker
- Family and community studies

Examples of excluded programs
- Community awareness [*see* 33.0103 Community Awareness]
- Community involvement [*see* 33.0104 Community Involvement]
- Community advocacy [*see* 44.0201 Community Organization and Advocacy]
- Social work [*see* 44.0701 Social Work, General]
- Child and youth care counsellor [*see* 44.0702 Youth Services/Administration]
- Community health service [*see* 51.1504 Community Health Services/Liaison/Counselling]

19.0708 Child Care and Support Services Management

This instructional program class comprises any program that focuses on the provision and management of child care services and that prepares individuals to plan, design, and manage child care facilities and programs that meet children's developmental needs and interests and that provide safe and healthy environments. These programs include courses in child development and psychology; home- and institution-based child care; identification of diseases, injuries, and psychological trauma and applicable referrals; parent relations; personnel and business management principles; and related laws and policies.

Examples of included programs
- Child care administration
- Child care centre administration
- Child care management
- Child day care management
- Daycare management
- Early childhood administration
- Early childhood program management

Examples of excluded programs
- Early childhood education teaching [*see* 13.1210 Early Childhood Education and Teaching]
- Child development [*see* 19.0706 Child Development]
- Child care [*see* 19.0709 Child Care Provider/Assistant]
- Child and youth care [*see* 44.0702 Youth Services/Administration]

19.0709 Child Care Provider/Assistant

This instructional program class comprises any program that prepares individuals to be primary providers of home, family, residential, or institutional-based child care services. These programs include courses in child growth and development; nutrition; recreation; planning and supervision of play and learning

activities; child abuse and neglect prevention; parent-child relationships; and applicable legal and administrative requirements.

Examples of included programs
- Child care
- Child care assistant
- Child care services
- Child care worker
- Day care
- Day care worker
- Daycare assistant
- Daycare provider
- Early childhood education
- Early childhood education (ECE) teaching
- Early childhood education assistant
- Infant and toddler care

Examples of excluded programs
- Early childhood education teaching [*see* 13.1210 Early Childhood Education and Teaching]
- Child and youth studies [*see* 19.0706 Child Development]
- Child care management [*see* 19.0708 Child Care and Support Services Management]
- Child and youth care [*see* 44.0702 Youth Services/Administration]

19.0799 Human Development, Family Studies and Related Services, Other

This instructional program class comprises any program not listed above that relates to Human Development, Family Studies and Related Services.

19.09 Apparel and Textiles

This subseries comprises instructional program classes 19.0901 to 19.0999.

19.0901 Apparel and Textiles, General

This instructional program class comprises any general program that focuses on the development of textile products and their distribution and use in terms of the psychological, social, economic, and physical needs of consumers. These programs include courses in the production, distribution, marketing, and end use of various apparel and textile products.

Example of included programs
- Clothing and textiles

Examples of excluded programs
- Textile engineering [*see* 14.2801 Textile Sciences and Engineering]
- Textile manufacturing [*see* 19.0902 Apparel and Textile Manufacture]
- Textile science [*see* 19.0904 Textile Science]
- Textile arts [*see* 50.0712 Fibre, Textile and Weaving Arts]

19.0902 Apparel and Textile Manufacture

This instructional program class comprises any program that focuses on the design, development, and production of textile products and related processes and systems. These programs include courses in functional and aesthetic design, human factors research, production planning, manufacturing processes, quality assessment, and distribution systems.

Examples of included programs
- Apparel production management
- Textile manufacturing

Examples of excluded programs
- Textile engineering [*see* 14.2801 Textile Sciences and Engineering]
- Clothing and textiles [*see* 19.0901 Apparel and Textiles, General]
- Textile science [*see* 19.0904 Textile Science]
- Dress making [*see* 19.0999 Apparel and Textiles, Other]
- Tailoring [*see* 19.0999 Apparel and Textiles, Other]

19.0904 Textile Science

This instructional program class comprises any program that focuses on the properties and processing of fibres, yarns, whole fabrics, dyes, and finishes, both natural and synthetic. These programs include courses in the chemical and physical properties of textile materials; end-use analysis; interior furnishing applications; and industrial applications.

Examples of included programs
- Textile chemist
- Textile chemistry
- Textile science
- Textile technology

Examples of excluded programs
- Textile engineering [*see* 14.2801 Textile Sciences and Engineering]
- Clothing and textiles [*see* 19.0901 Apparel and Textiles, General]
- Textile manufacturing [*see* 19.0902 Apparel and Textile Manufacture]
- Textile arts [*see* 50.0712 Fibre, Textile and Weaving Arts]

19.0905 Apparel and Textile Marketing Management

This instructional program class comprises any program that focuses on marketing research and management as applied to the products and services of the apparel and textile industries. These programs include courses in applicable principles of textile and apparel design and manufacturing, sales and distribution systems, domestic and international market research, profitability, consumer research, and the design and implementation of marketing campaigns.

Examples of included programs
- Apparel marketing management
- Fashion management
- Fashion techniques and management
- International fashion management

Examples of excluded programs
- Apparel production management [*see* 19.0902 Apparel and Textile Manufacture]
- Textile technology [*see* 19.0904 Textile Science]
- Marketing [*see* 52.1401 Marketing/Marketing Management, General]
- Sales and marketing [*see* 52.1801 Sales, Distribution and Marketing Operations, General]
- Fashion retail [*see* 52.1904 Apparel and Accessories Marketing Operations]

19.0906 Fashion and Fabric Consultant

This instructional program class comprises any program that prepares individuals to assist in apparel and fashion selection, style coordination, customer sales and consulting, fabric selection, clothing specifications, and contract buying activities. These programs include courses in supplying regular clothing needs or acting as a consultant for special events such as weddings.

Examples of included programs
- Fabric consultant
- Fashion consultant

Examples of excluded programs
- Clothing and textiles [*see* 19.0901 Apparel and Textiles, General]
- Fashion techniques and design [*see* 50.0407 Fashion/Apparel Design]
- Fashion merchandising [*see* 52.1902 Fashion Merchandising]

19.0999 Apparel and Textiles, Other

This instructional program class comprises any program not listed above that relates to Apparel and Textiles.

Examples of included programs
- Dress maker
- Dress making
- Dry cleaning
- Furrier
- Seamstress
- Sewing
- Tailoring

Examples of excluded programs
- Shoe making [*see* 48.0304 Shoe, Boot and Leather Repair]
- Fashion design [*see* 50.0407 Fashion/Apparel Design]

19.99 Family and Consumer Sciences/Human Sciences, Other

This subseries comprises instructional program class 19.9999.

19.9999 Family and Consumer Sciences/Human Sciences, Other

This instructional program class comprises any program not listed above that relates to Family and Consumer Sciences/Human Sciences.

21. Technology Education/Industrial Arts Programs. This series is found in chapter III.

22. Legal Professions and Studies

This series comprises instructional programs that prepare individuals for the legal profession, for related support professions and professional legal research, and focus on the study of legal issues in non-professional programs.

22.00 Non-professional General Legal Studies (Undergraduate)

This subseries comprises instructional program classes 22.0000 and 22.0001.

22.0000 Legal Studies, General

This instructional program class comprises any general program that focuses on law and legal issues from the perspective of the social sciences and humanities.

Examples of included programs
- Legal studies, Bachelor of Arts
- Legal studies, Master of Arts
- Legal studies, social sciences

Examples of excluded programs
- Bachelor of Civil Law (BCL) [*see* 22.0101 Law (LLB, JD, BCL)]
- Bachelor of Laws (LLB) [*see* 22.0101 Law (LLB, JD, BCL)]
- Lawyer [*see* 22.0101 Law (LLB, JD, BCL)]

22.0001 Prelaw Studies

This instructional program class comprises any program that prepares individuals for the professional study of law at the post-baccalaureate level.

Examples of included programs
- Prelaw programme
- Prelaw studies

22.01 Law (LLB, JD, BCL)

This subseries comprises instructional program class 22.0101.

22.0101 Law (LLB, JD, BCL)

This instructional program class comprises any program that prepares individuals for the independent professional practice of common or civil law, for becoming a Quebec notary, for taking bar examinations, and for advanced research in jurisprudence. These programs include courses in the theory and practice of the legal system, including the statutory, administrative, and judicial components of civil and criminal law.

Examples of included programs
- Bachelor of Civil Law (BCL)
- Bachelor of Laws (LLB)
- Bar admission course
- Business law (except graduate level)
- Civil law (except graduate level)
- Common law (except graduate level)
- Criminal law (except graduate level)
- Environmental law (except graduate level)
- Information and technology law (except graduate level)
- International law (except graduate level)
- Juris Doctor (JD)
- Law (except graduate level)
- Law school (except graduate level)
- Lawyer
- Notarial law (Quebec)
- Tax law (except graduate level)
- Technology law (except graduate level)

Examples of excluded programs
- Business law (graduate level) [*see* 22.0205 Banking, Corporate, Finance and Securities Law (LLM, JSD/SJD)]
- Environmental law (graduate level) [*see* 22.0207 Energy, Environment and Natural Resources Law (LLM, MSc, JSD/SJD)]
- International law (graduate level) [*see* 22.0209 International Law and Legal Studies (LLM, JSD/SJD)]

22.02 Legal Research and Advanced Professional Studies (Post-LLB/JD)

This subseries comprises instructional program classes 22.0201 to 22.0299.

22.0201 Advanced Legal Research/Studies, General (LLM, MCL, MLI, MSL, JSD/SJD)

This instructional program class comprises any integrated or undifferentiated program in one or more of the legal research or advanced practice fields.

Example of included programs
- Advanced legal studies, general (graduate level)

22.0202 Programs for Foreign Lawyers (LLM, MCL)

This instructional program class comprises any program that prepares lawyers educated outside Canada and the United States to understand Canadian or U. S. law and jurisprudence.

Example of included programs
- Foreign lawyer trainee program

22.0203 American/US Law/Legal Studies/Jurisprudence (LLM, MCJ, JSD/SJD)

This instructional program class comprises any advanced, professional study of the U. S. legal system, Constitution law, and jurisprudence. These programs include courses in legal history, legal sociology, philosophy of law, Constitutional law, legal procedure, and related topics.

Example of included programs
- American justice studies

22.0204 Canadian Law/Legal Studies/Jurisprudence (LLM, MCJ, JSD/SJD)

This instructional program class comprises any advanced, professional study of the Canadian legal system, Constitution law, and jurisprudence. These programs include courses in legal history, legal sociology, philosophy of law, Constitutional law, Commonwealth law, legal procedure, and related topics.

Examples of included programs
- Canadian legal studies (graduate level)
- Constitutional law (graduate level)

22.0205 Banking, Corporate, Finance and Securities Law (LLM, JSD/SJD)

This instructional program class comprises any advanced, professional study of the law and process related to the regulation of businesses and the financial services industry. These programs include courses in corporate law, antitrust law, securities laws and regulations, negotiation, incorporation, partnerships, trusts, and related topics.

Examples of included programs
- Business law (graduate level)
- Commerce law (graduate level)
- Commercial law (graduate level)
- Corporate law (graduate level)
- Corporation law (graduate level)
- Regulatory law (graduate level)
- Securities law (graduate level)

Examples of excluded programs
- Business law (except graduate level) [*see* 22.0101 Law (LLB, JD, BCL)]
- International business law (graduate level) [*see* 22.0210 International Business, Trade and Tax Law (LLM, JSD/SJD)]
- Canadian securities [*see* 52.0807 Investments and Securities]

22.0206 Comparative Law (LLM, MCL, JSD/SJD)

This instructional program class comprises any advanced, professional study of legal systems and philosophies in comparative perspective.

Example of included programs
- Comparative law (graduate level)

22.0207 Energy, Environment and Natural Resources Law (LLM, MSc, JSD/SJD)

This instructional program class comprises any advanced, professional study of the law, policies, and regulations governing the energy industry, environmental protection, natural resources and land use, and related topics.

Examples of included programs
- Energy law (graduate level)
- Environmental law (graduate level)
- Natural resources law (graduate level)

Examples of excluded programs
- Environmental law (except graduate level) [*see* 22.0101 Law (LLB, JD, BCL)]
- Air and space law (graduate level) [*see* 22.0299 Legal Research and Advanced Professional Studies (Post-LLB/JD), Other]

22.0208 Health Law (LLM, MJ, JSD/SJD)

This instructional program class comprises any advanced, professional study of the law, policies and regulations affecting the health care industry, health professions, health services and insurance industries, and patients.

Example of included programs
- Health law (graduate level)

Examples of excluded programs
- Health care administration [*see* 51.0701 Health/Health Care Administration/Management]
- Hospital administration [*see* 51.0702 Hospital and Health Care Facilities Administration/Management]

22.0209 International Law and Legal Studies (LLM, JSD/SJD)

This instructional program class comprises any advanced, professional study of the law affecting relations between nations, the behaviour of international organizations, and the international activities of private citizens and organizations.

Examples of included programs
- International human rights law (graduate level)
- International law (graduate level)
- International legal studies (graduate level)

Examples of excluded programs
- International law (except graduate level) [*see* 22.0101 Law (LLB, JD, BCL)]
- International business law (graduate level) [*see* 22.0210 International Business, Trade and Tax Law (LLM, JSD/SJD)]
- International affairs [*see* 45.0901 International Relations and Affairs]
- International management [*see* 52.1101 International Business/Trade/Commerce]

22.0210 International Business, Trade and Tax Law (LLM, JSD/SJD)

This instructional program class comprises any advanced, professional study of the law, policies, and regulations governing transnational business and commercial practices, including the specialized tax law related to international financial transactions.

Examples of included programs
- International business law (graduate level)
- International tax law (graduate level)
- International trade law (graduate level)

Examples of excluded programs
- International law (except graduate level) [*see* 22.0101 Law (LLB, JD, BCL)]
- Commerce law (graduate level) [*see* 22.0205 Banking, Corporate, Finance and Securities Law (LLM, JSD/SJD)]
- International law (graduate level) [*see* 22.0209 International Law and Legal Studies (LLM, JSD/SJD)]
- Tax law (graduate level) [*see* 22.0211 Tax Law/Taxation (LLM, JSD/SJD)]
- International trade [*see* 52.1101 International Business/Trade/Commerce]

22.0211 Tax Law/Taxation (LLM, JSD/SJD)

This instructional program class comprises any advanced, professional study of tax law and taxation procedures in U. S. or Canadian jurisdictions affecting individuals and corporations.

Example of included programs
- Tax law (graduate level)

Examples of excluded programs
- Tax law (except graduate level) [*see* 22.0101 Law (LLB, JD, BCL)]
- International tax law (graduate level) [*see* 22.0210 International Business, Trade and Tax Law (LLM, JSD/SJD)]
- Taxation [*see* 52.1601 Taxation]

22.0299 Legal Research and Advanced Professional Studies (Post-LLB/JD), Other

This instructional program class comprises any program not listed above that relates to Legal Research and Advanced Professional Studies (Post-LLB/JD).

Examples of included programs
- Administrative law (graduate level)
- Air and space law (graduate level)
- Civil law (graduate level)
- Common law (graduate level)
- Criminal law (graduate level)
- Family law (graduate level)
- Film law (graduate level)
- Information and technology law (graduate level)
- Innovation law (graduate level)
- Labour law (graduate level)
- Management law (graduate level)
- Maritime law (graduate level)
- Municipal law (graduate level)
- Patent law (graduate level)
- Property law (graduate level)
- Real estate law (graduate level)
- Technology law (graduate level)

Example of excluded programs
- Criminal law (except graduate level) [*see* 22.0101 Law (LLB, JD, BCL)]

22.03 Legal Support Services

This subseries comprises instructional program classes 22.0301 to 22.0399.

22.0301 Legal Administrative Assistant/Secretary

This instructional program class comprises any program that prepares individuals to serve as legal office managers, special assistants, and legal secretaries. These programs include courses in office management, secretarial science, principles of U. S. or Canadian law, legal terminology and documentation, legal research, legal software applications, law office procedures, record-keeping, billing, applicable policies and regulations, and professional standards and ethics.

Examples of included programs
- Legal administration
- Legal administrative assistant
- Legal administrative secretary
- Legal office administration
- Legal office procedures
- Legal secretarial
- Legal secretary
- Legal stenography
- Legal word processing
- Office administration legal

Examples of excluded programs
- Administrative assistant [*see* 52.0401 Administrative Assistant and Secretarial Science, General]
- Executive assistant [*see* 52.0402 Executive Assistant/Executive Secretary]

22.0302 Legal Assistant/Paralegal

This instructional program class comprises any program that prepares individuals to perform research, drafting, investigatory, record-keeping and related administrative functions under the supervision of a lawyer or court. These programs include courses in legal research, drafting legal documents, appraising, pleading, courthouse procedures, and legal specializations.

Examples of included programs
- Legal assistant
- Legal research
- Legal technician
- Paralegal
- Paralegal assistant
- Paralegal services
- Paralegal studies
- Paralegal technology

Examples of excluded programs
- Law (except graduate level) [*see* 22.0101 Law (LLB, JD, BCL)]
- Notarial law (Quebec) [*see* 22.0101 Law (LLB, JD, BCL)]

22.0303 Court Reporting/Court Reporter

This instructional program class comprises any program that prepares individuals to record and transcribe examinations, testimony, judicial orders and instructions, legal opinions, and other formal proceedings via print or electronic methods. These programs include courses in legal terminology, legal transcription, shorthand, verbatim recording, equipment operation and procedures, applicable regulations, and professional standards and ethics.

Examples of included programs
- Court reporter
- Court reporting
- Court stenographer
- Court stenography

Examples of excluded programs
- Legal stenography [*see* 22.0301 Legal Administrative Assistant/Secretary]
- Secretary [*see* 52.0401 Administrative Assistant and Secretarial Science, General]
- Dicta-typing [*see* 52.0408 General Office Occupations and Clerical Services]

22.0399 Legal Support Services, Other

This instructional program class comprises any program not listed above that relates to Legal Support Services.

Examples of included programs
- Court and administrative tribunal agent
- Court and tribunal agent
- Court worker

Example of excluded programs
- Interpreter translator [*see* 16.0103 Language Interpretation and Translation]

22.99 Legal Professions and Studies, Other

This subseries comprises instructional program class 22.9999.

22.9999 Legal Professions and Studies, Other

This instructional program class comprises any program not listed above that relates to Legal Professions and Studies.

Examples of included programs
- Law and philosophy
- Law clerk
- Legal philosophy
- Notary public/commissioner of oaths

Examples of excluded programs
- Logic [*see* 38.0102 Logic]
- Ethics [*see* 38.0103 Ethics]
- Jewish law [*see* 39.0606 Talmudic Studies]

23. English Language and Literature/Letters

This series comprises instructional programs that focus on the structure and use of the English language and dialects, speech, writing, and various aspects of the literatures and cultures of the English-speaking peoples.

23.01 English Language and Literature, General

This subseries comprises instructional program class 23.0101.

23.0101 English Language and Literature, General

This instructional program class comprises any general program that focuses on the English language, including its history, structure and related communications skills; and the literature and culture of English-speaking peoples.

Examples of included programs
- English
- English language
- English language and literature
- English literature
- English studies

Examples of excluded programs
- English teacher [*see* 13.1305 English/English Language Arts Teacher Education]
- Teaching English as a second language [*see* 13.1401 Teaching English as a Second or Foreign Language/ESL Language Instructor]
- English linguistics [*see* 16.0102 Linguistics]
- English as a second language (ESL) teaching [*see* 16.1701 English as a Second Language]
- American literature [*see* 23.0701 American Literature]
- Canadian literature [*see* 23.0702 English Canadian Literature]

23.04 English Composition

This subseries comprises instructional program class 23.0401.

23.0401 English Composition

This instructional program class comprises any program that focuses on the principles of English vocabulary, grammar, morphology, syntax and semantics; and techniques of selecting, developing, arranging, combining and expressing ideas in appropriate written forms.

Example of included programs
- English composition

Examples of excluded programs
- Journalism [*see* 09.0401 Journalism, General]
- Creative non-fiction [*see* 23.0501 English Creative Writing]
- Creative writing [*see* 23.0501 English Creative Writing]
- Technical and professional writing [*see* 23.1101 English Technical and Business Writing]
- Writing [*see* 36.0118 Writing]
- Scriptwriting [*see* 50.0504 Playwriting and Screenwriting]

23.05 English Creative Writing

This subseries comprises instructional program class 23.0501.

23.0501 English Creative Writing

This instructional program class comprises any program that focuses on the process and techniques of original composition in various literary forms such as the short story, poetry, the novel, and others. These programs include courses in technical and editorial skills, criticism, and the marketing of finished manuscripts.

Examples of included programs
- Creative non-fiction
- Creative writing

Examples of excluded programs
- Journalism [*see* 09.0401 Journalism, General]
- English composition [*see* 23.0401 English Composition]
- Writing [*see* 36.0118 Writing]
- Scriptwriting [*see* 50.0504 Playwriting and Screenwriting]

23.07 Canadian and American Literature

This subseries comprises instructional program classes 23.0701 and 23.0702.

23.0701 American Literature

This instructional program class comprises any program that focuses on the literature and literary development, both formal and folkloric, of the United States from the Colonial Era to the present. These programs include courses in period and genre studies, author studies, literary criticism, and regional and oral traditions.

Example of included programs
- American literature

Examples of excluded programs
- Comparative literature [*see* 16.0104 Comparative Literature]
- English literature [*see* 23.0101 English Language and Literature, General]
- Canadian literature [*see* 23.0702 English Canadian Literature]

23.0702 English Canadian Literature

This instructional program class comprises any program that focuses on the literature and literary development, both formal and folkloric, of Canada from its origins to the present. These programs include courses in period and genre studies, author studies, literary criticism, and regional and oral traditions.

Example of included programs
- Canadian literature

Examples of excluded programs
- Comparative literature [*see* 16.0104 Comparative Literature]
- English literature [*see* 23.0101 English Language and Literature, General]
- American literature [*see* 23.0701 American Literature]
- French Canadian literature [*see* 55.0501 French Canadian Literature]

23.08 English Literature (British and Commonwealth)

This subseries comprises instructional program class 23.0801.

23.0801 English Literature (British and Commonwealth)

This instructional program class comprises any program that focuses on the literatures and literary developments of the English-speaking peoples of the British Isles and the British Commonwealth, from the origins of the English language to the present. These programs include courses in period and genre studies, author studies, country and regional specializations, literary criticism, and the study of folkloric traditions.

Examples of included programs
- British literature
- Commonwealth literature

Examples of excluded programs
- Comparative literature [*see* 16.0104 Comparative Literature]
- American literature [*see* 23.0701 American Literature]
- Canadian literature [*see* 23.0702 English Canadian Literature]

23.10 English Speech and Rhetorical Studies

This subseries comprises instructional program class 23.1001.

23.1001 English Speech and Rhetorical Studies

This instructional program class comprises any program that focuses on human interpersonal communication from the scientific/behavioural and humanistic perspectives. These programs include courses in the theory and physiology of speech, the history of discourse, the structure and analysis of argument and types of public speech, the social role of speech, oral interpretation of literature, interpersonal interactions, and the relation of speech to non-verbal and other forms of message exchanges.

Examples of included programs
- Rhetorical studies
- Speech and rhetorical studies

Examples of excluded programs
- Speech communication [*see* 09.0101 Communication Studies/Speech Communication and Rhetoric]
- English language and literature [*see* 23.0101 English Language and Literature, General]
- Literacy and communication skills [*see* 32.0108 Literacy and Communication Skills]
- French speech and rhetoric studies [*see* 55.0701 French Speech and Rhetorical Studies]

23.11 English Technical and Business Writing

This subseries comprises instructional program class 23.1101.

23.1101 English Technical and Business Writing

This instructional program class comprises any program that focuses on the theory, methods, and skills needed for writing and editing scientific, technical and business papers and monographs.

Examples of included programs
- Business writing
- Technical and professional writing
- Technical writing

Examples of excluded programs
- Journalism [*see* 09.0401 Journalism, General]
- English composition [*see* 23.0401 English Composition]
- Creative non-fiction [*see* 23.0501 English Creative Writing]
- Writing [*see* 36.0118 Writing]
- Business communications [*see* 52.0501 Business/Corporate Communications]
- French technical and business writing [*see* 55.0801 French Technical and Business Writing]

23.99 English Language and Literature/Letters, Other

This subseries comprises instructional program class 23.9999.

23.9999 English Language and Literature/Letters, Other

This instructional program class comprises any program not listed above that relates to English Language and Literature/Letters.

24. Liberal Arts and Sciences, General Studies and Humanities

This series comprises general instructional programs and independent or individualized studies in the liberal arts subjects, the humanities disciplines and the general curriculum.

24.01 Liberal Arts and Sciences, General Studies and Humanities

This subseries comprises instructional program classes 24.0101 to 24.0199.

24.0101 Liberal Arts and Sciences/Liberal Studies

This instructional program class comprises any program that is a structured combination of the arts, biological and physical sciences, social sciences, and humanities, emphasizing breadth of study. Includes independently designed, individualized, or regular programs.

Examples of included programs
- Independent studies
- Individualized liberal studies
- Individualized studies
- Liberal arts
- Liberal arts and sciences
- Liberal science
- Liberal studies

Examples of excluded programs
- Family science [*see* 19.0101 Family and Consumer Sciences/Human Sciences, General]
- General arts and science [*see* 24.0102 General Studies]
- General humanities [*see* 24.0103 Humanities/Humanistic Studies]
- Biological and physical sciences [*see* 30.0101 Biological and Physical Sciences]
- Art studies [*see* 50.0701 Art/Art Studies, General]

24.0102 General Studies

This instructional program class comprises any undifferentiated program in the general arts, general science, or unstructured studies.

Examples of included programs
- Arts and science
- General arts
- General arts and science
- General science
- General studies
- General study

Examples of excluded programs
- Liberal arts and sciences [*see* 24.0101 Liberal Arts and Sciences/Liberal Studies]
- General humanities [*see* 24.0103 Humanities/Humanistic Studies]

24.0103 Humanities/Humanistic Studies

This instructional program class comprises any program that focuses on combined studies and research in the humanities subjects as distinguished from the social and physical sciences, emphasizing languages, literatures, art, music, philosophy and religion.

Examples of included programs
- General humanities
- Humanistic studies
- Humanities

Examples of excluded programs
- Applied human sciences [*see* 19.0101 Family and Consumer Sciences/Human Sciences, General]
- Liberal arts and sciences [*see* 24.0101 Liberal Arts and Sciences/Liberal Studies]
- General studies [*see* 24.0102 General Studies]

24.0199 Liberal Arts and Sciences, General Studies and Humanities, Other

This instructional program class comprises any program not listed above that relates to Liberal Arts and Sciences, General Studies and Humanities.

25. Library Science

This series comprises instructional programs that focus on the knowledge and skills required for managing and/or maintaining libraries and related information and record systems, collections and facilities for research and general use.

25.01 Library Science/Librarianship

This subseries comprises instructional program class 25.0101.

25.0101 Library Science/Librarianship

This instructional program class comprises any program that focuses on the knowledge and skills required to develop, organize, store, retrieve, administer, and facilitate the use of local, remote, and networked collections of information in print, audiovisual, and electronic formats and that prepares individuals for professional service as librarians and information consultants.

Examples of included programs
- Librarianship
- Library and information studies
- Library science
- Library studies

Examples of excluded programs
- Information systems [*see* 11.0103 Information Technology]
- Information science [*see* 11.0401 Information Science/Studies]
- School librarian [*see* 13.1334 School Librarian/School Library Media Specialist]
- Information resources management [*see* 52.1206 Information Resources Management/Chief Information Officer (CIO) Training]
- Archival administration [*see* 54.0105 Public/Applied History and Archival Administration]
- Records management [*see* 54.0105 Public/Applied History and Archival Administration]

25.03 Library Assistant/Technician

This subseries comprises instructional program class 25.0301.

25.0301 Library Assistant/Technician

This instructional program class comprises any program that prepares individuals to assist professional librarians. These programs include courses in principles, systems, processes, and procedures of library operation; library resources and services; processes of acquisition, cataloguing, storage, and display systems; discovery and retrieval of requested materials; management of books, periodicals, and other documents.

Examples of included programs
- Library aide
- Library and information technician
- Library and information technology
- Library assistant
- Library clerk
- Library technician
- Library techniques
- Library technology

Examples of excluded programs
- Information technology [*see* 11.0103 Information Technology]
- School librarian [*see* 13.1334 School Librarian/School Library Media Specialist]
- Library and information studies [*see* 25.0101 Library Science/Librarianship]
- Archival technician [*see* 54.0105 Public/Applied History and Archival Administration]

25.99 Library Science, Other

This subseries comprises instructional program class 25.9999.

25.9999 Library Science, Other

This instructional program class comprises any program not listed above that relates to Library Science.

Examples of included programs
- Information and library technologies
- Information management and library technology
- Records and information management
- Records and information technology management

26. Biological and Biomedical Sciences

This series comprises instructional programs that focus on the biological sciences and the non-clinical biomedical sciences, and that prepare individuals for research and professional careers as biologists and biomedical scientists.

26.01 Biology, General

This subseries comprises instructional program classes 26.0101 and 26.0102.

26.0101 Biology/Biological Sciences, General

This instructional program class comprises any general program of biology at the introductory, basic level or a program in biology or the biological sciences that is undifferentiated as to title or content. These programs include courses in general biology and programs covering a variety of biological specializations.

Examples of included programs
- Applied biology
- Biological sciences
- Biology
- Bioscience
- Life sciences

Examples of excluded programs
- Medical biology [*see* 26.0102 Biomedical Sciences, General]
- Cell and molecular biology [*see* 26.0406 Cell/Cellular and Molecular Biology]
- Microbiology [*see* 26.0502 Microbiology, General]
- Biopsychology [*see* 30.1001 Biopsychology]
- Biology technician [*see* 41.0101 Biology Technician/Biotechnology Laboratory Technician]

26.0102 Biomedical Sciences, General

This instructional program class comprises any general program that focuses on the integrative scientific study of biological issues related to health and medicine, or a program in one or more of the biomedical sciences that is undifferentiated as to title. These programs include courses in any of the basic medical sciences at the research level; biological science research in biomedical faculties; and general studies encompassing a variety of the biomedical disciplines.

Example of included programs
- Medical biology

Examples of excluded programs
- Biomedical engineering [*see* 14.0501 Biomedical/Medical Engineering]
- Biomedical engineering technology [*see* 15.0401 Biomedical Technology/Technician]
- Biology [*see* 26.0101 Biology/Biological Sciences, General]
- Biological and physical sciences [*see* 30.0101 Biological and Physical Sciences]

26.02 Biochemistry/Biophysics and Molecular Biology

This subseries comprises instructional program classes 26.0202 to 26.0299.

26.0202 Biochemistry

This instructional program class comprises any program that focuses on the scientific study of the chemistry of living systems, their fundamental chemical substances and reactions, and their chemical pathways and information transfer systems, with particular reference to carbohydrates, proteins, lipids, and nucleic acids. These programs include courses in bio-organic chemistry, protein chemistry, bioanalytical chemistry, bioseparations, regulatory biochemistry, enzymology, hormonal chemistry, calorimetry, and research methods and equipment operation.

Examples of included programs
- Biochemistry
- Biological chemistry

Examples of excluded programs
- Chemical engineering [*see* 14.0701 Chemical Engineering]
- Biochemical engineering [*see* 14.9999 Engineering, Other]
- Biochemistry, biophysics and molecular biology [*see* 26.0210 Biochemistry/Biophysics and Molecular Biology, Integrated]
- Chemistry [*see* 40.0501 Chemistry, General]

26.0203 Biophysics

This instructional program class comprises any program that focuses on the application of physics principles to the scientific study of the mechanisms of biological processes and assemblies at all levels of complexity. These programs include courses in research methods and equipment operation and applications to subjects such as bioenergetics, biophysical theory and modelling, electrophysics, membrane biology, channels, receptors and transporters, contractility and muscle function, protein shaping and folding, molecular and supramolecular structures and assemblies, and computational science.

Example of included programs
- Biophysics

Examples of excluded programs
- Biochemistry, biophysics and molecular biology [*see* 26.0210 Biochemistry/Biophysics and Molecular Biology, Integrated]
- Biological and physical sciences [*see* 30.0101 Biological and Physical Sciences]
- Physics [*see* 40.0801 Physics, General]
- Medical physics [*see* 51.2205 Health/Medical Physics]

26.0204 Molecular Biology

This instructional program class comprises any program that focuses on the scientific study of the structure and function of biological macromolecules and the role of molecular constituents and mechanisms in supramolecular assemblies and cells. These programs include courses in such topics as molecular signalling and transduction, regulation of cell growth, enzyme substrates and mechanisms of enzyme action, DNA-protein interaction, and applications to fields such as biotechnology, genetics, cell biology, and physiology.

Example of included programs
- Molecular biology

Examples of excluded programs
- Biochemistry, biophysics and molecular biology [*see* 26.0210 Biochemistry/Biophysics and Molecular Biology, Integrated]
- Plant molecular biology [*see* 26.0308 Plant Molecular Biology]
- Cell and molecular biology [*see* 26.0406 Cell/Cellular and Molecular Biology]

26.0205 Molecular Biochemistry

This instructional program class comprises any program that focuses on the scientific relationship of physiological function to the structure and actions of macromolecules and supramolecular assemblies such as multienzyme complexes, membranes, and viruses. These programs include courses in the chemical mechanisms of regulation and catalysis, protein synthesis and other syntheses, and biomolecular chemical reactions.

Example of included programs
- Molecular biochemistry

Examples of excluded programs
- Biochemical engineering [*see* 14.9999 Engineering, Other]
- Molecular biology [*see* 26.0204 Molecular Biology]
- Biological and physical sciences [*see* 30.0101 Biological and Physical Sciences]

26.0206 Molecular Biophysics

This instructional program class comprises any scientific program that focuses on the dynamics and interactions of macromolecules and other three-dimensional ultrastructures, the architecture of supramolecular structures, and energy transfer in biomolecular systems. These programs include courses in energy transduction, structural dynamics, mechanisms of electron and proton transfer in biological systems, bioinformatics, automated analysis, and specialized research techniques.

Example of included programs
- Molecular biophysics

Examples of excluded programs
- Biophysics [*see* 26.0203 Biophysics]
- Biochemistry, biophysics and molecular biology [*see* 26.0210 Biochemistry/Biophysics and Molecular Biology, Integrated]
- Medical physics [*see* 51.2205 Health/Medical Physics]

26.0207 Structural Biology

This instructional program class comprises any program that focuses on the scientific study of submolecular and molecular components and assemblies of living systems and how they are organized into functional units such as cells and anatomic tissues. These programs include courses in glycoprotein, carbohydrate, protein, and nucleic acid structures and chemistry; cytoskeletal structure; nuclear and intracellular structures; molecular recognition; molecular chaperones; transcription and folding; multicellular organization; microtubules and microfilaments; cell differentiation; immunophysics; and DNA sequencing.

Example of included programs
- Structural biology

Examples of excluded programs
- Biology [*see* 26.0101 Biology/Biological Sciences, General]
- Medical biology [*see* 26.0102 Biomedical Sciences, General]
- Cell and molecular biology [*see* 26.0406 Cell/Cellular and Molecular Biology]
- Cell biology and anatomy [*see* 26.0407 Cell Biology and Anatomy]

26.0208 Photobiology

This instructional program class comprises any program that focuses on the scientific study of the effects of light energy on living organisms, the manufacture and processing of luminescence by organisms, and the uses of light in biological research. These programs include courses in bioluminescence, chronobiology, photomedicine, environmental photobiology, organic photochemistry, photomorphogenesis, photoreceptors and photosensitization, molecular mechanics of photosynthesis, phototechnology, vision, ultraviolet radiation, radiation physics, and spectral research methods.

Example of included programs
- Photobiology

Examples of excluded programs
- Biology [*see* 26.0101 Biology/Biological Sciences, General]
- Biological and physical sciences [*see* 30.0101 Biological and Physical Sciences]

26.0209 Radiation Biology/Radiobiology

This instructional program class comprises any program that focuses on the effects of radiation on organisms and biological systems. These programs include courses in particle physics, ionization, and biophysics of radiation perturbations, cellular and organismic repair systems, genetic and pathological effects of radiation, and the measurement of radiation dosages.

Examples of included programs
- Radiation biology
- Radiobiology

Examples of excluded programs
- Biology [*see* 26.0101 Biology/Biological Sciences, General]
- Photobiology [*see* 26.0208 Photobiology]
- Radiology technologist [*see* 51.0911 Radiologic Technology/Science - Radiographer]
- Diagnostic radiology—residency [*see* 60.0215 Diagnostic Radiology Residency Programs]

26.0210 Biochemistry/Biophysics and Molecular Biology, Integrated

This instructional program class comprises any integrated, combined program that focuses on the structure, function, and dynamic behaviour of the components of biological systems at the submolecular, molecular, and supramolecular levels and their influence on biological activity at the cellular, tissue, organ, and organismic levels. These programs include courses in biochemistry, biophysics, structural biology, molecular biology, and research applications and methods appropriate to specific topics.

Example of included programs
- Biochemistry, biophysics and molecular biology

Examples of excluded programs
- Biochemistry [*see* 26.0202 Biochemistry]
- Biophysics [*see* 26.0203 Biophysics]
- Molecular biology [*see* 26.0204 Molecular Biology]

26.0299 Biochemistry/Biophysics and Molecular Biology, Other

This instructional program class comprises any program not listed above that relates to Biochemistry/Biophysics and Molecular Biology.

26.03 Botany/Plant Biology

This subseries comprises instructional program classes 26.0301 to 26.0399.

26.0301 Botany/Plant Biology, General

This instructional program class comprises any program that focuses on the scientific study of plants, related microbial organisms, and plant habitats and ecosystem relations. These programs include courses in plant anatomy and structure, phytochemistry, cytology, plant genetics, plant morphology and physiology, plant ecology, plant taxonomy and systematics, paleobotany, and applications of biophysics and molecular biology.

Examples of included programs
- Botany
- Phycology
- Phytochemistry
- Plant biology

Examples of excluded programs
- Plant sciences [*see* 01.1101 Plant Sciences, General]
- Horticultural science [*see* 01.1103 Horticultural Science]
- Plant breeding genetics [*see* 01.1104 Agricultural and Horticultural Plant Breeding]
- Mycology [*see* 26.0506 Mycology]
- Plant genetics [*see* 26.0805 Plant Genetics]

26.0305 Plant Pathology/Phytopathology

This instructional program class comprises any program that focuses on the scientific study of plant diseases and plant health, and the development of disease control mechanisms. These programs include courses in plant anatomy and physiology; pathogenesis; molecular plant virology; molecular genetics; bacterial epidemiology; causal agent identification; host/agent interactions; disease resistance and response mechanisms; developing plant disease treatments; disease prevention; and disease physiology and control.

Examples of included programs
- Phytopathology
- Plant pathology

Examples of excluded programs
- Plant sciences [*see* 01.1101 Plant Sciences, General]
- Integrated pest management [*see* 01.1105 Plant Protection and Integrated Pest Management]
- Plant physiology [*see* 26.0307 Plant Physiology]

26.0307 Plant Physiology

This instructional program class comprises any program that focuses on the scientific study of plant internal dynamics and systems, plant-environment interaction, and plant life cycles and processes. These programs include courses in cell and molecular biology; plant nutrition; plant respiration; plant growth, behaviour, and reproduction; photosynthesis; plant systemics; and ecology.

Example of included programs
- Plant physiology

Examples of excluded programs
- Phytopathology [*see* 26.0305 Plant Pathology/Phytopathology]
- Physiology [*see* 26.0901 Physiology, General]
- Cell physiology [*see* 26.0903 Cell Physiology]

26.0308 Plant Molecular Biology

This instructional program class comprises any program that focuses on the application of molecular biology, biochemistry, and biophysics to the study of biomolecular structures, functions, and processes specific to plants and plant substances. These programs include courses in the biochemistry of plant cells, nuclear-cytoplasmic interactions, molecular cytostructures, photosynthesis, plant molecular genetics, and the molecular biology of plant diseases.

Example of included programs
- Plant molecular biology

Examples of excluded programs
- Plant sciences [*see* 01.1101 Plant Sciences, General]
- Molecular biology [*see* 26.0204 Molecular Biology]
- Botany [*see* 26.0301 Botany/Plant Biology, General]

26.0399 Botany/Plant Biology, Other

This instructional program class comprises any program not listed above that relates to Botany/Plant Biology.

Examples of excluded programs
- Plant sciences [*see* 01.1101 Plant Sciences, General]
- Botany [*see* 26.0301 Botany/Plant Biology, General]

26.04 Cell/Cellular Biology and Anatomical Sciences

This subseries comprises instructional program classes 26.0401 to 26.0499.

26.0401 Cell/Cellular Biology and Histology

This instructional program class comprises any program that focuses on the scientific study of the structure, function, and regulation of cells as individual units and as components of larger systems. These programs include courses in cell chemistry, cellular dynamics, cellular replication and reproduction, cell anatomy, membrane function, organelles, cell adhesion and extracellular matrices, cell dynamics and motility, meiosis and mitosis, signal transduction, regulation, recognition and defence mechanisms, the cell cycle, cell metabolism and respiration, gene expression, and studies of cell types and characteristics.

Examples of included programs
- Cell biology
- Cellular biology
- Cytology
- Histology

Examples of excluded programs
- Cell and molecular biology [*see* 26.0406 Cell/Cellular and Molecular Biology]
- Cell biology and anatomy [*see* 26.0407 Cell Biology and Anatomy]
- Cytotechnology [*see* 51.1002 Cytotechnology/Cytotechnologist]

26.0403 Anatomy

This instructional program class comprises any program that focuses on the scientific study of organ systems, tissue structures, and whole bodies together with their cellular and structural components and dynamics. These programs include courses in cell biology and histology, structural biology, molecular mechanics, regional and gross anatomy, embryology, neuroanatomy, endocrinology and secretory dynamics, and applications to such topics as aging and disease conditions.

Example of included programs
- Anatomy

Examples of excluded programs
- Neuroanatomy [*see* 26.0405 Neuroanatomy]
- Cell biology and anatomy [*see* 26.0407 Cell Biology and Anatomy]

26.0404 Developmental Biology and Embryology

This instructional program class comprises any program that focuses on the scientific study of embryology, development, and growth of animals and human beings. These programs include courses in fertilization, oogenesis, histogenesis, gastrulation, and cell differentiation; embryological development including organ and pattern formation, morphogenesis, gene regulation, cell lineage, and fate maps; disease and defect studies; transgenic and evolutionary models of growth and development; and applications to specific organisms and phyla.

Examples of included programs
- Developmental biology
- Embryology

Examples of excluded programs
- Child development [*see* 19.0706 Child Development]
- Cellular biology [*see* 26.0401 Cell/Cellular Biology and Histology]
- Genetics [*see* 26.0801 Genetics, General]
- Human genetics [*see* 26.0806 Human/Medical Genetics]

26.0405 Neuroanatomy

This instructional program class comprises any program that focuses on the scientific study of structure and function of the brain and central nervous system. These programs include courses in the molecular biology of neural cells and circuits, cognitive biology, neural transmitters and receptors, neuronal signalling and control of physical function, membrane and synapse structure and communication, autonomic function, nervous system circuitry and mapping, anatomy of neurological disease and disorders, brain studies, protein chemistry, and computational biology.

Example of included programs
- Neuroanatomy

Examples of excluded programs
- Anatomy [*see* 26.0403 Anatomy]
- Neurobiology [*see* 26.0906 Neurobiology and Neurophysiology]
- Neuroscience [*see* 30.2401 Neuroscience]
- Neurology—residency [*see* 60.0234 Neurology Residency Programs]

26.0406 Cell/Cellular and Molecular Biology

This instructional program class comprises any integrated, combined program that focuses on the scientific study of cells, cellular systems, and the molecular basis of cell structure and function. These programs include courses in cell biology, cell chemistry, molecular biology, biophysics, and structural biology.

Examples of included programs
- Cell and molecular biology
- Cellular and molecular biology

Examples of excluded programs
- Molecular biology [*see* 26.0204 Molecular Biology]
- Cell biology [*see* 26.0401 Cell/Cellular Biology and Histology]

26.0407 Cell Biology and Anatomy

This instructional program class comprises any integrated, combined program that focuses on the scientific study of cell structure, function, and dynamics within the context of organismic, regional, and gross anatomical systems. These programs include courses in molecular biology, cell biology and histology, structural biology, anatomy, embryology, endocrinology, and applications to specific systems, diseases, defects, and processes.

Example of included programs
- Cell biology and anatomy

Examples of excluded programs
- Molecular biology [*see* 26.0204 Molecular Biology]
- Cell biology [*see* 26.0401 Cell/Cellular Biology and Histology]
- Anatomy [*see* 26.0403 Anatomy]

26.0499 Cell/Cellular Biology and Anatomical Sciences, Other

This instructional program class comprises any program not listed above that relates to Cell/Cellular Biology and Anatomical Sciences.

26.05 Microbiological Sciences and Immunology

This subseries comprises instructional program classes 26.0502 to 26.0599.

26.0502 Microbiology, General

This instructional program class comprises any program that focuses on the scientific study of unicellular organisms and colonies, and subcellular genetic matter and their ecological interactions with human beings and other life. These programs include courses in microbial genetics, cell biology, cell physiology, virology, pathogenic microbiology, environmental microbiology, immunology, biostatistics, bioinformatics, and laboratory methods including microscopy.

Example of included programs
- Microbiology

Examples of excluded programs
- Soil microbiology [*see* 01.1203 Soil Microbiology]
- Medical microbiology [*see* 26.0503 Medical Microbiology and Bacteriology]
- Microbiology and immunology [*see* 26.0507 Immunology]

26.0503 Medical Microbiology and Bacteriology

This instructional program class comprises any program that focuses on the scientific study of pathogenic bacteria that are significant factors in causing or facilitating human disease. These programs include courses in the pathogenesis of bacterial diseases, bacterial genetics and physiology, bacterial anatomy and structure, antigens, bacterial reproduction, bacterial adhesion, phagocytes, and the identification of new or mutated bacteria and bacterial agents.

Examples of included programs
- Bacteriology
- Medical microbiology

Examples of excluded programs
- Microbiology [*see* 26.0502 Microbiology, General]
- Microbial and eukaryotic genetics [*see* 26.0803 Microbial and Eukaryotic Genetics]

26.0504 Virology

This instructional program class comprises any program that focuses on the scientific study of subcellular pieces of genetic material, called viruses, that inhabit living cells in parasitical relationships and their role in disease. These programs include courses in virus taxonomy and systematics, viral structures, viral genetics, prions, virus/host cell interaction, viral pathogenesis, and applications to specific topics such as cancer biology.

Example of included programs
- Virology

Examples of excluded programs
- Computer security and investigations [*see* 11.1003 Computer and Information Systems Security]
- Medical microbiology [*see* 26.0503 Medical Microbiology and Bacteriology]
- Microbiology and immunology [*see* 26.0507 Immunology]

26.0505 Parasitology

This instructional program class comprises any program that focuses on the scientific study of biological organisms living in ecologically exploitative and competitive relationships with host organisms, and the role of parasites in causing injury, disease, and environmental damage. These programs include courses in vector biology, immunoparasitology, medical parasitology, molecular biology of parasitical associations, veterinary and comparative parasitology, chemotherapeutics, and ecological and systematic parasitology.

Example of included programs
- Parasitology

Examples of excluded programs
- Integrated pest management [*see* 01.1105 Plant Protection and Integrated Pest Management]
- Virology [*see* 26.0504 Virology]
- Microbiology and immunology [*see* 26.0507 Immunology]

26.0506 Mycology

This instructional program class comprises any program that focuses on the scientific study of fungi, lichenous plants, eukaryotic microorganisms, myxomycetes, and plasmodiophorales and their relationship to diseases in higher plants, animals, and human beings as well as to pharmacologically useful products. These programs include courses in cell and molecular biology; histopathology; fungal growth and behaviour; environmental mycology; antifungal sensitivity; mycoses; pathogens and pathogenesis; pharmacological properties; and computer and laboratory research methods.

Example of included programs
- Mycology

Example of excluded programs
- Microbiology [*see* 26.0502 Microbiology, General]

26.0507 Immunology

This instructional program class comprises any program that focuses on scientific study of the biological mechanisms involved in the pathogenesis of disease, host-pathogen interactions, and host response to disease. These programs include courses in antigen and antibody structure and function, effector mechanisms, receptors, histocompatibility, host-pathogen recognition, disease modelling, autoimmune systems, antibody formation, cytotoxic responses, regulation of immune response, virulence determinants, intercellular signalling, immunosuppression, immunotherapy, immunogenetics, disease markers, transplantation, antibody humanization, and microbial pathogenesis.

Examples of included programs
- Immunology
- Microbiology and immunology

Examples of excluded programs
- Microbiology [*see* 26.0502 Microbiology, General]
- Virology [*see* 26.0504 Virology]
- Parasitology [*see* 26.0505 Parasitology]
- Immunopathology—residency [*see* 60.0226 Immunopathology Residency Programs]

26.0599 Microbiological Sciences and Immunology, Other

This instructional program class comprises any program not listed above that relates to Microbiological Sciences and Immunology.

26.07 Zoology/Animal Biology

This subseries comprises instructional program classes 26.0701 to 26.0799.

26.0701 Zoology/Animal Biology, General

This instructional program class comprises any general program that focuses on the scientific study of the biology of animal species and phyla, with reference to their molecular and cellular systems, anatomy, physiology, and behaviour. These programs include courses in molecular and cell biology, microbiology, anatomy and physiology, ecology and behaviour, evolutionary biology, and applications to specific species and phyla.

Examples of included programs
- Animal biology
- Zoology

Examples of excluded programs
- Animal sciences [*see* 01.0901 Animal Sciences, General]
- Animal breeding [*see* 01.0902 Agricultural Animal Breeding]
- Animal health [*see* 01.0903 Animal Health]
- Wildlife biology [*see* 26.0709 Wildlife Biology]
- Zoological medicine—residency [*see* 60.0317 Zoological Medicine Residency Programs]

26.0702 Entomology

This instructional program class comprises any program that focuses on the scientific study of insect species and populations in respect of their life cycles, morphology, genetics, physiology, ecology, taxonomy, population dynamics, and environmental and economic impacts. These programs include courses in applicable biological and physical sciences as well as insect toxicology and the biochemical control of insect populations.

Example of included programs
- Entomology

Examples of excluded programs
- Integrated pest management [*see* 01.1105 Plant Protection and Integrated Pest Management]
- Ecology [*see* 26.1301 Ecology]

26.0707 Animal Physiology

This instructional program class comprises any program that focuses on the scientific study of function, morphology, regulation, and intercellular communications and dynamics within vertebrate and invertebrate in animal species, with comparative applications to homo sapiens and its relatives and antecedents. These programs include courses in reproduction, growth, lactation, digestion, performance, behavioural adaptation, sensory perception, motor action, phylogenetics, biotic and abiotic function, membrane biology, and related aspects of biochemistry and biophysics.

Example of included programs
- Animal physiology

Examples of excluded programs
- Animal sciences [*see* 01.0901 Animal Sciences, General]
- Physiology [*see* 26.0901 Physiology, General]
- Reproductive physiology [*see* 26.0905 Reproductive Biology]
- Exercise physiology [*see* 26.0908 Exercise Physiology]
- Veterinary physiological sciences (Cert., MSc, PhD) [*see* 51.2503 Veterinary Physiology (Cert., MSc, PhD)]

26.0708 Animal Behaviour and Ethology

This instructional program class comprises any program that focuses on the scientific study of the psychological and neurological bases of animal sensation, perception, cognition, behaviour, and behavioural interactions within and outside the species. These programs include courses in ethology, behavioural neuroscience, neurobiology, behavioural evolution, cognition and sensory perception, motivators, learning and instinct, hormonal controls, reproductive and developmental biology, community ecology, functional behaviour, and applications to specific behaviours and patterns as well as to specific phyla and species.

Examples of included programs
- Animal behaviour
- Ethology

Examples of excluded programs
- Animal training [*see* 01.0505 Animal Training]
- Animal sciences [*see* 01.0901 Animal Sciences, General]
- Behavioural sciences [*see* 30.1701 Behavioural Sciences]

26.0709 Wildlife Biology

This instructional program class comprises any program that focuses on the application of biological principles to the study of vertebrate wildlife, wildlife habitats, and related ecosystems in remote and urban areas. These programs include courses in animal ecology; adaptational biology; urban ecosystems; natural and artificial habitat management; limnology; wildlife pathology; and vertebrate zoological specializations such as mammalogy, herpetology, ichthyology, ornithology, and others.

Examples of included programs
- Fish and wildlife biology
- Wildlife biology

Examples of excluded programs
- Wildlife studies [*see* 03.0601 Wildlife and Wildlands Science and Management]
- Animal biology [*see* 26.0701 Zoology/Animal Biology, General]
- Marine biology [*see* 26.1302 Marine Biology and Biological Oceanography]

26.0799 Zoology/Animal Biology, Other

This instructional program class comprises any program not listed above that relates to Zoology/Animal Biology.

26.08 Genetics

This subseries comprises instructional program classes 26.0801 to 26.0899.

26.0801 Genetics, General

This instructional program class comprises any general program that focuses on the scientific study of the organization, recombination, function, regulation, and transmission of heritable information in biological organisms at all levels of complexity. These programs include courses in Mendelian genetics, mechanisms of gene regulation, chromosome structure and replication, epigenetic phenomena, DNA repair and recombination, sex determination, genetic interactions between genomes, and molecular evolution.

Example of included programs
- Genetics

Examples of excluded programs
- Biomedical engineering [*see* 14.0501 Biomedical/Medical Engineering]
- Genetic engineering [*see* 14.9999 Engineering, Other]
- Animal genetics [*see* 26.0804 Animal Genetics]
- Human genetics [*see* 26.0806 Human/Medical Genetics]
- Genetic counselling [*see* 51.1509 Genetic Counselling/Counsellor]

26.0802 Molecular Genetics

This instructional program class comprises any program that focuses on the scientific study of the molecular mechanisms regulating gene expression, information transfer, replication, and stability in DNA and RNA. These programs include courses in prokaryotic genetics and gene expression; development and evolution of gene sequences and anatomical forms; biochemistry of gene replication and recombination; transcription and processing; genomics; chromatin architecture; and DNA/RNA structure.

Examples of included programs
- Genomics
- Molecular genetics

Examples of excluded programs
- Molecular biology [*see* 26.0204 Molecular Biology]
- Genetics [*see* 26.0801 Genetics, General]
- Cytogenetics [*see* 51.1010 Cytogenetics/Genetics/Clinical Genetics Technology/Technologist]

26.0803 Microbial and Eukaryotic Genetics

This instructional program class comprises any program that focuses on the scientific study of the genetics of viruses, infectious agents, organelles, nuclear genomes, eubacteria, archaebacteria, and eukaryotic organisms. These programs include courses in molecular genetics and evolution; parasitic and symbiotic interaction at the genetic level; epigenetic phenomena; microbial interactions; and genomics.

Example of included programs
- Microbial and eukaryotic genetics

Examples of excluded programs
- Microbiology [*see* 26.0502 Microbiology, General]
- Medical microbiology [*see* 26.0503 Medical Microbiology and Bacteriology]
- Genetics [*see* 26.0801 Genetics, General]

26.0804 Animal Genetics

This instructional program class comprises any program that focuses on the scientific study of the genetics of multicellular animal life forms from the experimental, comparative, and clinical (veterinary and medical) viewpoints. These programs include courses in molecular genetics, gene expression, gene regulation, genomics, epigenetic phenomena, DNA recombination and repair, genetic interactions at the microbial and higher levels, and molecular evolution.

Example of included programs
- Animal genetics

Examples of excluded programs
- Animal husbandry [*see* 01.0302 Animal/Livestock Husbandry and Production]
- Animal sciences [*see* 01.0901 Animal Sciences, General]
- Animal breeding [*see* 01.0902 Agricultural Animal Breeding]
- Medical genetics [*see* 26.0806 Human/Medical Genetics]
- Theriogenology—residency [*see* 60.0315 Theriogenology Residency Programs]

26.0805 Plant Genetics

This instructional program class comprises any program that focuses on the scientific study of the genetics of multicellular plants and fungi as related to botanical research as well as to applications in comparative genetics, ecology and evolutionary studies, clinical studies, and industrial research. These programs include courses in molecular genetics, gene expression, gene regulation, genomics, epigenetic phenomena, DNA recombination and repair, genetic interactions at the microbial and higher levels, and molecular evolution.

Example of included programs
- Plant genetics

Examples of excluded programs
- Plant sciences [*see* 01.1101 Plant Sciences, General]
- Plant breeding genetics [*see* 01.1104 Agricultural and Horticultural Plant Breeding]
- Botany [*see* 26.0301 Botany/Plant Biology, General]
- Genetics [*see* 26.0801 Genetics, General]

26.0806 Human/Medical Genetics

This instructional program class comprises any program that focuses on the scientific study of human genetics from the standpoint of medical applications such as clinical diagnosis, genetic engineering and therapy, transplantation, and the study of genetic diseases and disabilities and their defence. These programs include courses in human molecular genetics; genetic factors causing disease; changes in gene expression during development, differentiation, and pathogenesis; recombinant DNA; gene therapy; clinical genetics; genetic epidemiology; immunogenetics; cytogenetics; and genetics of specific disorders and diseases.

Examples of included programs
- Human genetics
- Medical genetics

Examples of excluded programs
- Genetic engineering [*see* 14.9999 Engineering, Other]
- Genetics [*see* 26.0801 Genetics, General]
- Animal genetics [*see* 26.0804 Animal Genetics]
- Genetic counselling [*see* 51.1509 Genetic Counselling/Counsellor]

26.0899 Genetics, Other

This instructional program class comprises any program not listed above that relates to Genetics.

26.09 Physiology, Pathology and Related Sciences

This subseries comprises instructional program classes 26.0901 to 26.0999.

26.0901 Physiology, General

This instructional program class comprises any general program that focuses on the scientific study of the functional dynamics, morphology, and biochemical and biophysical communications within organisms and between living systems at all levels of complexity and integration. These programs include courses in reproduction, growth, hormonal action, vascular function, respiration, digestion, sensory perception and processing, sensorimotor integration, signal encoding and conveyance, homeostasis, physical function and malfunction, evolutionary physiology, and disease processes.

Examples of included programs
- Human physiology
- Physiology

Examples of excluded programs
- Plant physiology [*see* 26.0307 Plant Physiology]
- Animal physiology [*see* 26.0707 Animal Physiology]
- Cell physiology [*see* 26.0903 Cell Physiology]
- Exercise physiology [*see* 26.0908 Exercise Physiology]

26.0902 Molecular Physiology

This instructional program class comprises any program that focuses on the scientific study of dynamic interactive processes and biochemical communications at the subcellular level. These programs include courses in ion channels and transporters, molecular signalling pathways, endocrine control and regulation, genetic information transfer, homeostasis and molecular control systems, electrophysiology and sensory mechanisms, protein synthesis, and applicable research methods and technologies.

Example of included programs
- Molecular physiology

Examples of excluded programs
- Molecular biology [*see* 26.0204 Molecular Biology]
- Physiology [*see* 26.0901 Physiology, General]
- Cell physiology [*see* 26.0903 Cell Physiology]

26.0903 Cell Physiology

This instructional program class comprises any program that focuses on the scientific study of physiological processes operating within and among cells, and intracellular communication and behaviour, in the context of larger systems and whole organisms. These programs include courses in cell and molecular biology, molecular physiology, cell cycle control, signal transduction, protein structure, membrane biochemistry and structure, ion channel physics, cell respiration and digestion, secretory functions, cell adhesion and communication, information encoding and decoding, and the relation of cell physiology to tissue, organ, and organismic functioning.

Example of included programs
- Cell physiology

Examples of excluded programs
- Cellular biology [*see* 26.0401 Cell/Cellular Biology and Histology]
- Physiology [*see* 26.0901 Physiology, General]
- Molecular physiology [*see* 26.0902 Molecular Physiology]

26.0904 Endocrinology

This instructional program class comprises any program that focuses on the scientific study of the composition, manufacture, and secretion of protein compounds by cells and glands and the role of endocrine substances in bodily processes. These programs include courses in protein chemistry, protein secretion, membrane biogenesis and transfer methods, cellular communication, gene and cell regulation, cytochemistry, fractionation, radioautography, and applications such as neuroendocrinology.

Example of included programs
- Endocrinology

Examples of excluded programs
- Endocrinology and metabolism—residency [*see* 60.0217 Endocrinology and Metabolism Residency Programs]
- Pediatric endocrinology—residency [*see* 60.0246 Pediatric Endocrinology Residency Programs]

26.0905 Reproductive Biology

This instructional program class comprises any program that focuses on the scientific study of reproductive processes and biogenesis in animals and human beings. These programs include courses in reproductive ecology and behaviour, reproductive system physiology, endocrinology, developmental biology, neuroendocrinology, evolution and types of reproductive systems, reproductive genetics, physiopathology of reproductive processes, and applications of molecular biology and biophysics to the study of reproductive physiology.

Examples of included programs
- Reproductive biology
- Reproductive physiology

Examples of excluded programs
- Animal breeding [*see* 01.0902 Agricultural Animal Breeding]
- Biology [*see* 26.0101 Biology/Biological Sciences, General]
- Medical biology [*see* 26.0102 Biomedical Sciences, General]
- Genetics [*see* 26.0801 Genetics, General]
- Human genetics [*see* 26.0806 Human/Medical Genetics]
- Obstetrics and gynecology—residency [*see* 60.0238 Obstetrics and Gynecology Residency Programs]
- Theriogenology—residency [*see* 60.0315 Theriogenology Residency Programs]

26.0906 Neurobiology and Neurophysiology

This instructional program class comprises any program that focuses on the scientific study of the cellular and molecular basis of the lower and higher neural functions in animals and human beings, organ system behaviour and the immune response, and the control of physiological systems. These programs include courses in computational biology, computer modelling, protein biochemistry, electrophysiology, morphological basis of behaviour, neural signal transduction and reception, synaptic activity, neurotransmission, sensory perception and sensorimotor interaction, inflammation and neurodegeneration, neurological and autoimmune disease, immune response, maintenance of homeostasis, and autonomic function.

Examples of included programs
- Neurobiology
- Neurophysiology

Examples of excluded programs
- Neuroanatomy [*see* 26.0405 Neuroanatomy]
- Neuroscience [*see* 30.2401 Neuroscience]
- Neurology—residency [*see* 60.0234 Neurology Residency Programs]

26.0907 Cardiovascular Science

This instructional program class comprises any program that focuses on the scientific study of the structure and functioning of the heart, vascular system, and blood in animals and human beings and the disorders and diseases associated with the cardiovascular system. These programs include courses in cardiovascular physiology, blood physiology, vasculature, vascular metabolism, neural control of cardiovascular function, microvascular permeability and membrane transport, cardiac contraction mechanisms, homeostasis, and applications to topics such as arteriosclerosis, heart disease, diabetes, vascular remodelling, transplantation, transfusion, and pacemakers and artificial organs.

Example of included programs
- Cardiovascular science

Examples of excluded programs
- Cardiovascular technician [*see* 51.0901 Cardiovascular Technology/Technologist]
- Cardiopulmonary technology/technologist [*see* 51.0915 Cardiopulmonary Technology/Technologist]
- Cardiology—residency [*see* 60.0205 Cardiology Residency Programs]
- Pediatric cardiology—residency [*see* 60.0245 Pediatric Cardiology Residency Programs]

26.0908 Exercise Physiology

This instructional program class comprises any program that focuses on the scientific study of the physiological processes involved in physical or motor activity, including sensorimotor interactions, response mechanisms, and the effects of injury, disease, and disability. These programs include courses in muscular and skeletal anatomy; molecular and cellular basis of muscle contraction; fuel utilization; neurophysiology of motor mechanics; systemic physiological responses (respiration, blood flow, endocrine secretions, and others); fatigue and exhaustion; muscle and body training; physiology of specific exercises and activities; physiology of injury; and the effects of disabilities and disease.

Example of included programs
- Exercise physiology

Examples of excluded programs
- Physiology [*see* 26.0901 Physiology, General]
- Exercise and sports science [*see* 31.0501 Health and Physical Education, General]
- Exercise sciences [*see* 31.0505 Kinesiology and Exercise Science]
- Physiotherapy [*see* 51.2308 Physical Therapy/Therapist]

26.0909 Vision Science/Physiological Optics

This instructional program class comprises any program that focuses on the scientific study of vision, visual processes, and related phenomena and clinical research and treatment modalities. These programs include courses in ocular anatomy and physiology, microbiology of the eye, electrophysiology, neurophysiology, corneal physiology, photochemistry, psychophysics, visual biophysics and motor systems, sensory mechanisms and photoreception, eye circulation and metabolism, geometric and physical optics, ocular

development across the lifespan, visual stimuli and perception, colour vision, eye motility, biometrics and measurement techniques, visual pathology, and environmental issues.

Examples of included programs
- Physiological optics
- Vision science

Examples of excluded programs
- Laser and optical technician [*see* 15.0304 Laser and Optical Technology/Technician]
- Optical science [*see* 40.0807 Optics/Optical Sciences]
- Optometrist [*see* 51.1701 Optometry (OD)]
- Optometric assistant [*see* 51.1802 Optometric Technician/Assistant]
- Orthoptics [*see* 51.1804 Orthoptics/Orthoptist]
- Ophthalmology—residency [*see* 60.0241 Ophthalmology Residency Programs]

26.0910 Pathology/Experimental Pathology

This instructional program class comprises any program that focuses on the scientific study of the expression, initiation, maintenance and progression of tissue injury and disease, including death, and the relationship of pathogenesis to fundamental molecular and cellular mechanisms. These programs include courses in immunology, microbiology, gene expression, inflammation, cell injury, apoptosis, immunopathology, molecular markers of disease and toxins, neoplasia, growth regulation, and organ- and system-specific investigations.

Examples of included programs
- Experimental pathology
- Pathology

Examples of excluded programs
- Pathology technician [*see* 51.0811 Pathology/Pathologist Assistant]
- Pathology—residency [*see* 60.0244 Pathology Residency Programs]

26.0911 Oncology and Cancer Biology

This instructional program class comprises any program that focuses on the scientific study of carcinogens; the onset of malignancy in cells, tissues, blood, and organs; the genetics of cancer; the anatomy and physiology of cancer cells; and the study of cancer behaviours and treatments. These programs include courses in gene expression; oncogenes and tumour suppressor genes; viral genes and cancer proliferation; regulation of signal transduction; cancer proteins; hormonal and growth factors in cancer cells; tumour promotion, progression, and metastasis; carcinogen receptors and metabolism; carcinogen ecology; immunological targeting; and studies of genetic, chemical, radiologic and other treatment therapies.

Examples of included programs
- Cancer biology
- Oncology

Example of excluded programs
- Oncology—residency [*see* 60.0240 Oncology Residency Programs]

26.0999 Physiology, Pathology and Related Sciences, Other

This instructional program class comprises any program not listed above that relates to Physiology, Pathology and Related Sciences.

26.10 Pharmacology and Toxicology

This subseries comprises instructional program classes 26.1001 to 26.1099.

26.1001 Pharmacology

This instructional program class comprises any program that focuses on the scientific study of drug interactions on biological systems and organisms and the sources, chemical properties, biological effects, and therapeutic uses of drugs. These programs include courses in pharmacodynamics, pharmacokinetics, toxicology, drug therapeutics, drug action, bodily responses to drug events, biochemical proliferation and differentiation, apoptosis, cell biology, medicinal chemistry, and studies of specific drugs and drug interactions.

Example of included programs
- Pharmacology

Examples of excluded programs
- Pharmacology and toxicology [*see* 26.1007 Pharmacology and Toxicology, Integrated]
- Psychopharmacology [*see* 42.2401 Psychopharmacology]
- Pharmacy [*see* 51.2001 Pharmacy (PharmD [USA], PharmD or BSc/BPharm [Canada])]
- Pharmaceutics [*see* 51.2003 Pharmaceutics and Drug Design (MSc, PhD)]

26.1002 Molecular Pharmacology

This instructional program class comprises any program that focuses on the scientific study of the biochemical and biophysical characteristics of drugs at the molecular level and their interaction with, and effects on, biological macromolecules and cellular structures and processes. These programs include courses in molecular biology and biophysics; pharmacology of signal transduction, transmitters, and protein synthesis and release; receptors, protein interaction and binding; drug discovery and recognition; molecular toxicology; drug design; pharmacodynamics; developmental genetics; and studies of therapeutic strategies.

Example of included programs
- Molecular pharmacology

Examples of excluded programs
- Pharmacology [*see* 26.1001 Pharmacology]
- Pharmacology and toxicology [*see* 26.1007 Pharmacology and Toxicology, Integrated]
- Psychopharmacology [*see* 42.2401 Psychopharmacology]
- Pharmacy [*see* 51.2001 Pharmacy (PharmD [USA], PharmD or BSc/BPharm [Canada])]

26.1003 Neuropharmacology

This instructional program class comprises any program that focuses on the scientific study of drugs that modify the function of the brain and central nervous system, the effects of such drugs on health, disease, perception, motor action, and behaviour; and the development of countermeasures and treatment therapies. These programs include courses in neuroanatomy, neurophysiology, behavioural neuroscience, neurobiochemistry, neuropathology, the mechanisms of brain function, medicinal chemistry, pharmaceutics, and studies of specific drugs and drug therapies.

Example of included programs
- Neuropharmacology

Examples of excluded programs
- Pharmacology [*see* 26.1001 Pharmacology]
- Pharmacology and toxicology [*see* 26.1007 Pharmacology and Toxicology, Integrated]
- Neuroscience [*see* 30.2401 Neuroscience]
- Psychopharmacology [*see* 42.2401 Psychopharmacology]
- Pharmacy [*see* 51.2001 Pharmacy (PharmD [USA], PharmD or BSc/BPharm [Canada])]

26.1004 Toxicology

This instructional program class comprises any program that focuses on the scientific study of poisons and other biohazards; their interactions with organisms and their food and respiratory systems; and their prevention, management, and counteraction. These programs include courses in toxicological biochemistry, toxic agents and transporters, toxin fate, toxicokinetics and metabolism, toxin classification, molecular toxic mechanisms, extracellular matrices and cell function, bacterial pathogenesis and mutagenesis, pathophysiology and apoptosis, cell stress and injury, studies of specific toxins, and studies of specific organ systems and physiological functions in relation to toxicological problems.

Examples of included programs
- Biomedical toxicology
- Toxicology

Examples of excluded programs
- Hazardous waste technology [*see* 15.0508 Hazardous Materials Management and Waste Technology/Technician]
- Molecular toxicology [*see* 26.1005 Molecular Toxicology]
- Environmental toxicology [*see* 26.1006 Environmental Toxicology]
- Pharmacology and toxicology [*see* 26.1007 Pharmacology and Toxicology, Integrated]

26.1005 Molecular Toxicology

This instructional program class comprises any program that focuses on the scientific study of the genetic determinants of susceptibility to external pollutants and poisons; the interaction of toxic agents with biological systems at the molecular and cellular levels; and the development of countermeasures and treatments. These programs include courses in pharmacogenetics, biomolecular structure, gene expression and regulation, transgenic modelling, toxic events signalling, transcriptional activation, mutagenesis and carcinogenesis, pulmonary toxicology, xenobiotic metabolism, oxidative stress, risk assessment, molecular dosimetry, and studies of specific toxins and treatment therapies.

Example of included programs
- Molecular toxicology

Examples of excluded programs
- Toxicology [*see* 26.1004 Toxicology]
- Pharmacology and toxicology [*see* 26.1007 Pharmacology and Toxicology, Integrated]

26.1006 Environmental Toxicology

This instructional program class comprises any program that focuses on the scientific study of the health effects associated with exposure to toxic chemicals and systems occurring in the natural, work, and living environments; the management of environmental toxins and toxicity; and the development of protections for humans, animals, and plants. These programs include courses in applied ecology; microbiology; toxin transport, fate, and degradation; dermal toxicology; reproductive and genetic toxicology; atmospheric and environmental chemistry; metals toxicology; environmental mutagens and biotransformation; nutrient

interaction; chemical sensitivity, disorders, and disease; risk assessment; animal waste management; environmental health; and hazardous materials management.

Examples of included programs
- Ecotoxicology
- Environmental toxicology

Examples of excluded programs
- Integrated pest management [*see* 01.1105 Plant Protection and Integrated Pest Management]
- Environmental studies [*see* 03.0103 Environmental Studies]
- Environmental science [*see* 03.0104 Environmental Science]
- Environmental technology [*see* 15.0507 Environmental Engineering Technology/Environmental Technology]
- Ecology [*see* 26.1301 Ecology]

26.1007 Pharmacology and Toxicology, Integrated

This instructional program class comprises any program with an integrated, combined approach to the study of pharmacological and toxicological issues in biology and the biomedical sciences. These programs include courses in topics such as solvents, xenobiotic metabolism, chemical toxicity, neurotoxicology, immunopharmacology, biotransformation, tissue culture and in vitro studies, biomolecular analysis, bioactivation and inactivation, enzyme regulation, chemoprevention and chemotherapy, industrial and chemical studies, radiation health, and bioinformatics.

Example of included programs
- Pharmacology and toxicology

Examples of excluded programs
- Pharmacology [*see* 26.1001 Pharmacology]
- Toxicology [*see* 26.1004 Toxicology]

26.1099 Pharmacology and Toxicology, Other

This instructional program class comprises any program not listed above that relates to Pharmacology and Toxicology.

26.11 Biomathematics and Bioinformatics

This subseries comprises instructional program classes 26.1101 to 26.1199.

26.1101 Biometry/Biometrics

This instructional program class comprises any program that focuses on the application of statistics and other computational methods to the study of problems in the biological sciences and related fields in agriculture and natural resources. These programs include courses in computational biology, mathematical statistics, matrix algebra, applied calculus, experimental design, linear modelling, sampling theory, stochastic processes, spatial and temporal analysis, longitudinal analysis, sparse/unbalanced data and complex error, and applications to such topics as population genetics, animal breeding, forest genetics, population dynamics, wildlife biometry, ecology, and agricultural and natural resource management.

Examples of included programs
- Biometrics
- Biometry

Examples of excluded programs
- Biostatistics [*see* 26.1102 Biostatistics]
- Bioinformatics [*see* 26.1103 Bioinformatics]

26.1102 Biostatistics

This instructional program class comprises any program that focuses on the application of descriptive and inferential statistics to biomedical research and clinical, public health, and industrial issues related to human populations. These programs include courses in mathematical statistics, modelling, clinical trials methodology, disease and survival analysis, longitudinal analysis, missing data analysis, spatial analysis, computer tomography, biostatistics consulting, and applications to such topics as genetics, oncology, pharmacokinetics, physiology, neurobiology, and biophysics.

Example of included programs
- Biostatistics

Examples of excluded programs
- Statistics [*see* 27.0501 Statistics, General]
- Statistics and applied probability [*see* 27.0502 Mathematical Statistics and Probability]
- Public health (MPH, DPH) [*see* 51.2201 Public Health, General (MPH, DPH)]

26.1103 Bioinformatics

This instructional program class comprises any program that focuses on the application of computer-based technologies and services to biological, biomedical, and biotechnology research. These programs include courses in algorithms, network architecture, principles of software design, human interface design, usability studies, search strategies, database management and data mining, digital image processing, computer graphics and animation, CAD, computer programming, and applications to experimental design and analysis and to specific quantitative, modelling, and analytical studies in the various biological specializations.

Examples of included programs
- Bioinformatics
- Computational biology

Examples of excluded programs
- Computer science [*see* 11.0701 Computer Science]
- Health informatics [*see* 51.2706 Medical Informatics]

26.1199 Biomathematics and Bioinformatics, Other

This instructional program class comprises any program not listed above that relates to Biomathematics and Bioinformatics.

26.12 Biotechnology

This subseries comprises instructional program class 26.1201.

26.1201 Biotechnology

This instructional program class comprises any program that focuses on the application of the biological sciences, biochemistry, and genetics to the preparation of new and enhanced agricultural, environmental, clinical, and industrial products, including the commercial exploitation of microbes, plants, and animals. These programs include courses in bioinformatics, gene identification, phylogenetics and comparative genomics, bioinorganic chemistry, immunoassaying, DNA sequencing, xenotransplantation, genetic engineering, industrial microbiology, drug and biologic development, enzyme-based production processes, patent law, biotechnology management and marketing, applicable regulations, and biotechnology ethics.

Examples of included programs
- Biotechnology
- Plant biotechnology

Examples of excluded programs
- Food science [*see* 01.1001 Food Science]
- Bio-food technology [*see* 01.1002 Food Technology and Processing]
- Agricultural plant breeding [*see* 01.1104 Agricultural and Horticultural Plant Breeding]
- Plant science technology [*see* 01.1199 Plant Sciences, Other]

26.13 Ecology, Evolution, Systematics and Population Biology

This subseries comprises instructional program classes 26.1301 to 26.1399.

26.1301 Ecology

This instructional program class comprises any program that focuses on the scientific study of the relationships and interactions of small-scale biological systems, such as organisms, to each other, to complex and whole systems, and to the physical and other non-biological aspects of their environments. These programs include courses in biogeochemistry; landscape and/or marine/aquatic dynamics; decomposition; global and regional elemental budgets; biotic and abiotic regulation of nutrient cycles; ecophysiology; ecosystem resilience, disturbance, and succession; community and habitat dynamics; organismal interactions (co-evolution, competition, predation); paleoecology, and evolutionary ecology.

Examples of included programs
- Animal ecology
- Ecology
- Plant ecology
- Wildlife ecology

Examples of excluded programs
- Plant sciences [*see* 01.1101 Plant Sciences, General]
- Natural resources [*see* 03.0101 Natural Resources/Conservation, General]
- Environmental studies [*see* 03.0103 Environmental Studies]
- Environmental science [*see* 03.0104 Environmental Science]
- Environmental biology [*see* 26.1305 Environmental Biology]

26.1302 Marine Biology and Biological Oceanography

This instructional program class comprises any program that focuses on the scientific study of the ecology and behaviour of microbes, plants, and animals inhabiting oceans, coastal waters, and saltwater wetlands and their interactions with the physical environment. These programs include courses in chemical, physical, and geological oceanography; molecular, cellular, and biochemical studies; marine microbiology; marine botany; ichthyology; mammalogy; marine population dynamics and biodiversity; reproductive biology; studies of specific species, phyla, habitats, and ecosystems; marine paleoecology and paleontology; and applications to fields such as fisheries science and biotechnology.

Examples of included programs
- Biological oceanography
- Marine biology

Examples of excluded programs
- Aquaculture [*see* 01.0303 Aquaculture]
- Fisheries science [*see* 03.0301 Fishing and Fisheries Sciences and Management]
- Biological sciences [*see* 26.0101 Biology/Biological Sciences, General]
- Physical oceanography [*see* 40.0607 Oceanography, Chemical and Physical]

26.1303 Evolutionary Biology

This instructional program class comprises any program that focuses on the scientific study of the genetic, developmental, functional, and morphological patterns and processes, and theoretical principles; and the emergence and mutation of organisms over time. These programs include courses in molecular and morphological systematics; genetics and development; evolutionary transformation; paleobiology and paleontology; morphogenesis; mutation; locomotor, biomechanical and craniodental form and function; evolutionary theory; and systematic biology.

Example of included programs
- Evolutionary biology

Examples of excluded programs
- Biology [*see* 26.0101 Biology/Biological Sciences, General]
- Anthropology [*see* 45.0201 Anthropology, General]
- Physical anthropology [*see* 45.0202 Physical Anthropology]

26.1304 Aquatic Biology/Limnology

This instructional program class comprises any program that focuses on the scientific study of the ecology and behaviour of microbes, plants, and animals inhabiting inland fresh waters such as lakes, ponds, rivers, creeks, estuaries, and wetlands. These programs include courses in geology and hydrology; aquatic ecosystems; microbiology; mycology; botany; ichthyology; mammalogy; population biology and biodiversity; studies of specific species, phyla, and habitats; and applications to fields such as natural resources conservation, fisheries science, and biotechnology.

Examples of included programs
- Aquatic biology
- Fisheries biology
- Limnology

Examples of excluded programs
- Aquaculture [*see* 01.0303 Aquaculture]
- Fisheries science [*see* 03.0301 Fishing and Fisheries Sciences and Management]
- Biological sciences [*see* 26.0101 Biology/Biological Sciences, General]
- Marine biology [*see* 26.1302 Marine Biology and Biological Oceanography]

26.1305 Environmental Biology

This instructional program class comprises any program that focuses on the scientific study of the origins, functions, relationships, interactions, and natural history of living populations, communities, species, and ecosystems in relation to dynamic environmental processes. These programs include courses in biodiversity, molecular genetic and genomic evolution, meso-scale ecology, computational biology and modelling, conservation biology, local and global environmental change, and restoration ecology.

Example of included programs
- Environmental biology

Examples of excluded programs
- Environmental science [*see* 03.0104 Environmental Science]
- Biology [*see* 26.0101 Biology/Biological Sciences, General]
- Ecology [*see* 26.1301 Ecology]
- Natural sciences [*see* 30.1801 Natural Sciences]

26.1306 Population Biology

This instructional program class comprises any program that focuses on the scientific study of the natural history, life cycle behaviour, and ecosystem dynamics of single species and multi-species communities, and the patterns and causes of diversity within and among such populations. These programs include courses in biostatistics, population dynamics, population and quantitative genetics, RNA and DNA sequences, genomics, evolutionary ecology, natural adaptation and hybridization, geographic differentiation, life history and life cycle studies, and animal and plant demography.

Example of included programs
- Population biology

Examples of excluded programs
- Biology [*see* 26.0101 Biology/Biological Sciences, General]
- Population studies [*see* 45.0501 Demography and Population Studies]
- Public health (MPH, DPH) [*see* 51.2201 Public Health, General (MPH, DPH)]

26.1307 Conservation Biology

This instructional program class comprises any program that focuses on the application of the biological sciences to the specific problems of biodiversity, species preservation, ecological sustainability, and habitat fragmentation in the face of advancing human social, economic, and industrial pressures. These programs include courses in ecology, environmental science, biological systems, extinction theory, human-animal and human-plant interaction, ecosystem science and management, wetland conservation, field biology, forest and wildlife biology, and natural history.

Example of included programs
- Conservation biology

Examples of excluded programs
- Environmental and conservation science [*see* 03.0101 Natural Resources/Conservation, General]
- Environmental science [*see* 03.0104 Environmental Science]
- Renewable resources [*see* 03.0199 Natural Resources Conservation and Research, Other]
- Biology [*see* 26.0101 Biology/Biological Sciences, General]
- Historic preservation and conservation [*see* 30.1201 Historic Preservation and Conservation, General]

26.1308 Systematic Biology/Biological Systematics

This instructional program class comprises any program that focuses on the theoretical and empirical study of the principles and processes underlying the origin and maintenance of biological taxonomic diversity; related biogeographical and evolutionary patterns; and studies of the origin, diversification, distribution, and extinction of species and lineages. These programs include courses in phylogenetic analysis, structural development and molecular evolution, classification and taxonomic theory, biological nomenclature, taxonomic assignment, evolutionary theory, biological surveys and inventories, computer modelling, and database building.

Example of included programs
- Systematic biology

Examples of excluded programs
- Biological sciences [*see* 26.0101 Biology/Biological Sciences, General]
- Biostatistics [*see* 26.1102 Biostatistics]
- Systems science and theory [*see* 30.0601 Systems Science and Theory]

26.1309 Epidemiology

This instructional program class comprises any program that focuses on the scientific study of disease, disability, and trauma patterns within and across populations and the development of health management mechanisms to prevent and control disease outbreaks and injurious behaviours. These programs include courses in biostatistics, biochemistry, molecular biology, immunology, disease and injury determinants, genetic disease and disability factors, behavioural studies, health services research, environmental disease and injury factors, and population studies.

Example of included programs
- Epidemiology

Examples of excluded programs
- Medical microbiology [*see* 26.0503 Medical Microbiology and Bacteriology]
- Virology [*see* 26.0504 Virology]
- Microbiology and immunology [*see* 26.0507 Immunology]
- Public health (MPH, DPH) [*see* 51.2201 Public Health, General (MPH, DPH)]
- Veterinary epidemiology [*see* 51.2510 Veterinary Preventive Medicine, Epidemiology and Public Health (Cert., MSc, PhD)]
- Public health medicine—residency [*see* 60.0256 Public Health Medicine Residency Programs]

26.1399 Ecology, Evolution, Systematics and Population Biology, Other

This instructional program class comprises any program not listed above that relates to Ecology, Evolution, Systematics and Population Biology.

26.99 Biological and Biomedical Sciences, Other

This subseries comprises instructional program class 26.9999.

26.9999 Biological and Biomedical Sciences, Other

This instructional program class comprises any program not listed above that relates to Biological and Biomedical Sciences.

Example of included programs
- Human biology

27. Mathematics and Statistics

This series comprises instructional programs that focus on the systematic study of logical symbolic language and its applications.

27.01 Mathematics

This subseries comprises instructional program classes 27.0101 to 27.0199.

27.0101 Mathematics, General

This instructional program class comprises any general program that focuses on the analysis of quantities, magnitudes, forms, and their relationships, using symbolic logic and language. These programs include courses in algebra, calculus, functional analysis, geometry, number theory, logic, topology and other mathematical specializations.

Examples of included programs
- Mathematics
- Pure mathematics

Examples of excluded programs
- Teaching mathematics [*see* 13.1311 Mathematics Teacher Education]
- Applied mathematics [*see* 27.0301 Applied Mathematics, General]
- Numeracy and computational skills [*see* 32.0104 Numeracy and Computational Skills]
- Logic [*see* 38.0102 Logic]
- Mathematical physics [*see* 40.0810 Theoretical and Mathematical Physics]

27.0102 Algebra and Number Theory

This instructional program class comprises any program that focuses on the expression of quantities and their relationships by means of symbols, vectors, matrices, and equations, and the properties of integers. These programs include courses in algebraic structures, quadratic and automorphic forms, combinatorics, linear algebra, and algebraic geometry.

Examples of included programs
- Algebra
- Algebra and number theory

27.0103 Analysis and Functional Analysis

This instructional program class comprises any program that focuses on the properties and behaviour of equations, multivariate solutions, functions, and dynamic systems. These programs include courses in differential equations, variation, approximations, complex variables, integrals, harmonic analysis and wavelet theory, dynamic systems, and applications to mathematical physics.

Examples of included programs
- Analysis
- Functional analysis

27.0104 Geometry/Geometric Analysis

This instructional program class comprises any program that focuses on the properties, measurements, and relationships pertaining to points, lines, angles, surfaces, and solids. These programs include courses in global analysis, differential geometry, Euclidian and non-Euclidian geometry, set theory, manifolds, integral geometry, and applications to algebra and other topics.

Examples of included programs
- Geometric analysis
- Geometry

27.0105 Topology and Foundations

This instructional program class comprises any program that focuses on the properties of unaltered geometric configurations under conditions of continuous, multi-directional transformations. These programs include courses in mathematical logic, proof theory, model theory, set theory, combinatorics, continua, homotopy, homology, links, and transformation actions.

Examples of included programs
- Topology
- Topology and foundations

Examples of excluded programs
- Geodetic engineering [*see* 14.3801 Surveying Engineering]
- Geomatics engineering [*see* 14.3801 Surveying Engineering]
- Geological engineering [*see* 14.3901 Geological/Geophysical Engineering]
- Logic [*see* 38.0102 Logic]

27.0199 Mathematics, Other

This instructional program class comprises any program not listed above that relates to Mathematics.

Example of excluded programs
- Actuarial mathematics [*see* 52.1304 Actuarial Science]

27.03 Applied Mathematics

This subseries comprises instructional program classes 27.0301 to 27.0399.

27.0301 Applied Mathematics, General

This instructional program class comprises any program that focuses on the application of mathematics and statistics to the solution of functional problems in fields such as engineering and the applied sciences. These programs include courses in natural phenomena modelling continuum mechanics, reaction-diffusion, wave propagation, dynamic systems, numerical analysis, controlled theory, asymptotic methods, variation, optimization theory, inverse problems, and applications to specific scientific and industrial topics.

Examples of included programs
- Applied mathematics
- Mathematical sciences
- Mathematics science

Examples of excluded programs
- Operations research [*see* 14.3701 Operations Research]
- Mathematical physics [*see* 40.0810 Theoretical and Mathematical Physics]
- Mathematical economics [*see* 45.0603 Econometrics and Quantitative Economics]

27.0303 Computational Mathematics

This instructional program class comprises any program that focuses on the application of mathematics to the theory, architecture, and design of computers, computational techniques, and algorithms. These programs include courses in computer theory, cybernetics, numerical analysis, algorithm development, binary structures, combinatorics, advanced statistics, and related topics.

Examples of included programs
- Applied and computational mathematics
- Computational mathematics

Examples of excluded programs
- Computing science [*see* 11.0701 Computer Science]
- Mathematics and computer science [*see* 30.0801 Mathematics and Computer Science]
- Actuarial mathematics [*see* 52.1304 Actuarial Science]

27.0399 Applied Mathematics, Other

This instructional program class comprises any program not listed above that relates to Applied Mathematics.

Example of included programs
- Combinatorics and optimization

27.05 Statistics

This subseries comprises instructional program classes 27.0501 to 27.0599.

27.0501 Statistics, General

This instructional program class comprises any general program that focuses on the relationships between groups of measurements, and similarities and differences, using probability theory and techniques derived from it. These programs include courses in the principles in probability theory, binomial distribution, regression analysis, standard deviation, stochastic processes, Monte Carlo method, Bayesian statistics, non-parametric statistics, sampling theory, and statistical techniques.

Examples of included programs
- Applied statistics
- Statistics

Examples of excluded programs
- Educational statistics and research methods [*see* 13.0603 Educational Statistics and Research Methods]
- Biostatistics [*see* 26.1102 Biostatistics]
- Business statistics [*see* 52.1302 Business Statistics]
- Actuarial mathematics [*see* 52.1304 Actuarial Science]

27.0502 Mathematical Statistics and Probability

This instructional program class comprises any program that focuses on the mathematical theory underlying statistical methods and their use. These programs include courses in probability theory, parametric and nonparametric inference, sequential analysis, multivariate analysis, Bayesian analysis, experimental design, time series analysis, resampling, robust statistics, limit theory, infinite particle systems, stochastic processes, martingales, Markov processes, and Banach spaces.

Examples of included programs
- Mathematical statistics
- Probability and statistics
- Statistics and applied probability

Examples of excluded programs
- Educational statistics and research methods [*see* 13.0603 Educational Statistics and Research Methods]
- Biostatistics [*see* 26.1102 Biostatistics]
- Business statistics [*see* 52.1302 Business Statistics]
- Actuarial mathematics [*see* 52.1304 Actuarial Science]

27.0599 Statistics, Other

This instructional program class comprises any program not listed above that relates to Statistics.

27.99 Mathematics and Statistics, Other

This subseries comprises instructional program class 27.9999.

27.9999 Mathematics and Statistics, Other

This instructional program class comprises any program not listed above that relates to Mathematics and Statistics.

28. Reserve Entry Scheme for Officers in the Armed Forces. This series is found in chapter IV.

29. Military Technologies

This series comprises instructional programs that prepare individuals in specialized and advanced subject matter for the armed services and related national security organizations.

29.01 Military Technologies

This subseries comprises instructional program class 29.0101.

29.0101 Military Technologies

This instructional program class comprises any program that prepares individuals to undertake advanced and specialized leadership and technical responsibilities for the armed services and related national security organizations. These programs include courses in such areas as weapons systems and technology, communications, intelligence, management, logistics, and strategy.

Examples of included programs
- Defence management and policy
- Defence studies
- Land force technical staff programme
- Military and strategic studies
- Military arts and science
- Military history
- Military psychology and leadership
- Military science
- Military studies
- War studies

Examples of excluded programs
- Military engineering [*see* 14.9999 Engineering, Other]
- Reserve Cooperative Education Program [*see* 28.0501 Reserve Entry Scheme for Officers in the Armed Forces]
- Reserve Entry Scheme for Officers (RESO) [*see* 28.0501 Reserve Entry Scheme for Officers in the Armed Forces]
- War and peace studies [*see* 30.0501 Peace Studies and Conflict Resolution]
- Holocaust and genocide studies [*see* 30.2101 Holocaust and Related Studies]
- Royal Canadian Mounted Police (RCMP) [*see* 43.0107 Criminal Justice/Police Science]

30. Multidisciplinary/Interdisciplinary Studies

This series comprises instructional programs that derive from two or more distinct programs to provide a cross-cutting focus on a subject concentration that is not subsumed under a single discipline or occupational field.

30.01 Biological and Physical Sciences

This subseries comprises instructional program class 30.0101.

30.0101 Biological and Physical Sciences

This instructional program class comprises any program that is either a general synthesis of one or more of the biological and physical sciences, or a specialization which draws from the biological and physical sciences.

Example of included programs
- Biological and physical sciences

Examples of excluded programs
- General science [*see* 24.0102 General Studies]
- Biological sciences [*see* 26.0101 Biology/Biological Sciences, General]
- Biophysics [*see* 26.0203 Biophysics]
- Natural sciences [*see* 30.1801 Natural Sciences]
- Physical sciences [*see* 40.0101 Physical Sciences, General]

30.05 Peace Studies and Conflict Resolution

This subseries comprises instructional program class 30.0501.

30.0501 Peace Studies and Conflict Resolution

This instructional program class comprises any program that focuses on the origins, resolution and prevention of international and inter-group conflicts. These programs include courses in peace research methods and related social scientific and psychological knowledge bases.

Examples of included programs
- Conflict resolution studies
- Peace and conflict studies
- Peace studies
- War and peace studies

Examples of excluded programs
- International human rights law (graduate level) [*see* 22.0209 International Law and Legal Studies (LLM, JSD/SJD)]
- International studies [*see* 30.2001 International/Global Studies]
- International relations [*see* 45.0901 International Relations and Affairs]

30.06 Systems Science and Theory

This subseries comprises instructional program class 30.0601.

30.0601 Systems Science and Theory

This instructional program class comprises any program with a multidisciplinary approach to the analysis and solution of complex problems requiring a combined approach using data and models from the natural, social, technological, behavioural and life sciences, and other specialized fields.

Examples of included programs
- Systems science
- Systems science and theory

Examples of excluded programs
- Information science [*see* 11.0401 Information Science/Studies]
- Systems engineering [*see* 14.2701 Systems Engineering]
- Mathematics and computer science [*see* 30.0801 Mathematics and Computer Science]

30.08 Mathematics and Computer Science

This subseries comprises instructional program class 30.0801.

30.0801 Mathematics and Computer Science

This instructional program class comprises any program with a general synthesis of mathematics and computer science or a specialization which draws from mathematics and computer science.

Example of included programs
- Mathematics and computer science

Examples of excluded programs
- Computer science [*see* 11.0701 Computer Science]
- Mathematics education [*see* 13.1311 Mathematics Teacher Education]
- Mathematical sciences [*see* 27.0301 Applied Mathematics, General]
- Computational mathematics [*see* 27.0303 Computational Mathematics]
- Accounting and computer science [*see* 30.1601 Accounting and Computer Science]

30.10 Biopsychology

This subseries comprises instructional program class 30.1001.

30.1001 Biopsychology

This instructional program class comprises any program that focuses on biological and psychological linkages, especially the linkages between biochemical and biophysical activity and the functioning of the central nervous system.

Example of included programs
- Biopsychology

Example of excluded programs
- Psychobiology [*see* 42.1101 Physiological Psychology/Psychobiology]

30.11 Gerontology

This subseries comprises instructional program class 30.1101.

30.1101 Gerontology

This instructional program class comprises any program that focuses on the human aging process and aged human populations, using the knowledge and methodologies of the social sciences, psychology and the biological and health sciences.

Examples of included programs
- Activation coordinator/gerontology
- Gerontology
- Gerontology—recreation and leisure
- Gerontology—studies in aging

Examples of excluded programs
- Gerontological services [*see* 19.0702 Adult Development and Aging]
- Leisure studies [*see* 31.0101 Parks, Recreation and Leisure Studies]
- Geropsychology [*see* 42.2201 Geropsychology]
- Social work [*see* 44.0701 Social Work, General]
- Adult health nursing [*see* 51.1603 Adult Health Nurse/Nursing]
- Geriatric medicine—residency [*see* 60.0222 Geriatric Medicine Residency Programs]
- Geriatric medicine (internal medicine)—residency [*see* 60.0268 Geriatric Medicine (Internal Medicine) Residency Programs]

30.12 Historic Preservation and Conservation

This subseries comprises instructional program classes 30.1201 to 30.1299.

30.1201 Historic Preservation and Conservation, General

This instructional program class comprises any program that focuses on the architectural design principles and building techniques used in historic structures and environments, and the process of saving and restoring old buildings and districts for contemporary use and enjoyment. These programs include courses in architectural history; building conservation techniques; real estate, land-use and tax laws and codes; economics and public policy; and public relations.

Examples of included programs
- Historic preservation
- Historic preservation and conservation

Examples of excluded programs
- Environmental conservation [*see* 03.0101 Natural Resources/Conservation, General]
- Museum studies [*see* 30.1401 Museology/Museum Studies]
- Art conservation [*see* 50.0703 Art History, Criticism and Conservation]
- Archival studies [*see* 54.0105 Public/Applied History and Archival Administration]

30.1202 Cultural Resource Management and Policy Analysis

This instructional program class comprises any program that focuses on the application of cultural studies, public policy analysis, and management skills to planning, promoting, and implementing programs to preserve and protect cultural heritage sites and artifacts. These programs include courses in historical preservation and conservation, business management, policy analysis, applied economics, public relations, applied history, historical archeology, and environmental impact studies.

Examples of included programs
- Cultural resource management
- Cultural resource management and policy analysis

Examples of excluded programs
- Historic preservation and conservation [*see* 30.1201 Historic Preservation and Conservation, General]
- Public policy analysis [*see* 44.0501 Public Policy Analysis]
- Archeology [*see* 45.0301 Archeology]
- Archival studies [*see* 54.0105 Public/Applied History and Archival Administration]

30.1299 Historic Preservation and Conservation, Other

This instructional program class comprises any program not listed above that relates to Historic Preservation and Conservation.

30.13 Medieval and Renaissance Studies

This subseries comprises instructional program class 30.1301.

30.1301 Medieval and Renaissance Studies

This instructional program class comprises any program that focuses on the study of the Medieval and Renaissance periods in European and circum- Mediterranean history from the perspective of various disciplines in the humanities and social sciences, including history and archeology, as well as studies of period art and music.

Examples of included programs
- Ancient and medieval philosophy
- Medieval studies
- Renaissance studies

Examples of excluded programs
- Ancient studies [*see* 30.2201 Ancient Studies/Civilization]
- Classical studies [*see* 30.2202 Classical, Ancient Mediterranean and Near Eastern Studies and Archeology]
- Archeology [*see* 45.0301 Archeology]
- Ancient history [*see* 54.0199 History, Other]
- Medieval history [*see* 54.0199 History, Other]

30.14 Museology/Museum Studies

This subseries comprises instructional program class 30.1401.

30.1401 Museology/Museum Studies

This instructional program class comprises any program that focuses on the attitudes, knowledge, and skills required to develop, prepare, organize, administer, conserve, store and retrieve artifacts, exhibits and entire collections in museums and galleries, and that prepares individuals to assume curatorial, technical and managerial positions in museums. These programs include courses in institutional management, acquisition, exhibit design, conservation, packing techniques, and public relations.

Examples of included programs
- Applied museum studies
- Museology
- Museum curator
- Museum management
- Museum studies
- Museum technology

Examples of excluded programs
- Historic preservation and conservation [*see* 30.1201 Historic Preservation and Conservation, General]
- Archeology [*see* 45.0301 Archeology]
- Art conservation [*see* 50.0703 Art History, Criticism and Conservation]
- Archival studies [*see* 54.0105 Public/Applied History and Archival Administration]

30.15 Science, Technology and Society

This subseries comprises instructional program class 30.1501.

30.1501 Science, Technology and Society

This instructional program class comprises any program that focuses on the contemporary social and public policy ramifications of science and technology, the interrelationship of science and engineering with the public policy process, and the social and ethical dimensions of scientific and technological enterprises.

Example of included programs
- Science, technology and society

Examples of excluded programs
- Ethics [*see* 38.0103 Ethics]
- Bioethics [*see* 51.3201 Bioethics/Medical Ethics]
- History and philosophy of science [*see* 54.0104 History and Philosophy of Science and Technology]

30.16 Accounting and Computer Science

This subseries comprises instructional program class 30.1601.

30.1601 Accounting and Computer Science

This instructional program class comprises any program that combines accounting with computer science and/or computer studies.

Examples of included programs
- Accounting and computer programming
- Accounting and computer science
- Accounting and computer studies

Examples of excluded programs
- Computer science [*see* 11.0701 Computer Science]
- Mathematics and computer science [*see* 30.0801 Mathematics and Computer Science]
- Accounting [*see* 52.0301 Accounting]
- Computerized accounting [*see* 52.0302 Accounting Technology/Technician and Bookkeeping]

30.17 Behavioural Sciences

This subseries comprises instructional program class 30.1701.

30.1701 Behavioural Sciences

This instructional program class comprises any program with a combined or undifferentiated focus on the social sciences, psychology, and biomedical sciences to study complex problems of human individual and social growth and behaviour.

Examples of included programs
- Applied behavioural sciences
- Basic behavioural science
- Behavioural science
- Behavioural science technology
- Behavioural sciences

Examples of excluded programs
- Animal behaviour [*see* 26.0708 Animal Behaviour and Ethology]
- Behavioural neuroscience [*see* 30.2401 Neuroscience]
- Cognitive science [*see* 30.2501 Cognitive Science]
- Human psychology [*see* 42.9999 Psychology, Other]
- Organizational behaviour [*see* 52.1003 Organizational Behaviour Studies]

30.18 Natural Sciences

This subseries comprises instructional program class 30.1801.

30.1801 Natural Sciences

This instructional program class comprises any program with a combined or undifferentiated focus on one or more of the physical and biological sciences.

Example of included programs
- Natural sciences

Examples of excluded programs
- Natural resources [*see* 03.0101 Natural Resources/Conservation, General]
- Environmental science [*see* 03.0104 Environmental Science]
- Biological sciences [*see* 26.0101 Biology/Biological Sciences, General]
- Biochemistry [*see* 26.0202 Biochemistry]
- Physical sciences [*see* 40.0101 Physical Sciences, General]

30.19 Nutrition Sciences

This subseries comprises instructional program class 30.1901.

30.1901 Nutrition Sciences

This instructional program class comprises any scientific program that focuses on the utilization of food for human growth and metabolism, in both normal and dysfunctional states, from the interdisciplinary perspective of the agricultural, human, biological, and biomedical sciences. These programs include courses in food science, biochemistry, physiology, dietetics, food and nutrition studies, biotechnology, biophysics, and the clinical sciences.

Examples of included programs
- Human nutritional sciences
- Nutrition and nutraceutical sciences
- Nutrition science
- Nutritional science

Examples of excluded programs
- Animal nutrition [*see* 01.0904 Animal Nutrition]
- Food science [*see* 01.1001 Food Science]
- Food and nutrition [*see* 19.0501 Foods, Nutrition and Wellness Studies, General]
- Human nutrition [*see* 19.0504 Human Nutrition]
- Dietetics [*see* 51.3101 Dietetics/Dietitian (RD)]
- Nutritionist [*see* 51.3102 Clinical Nutrition/Nutritionist]
- Holistic nutrition [*see* 51.3199 Dietetics and Clinical Nutrition Services, Other]

30.20 International/Global Studies

This subseries comprises instructional program class 30.2001.

30.2001 International/Global Studies

This instructional program class comprises any program that focuses on global and international issues from the perspective of the social sciences, social services, and related fields.

Examples of included programs
- Global studies
- International studies

Examples of excluded programs
- International law (graduate level) [*see* 22.0209 International Law and Legal Studies (LLM, JSD/SJD)]
- Peace and conflict studies [*see* 30.0501 Peace Studies and Conflict Resolution]
- International development studies [*see* 45.0604 Development Economics and International Development]
- International affairs [*see* 45.0901 International Relations and Affairs]

30.21 Holocaust and Related Studies

This subseries comprises instructional program class 30.2101.

30.2101 Holocaust and Related Studies

This instructional program class comprises any program that focuses on genocide in human history with particular reference to twentieth century genocides such as that of the Ottoman Armenians during World War I and the Nazi Holocaust during World War II. Programs also focus on topics such as survivor studies and counselling, war crimes research and prevention, reconciliation and compensation, ethical and spiritual issues, holocaust art and literature, and legacy and effect in relation to subsequent generations.

Examples of included programs
- Holocaust and genocide studies
- Holocaust studies

Examples of excluded programs
- Peace and conflict studies [*see* 30.0501 Peace Studies and Conflict Resolution]
- Jewish studies [*see* 38.0206 Jewish/Judaic Studies]
- Historical studies [*see* 54.0101 History, General]
- Archival studies [*see* 54.0105 Public/Applied History and Archival Administration]

30.22 Classical and Ancient Studies

This subseries comprises instructional program classes 30.2201 and 30.2202.

30.2201 Ancient Studies/Civilization

This instructional program class comprises any program that focuses on Western and non-Western cultures and related topics in the periods of prehistory and antiquity. These programs include courses in such disciplines as ancient languages, archeology, history, art history, geography, population studies, environmental studies, religious studies, and the social sciences.

Example of included programs
- Ancient studies

Examples of excluded programs
- Ancient and medieval philosophy [*see* 30.1301 Medieval and Renaissance Studies]
- Ancient Greek and Roman studies [*see* 30.2202 Classical, Ancient Mediterranean and Near Eastern Studies and Archeology]
- Archeology [*see* 45.0301 Archeology]
- Ancient history [*see* 54.0199 History, Other]
- Medieval history [*see* 54.0199 History, Other]

30.2202 Classical, Ancient Mediterranean and Near Eastern Studies and Archeology

This instructional program class comprises any program that focuses on the cultures, environment, and history of the ancient Near East, Europe, and the Mediterranean basin from the perspective of the humanities and social sciences, including archeology.

Examples of included programs
- Ancient Greek and Roman studies
- Byzantine civilization
- Classical civilization
- Classical studies
- Greek and Roman studies

Examples of excluded programs
- Near and Middle Eastern civilizations [*see* 05.0108 Near and Middle Eastern Studies]
- Classical languages [*see* 16.1200 Classics and Classical Languages, Literatures and Linguistics, General]
- Ancient studies [*see* 30.2201 Ancient Studies/Civilization]
- Archeology [*see* 45.0301 Archeology]

30.23 Intercultural/Multicultural and Diversity Studies

This subseries comprises instructional program class 30.2301.

30.2301 Intercultural/Multicultural and Diversity Studies

This instructional program class comprises any program that focuses on the dynamic social relations between and among majority and minority groups and different minority groups, and ways to promote mutual tolerance, inter-group cooperation, and the leadership and management of diverse groups and diversity issues in family, educational, recreational, and work settings. These programs include courses in ethnic and cultural studies, group psychology, sociology, anthropology, conflict resolution, human services and resources, and applications to various functional environments.

Example of included programs
- Intercultural studies

Examples of excluded programs
- Aboriginal studies [*see* 05.0202 Aboriginal Studies]
- Women's/gender studies [*see* 05.0207 Women's Studies]
- Multicultural education [*see* 13.0202 Multicultural Education]

30.24 Neuroscience

This subseries comprises instructional program class 30.2401.

30.2401 Neuroscience

This instructional program class comprises any program that focuses on the interdisciplinary scientific study of the molecular, structural, physiologic, cognitive, and behavioural aspects of the brain and nervous system. These programs include courses in molecular and cellular neuroscience, brain science, anatomy and physiology of the central nervous system, molecular and biochemical bases of information processing, behavioural neuroscience, biology of neuropsychiatric disorders, and applications to the clinical sciences and biomedical engineering.

Examples of included programs
- Behavioural neuroscience
- Neuroscience
- Neurosciences

Examples of excluded programs
- Neuroanatomy [*see* 26.0405 Neuroanatomy]
- Neurobiology [*see* 26.0906 Neurobiology and Neurophysiology]
- Neurophysiology [*see* 26.0906 Neurobiology and Neurophysiology]
- Neuropharmacology [*see* 26.1003 Neuropharmacology]
- Cognitive science [*see* 30.2501 Cognitive Science]
- Neurology—residency [*see* 60.0234 Neurology Residency Programs]

30.25 Cognitive Science

This subseries comprises instructional program class 30.2501.

30.2501 Cognitive Science

This instructional program class comprises any program that focuses on the study of the mind and the nature of intelligence from the interdisciplinary perspectives of computer science, philosophy, mathematics, psychology, neuroscience, and other disciplines. These programs include courses in mathematics and logic, cognitive process modelling, dynamic systems, learning theories, brain and cognition, neural networking, programming, and applications to topics such as language acquisition, computer systems, and perception and behaviour.

Example of included programs
- Cognitive science

Examples of excluded programs
- Behavioural science [*see* 30.1701 Behavioural Sciences]
- Neuroscience [*see* 30.2401 Neuroscience]
- Cognitive and motivational psychology [*see* 42.0301 Cognitive Psychology and Psycholinguistics]

30.99 Multidisciplinary/Interdisciplinary Studies, Other

This subseries comprises instructional program class 30.9999.

30.9999 Multidisciplinary/Interdisciplinary Studies, Other

This instructional program class comprises any program not listed above that relates to Multidisciplinary/Interdisciplinary Studies.

Example of included programs
- Interdisciplinary studies

Examples of excluded programs
- Mathematics and computer science [*see* 30.0801 Mathematics and Computer Science]
- Behavioural science [*see* 30.1701 Behavioural Sciences]
- Ancient studies [*see* 30.2201 Ancient Studies/Civilization]

31. Parks, Recreation, Leisure and Fitness Studies

This series comprises instructional programs that focus on the principles and practices of managing parks and other recreational and fitness facilities; providing recreational, leisure and fitness services; and the study of human fitness.

31.01 Parks, Recreation and Leisure Studies

This subseries comprises instructional program class 31.0101.

31.0101 Parks, Recreation and Leisure Studies

This instructional program class comprises any program that focuses on the principles underlying recreational and leisure activities, and the practices involved in providing indoor and outdoor recreational facilities and services for the general public.

Examples of included programs
- Community recreation
- Forest recreation technician
- Hiking guide
- Hunting and fishing guide
- Leisure sciences
- Leisure studies
- Outdoor recreation leadership
- Outdoor recreation technician
- Recreation and community leadership
- Recreation and leisure
- Recreation leadership
- Recreation service delivery
- Recreation studies
- Recreation technology
- Recreology
- Sustainable outdoor recreation
- Wildland recreation

Examples of excluded programs
- Forest management [*see* 03.0506 Forest Management/Forest Resources Management]
- Tourism and travel management [*see* 52.0903 Tourism and Travel Services Management]

31.03 Parks, Recreation and Leisure Facilities Management

This subseries comprises instructional program class 31.0301.

31.0301 Parks, Recreation and Leisure Facilities Management

This instructional program class comprises any program that prepares individuals to develop and manage park facilities and other indoor and outdoor recreation and leisure facilities. These programs include courses in supervising support personnel, health and safety standards, public relations, and basic business and marketing principles.

Examples of included programs
- Leisure and recreation services management
- Leisure service administration
- Outdoor recreation management
- Parks management
- Recreation administration
- Recreation and leisure management
- Recreation club management
- Recreation entrepreneur
- Recreation facilities management
- Recreation management

Examples of excluded programs
- Forest management [*see* 03.0506 Forest Management/Forest Resources Management]
- Golf club management [*see* 31.0504 Sport and Fitness Administration/Management]
- Sports administration [*see* 31.0504 Sport and Fitness Administration/Management]

31.05 Health and Physical Education/Fitness

This subseries comprises instructional program classes 31.0501 to 31.0599.

31.0501 Health and Physical Education, General

This instructional program class comprises any general program that focuses on activities and principles that promote physical fitness, achieve and maintain athletic prowess, and accomplish related research and service goals. These programs include courses in human movement studies, motivation studies, rules and practice of specific sports, exercise and fitness principles and techniques, basic athletic injury prevention and treatment, and organizing and leading fitness and sports programs.

Examples of included programs
- Aerobics instructor
- Athletic/sport coach
- Coaching
- Exercise and sports science
- Figure skating
- Figure skating coaching
- Fitness and exercise leadership
- Fitness and health
- Fitness and health promotion
- Fitness and lifestyle management
- Fitness instructor
- Fitness leadership
- Fitness training
- Golf professional
- Gymnastics
- Gymnastics coaching
- Health and fitness studies
- Martial arts
- Personal fitness trainer
- Personal training
- Physical activity and sport studies
- Physical activity studies
- Physical and health education
- Physical education
- Physical education and health
- Physical education and recreation
- Physical education—outdoor pursuits stream
- Physical fitness and leisure management
- Professional hockey
- Ski instructor
- Soccer
- Sport and exercise studies

Examples of excluded programs
- Health teacher education [*see* 13.1307 Health Teacher Education]
- Physical education teaching [*see* 13.1314 Physical Education Teaching and Coaching]
- Sports and exercise [*see* 36.0108 Sports and Exercise]
- Dance [*see* 50.0301 Dance, General]
- Athletic training/trainer [*see* 51.0913 Athletic Training/Trainer]
- Sports medicine—residency [*see* 60.0261 Sports Medicine Residency Programs]

31.0504 Sport and Fitness Administration/Management

This instructional program class comprises any program that prepares individuals to apply business, coaching and physical education principles to the organization, administration and management of athletic programs and teams, fitness/rehabilitation facilities and health clubs, sport recreation services, and related services. These programs include courses in program planning and development; business and financial management principles; sales, marketing and recruitment; event promotion, scheduling and management; facilities management; public relations; legal aspects of sports; and applicable health and safety standards.

Examples of included programs
- Arena management
- Golf club management
- Golf club management and operations
- Golf course management
- Golf course superintendent
- Golf management
- Leisure and sport management
- Professional golf management
- Recreation and sport management
- Recreation and sports administration
- Social and managerial studies in leisure and sport
- Sports administration
- Sports management

Examples of excluded programs
- Equestrian management [*see* 01.0507 Equestrian/Equine Studies]
- Turfgrass management [*see* 01.0607 Turf and Turfgrass Management]
- Facilities management [*see* 19.0604 Facilities Planning and Management]
- Fitness and lifestyle management [*see* 31.0501 Health and Physical Education, General]
- Physical fitness and leisure management [*see* 31.0501 Health and Physical Education, General]
- Sport and exercise studies [*see* 31.0501 Health and Physical Education, General]
- Events and convention management [*see* 52.0903 Tourism and Travel Services Management]
- Ski resort management [*see* 52.0906 Resort Management]
- Sport and event marketing [*see* 52.1910 Hospitality and Recreation Marketing Operations]

31.0505 Kinesiology and Exercise Science

This instructional program class comprises any scientific program that focuses on the anatomy, physiology, biochemistry, and biophysics of human movement, and applications to exercise and therapeutic rehabilitation. These programs include courses in biomechanics, motor behaviour, motor development and coordination, motor neurophysiology, performance research, rehabilitative therapies, the development of diagnostic and rehabilitative methods and equipment, and related analytical methods and procedures in applied exercise and therapeutic rehabilitation.

Examples of included programs
- Biomechanics
- Exercise sciences
- Human kinetics
- Human performance
- Kinanthropology
- Kinesiology
- Kinesiology and health science
- Kinesiology and sport studies

Examples of excluded programs
- Exercise physiology [*see* 26.0908 Exercise Physiology]
- Exercise and sports science [*see* 31.0501 Health and Physical Education, General]
- Athletic training/trainer [*see* 51.0913 Athletic Training/Trainer]
- Physiotherapy [*see* 51.2308 Physical Therapy/Therapist]
- Kinesiotherapy [*see* 51.2311 Kinesiotherapy/Kinesiotherapist]

31.0599 Health and Physical Education/Fitness, Other

This instructional program class comprises any program not listed above that relates to Health and Physical Education/Fitness.

Examples of included programs
- Applied sport science and coaching
- Sports equipment specialist

Examples of excluded programs
- Physical therapy [*see* 51.2308 Physical Therapy/Therapist]
- Kinesiotherapy [*see* 51.2311 Kinesiotherapy/Kinesiotherapist]

31.99 Parks, Recreation, Leisure and Fitness Studies, Other

This subseries comprises instructional program class 31.9999.

31.9999 Parks, Recreation, Leisure and Fitness Studies, Other

This instructional program class comprises any program not listed above that relates to Parks, Recreation, Leisure and Fitness Studies.

Examples of included programs
- Casino dealer
- Gaming attendant

Example of excluded programs
- Radio and television [*see* 09.0701 Radio and Television]

32. Basic Skills. This series is found in chapter V.

33. Citizenship Activities. This series is found in chapter V.

34. Health-related Knowledge and Skills. This series is found in chapter V.

35. Interpersonal and Social Skills. This series is found in chapter V.

36. Leisure and Recreational Activities. This series is found in chapter V.

37. Personal Awareness and Self-improvement. This series is found in chapter V.

38. Philosophy and Religious Studies

This series comprises instructional programs that focus on logical inquiry, philosophical analysis, and the academic study of organized systems of belief and religious practices.

38.01 Philosophy, Logic and Ethics

This subseries comprises instructional program classes 38.0101 to 38.0199.

38.0101 Philosophy

This instructional program class comprises any program that focuses on ideas and their logical structure, including arguments and investigations about abstract and real phenomena. These programs include courses in logic, ethics, aesthetics, epistemology, metaphysics, symbolism, and history of philosophy, and applications to the theoretical foundations and methods of other disciplines.

Example of included programs
- Philosophy

Examples of excluded programs
- Philosophy of education [*see* 13.0901 Social and Philosophical Foundations of Education]
- Religious studies [*see* 38.0201 Religion/Religious Studies, General]
- Philosophy of religion [*see* 38.0299 Religion/Religious Studies, Other]
- Philosophy and theology [*see* 38.9999 Philosophy and Religious Studies, Other]
- Philosophy of science and technology [*see* 54.0104 History and Philosophy of Science and Technology]

38.0102 Logic

This instructional program class comprises any program that focuses on the systematic study of valid inference, argument, and sound reasoning. These programs include courses in classical logic, properties of argument, validity, proof, fallacies, formal and material logic, symbolic and mathematical logic, analysis, specific schools of logic, and applications to problems in other academic disciplines and professional fields.

Example of included programs
- Logic

Examples of excluded programs
- Computing and information science [*see* 11.0101 Computer and Information Sciences, General]
- Artificial intelligence [*see* 11.0102 Artificial Intelligence and Robotics]
- Mathematics [*see* 27.0101 Mathematics, General]
- Topology [*see* 27.0105 Topology and Foundations]
- Cognitive science [*see* 30.2501 Cognitive Science]

38.0103 Ethics

This instructional program class comprises any program that focuses on the systematic study of the theory of moral good and its application to various theoretical and practical problems. These programs include courses in ethical theory, history of ethics, belief and value systems, ethical constructs, and applications to specific topics, issues and problems.

Examples of included programs
- Business ethics
- Christian ethics
- Ethics
- Ethics studies
- Religious ethics
- Social ethics
- Value theory and applied ethics

Examples of excluded programs
- Science, technology and society [*see* 30.1501 Science, Technology and Society]
- Bioethics [*see* 51.3201 Bioethics/Medical Ethics]

38.0199 Philosophy, Logic and Ethics, Other

This instructional program class comprises any program not listed above that relates to Philosophy, Logic and Ethics.

Examples of included programs
- Aesthetic philosophy
- Eastern philosophy
- Epistemology
- European philosophy
- Existentialism
- Feminist philosophy
- German philosophy
- Greek philosophy
- History of philosophy
- Metaphysics
- Phenomenology
- Philosophy in interdisciplinary leadership studies
- Philosophy of language
- Philosophy of mind
- Philosophy of science
- Theory and criticism

Examples of excluded programs
- Legal philosophy [*see* 22.9999 Legal Professions and Studies, Other]
- History and philosophy of religion [*see* 38.9999 Philosophy and Religious Studies, Other]
- Political philosophy [*see* 45.1001 Political Science and Government, General]
- History and philosophy of art [*see* 50.0703 Art History, Criticism and Conservation]
- Philosophy of science and technology [*see* 54.0104 History and Philosophy of Science and Technology]

38.02 Religion/Religious Studies

This subseries comprises instructional program classes 38.0201 to 38.0299.

38.0201 Religion/Religious Studies, General

This instructional program class comprises any program that focuses on the nature of religious belief and specific religious and quasi-religious systems. These programs include courses in phenomenology; the sociology, psychology, philosophy, anthropology, literature and art of religion; mythology; scriptural and textual studies; religious history and politics; and specific studies of particular faith communities and their behaviour.

Examples of included programs
- Comparative religion
- Religion
- Religious studies
- World religions

Examples of excluded programs
- Buddhist studies [*see* 38.0202 Buddhist Studies]
- Anglican studies [*see* 38.0203 Christian Studies]
- Hindu religion [*see* 38.0204 Hindu Studies]
- Islamic religion and thought [*see* 38.0205 Islamic Studies]
- Asian religions [*see* 38.0299 Religion/Religious Studies, Other]
- Bible studies [*see* 39.0201 Bible/Biblical Studies]
- Religious education [*see* 39.0401 Religious Education]
- Priesthood [*see* 39.0602 Divinity/Ministry (BDiv, MDiv)]
- Rabbinical studies [*see* 39.0605 Rabbinical Studies (MHL/Rav)]
- Talmudic law [*see* 39.0606 Talmudic Studies]

38.0202 Buddhist Studies

This instructional program class comprises any program that focuses on the philosophy preached by Siddartha Gautama, the Buddha, in ancient India and subsequently interpreted by his disciples and apostles; together with the intellectual, cultural, social, and ritual developments of the faith and its branches. These programs include courses in Buddhist sacred literature (Tipitaka, etc.) and study of one or more of the main branches including Early Buddhism, Hinayana, Theravada, Madhyamaka, Yogacara, Pure Land, Shingon, Tendai, Nichiren Shu, Zen, Tibetan, Chinese, Korean, Vietnamese, and others.

Examples of included programs
- Buddhism
- Buddhist studies
- Tibetan Buddhism
- Zen Buddhism

Examples of excluded programs
- Tibetan studies [*see* 05.0131 Tibetan Studies]
- Religious education [*see* 39.0401 Religious Education]

38.0203 Christian Studies

This instructional program class comprises any program that focuses on the philosophy and teachings of Jesus Christ and his apostles, and the subsequent intellectual and cultural movements and institutions based on Christianity. These programs include courses in Christian sacred scripture, Christian literature and philosophy, and studies of one or more of the main branches of the faith and their cultural context including Orthodoxy, Roman Catholicism, Protestantism, Evangelicalism, and others.

Examples of included programs
- Anglican studies
- Christian origins
- Christian studies
- Christianity and culture
- Eastern Christian studies

Examples of excluded programs
- Bible studies [*see* 39.0201 Bible/Biblical Studies]
- Christian education [*see* 39.0401 Religious Education]
- Theological studies [*see* 39.0601 Theology/Theological Studies]
- Clergy [*see* 39.0602 Divinity/Ministry (BDiv, MDiv)]
- Pastoral studies [*see* 39.0701 Pastoral Studies/Counselling]

38.0204 Hindu Studies

This instructional program class comprises any program that focuses on the group of South Asian theologies and philosophies collectively known as Hinduism; together with the religious history and cultural and social manifestations of the faith. These programs include courses in Hindu theology and philosophy (dharma); literature (Vedas, Upanishads, Epics, and commentaries); the Hindu Pantheon, sects, and movements; schools and disciplines; and related arts and sciences.

Examples of included programs
- Hindu religion
- Hinduism
- Modern Hinduism

Examples of excluded programs
- Hindi [*see* 16.0701 Hindi Language and Literature]
- World religions [*see* 38.0201 Religion/Religious Studies, General]
- Religious education [*see* 39.0401 Religious Education]

38.0205 Islamic Studies

This instructional program class comprises any program that focuses on Islam as preached by the Prophet Muhammad in 6th century Arabia and subsequently interpreted and elaborated by Islamic scholars and others; together with the cultural and social milieu related to the faith in various periods, localities, and branches. These programs include courses in Islamic scripture and related written authorities and commentaries (Qur'an, Hadith, Sunnah, Tafsir, Sirah); Islamic law and jurisprudence; Sufism; the various branches including Sunni, Shi'ia, Ahmaddiyyah, and others; and the development of Islamic religion and society from the beginnings to the present.

Examples of included programs
- Islamic philosophy and thought
- Islamic religion and thought
- Islamic studies

Examples of excluded programs
- Near and Middle Eastern civilizations [*see* 05.0108 Near and Middle Eastern Studies]
- World religions [*see* 38.0201 Religion/Religious Studies, General]
- Religious education [*see* 39.0401 Religious Education]
- Middle East history [*see* 54.0199 History, Other]

38.0206 Jewish/Judaic Studies

This instructional program class comprises any program that focuses on the history, culture, and religion of the Jewish people. These programs include courses in Jewish religious heritage, sacred texts, and law; Jewish philosophy and intellectual history; Jewish life and culture, both in Israel and the Jewish Diaspora; historical Jewish minority cultures such as the Yiddish, Sephardic, and others; anti-Semitism, gentile relations and Shoa; Zionism; and modern developments within Judaism.

Examples of included programs
- Jewish studies
- Judaic studies

Examples of excluded programs
- Hebrew [*see* 16.1102 Hebrew Language and Literature]
- Biblical languages [*see* 16.1103 Ancient Near Eastern and Biblical Languages, Literatures and Linguistics]
- Holocaust and genocide studies [*see* 30.2101 Holocaust and Related Studies]
- Hebrew Bible [*see* 39.0201 Bible/Biblical Studies]
- Religious education [*see* 39.0401 Religious Education]
- Rabbinical studies [*see* 39.0605 Rabbinical Studies (MHL/Rav)]
- Jewish law [*see* 39.0606 Talmudic Studies]

38.0299 Religion/Religious Studies, Other

This instructional program class comprises any program not listed above that relates to Religion/Religious Studies.

Examples of included programs
- Asian religions
- Church history
- Eastern and Native American religious traditions
- History of religion
- History of religious movements and institutions
- Interpretations of religion
- Native American religious traditions
- Nature of religion
- Philosophy of religion
- Religion and culture
- Taoism
- Taoist philosophy
- Western religions
- Western religious traditions
- Women in religion

Example of excluded programs
- Religious education [*see* 39.0401 Religious Education]

38.99 Philosophy and Religious Studies, Other

This subseries comprises instructional program class 38.9999.

38.9999 Philosophy and Religious Studies, Other

This instructional program class comprises any program not listed above that relates to Philosophy and Religious Studies.

Examples of included programs
- History and philosophy of religion
- Philosophy and theology
- Religion, culture and ethics

Example of excluded programs
- Theology [*see* 39.0601 Theology/Theological Studies]

39. Theology and Religious Vocations

This series comprises instructional programs that focus on the intramural study of theology and that prepare individuals for the professional practice of religious vocations.

39.02 Bible/Biblical Studies

This subseries comprises instructional program class 39.0201.

39.0201 Bible/Biblical Studies

This instructional program class comprises any program that focuses on the Christian and/or Jewish Bible and related literature, with an emphasis on understanding and interpreting the theological, doctrinal, and ethical messages contained therein. May include preparation for applying these studies in various religious vocations.

Examples of included programs
- Bible studies
- Bible study
- Biblical studies
- Hebrew Bible
- New Testament
- New Testament studies
- Old Testament studies

Examples of excluded programs
- Biblical literature [*see* 16.1103 Ancient Near Eastern and Biblical Languages, Literatures and Linguistics]
- Religious studies [*see* 38.0201 Religion/Religious Studies, General]
- Christian studies [*see* 38.0203 Christian Studies]
- Jewish studies [*see* 38.0206 Jewish/Judaic Studies]
- Sacred scripture [*see* 39.9999 Theology and Religious Vocations, Other]

39.03 Missions/Missionary Studies and Missiology

This subseries comprises instructional program class 39.0301.

39.0301 Missions/Missionary Studies and Missiology

This instructional program class comprises any program that focuses on the theory and practice of religious outreach, social service and proselytization, and that prepares individuals for mission vocations. These programs include courses in theology, evangelism, preaching, medical and social mission work, missionary education, missionary aviation, emergency services, legal and political aspects of working in other countries, and preparation for ordination as missionaries.

Examples of included programs
- Missiology
- Mission studies
- Mission studies and interreligious dialogue
- Missionary
- Missionary studies
- Missions
- Trans-cultural mission
- World missions

Examples of excluded programs
- Church ministry [*see* 39.0602 Divinity/Ministry (BDiv, MDiv)]
- Ordained clergy [*see* 39.0602 Divinity/Ministry (BDiv, MDiv)]
- Priest [*see* 39.0602 Divinity/Ministry (BDiv, MDiv)]

39.04 Religious Education

This subseries comprises instructional program class 39.0401.

39.0401 Religious Education

This instructional program class comprises any program that focuses on the theory and practice of providing educational services to members of faith communities, within the context of a particular religion, and that prepares individuals to serve as religious educators. These programs include courses in planning and teaching lessons; organizing and supervising instructional activities; designing and developing instructional materials; and administering religious education programs and facilities.

Examples of included programs
- Catechism
- Christian education
- Religious education

Examples of excluded programs
- Religious studies [*see* 38.0201 Religion/Religious Studies, General]
- Pastoral studies [*see* 39.0701 Pastoral Studies/Counselling]
- Youth and family ministry [*see* 39.0702 Youth Ministry]

39.05 Religious/Sacred Music

This subseries comprises instructional program class 39.0501.

39.0501 Religious/Sacred Music

This instructional program class comprises any program that focuses on the history, theory, composition, and performance of music for religious or sacred purposes, and that prepares individuals for religious musical vocations such as choir directors, Cantors, organists, and chanters.

Examples of included programs
- Church music
- Religious music
- Sacred music

Examples of excluded programs
- Music performance [*see* 50.0903 Music Performance, General]
- Music theory and composition [*see* 50.0904 Music Theory and Composition]
- Music conductor [*see* 50.0906 Conducting]
- Organ [*see* 50.0907 Piano and Organ]
- Piano [*see* 50.0907 Piano and Organ]
- Vocal performance [*see* 50.0908 Voice and Opera]

39.06 Theological and Ministerial Studies

This subseries comprises instructional program classes 39.0601 to 39.0699.

39.0601 Theology/Theological Studies

This instructional program class comprises any program that focuses on the beliefs and doctrine of a particular religious faith from the intramural point of view of that faith. These programs include courses in systematic theology, historical theology, moral theology, doctrinal studies, dogmatics, apologetics, and applications to specific questions of ecclesiastical polity and religious life.

Examples of included programs
- Christian theology
- Pastoral theology
- Practical theology
- Sacred theology
- Sacred theology in religious studies
- Theological studies
- Theology
- Theology and Jewish studies
- Theology in religious studies

Examples of excluded programs
- Christian studies [*see* 38.0203 Christian Studies]
- Jewish studies [*see* 38.0206 Jewish/Judaic Studies]
- Seminary [*see* 39.0604 Pretheology/Preministerial Studies]

39.0602 Divinity/Ministry (BDiv, MDiv)

This instructional program class comprises any program that prepares individuals for ordination as ministers or priests in any of the Christian religious traditions. These programs include courses in the theology and polity of a particular church, church law, liturgy and ritual, principles of pastoral ministry, homiletics, evangelism, church/parish organization and management, Christian ethics, church history, and related studies.

Examples of included programs
- Christian ministry
- Church ministry
- Clergy
- Diaconal ministry
- Divinity
- Homiletics
- Korean ministry
- Minister of religion
- Ministerial studies
- Ministry
- Native ministry
- Ordained clergy
- Ordained minister
- Pastor
- Pastoral and Chinese ministry
- Pastoral ministry
- Priest
- Priesthood
- Prison ministry
- United Church minister

Examples of excluded programs
- Missionary studies [*see* 39.0301 Missions/Missionary Studies and Missiology]
- Theology [*see* 39.0601 Theology/Theological Studies]
- Preministerial studies [*see* 39.0604 Pretheology/Preministerial Studies]
- Seminary [*see* 39.0604 Pretheology/Preministerial Studies]
- Pastoral studies [*see* 39.0701 Pastoral Studies/Counselling]
- Youth and family ministry [*see* 39.0702 Youth Ministry]

39.0604 Pretheology/Preministerial Studies

This instructional program class comprises any program that prepares individuals to enter a seminary or other program leading to religious ordination, or a related religious vocation.

Examples of included programs
- Preministerial studies
- Pretheology studies
- Seminary

Examples of excluded programs
- Theology [*see* 39.0601 Theology/Theological Studies]
- Divinity [*see* 39.0602 Divinity/Ministry (BDiv, MDiv)]
- Ministry [*see* 39.0602 Divinity/Ministry (BDiv, MDiv)]

39.0605 Rabbinical Studies (MHL/Rav)

This instructional program class comprises any program that prepares individuals for ordination as Rabbis. These programs include courses in Talmud, Halacha, Liturgy and Rituals, Rabbinical Thought, Jewish Ethics, Jewish Education, Pastoral Counselling and Homiletics.

Examples of included programs
- Rabbi
- Rabbinical studies

Examples of excluded programs
- Religious studies [*see* 38.0201 Religion/Religious Studies, General]
- Jewish studies [*see* 38.0206 Jewish/Judaic Studies]
- Hebrew Bible [*see* 39.0201 Bible/Biblical Studies]
- Talmudic law [*see* 39.0606 Talmudic Studies]

39.0606 Talmudic Studies

This instructional program class comprises any program that prepares individuals for advanced Talmudic scholarship and research and for entry into a program leading to ordination as Rabbis; students are also qualified to enter conventional graduate and professional schools. These programs include courses in Jewish Law and Jurisprudence, Philosophy, and Ethics, in addition to a major emphasis on Talmud.

Examples of included programs
- Jewish law
- Talmud
- Talmudic law
- Talmudic studies

Examples of excluded programs
- Jewish studies [*see* 38.0206 Jewish/Judaic Studies]
- Hebrew Bible [*see* 39.0201 Bible/Biblical Studies]
- Rabbinical studies [*see* 39.0605 Rabbinical Studies (MHL/Rav)]

39.0699 Theological and Ministerial Studies, Other

This instructional program class comprises any program not listed above that relates to Theological and Ministerial Studies.

Examples of included programs
- Worship and liturgy
- Worship studies

39.07 Pastoral Counselling and Specialized Ministries

This subseries comprises instructional program classes 39.0701 to 39.0799.

39.0701 Pastoral Studies/Counselling

This instructional program class comprises any program that focuses on the theory and principles of pastoral care and prepares ordained clergy to provide non-clinical pastoral counselling to individuals and groups. These programs include courses in pastoral leadership, counselling psychology; crisis intervention; individual and group procedures; theological and spiritual counselling; pastoral care; and applications to specific types of ministry.

Examples of included programs
- Christian leadership
- Lay leadership
- Pastoral
- Pastoral counselling
- Pastoral studies

Examples of excluded programs
- Theological studies [*see* 39.0601 Theology/Theological Studies]
- Clergy [*see* 39.0602 Divinity/Ministry (BDiv, MDiv)]
- Divinity [*see* 39.0602 Divinity/Ministry (BDiv, MDiv)]
- Youth pastor [*see* 39.0702 Youth Ministry]
- Clinical pastoral counselling [*see* 51.1506 Clinical Pastoral Counselling/Patient Counselling]

39.0702 Youth Ministry

This instructional program class comprises any program that prepares the ordained clergy and other religious professionals to provide spiritual, counselling, and leadership services to children, adolescents, and young adults. These programs include courses in child and adolescent psychology, human growth and development, family studies, communication skills, religious education, youth counselling, small group leadership, planning and organizing youth activities, volunteer supervision, and youth evangelism and worship.

Examples of included programs
- Children's ministries
- Youth and family ministry
- Youth ministry
- Youth pastor

Examples of excluded programs
- Child care worker [*see* 19.0709 Child Care Provider/Assistant]
- Religious education [*see* 39.0401 Religious Education]
- Pastoral studies [*see* 39.0701 Pastoral Studies/Counselling]
- Youth corrections [*see* 43.0110 Juvenile Corrections]
- Youth care worker [*see* 44.0702 Youth Services/Administration]

39.0799 Pastoral Counselling and Specialized Ministries, Other

This instructional program class comprises any program not listed above that relates to Pastoral Counselling and Specialized Ministries.

Example of included programs
- Biblical counselling

39.99 Theology and Religious Vocations, Other

This subseries comprises instructional program class 39.9999.

39.9999 Theology and Religious Vocations, Other

This instructional program class comprises any program not listed above that relates to Theology and Religious Vocations.

Examples of included programs
- Canon law
- Church law
- Historical theology
- History and theology
- Holy scripture
- Religious texts and commentaries
- Sacred scripture
- Spiritual formation
- Spirituality

Examples of excluded programs
- Asian religions [*see* 38.0299 Religion/Religious Studies, Other]
- Western religions [*see* 38.0299 Religion/Religious Studies, Other]

40. Physical Sciences

This series comprises instructional programs that focus on the scientific study of inanimate objects, processes of matter and energy, and associated phenomena.

40.01 Physical Sciences, General

This subseries comprises instructional program class 40.0101.

40.0101 Physical Sciences, General

This instructional program class comprises any program that focuses on the major topics, concepts, processes, and interrelationships of physical phenomena as studied in any combination of physical science disciplines.

Examples of included programs
- Physical sciences
- Pure and applied sciences

Examples of excluded programs
- General science [*see* 24.0102 General Studies]
- Biological and physical sciences [*see* 30.0101 Biological and Physical Sciences]
- Natural sciences [*see* 30.1801 Natural Sciences]
- Physics [*see* 40.0801 Physics, General]
- Physical science technician [*see* 41.0399 Physical Science Technologies/Technicians, Other]

40.02 Astronomy and Astrophysics

This subseries comprises instructional program classes 40.0201 to 40.0299.

40.0201 Astronomy

This instructional program class comprises any general program that focuses on the planetary, galactic, and stellar phenomena occurring in outer space. These programs include courses in celestial mechanics, cosmology, stellar physics, galactic evolution, quasars, stellar distribution and motion, interstellar medium, atomic and molecular constituents of astronomical phenomena, planetary science, solar system evolution, and specific methodologies such as optical astronomy, radioastronomy, and theoretical astronomy.

Examples of included programs
- Astronomy
- Astronomy and physics
- Radio astronomy

Examples of excluded programs
- Cosmetology [*see* 12.0401 Cosmetology/Cosmetologist, General]
- Physical sciences [*see* 40.0101 Physical Sciences, General]
- Astrophysics [*see* 40.0202 Astrophysics]
- Cosmology [*see* 40.0202 Astrophysics]
- Planetary astronomy [*see* 40.0203 Planetary Astronomy and Science]

40.0202 Astrophysics

This instructional program class comprises any program that focuses on the theoretical and observational study of the structure, properties, and behaviour of stars, star systems and clusters, stellar life cycles, and related phenomena. These programs include courses in cosmology, plasma kinetics, stellar physics, convolution and non-equilibrium radiation transfer theory, non-Euclidean geometries, mathematical modelling, galactic structure theory, and relativistic astronomy.

Examples of included programs
- Astrophysics
- Cosmology

Examples of excluded programs
- Astronomy [*see* 40.0201 Astronomy]
- Astronomy and physics [*see* 40.0201 Astronomy]
- Planetary astronomy [*see* 40.0203 Planetary Astronomy and Science]
- Physics [*see* 40.0801 Physics, General]

40.0203 Planetary Astronomy and Science

This instructional program class comprises any program that focuses on the scientific study of planets, small objects, and related gravitational systems. These programs include courses in the structure and composition of planetary surfaces and interiors, planetary atmospheres, satellites, orbital mechanics, asteroids and comets, solar system evolution and dynamics, planetary evolution, gravitational physics, and radiation physics.

Example of included programs
- Planetary astronomy

Examples of excluded programs
- Physical sciences [*see* 40.0101 Physical Sciences, General]
- Astronomy [*see* 40.0201 Astronomy]
- Astrophysics [*see* 40.0202 Astrophysics]
- Cosmology [*see* 40.0202 Astrophysics]

40.0299 Astronomy and Astrophysics, Other

This instructional program class comprises any program not listed above that relates to Astronomy and Astrophysics.

Examples of excluded programs
- Physical sciences [*see* 40.0101 Physical Sciences, General]
- Astronomy [*see* 40.0201 Astronomy]
- Astrophysics [*see* 40.0202 Astrophysics]

40.04 Atmospheric Sciences and Meteorology

This subseries comprises instructional program classes 40.0401 to 40.0499.

40.0401 Atmospheric Sciences and Meteorology, General

This instructional program class comprises any general program that focuses on the scientific study of the composition and behaviour of the atmospheric envelopes surrounding the earth, the effect of earth's atmosphere on terrestrial weather, and related problems of environment and climate. These programs include courses in atmospheric chemistry and physics, atmospheric dynamics, climatology and climate change, weather simulation, weather forecasting, climate modelling and mathematical theory; and studies of specific phenomena such as clouds, weather systems, storms, and precipitation patterns.

Example of included programs
- Atmospheric sciences

Examples of excluded programs
- Climatology [*see* 40.0402 Atmospheric Chemistry and Climatology]
- Atmospheric physics [*see* 40.0403 Atmospheric Physics and Dynamics]
- Meteorology [*see* 40.0404 Meteorology]
- Meteorological technician [*see* 40.0499 Atmospheric Sciences and Meteorology, Other]

40.0402 Atmospheric Chemistry and Climatology

This instructional program class comprises any program that focuses on the scientific study of atmospheric constituents, reactions, measurement techniques, and processes in predictive, current, and historical contexts. These programs include courses in climate modelling, gases and aerosols, trace gases, aqueous phase chemistry, sinks, transport mechanisms, computer measurement, climate variability, paleoclimatology, climate diagnosis, numerical modelling and data analysis, ionization, recombination, photoemission, and plasma chemistry.

Example of included programs
- Climatology

Examples of excluded programs
- Atmospheric sciences [*see* 40.0401 Atmospheric Sciences and Meteorology, General]
- Atmospheric physics [*see* 40.0403 Atmospheric Physics and Dynamics]
- Meteorology [*see* 40.0404 Meteorology]
- Meteorological technician [*see* 40.0499 Atmospheric Sciences and Meteorology, Other]
- Chemistry [*see* 40.0501 Chemistry, General]
- Earth sciences [*see* 40.0601 Geology/Earth Science, General]

40.0403 Atmospheric Physics and Dynamics

This instructional program class comprises any program that focuses on the scientific study of the processes governing the interactions, movement, and behavioural of atmospheric phenomena and related terrestrial and solar phenomena. These programs include courses in cloud and precipitation physics, solar radiation transfer, active and passive remote sensing, atmospheric electricity and acoustics, atmospheric wave phenomena, turbulence and boundary layers, solar wind, geomagnetic storms, coupling, natural plasma, and energization.

Example of included programs
- Atmospheric physics

Examples of excluded programs
- Atmospheric sciences [*see* 40.0401 Atmospheric Sciences and Meteorology, General]
- Climatology [*see* 40.0402 Atmospheric Chemistry and Climatology]
- Meteorology [*see* 40.0404 Meteorology]
- Meteorological technician [*see* 40.0499 Atmospheric Sciences and Meteorology, Other]
- Earth sciences [*see* 40.0601 Geology/Earth Science, General]
- Physics [*see* 40.0801 Physics, General]

40.0404 Meteorology

This instructional program class comprises any program that focuses on the scientific study of the prediction of atmospheric motion and climate change. These programs include courses in general circulation patterns, weather phenomena, atmospheric predictability, parameterization, numerical and statistical analysis, large-scale and meso-scale phenomena, kinematic structures, precipitation processes, and forecasting techniques.

Examples of included programs
- Meteorologist
- Meteorology

Examples of excluded programs
- Atmospheric sciences [*see* 40.0401 Atmospheric Sciences and Meteorology, General]
- Climatology [*see* 40.0402 Atmospheric Chemistry and Climatology]
- Atmospheric physics [*see* 40.0403 Atmospheric Physics and Dynamics]

40.0499 Atmospheric Sciences and Meteorology, Other

This instructional program class comprises any program not listed above that relates to Atmospheric Sciences and Meteorology.

Examples of included programs
- Meteorological technician
- Weather
- Weather observation
- Weather observer

Examples of excluded programs
- Atmospheric sciences [*see* 40.0401 Atmospheric Sciences and Meteorology, General]
- Climatology [*see* 40.0402 Atmospheric Chemistry and Climatology]
- Atmospheric physics [*see* 40.0403 Atmospheric Physics and Dynamics]
- Meteorology [*see* 40.0404 Meteorology]

40.05 Chemistry

This subseries comprises instructional program classes 40.0501 to 40.0599.

40.0501 Chemistry, General

This instructional program class comprises any general program that focuses on the scientific study of the composition and behaviour of matter, including its micro- and macro-structure, the processes of chemical change, and the theoretical description and laboratory simulation of these phenomena.

Examples of included programs
- Chemist
- Chemistry

Examples of excluded programs
- Chemical engineering [*see* 14.0701 Chemical Engineering]
- Biochemistry [*see* 26.0202 Biochemistry]
- Geochemistry [*see* 40.0602 Geochemistry]

40.0502 Analytical Chemistry

This instructional program class comprises any program that focuses on the scientific study of techniques for analyzing and describing matter, including its precise composition and the interrelationships of constituent elements and compounds. These programs include courses in spectroscopy, chromatography, atomic absorption, photometry, chemical modelling, mathematical analysis, laboratory analysis procedures and equipment maintenance, and applications to specific research, industrial and health problems.

Examples of included programs
- Analytical chemistry
- Chemical analysis

Examples of excluded programs
- Soil chemistry [*see* 01.1202 Soil Chemistry and Physics]
- Biochemistry [*see* 26.0202 Biochemistry]
- Chemistry [*see* 40.0501 Chemistry, General]
- Theoretical chemistry [*see* 40.0506 Physical and Theoretical Chemistry]

40.0503 Inorganic Chemistry

This instructional program class comprises any program that focuses on the scientific study of the elements and their compounds, other than the hydrocarbons and their derivatives. These programs include courses in the characterization and synthesis of non-carbon molecules, including their structure and their bonding, conductivity, and reactive properties; research techniques such as spectroscopy, X-ray diffraction, and photoelectron analysis; and the study of specific compounds, such as transition metals, and compounds composed of inorganic and organic molecules.

Example of included programs
- Inorganic chemistry

Examples of excluded programs
- Chemical engineering [*see* 14.0701 Chemical Engineering]
- Chemistry [*see* 40.0501 Chemistry, General]
- Organic chemistry [*see* 40.0504 Organic Chemistry]

40.0504 Organic Chemistry

This instructional program class comprises any program that focuses on the scientific study of the properties and behaviour of hydrocarbon compounds and their derivatives. These programs include courses in molecular conversion and synthesis, the molecular structure of living cells and systems, the mutual reactivity of organic and inorganic compounds in combination, the spectroscopic analysis of hydrocarbon compounds, and applications to specific problems in research, industry, and health.

Example of included programs
- Organic chemistry

Examples of excluded programs
- Soil chemistry [*see* 01.1202 Soil Chemistry and Physics]
- Biochemistry [*see* 26.0202 Biochemistry]
- Chemistry [*see* 40.0501 Chemistry, General]
- Inorganic chemistry [*see* 40.0503 Inorganic Chemistry]

40.0506 Physical and Theoretical Chemistry

This instructional program class comprises any program that focuses on the scientific study of the theoretical properties of matter, and the relation of physical forces and phenomena to the chemical structure and behaviour of molecules and other compounds. These programs include courses in reaction theory, calculation of potential molecular properties and behaviour, computer simulation of structures and actions, transition theory, statistical mechanics, phase studies, quantum chemistry, and the study of surface properties.

Examples of included programs
- Computational chemistry
- Nuclear chemistry
- Physical chemistry
- Theoretical chemistry

Examples of excluded programs
- Chemical engineering [*see* 14.0701 Chemical Engineering]
- Chemistry [*see* 40.0501 Chemistry, General]
- Analytical chemistry [*see* 40.0502 Analytical Chemistry]
- Chemical physics [*see* 40.0508 Chemical Physics]

40.0507 Polymer Chemistry

This instructional program class comprises any program that focuses on the scientific study of synthesized macromolecules and their interactions with other substances. These programs include courses in molecular bonding theory, polymerization, properties and behaviour of unstable compounds, the development of tailored polymers, transition phenomena, and applications to specific industrial problems and technologies.

Examples of included programs
- Chemistry plastics
- Polymer chemistry

Examples of excluded programs
- Chemical engineering [*see* 14.0701 Chemical Engineering]
- Petrochemical engineering [*see* 14.2501 Petroleum Engineering]
- Polymer engineering [*see* 14.3201 Polymer/Plastics Engineering]
- Polymer engineering technology [*see* 15.0607 Plastics Engineering Technology/Technician]

40.0508 Chemical Physics

This instructional program class comprises any program that focuses on the scientific study of structural phenomena combining the disciplines of physical chemistry and atomic/molecular physics. These programs include courses in heterogeneous structures, alignment and surface phenomena, quantum theory, mathematical physics, statistical and classical mechanics, chemical kinetics, liquid crystals and membranes, molecular synthesis and design, and laser physics.

Examples of included programs
- Chemical physics
- Chemistry physics

Examples of excluded programs
- Chemical engineering [*see* 14.0701 Chemical Engineering]
- Chemistry [*see* 40.0501 Chemistry, General]
- Physical chemistry [*see* 40.0506 Physical and Theoretical Chemistry]

40.0599 Chemistry, Other

This instructional program class comprises any program not listed above that relates to Chemistry.

Example of included programs
- Environmental chemistry

Examples of excluded programs
- Agricultural chemistry [*see* 01.9999 Agriculture, Agriculture Operations and Related Sciences, Other]
- Chemistry education [*see* 13.1323 Chemistry Teacher Education]
- Chemical engineering [*see* 14.0701 Chemical Engineering]
- Chemical technology [*see* 41.0301 Chemical Technology/Technician]
- Medicinal chemistry [*see* 51.2004 Medicinal and Pharmaceutical Chemistry (MSc, PhD)]

40.06 Geological and Earth Sciences/Geosciences

This subseries comprises instructional program classes 40.0601 to 40.0699.

40.0601 Geology/Earth Science, General

This instructional program class comprises any program that focuses on the scientific study of the earth; the forces acting upon it; and the behaviour of the solids, liquids and gases comprising it. These programs include courses in historical geology, geomorphology, and sedimentology, the chemistry of rocks and soils, stratigraphy, mineralogy, petrology, geostatistics, volcanology, glaciology, geophysical principles, and applications to research and industrial problems.

Examples of included programs
- Earth sciences
- Geological sciences
- Geologist
- Geology
- Geoscience

Examples of excluded programs
- Soil chemistry [*see* 01.1202 Soil Chemistry and Physics]
- Geological engineering [*see* 14.3901 Geological/Geophysical Engineering]
- Geological engineering technology [*see* 15.9999 Engineering Technologies/Technicians, Other]

40.0602 Geochemistry

This instructional program class comprises any program that focuses on the scientific study of the chemical properties and behaviour of the silicates and other substances forming, and formed by geomorphological processes of the earth and other planets. These programs include courses in chemical thermodynamics, equilibrium in silicate systems, atomic bonding, isotopic fractionation, geochemical modelling, specimen analysis, and studies of specific organic and inorganic substances.

Example of included programs
- Geochemistry

Examples of excluded programs
- Chemistry [*see* 40.0501 Chemistry, General]
- Environmental chemistry [*see* 40.0599 Chemistry, Other]
- Geology [*see* 40.0601 Geology/Earth Science, General]
- Petrology [*see* 40.0606 Geochemistry and Petrology]

40.0603 Geophysics and Seismology

This instructional program class comprises any program that focuses on the scientific study of the physics of solids and its application to the study of the earth and other planets. These programs include courses in gravimetrics, seismology, earthquake forecasting, magnetometry, electrical properties of solid bodies, plate tectonics, active deformation, thermodynamics, remote sensing, geodesy, and laboratory simulations of geological processes.

Examples of included programs
- Computational geophysics
- Geology and physics
- Geophysics
- Seismology

Examples of excluded programs
- Geology [*see* 40.0601 Geology/Earth Science, General]
- Physics [*see* 40.0801 Physics, General]

40.0604 Paleontology

This instructional program class comprises any program that focuses on the scientific study of extinct life forms and associated fossil remains, and the reconstruction and analysis of ancient life forms, ecosystems, and geologic processes. These programs include courses in sedimentation and fossilization processes, fossil chemistry, evolutionary biology, paleoecology, paleoclimatology, trace fossils, micropaleontology, invertebrate paleontology, vertebrate paleontology, paleobotany, field research methods, and laboratory research and conservation methods.

Examples of included programs
- Palaeontology
- Paleontology
- Quaternary geology

Examples of excluded programs
- Evolutionary biology [*see* 26.1303 Evolutionary Biology]
- Archeology [*see* 45.0301 Archeology]

40.0605 Hydrology and Water Resources Science

This instructional program class comprises any program that focuses on the scientific of study of the occurrence, circulation, distribution, chemical and physical properties, and environmental interaction of surface and subsurface waters, including groundwater. These programs include courses in geophysics, thermodynamics, fluid mechanics, chemical physics, geomorphology, mathematical modelling, hydrologic analysis, continental water processes, global water balance, and environmental science.

Examples of included programs
- Hydrology
- Water resources sciences

Examples of excluded programs
- Marine resources management [*see* 03.0205 Water, Wetlands and Marine Resources Management]
- Water resources engineering [*see* 14.0805 Water Resources Engineering]
- Ocean engineering [*see* 14.2401 Ocean Engineering]
- Water purification [*see* 15.0506 Water Quality and Wastewater Treatment Management and Recycling Technology/Technician]

40.0606 Geochemistry and Petrology

This instructional program class comprises any program that focuses on the scientific study of the igneous, metamorphic, and hydrothermal processes within the earth and the mineral, fluid, rock, and ore deposits resulting from them. These programs include courses in mineralogy, crystallography, petrology, volcanology, economic geology, meteoritics, geochemical reactions, deposition, compound transformation, core studies, theoretical geochemistry, computer applications, and laboratory studies.

Examples of included programs
- Mineralogy
- Petrology

Examples of excluded programs
- Mining and mineral engineering [*see* 14.2101 Mining and Mineral Engineering]
- Petroleum engineering [*see* 14.2501 Petroleum Engineering]
- Geochemistry [*see* 40.0602 Geochemistry]

40.0607 Oceanography, Chemical and Physical

This instructional program class comprises any program that focuses on the scientific study of the chemical components, mechanisms, structure, and movement of ocean waters and their interaction with terrestrial and atmospheric phenomena. These programs include courses in material inputs and outputs, chemical and biochemical transformations in marine systems, equilibria studies, inorganic and organic ocean chemistry, oceanographic processes, sediment transport, zone processes, circulation, mixing, tidal movements, wave properties, and seawater properties.

Examples of included programs
- Chemical oceanography
- Physical oceanography

Examples of excluded programs
- Ocean engineering [*see* 14.2401 Ocean Engineering]
- Biological oceanography [*see* 26.1302 Marine Biology and Biological Oceanography]
- Hydrology [*see* 40.0605 Hydrology and Water Resources Science]
- Nautical science [*see* 49.0309 Nautical Science/Merchant Marine Officer]

40.0699 Geological and Earth Sciences/Geosciences, Other

This instructional program class comprises any program not listed above that relates to Geological and Earth Sciences/Geosciences.

Examples of included programs
- Geodesy (university level)
- Hydrogeology
- Marine geology

Examples of excluded programs
- Geological engineering [*see* 14.3901 Geological/Geophysical Engineering]
- Topography [*see* 45.0702 Cartography]

40.08 Physics

This subseries comprises instructional program classes 40.0801 to 40.0899.

40.0801 Physics, General

This instructional program class comprises any general program that focuses on the scientific study of matter and energy, and the formulation and testing of the laws governing the behaviour of the matter-energy continuum. These programs include courses in classical and modern physics, electricity and magnetism, thermodynamics, mechanics, wave properties, nuclear processes, relativity and quantum theory, quantitative methods, and laboratory methods.

Examples of included programs
- Experimental physics
- Physicist
- Physics

Examples of excluded programs
- Soil physics [*see* 01.1202 Soil Chemistry and Physics]
- Physics education [*see* 13.1329 Physics Teacher Education]
- Engineering physics [*see* 14.1201 Engineering Physics]
- Biophysics [*see* 26.0203 Biophysics]
- Astrophysics [*see* 40.0202 Astrophysics]

40.0802 Atomic/Molecular Physics

This instructional program class comprises any program that focuses on the scientific study of the behaviour of matter-energy phenomena at the level of atoms and molecules. These programs include courses in chemical physics, atomic forces and structure, fission reactions, molecular orbital theory, magnetic resonance, molecular bonding, phase equilibria, quantum theory of solids, and applications to the study of specific elements and higher compounds.

Examples of included programs
- Atomic physics
- Molecular physics

Examples of excluded programs
- Molecular biophysics [*see* 26.0206 Molecular Biophysics]
- Particle physics [*see* 40.0804 Elementary Particle Physics]
- Nuclear physics [*see* 40.0806 Nuclear Physics]

40.0804 Elementary Particle Physics

This instructional program class comprises any program that focuses on the scientific study of the basic constituents of sub-atomic matter and energy, and the forces governing fundamental processes. These programs include courses in quantum theory, field theory, single-particle systems, perturbation and scattering theory, matter-radiation interaction, symmetry, quarks, capture, Schroedinger mechanics, methods for detecting particle emission and absorption, and research equipment operation and maintenance.

Examples of included programs
- Elementary particle physics
- Particle physics

Examples of excluded programs
- Molecular biophysics [*see* 26.0206 Molecular Biophysics]
- Atomic physics [*see* 40.0802 Atomic/Molecular Physics]
- Nuclear physics [*see* 40.0806 Nuclear Physics]

40.0805 Plasma and High-temperature Physics

This instructional program class comprises any program that focuses on the scientific study of properties and behaviour of matter at high temperatures, such that molecular and atomic structures are in a disassociated ionic or electronic state. These programs include courses in magnetohydrodynamics, free electron phenomena, fusion theory, electromagnetic fields and dynamics, plasma and non-linear wave theory, instability theory, plasma shock phenomena, quantitative modelling, and research equipment operation and maintenance.

Examples of included programs
- High-temperature physics
- Plasma physics

Examples of excluded programs
- Atmospheric physics [*see* 40.0403 Atmospheric Physics and Dynamics]
- Atomic physics [*see* 40.0802 Atomic/Molecular Physics]
- Particle physics [*see* 40.0804 Elementary Particle Physics]
- Nuclear physics [*see* 40.0806 Nuclear Physics]

40.0806 Nuclear Physics

This instructional program class comprises any program that focuses on the scientific study of the properties and behaviour of atomic nuclei. These programs include courses in nuclear reaction theory, quantum mechanics, energy conservation, nuclear fission and fusion, strong and weak atomic forces, nuclear modelling, nuclear decay, nucleon scattering, pairing, photon and electron reactions, statistical methods, and research equipment operation and maintenance.

Example of included programs
- Nuclear physics

Examples of excluded programs
- Nuclear engineering [*see* 14.2301 Nuclear Engineering]
- Atomic physics [*see* 40.0802 Atomic/Molecular Physics]
- Elementary particle physics [*see* 40.0804 Elementary Particle Physics]
- Plasma physics [*see* 40.0805 Plasma and High-temperature Physics]

40.0807 Optics/Optical Sciences

This instructional program class comprises any program that focuses on the scientific study of light energy, including its structure, properties and behaviour under different conditions. These programs include courses in wave theory, wave mechanics, electromagnetic theory, physical optics, geometric optics, quantum theory of light, photon detecting, laser theory, wall and beam properties, chaotic light, non-linear optics, harmonic generation, optical systems theory, and applications to engineering problems.

Examples of included programs
- Optical science
- Optics physics

Examples of excluded programs
- Laser and optical technology [*see* 15.0304 Laser and Optical Technology/Technician]
- Physiological optics [*see* 26.0909 Vision Science/Physiological Optics]
- Optometry [*see* 51.1701 Optometry (OD)]
- Optometric assistant [*see* 51.1802 Optometric Technician/Assistant]
- Orthoptics [*see* 51.1804 Orthoptics/Orthoptist]

40.0808 Solid State and Low-temperature Physics

This instructional program class comprises any program that focuses on the scientific study of solids and related states of matter at low energy levels, including liquids and dense gases. These programs include courses in statistical mechanics, quantum theory of solids, many-body theory, low temperature phenomena, electron theory of metals, band theory, crystalline structures, magnetism and superconductivity, equilibria and dynamics of liquids, film and surface phenomena, quantitative modelling, and research equipment operation and maintenance.

Examples of included programs
- Condensed-matter physics
- Low-temperature physics
- Solid state physics
- Supra-conductivity physics

Example of excluded programs
- Atmospheric physics [*see* 40.0403 Atmospheric Physics and Dynamics]

40.0809 Acoustics

This instructional program class comprises any program that focuses on the scientific study of sound, and the properties and behaviour of acoustic wave phenomena under different conditions. These programs include courses in wave theory, the acoustic wave equation, energy transformation, vibration phenomena, sound reflection and transmission, scattering and surface wave phenomena, singularity expansion theory, ducting, and applications to specific research problems such as underwater acoustics, crystallography, and health diagnostics.

Examples of included programs
- Acoustical physics
- Acoustics physics

Examples of excluded programs
- Sound engineering [*see* 10.0203 Recording Arts Technology/Technician]
- Acoustic engineering [*see* 14.9999 Engineering, Other]

40.0810 Theoretical and Mathematical Physics

This instructional program class comprises any program that focuses on the scientific and mathematical formulation and evaluation of the physical laws governing, and models describing, matter-energy phenomena, and the analysis of related experimental designs and results. These programs include courses in classical and quantum theory, relativity theory, field theory, mathematics of infinite series, vector and coordinate analysis, wave and particle theory, advanced applied calculus and geometry, analyses of continuum, cosmology, and statistical theory and analysis.

Examples of included programs
- Computational physics
- Mathematical physics
- Quantum mechanics
- Theoretical physics

Examples of excluded programs
- Mathematics [*see* 27.0101 Mathematics, General]
- Physical chemistry [*see* 40.0506 Physical and Theoretical Chemistry]
- Theoretical chemistry [*see* 40.0506 Physical and Theoretical Chemistry]
- Computational geophysics [*see* 40.0603 Geophysics and Seismology]

40.0899 Physics, Other

This instructional program class comprises any program not listed above that relates to Physics.

Examples of excluded programs
- Physics teacher [*see* 13.1329 Physics Teacher Education]
- Engineering physics [*see* 14.1201 Engineering Physics]
- Cosmology [*see* 40.0202 Astrophysics]
- Chemical physics [*see* 40.0508 Chemical Physics]
- Geophysics [*see* 40.0603 Geophysics and Seismology]

40.99 Physical Sciences, Other

This subseries comprises instructional program class 40.9999.

40.9999 Physical Sciences, Other

This instructional program class comprises any program not listed above that relates to Physical Sciences.

Examples of included programs
- Metallurgy
- Spectroscopy

Example of excluded programs
- Physical science technician [*see* 41.0399 Physical Science Technologies/Technicians, Other]

41. Science Technologies/Technicians

This series comprises instructional programs that prepare individuals to apply scientific principles and technical skills in support of scientific research and development.

41.01 Biology Technician/Biotechnology Laboratory Technician

This subseries comprises instructional program class 41.0101.

41.0101 Biology Technician/Biotechnology Laboratory Technician

This instructional program class comprises any program that prepares individuals to apply scientific principles and technical skills in support of biologists and biotechnologists in research, industrial, and government settings. These programs include courses in fermentation technology, cell culturing, protein purification, biologic synthesis, assaying and testing, quality control, industrial microbiology, bioprocessing, chromatography and bioseparation, genetic technology, laboratory and hazardous materials safety, and computer applications.

Examples of included programs
- Biological technology
- Biology lab technology
- Biology technician

Examples of excluded programs
- Biomedical technician [*see* 15.0401 Biomedical Technology/Technician]
- Biotechnology [*see* 26.1201 Biotechnology]
- Assistant lab technician [*see* 41.0399 Physical Science Technologies/Technicians, Other]
- Clinical/medical laboratory technician [*see* 51.1004 Clinical/Medical Laboratory Technician]
- Clinical laboratory science/medical technology/technologist [*see* 51.1005 Clinical Laboratory Science/Medical Technology/Technologist]

41.02 Nuclear and Industrial Radiologic Technologies/Technicians

This subseries comprises instructional program classes 41.0204 to 41.0299.

41.0204 Industrial Radiologic Technology/Technician

This instructional program class comprises any program that prepares individuals to apply scientific principles and technical skills to the operation of industrial and research testing equipment using radioisotopes. These programs include courses in X-ray analysis of materials, non-destructive testing and inspection of materials, and continuous measurement of paper or metal thickness.

Examples of included programs
- Industrial radiographer
- Industrial radiography
- Industrial radiological technician
- Industrial radiological technology

Examples of excluded programs
- Radiobiology [*see* 26.0209 Radiation Biology/Radiobiology]
- Radiation technology [*see* 51.0907 Medical Radiologic Technology/Science - Radiation Therapist]
- Radiological technologist [*see* 51.0911 Radiologic Technology/Science - Radiographer]

41.0205 Nuclear/Nuclear Power Technology/Technician

This instructional program class comprises any program that prepares individuals to apply scientific principles and technical skills in support of research scientists and operating engineers engaged in the running of nuclear reactors, and in nuclear materials processing and disposal. These programs include courses in basic nuclear physics and nuclear engineering, monitoring and safety procedures, radioactive materials handling and disposal, equipment maintenance and operation, and record keeping.

Examples of included programs
- Nuclear power technology
- Nuclear technician

Examples of excluded programs
- Nuclear engineering [*see* 14.2301 Nuclear Engineering]
- Nuclear engineering technology [*see* 15.1401 Nuclear Engineering Technology/Technician]
- Nuclear physics [*see* 40.0806 Nuclear Physics]
- Power engineering technology [*see* 47.0501 Stationary Energy Sources Installer and Operator]

41.0299 Nuclear and Industrial Radiologic Technologies/Technicians, Other

This instructional program class comprises any program not listed above that relates to Nuclear and Industrial Radiologic Technologies/Technicians.

Examples of excluded programs
- Nuclear engineering [*see* 14.2301 Nuclear Engineering]
- Nuclear engineering technology [*see* 15.1401 Nuclear Engineering Technology/Technician]
- Industrial radiological technology [*see* 41.0204 Industrial Radiologic Technology/Technician]
- Nuclear technician [*see* 41.0205 Nuclear/Nuclear Power Technology/Technician]
- Medical radiation technology [*see* 51.0907 Medical Radiologic Technology/Science - Radiation Therapist]

41.03 Physical Science Technologies/Technicians

This subseries comprises instructional program classes 41.0301 and 41.0399.

41.0301 Chemical Technology/Technician

This instructional program class comprises any program that prepares individuals to apply scientific principles and technical skills in support of chemical and biochemical research and industrial operations. These programs include courses in principles of chemistry and biochemistry, technical mathematics, computer applications, radiochemistry, industrial biochemistry, chemical instrumentation, physical chemistry, laboratory research methods, industrial processing methods and equipment, and test equipment operation and maintenance.

Examples of included programs
- Chemical lab technician
- Chemical laboratory technology
- Chemical technician
- Chemical technology

Examples of excluded programs
- Chemical engineering [*see* 14.0701 Chemical Engineering]
- Chemical engineering technology [*see* 15.9999 Engineering Technologies/Technicians, Other]
- Chemistry [*see* 40.0501 Chemistry, General]

41.0399 Physical Science Technologies/Technicians, Other

This instructional program class comprises any program not listed above that relates to Physical Science Technologies/Technicians.

Examples of included programs
- Assistant lab technician
- Physical science technician
- Science lab technology

Examples of excluded programs
- Biological and physical sciences [*see* 30.0101 Biological and Physical Sciences]
- Physical sciences [*see* 40.0101 Physical Sciences, General]
- Clinical laboratory science/medical technology/technologist [*see* 51.1005 Clinical Laboratory Science/Medical Technology/Technologist]

41.99 Science Technologies/Technicians, Other

This subseries comprises instructional program class 41.9999.

41.9999 Science Technologies/Technicians, Other

This instructional program class comprises any program not listed above that relates to Science Technologies/Technicians.

Example of excluded programs
- Pharmacy technology [*see* 51.0805 Pharmacy Technician/Assistant]

42. Psychology

This series comprises instructional programs that focus on the scientific study of the behaviour of individuals, independently or collectively, and the physical and environmental bases of mental, emotional, and neurological activity.

42.01 Psychology, General

This subseries comprises instructional program class 42.0101.

42.0101 Psychology, General

This instructional program class comprises any general program that focuses on the scientific study of individual and collective behaviour, the physical and environmental bases of behaviour, and the analysis

and treatment of behaviour problems and disorders. These programs include courses in the principles of the various subfields of psychology, research methods, and psychological assessment and testing methods.

Examples of included programs
- General psychology
- Psychologist
- Psychology

Examples of excluded programs
- Measurement, evaluation and research methodology in education [*see* 13.0604 Educational Assessment, Testing and Measurement]
- Psychology teacher [*see* 13.1335 Psychology Teacher Education]
- Behavioural science [*see* 30.1701 Behavioural Sciences]
- Cognitive science [*see* 30.2501 Cognitive Science]
- Psychoanalysis [*see* 51.1507 Psychoanalysis and Psychotherapy]
- Psychiatry—residency [*see* 60.0255 Psychiatry Residency Programs]

42.02 Clinical Psychology

This subseries comprises instructional program class 42.0201.

42.0201 Clinical Psychology

This instructional program class comprises any program that prepares individuals for the independent professional practice of clinical psychology, involving the analysis, diagnosis, and clinical treatment of psychological disorders and behavioural pathologies. These programs include courses in clinical assessment and diagnosis, personality appraisal, psychopathology, clinical psychopharmacology, behaviour modification, therapeutic intervention skills, patient interviewing, personalized and group therapy, child and adolescent therapy, cognitive and behavioural therapy, supervised clinical practice, ethical standards, and applicable regulations.

Examples of included programs
- Adult clinical psychology
- Clinical neuropsychology
- Clinical psychology

Examples of excluded programs
- Psychology [*see* 42.0101 Psychology, General]
- Clinical child psychology [*see* 42.2001 Clinical Child Psychology]
- Psychopharmacology [*see* 42.2401 Psychopharmacology]
- Psychiatry—residency [*see* 60.0255 Psychiatry Residency Programs]

42.03 Cognitive Psychology and Psycholinguistics

This subseries comprises instructional program class 42.0301.

42.0301 Cognitive Psychology and Psycholinguistics

This instructional program class comprises any program that focuses on the scientific study of the mechanisms and processes of learning and thinking, and associated information encoding, decoding, processing and transmitting systems. These programs include courses in theories of cognition and intelligence; studies of cognitive processes such as memory, sensation, perception, pattern recognition, problem solving, and conceptual thinking; cybernetics; psycholinguistics; and the study of biological and social communications mechanisms and processes.

Examples of included programs
- Cognitive and motivational psychology
- Cognitive psychology
- Psycholinguistics

Examples of excluded programs
- Education of individuals with speech or language impairments [*see* 13.1012 Education/Teaching of Individuals with Speech or Language Impairments]
- Linguistics [*see* 16.0102 Linguistics]
- Cognitive science [*see* 30.2501 Cognitive Science]
- Neuropsychology [*see* 42.1101 Physiological Psychology/Psychobiology]

42.04 Community Psychology

This subseries comprises instructional program class 42.0401.

42.0401 Community Psychology

This instructional program class comprises any program that prepares individuals to apply psychological principles to the analysis of social problems, and the implementation of intervention strategies for addressing these problems. These programs include courses in social ecology, primary and secondary prevention of social pathologies, social intervention strategies and tactics, large group counselling, social services systems behaviour, creating settings, cultural stress, and the dynamics of social change.

Example of included programs
- Community psychology

Examples of excluded programs
- Community services [*see* 19.0707 Family and Community Services]
- Community awareness [*see* 33.0103 Community Awareness]
- Social psychology [*see* 42.1601 Social Psychology]
- Community health management [*see* 51.2208 Community Health and Preventive Medicine]

42.05 Comparative Psychology

This subseries comprises instructional program class 42.0501.

42.0501 Comparative Psychology

This instructional program class comprises any program that focuses on the behaviour of members of particular species or groups and the relationship of the behaviours of the species or group to their evolutionary origins. These programs include courses in differential psychology, experimental and physiological psychology, psychopharmacology, psychology of individual differences, reinforcement theory, and neurophysiology.

Example of included programs
- Comparative psychology

Examples of excluded programs
- Behavioural sciences [*see* 30.1701 Behavioural Sciences]
- Personality psychology [*see* 42.1001 Personality Psychology]
- Physiological psychology [*see* 42.1101 Physiological Psychology/Psychobiology]
- Psychopharmacology [*see* 42.2401 Psychopharmacology]

42.06 Counselling Psychology

This subseries comprises instructional program class 42.0601.

42.0601 Counselling Psychology

This instructional program class comprises any program that prepares individuals for the independent professional practice of psychological counselling, involving the provision of therapeutic services to individuals and groups experiencing psychological problems and exhibiting distress symptoms. These programs include courses in counselling theory, therapeutic intervention strategies, patient/counsellor relationships, testing and assessment methods and procedures, group therapy, marital and family therapy, child and adolescent therapy, supervised counselling practice, ethical standards, and applicable regulations.

Examples of included programs
- Counselling psychology
- Psychological counselling

Examples of excluded programs
- Guidance counselling [*see* 13.1101 Counsellor Education/School Counselling and Guidance Services]
- Pastoral counselling [*see* 39.0701 Pastoral Studies/Counselling]
- Developmental psychology [*see* 42.0701 Developmental and Child Psychology]
- Family counselling [*see* 51.1505 Marriage and Family Therapy/Counselling]
- Clinical pastoral counselling [*see* 51.1506 Clinical Pastoral Counselling/Patient Counselling]
- Psychoanalysis [*see* 51.1507 Psychoanalysis and Psychotherapy]
- Psychiatry—residency [*see* 60.0255 Psychiatry Residency Programs]

42.07 Developmental and Child Psychology

This subseries comprises instructional program class 42.0701.

42.0701 Developmental and Child Psychology

This instructional program class comprises any program that focuses on the scientific study of the psychological growth and development of individuals from infancy through adulthood. These programs include courses in cognitive and perceptual development, emotional development, personality development, the effects of biological maturation on behaviour, theories of cognitive growth and related research methods, testing and assessment methods for different age levels, research on child and adolescent behaviour therapy, and the psychology of aging.

Examples of included programs
- Child psychology
- Developmental psychology

Examples of excluded programs
- Human development [*see* 19.0701 Human Development and Family Studies, General]
- Child development [*see* 19.0706 Child Development]
- Clinical child psychology [*see* 42.2001 Clinical Child Psychology]
- Child and youth care [*see* 44.0702 Youth Services/Administration]
- Child psychiatry—residency [*see* 60.0208 Child Psychiatry Residency Programs]

42.08 Experimental Psychology

This subseries comprises instructional program class 42.0801.

42.0801 Experimental Psychology

This instructional program class comprises any program that focuses on the scientific study of behaviour under experimental conditions and the analysis of controlled behavioural responses. These programs include courses in learning theory, research design and experimental methods, psychological measurement, statistical design and methods, analysis of cognitive and behavioural variables, and the conduct of specialized and large-scale studies.

Example of included programs
- Experimental psychology

Examples of excluded programs
- Measurement, evaluation and research methodology in education [*see* 13.0604 Educational Assessment, Testing and Measurement]
- Experimental pathology [*see* 26.0910 Pathology/Experimental Pathology]
- Behavioural sciences [*see* 30.1701 Behavioural Sciences]
- Cognitive science [*see* 30.2501 Cognitive Science]

42.09 Industrial and Organizational Psychology

This subseries comprises instructional program class 42.0901.

42.0901 Industrial and Organizational Psychology

This instructional program class comprises any program that focuses on the scientific study of individual and group behaviour in institutional settings, applications to related problems of organization and industry, and that prepares individuals to apply such principles in industrial and organizational settings. These programs include courses in group behaviour theory, organizational theory, reward/punishment structures, human-machine and human-computer interactions, motivation dynamics, human stress studies, environmental and organizational influences on behaviour, alienation and satisfaction, and job testing and assessment.

Examples of included programs
- Industrial psychology
- Organizational psychology

Examples of excluded programs
- Industrial technology [*see* 15.0612 Industrial Technology/Technician]
- Behavioural science [*see* 30.1701 Behavioural Sciences]
- Human resources management [*see* 52.1001 Human Resources Management/Personnel Administration, General]
- Organizational behaviour [*see* 52.1003 Organizational Behaviour Studies]

42.10 Personality Psychology

This subseries comprises instructional program class 42.1001.

42.1001 Personality Psychology

This instructional program class comprises any program that focuses on the unique organization of fairly permanent characteristics that set the individual apart from other individuals and, at the same time,

determine how others respond to that individual. These programs include courses in Freudian, Skinnerian, Rogerian, and Ellisonian psychology; neo-Freudian psychology; psychological systems, neurophysiology, and psychopharmacology.

Example of included programs
- Personality psychology

Examples of excluded programs
- Clinical psychology [*see* 42.0201 Clinical Psychology]
- Comparative psychology [*see* 42.0501 Comparative Psychology]
- Psychosociology [*see* 42.1601 Social Psychology]

42.11 Physiological Psychology/Psychobiology

This subseries comprises instructional program class 42.1101.

42.1101 Physiological Psychology/Psychobiology

This instructional program class comprises any program that focuses on the scientific course study of the biological bases of psychological functioning, and their application to experimental and therapeutic research problems. These programs include courses in functional neuroanatomy, neural system development, biochemical neural regulatory mechanisms, neurological biophysics, memory storage and retrieval, physiology of cognition and perception, physiological bases of psychopathology and behavioural disorders, psychopharmacology, comparative psychobiology, and specialized experimental design and research methods.

Examples of included programs
- Neuropsychology
- Physiological psychology
- Psychobiology

Examples of excluded programs
- Human physiology [*see* 26.0901 Physiology, General]
- Neurophysiology [*see* 26.0906 Neurobiology and Neurophysiology]
- Biopsychology [*see* 30.1001 Biopsychology]
- Neuroscience [*see* 30.2401 Neuroscience]
- Clinical neuropsychology [*see* 42.0201 Clinical Psychology]

42.16 Social Psychology

This subseries comprises instructional program class 42.1601.

42.1601 Social Psychology

This instructional program class comprises any program that focuses on the scientific study of individual behaviour in group contexts, group behaviour, and associated phenomena. These programs include courses in social learning theory, group theory and dynamics, sex roles, social cognition and inference, attribution theory, attitude formation, criminal behaviour and other social pathologies, altruistic behaviour, social development, and social ecology.

Examples of included programs
- Applied social psychology
- Psychosociology
- Social and developmental psychology
- Social psychology

Examples of excluded programs
- Community psychology [*see* 42.0401 Community Psychology]
- Personality psychology [*see* 42.1001 Personality Psychology]
- Sociology [*see* 45.1101 Sociology]

42.17 School Psychology

This subseries comprises instructional program class 42.1701.

42.1701 School Psychology

This instructional program class comprises any program that prepares individuals to apply clinical and counselling psychology principles to the diagnosis and treatment of student behavioural problems. These programs include courses in child and/or adolescent development; learning theory; testing, observation and other procedures for assessing educational, personality, intelligence and motor skill development; therapeutic intervention strategies for students and families; identification and classification of disabilities and disorders affecting learning; school psychological services planning; supervised counselling practice; ethical standards; and applicable regulations.

Example of included programs
- School psychology

Examples of excluded programs
- School counselling [*see* 13.1101 Counsellor Education/School Counselling and Guidance Services]
- Psychology teacher [*see* 13.1335 Psychology Teacher Education]
- Counselling psychology [*see* 42.0601 Counselling Psychology]
- Educational psychology [*see* 42.1801 Educational Psychology]
- Youth counsellor [*see* 44.0702 Youth Services/Administration]

42.18 Educational Psychology

This subseries comprises instructional program class 42.1801.

42.1801 Educational Psychology

This instructional program class comprises any program that focuses on the application of psychology to the study of the behaviour of individuals in the roles of teacher and learner, the nature and effects of learning environments, and the psychological effects of methods, resources, organization and non-school experience on the educational process. These programs include courses in learning theory, human growth and development, research methods, and psychological evaluation.

Examples of included programs
- Educational psychology
- Psychoeducation
- Psychopedagogy

Examples of excluded programs
- Education [*see* 13.0101 Education, General]
- Guidance counselling [*see* 13.1101 Counsellor Education/School Counselling and Guidance Services]
- Psychology teacher [*see* 13.1335 Psychology Teacher Education]
- School psychology [*see* 42.1701 School Psychology]

42.19 Psychometrics and Quantitative Psychology

This subseries comprises instructional program class 42.1901.

42.1901 Psychometrics and Quantitative Psychology

This instructional program class comprises any program that focuses on the mathematical and statistical procedures used in psychological test construction and validation; the general problems of the measurement of behaviour; and the application of quantitative methods to research design and other methodological topics.

Examples of included programs
- Psychometrics
- Psychometry
- Quantitative psychology

Examples of excluded programs
- Measurement, evaluation and research methodology in education [*see* 13.0604 Educational Assessment, Testing and Measurement]
- Statistics [*see* 27.0501 Statistics, General]
- Statistics and applied probability [*see* 27.0502 Mathematical Statistics and Probability]

42.20 Clinical Child Psychology

This subseries comprises instructional program class 42.2001.

42.2001 Clinical Child Psychology

This instructional program class comprises any program that prepares individuals for the independent professional practice of clinical child psychology and that focuses on the developmental processes of children and associated disorders. These programs include courses in developmental neuropsychology, child psychopathology, testing of children and adolescents, pediatric psychology, psychosocial variables in child development, clinical skills, family therapy, behavioural assessment and intervention, clinical skills, consultation, professional standards and ethics, and applications to topics such as infancy, childhood, and adolescence.

Example of included programs
- Clinical child psychology

Examples of excluded programs
- Child development [*see* 19.0706 Child Development]
- Clinical psychology [*see* 42.0201 Clinical Psychology]
- Child psychology [*see* 42.0701 Developmental and Child Psychology]
- Child and youth care counsellor [*see* 44.0702 Youth Services/Administration]
- Child psychiatry—residency [*see* 60.0208 Child Psychiatry Residency Programs]

42.21 Environmental Psychology

This subseries comprises instructional program class 42.2101.

42.2101 Environmental Psychology

This instructional program class comprises any program that focuses on the study of behavioural interactions between human beings and the environment in individual and group contexts, and ways to

improve them. These programs include courses in contextual theory; statistics; physiological, social, and psychological responses to natural and technological hazards and disease; environmental perception and cognition; loneliness and stress; and psychological aspects of environmental design and planning.

Example of included programs
- Environmental psychology

Examples of excluded programs
- Environmental science [*see* 03.0104 Environmental Science]
- Environmental health engineering [*see* 14.1401 Environmental/Environmental Health Engineering]
- Environmental technology [*see* 15.0507 Environmental Engineering Technology/Environmental Technology]
- Industrial psychology [*see* 42.0901 Industrial and Organizational Psychology]
- Environmental health [*see* 51.2202 Environmental Health]

42.22 Geropsychology

This subseries comprises instructional program class 42.2201.

42.2201 Geropsychology

This instructional program class comprises any program that focuses on the psychology of aging and of elderly individuals and populations, with reference to growth and decline across the lifespan. These programs include courses in gerontology, developmental and adult psychology, age-related development and decline of cognitive processes, age-related psychological and neurological disorders, social and personality development in aging populations and individuals, and applications to the clinical treatment and care of older adults.

Example of included programs
- Geropsychology

Examples of excluded programs
- Gerontological services [*see* 19.0702 Adult Development and Aging]
- Gerontology [*see* 30.1101 Gerontology]

42.23 Health/Medical Psychology

This subseries comprises instructional program class 42.2301.

42.2301 Health/Medical Psychology

This instructional program class comprises any program that focuses on the psychological study of health, illness, and recovery, from the perspective that these phenomena arise from a combination of physical, behavioural, and social conditions. These programs include courses in abnormal and social psychology, psychophysiology, psychopharmacology, learning processes, clinical and behavioural therapies, biopsychosocial modelling, clinical procedures and assessment, preventive education, psychotherapy, rehabilitation processes, and research methods.

Examples of included programs
- Health psychology
- Medical psychology

Examples of excluded programs
- Health and fitness studies [*see* 31.0501 Health and Physical Education, General]
- Substance abuse counselling [*see* 51.1501 Substance Abuse/Addiction Counselling]
- Psychotherapy [*see* 51.1507 Psychoanalysis and Psychotherapy]
- Psychiatry—residency [*see* 60.0255 Psychiatry Residency Programs]

42.24 Psychopharmacology

This subseries comprises instructional program class 42.2401.

42.2401 Psychopharmacology

This instructional program class comprises any program that focuses on the study of the behavioural effects of medications, drugs, nutrients, and chemicals (including natural and artificial toxins) in laboratory and clinical settings. These programs include courses in pharmacology, behavioural toxicology and pharmacology, neuroscience, physiology, clinical psychopharmacology, substance abuse treatments and antidotes, neurochemical mechanisms, epidemiology of chemicals and substances, biochemical interactions, and psychoactive drugs.

Example of included programs
- Psychopharmacology

Examples of excluded programs
- Pharmacology [*see* 26.1001 Pharmacology]
- Neuropharmacology [*see* 26.1003 Neuropharmacology]
- Pharmacology and toxicology [*see* 26.1007 Pharmacology and Toxicology, Integrated]
- Substance abuse counselling [*see* 51.1501 Substance Abuse/Addiction Counselling]

42.25 Family Psychology

This subseries comprises instructional program class 42.2501.

42.2501 Family Psychology

This instructional program class comprises any program that prepares individuals to provide therapeutic, evaluative, and research services to families and individuals in the family unit context. These programs include courses in natural and family systems theory, family and group rituals, family evaluation and assessment, marital and couples therapy, sex therapy, parenting, interviewing techniques, genogram construction, family sculpting, diversity issues, family violence, family law, and professional standards and ethics.

Example of included programs
- Family psychology

Examples of excluded programs
- Family and child studies [*see* 19.0701 Human Development and Family Studies, General]
- Family and social relations [*see* 19.0704 Family Systems]
- Family counselling [*see* 51.1505 Marriage and Family Therapy/Counselling]

42.26 Forensic Psychology

This subseries comprises instructional program class 42.2601.

42.2601 Forensic Psychology

This instructional program class comprises any program that prepares individuals to apply clinical, counselling, school, and neuropsychology skills to the provision of psychological services within the criminal justice and civil legal systems, including consultation, assessment, and interventions. These programs include courses in the epidemiology of mental/behavioural disorders, risk factors for violence and criminality, profiling and patterning, psychological testing, prediction and intervention measurement,

forensic assessment, criminal and civil law and procedures, secure environments, forensic treatment and intervention skills, and professional standards and ethics.

Examples of included programs
- Criminal psychology
- Forensic psychology

Examples of excluded programs
- Social psychology [*see* 42.1601 Social Psychology]
- Forensic science [*see* 43.0106 Forensic Science and Technology]
- Criminal science [*see* 43.0111 Criminalistics and Criminal Science]
- Criminology [*see* 45.0401 Criminology]
- Forensic pathology—residency [*see* 60.0219 Forensic Pathology Residency Programs]

42.99 Psychology, Other

This subseries comprises instructional program class 42.9999.

42.9999 Psychology, Other

This instructional program class comprises any program not listed above that relates to Psychology.

Examples of included programs
- Abnormal psychology
- Adult psychology
- Human psychology
- Sport psychology

Examples of excluded programs
- Animal behaviour [*see* 26.0708 Animal Behaviour and Ethology]
- Behavioural science [*see* 30.1701 Behavioural Sciences]
- Organizational behaviour [*see* 52.1003 Organizational Behaviour Studies]

43. Security and Protective Services

This series comprises instructional programs that focus on the principles and procedures for providing police, fire, and other safety services and managing penal institutions.

43.01 Criminal Justice and Corrections

This subseries comprises instructional program classes 43.0102 to 43.0199.

43.0102 Corrections

This instructional program class comprises any program that prepares individuals to study the theories and principles, of correctional science and to function as professional corrections officers and other workers in incarceration facilities.

Examples of included programs
- Adult correctional officer
- Correction services worker
- Correctional officer
- Correctional services
- Correctional techniques
- Correctional worker
- Corrections

Examples of excluded programs
- Law enforcement administration [*see* 43.0103 Criminal Justice/Law Enforcement Administration]
- Juvenile corrections [*see* 43.0110 Juvenile Corrections]
- Corrections administration [*see* 43.0113 Corrections Administration]

43.0103 Criminal Justice/Law Enforcement Administration

This instructional program class comprises any program that prepares individuals to apply theories and practices of criminal justice to structuring, managing, directing and controlling criminal justice agencies, including police departments, law enforcement divisions and units, and protective services.

Examples of included programs
- Criminal justice administration
- Customs administration
- Justice administration
- Law enforcement administration
- Police management

Examples of excluded programs
- Criminal law (except graduate level) [*see* 22.0101 Law (LLB, JD, BCL)]
- Law enforcement [*see* 43.0107 Criminal Justice/Police Science]
- Bylaw enforcement [*see* 43.0199 Criminal Justice and Corrections, Other]

43.0104 Criminal Justice/Safety Studies

This instructional program class comprises any program that focuses on the criminal justice system, its organizational components and processes, and its legal and public policy contexts. These programs include courses in criminal law and policy, police and correctional systems organization, the administration of justice and the judiciary, and public attitudes regarding criminal justice issues.

Examples of included programs
- Criminal justice studies
- Criminal safety studies
- Criminal studies

Examples of excluded programs
- Criminal law (except graduate level) [*see* 22.0101 Law (LLB, JD, BCL)]
- Criminal justice administration [*see* 43.0103 Criminal Justice/Law Enforcement Administration]
- Criminology [*see* 45.0401 Criminology]

43.0106 Forensic Science and Technology

This instructional program class comprises any program that focuses on the application of the physical, biomedical, and social sciences to the analysis and evaluation of physical evidence, human testimony and criminal suspects. These programs include courses in forensic medicine, forensic dentistry, anthropology, psychology, pathology, forensic laboratory technology, crime scene analysis, fingerprint technology, document analysis, pattern analysis, examination procedures, applicable laws and regulations, and professional standards and ethics.

Examples of included programs
- Forensic investigation—forensic science
- Forensic science
- Forensic science and technology
- Forensic science technology
- Forensic studies

Examples of excluded programs
- Forensic psychology [*see* 42.2601 Forensic Psychology]
- Criminal science [*see* 43.0111 Criminalistics and Criminal Science]
- Criminology [*see* 45.0401 Criminology]
- Forensic accounting [*see* 52.0303 Auditing]
- Forensic pathology—residency [*see* 60.0219 Forensic Pathology Residency Programs]

43.0107 Criminal Justice/Police Science

This instructional program class comprises any program that prepares individuals to perform the duties of police and public security officers, including patrol and investigative activities, traffic control, crowd control and public relations, witness interviewing, evidence collection and management, basic crime prevention methods, weapon and equipment operation and maintenance, report preparation and other routine law enforcement responsibilities.

Examples of included programs
- Band constable
- Criminal justice—policing
- First Nations constable
- Justice and law enforcement
- Law enforcement
- Peace officer
- Police constable
- Police foundations
- Police recruit education and preparation
- Police science
- Police studies
- Police technology
- Royal Canadian Mounted Police (RCMP)
- Sheriff
- Tribal police

Examples of excluded programs
- Environmental law enforcement [*see* 03.0299 Natural Resources Management and Policy, Other]
- Military science [*see* 29.0101 Military Technologies]
- Law enforcement administration [*see* 43.0103 Criminal Justice/Law Enforcement Administration]
- Private investigation [*see* 43.9999 Security and Protective Services, Other]
- Criminology [*see* 45.0401 Criminology]

43.0109 Security and Loss Prevention Services

This instructional program class comprises any program that prepares individuals to perform routine inspection, patrol and crime prevention services for security companies. These programs include courses in the provision of personal protection as well as property security.

Examples of included programs
- Criminal justice—security
- Private policing and asset protection
- Protective security
- Security
- Security and loss prevention services
- Security guard
- Security officer

Examples of excluded programs
- Computer security and investigations [*see* 11.1003 Computer and Information Systems Security]
- Security management [*see* 43.0112 Securities Services Administration/Management]
- Security and alarm systems technician [*see* 47.0110 Security System Installation, Repair and Inspection Technology/Technician]
- Securities [*see* 52.0807 Investments and Securities]

43.0110 Juvenile Corrections

This instructional program class comprises any program that prepares individuals to specialize in the provision of correction services to underage minor populations. These programs include courses in corrections, juvenile delinquency, juvenile development and psychology, juvenile law, and justice administration, social services, record-keeping procedures, and communication skills.

Examples of included programs
- Juvenile corrections
- Youth corrections
- Youth justice

Examples of excluded programs
- Correctional services [*see* 43.0102 Corrections]
- Youth counsellor [*see* 44.0702 Youth Services/Administration]

43.0111 Criminalistics and Criminal Science

This instructional program class comprises any program that focuses on the application of clinical and criminal laboratory science, investigative techniques, and criminology to the reconstruction of crimes and the analysis of physical evidence. These programs include courses in laboratory science, laboratory procedures, criminology and police science, evidentiary testing and analysis, computer applications, record-keeping, reconstruction techniques, evidence handling and storage, and applications to specific types of evidence and crimes.

Examples of included programs
- Criminal science
- Criminalistics

Examples of excluded programs
- Forensic science [*see* 43.0106 Forensic Science and Technology]
- Criminology [*see* 45.0401 Criminology]

43.0112 Securities Services Administration/Management

This instructional program class comprises any program that prepares individuals to plan, manage, and supervise services providing private security protection for people and property and related investigative and consulting functions. These programs include courses in security and loss prevention services, private security and investigation techniques, security technologies, personnel management, business operations, marketing, applicable laws and regulations, and client relations.

Examples of included programs
- Securities services administration
- Security management

Examples of excluded programs
- Law enforcement administration [*see* 43.0103 Criminal Justice/Law Enforcement Administration]
- Security and loss prevention services [*see* 43.0109 Security and Loss Prevention Services]
- Corrections administration [*see* 43.0113 Corrections Administration]
- Bylaw enforcement [*see* 43.0199 Criminal Justice and Corrections, Other]
- Security and alarm systems technician [*see* 47.0110 Security System Installation, Repair and Inspection Technology/Technician]

43.0113 Corrections Administration

This instructional program class comprises any program that prepares individuals to plan and manage institutional facilities and programs for housing and rehabilitating prisoners in the public and/or private sectors. These programs include courses in the principles and practice of correction, facilities planning and management, safety and security, social and health services, staff and inmate management, budgeting, communication skills, correctional psychology, and applications to specific types of correctional facilities approaches.

Example of included programs
- Corrections administration

Examples of excluded programs
- Correctional services [*see* 43.0102 Corrections]
- Law enforcement administration [*see* 43.0103 Criminal Justice/Law Enforcement Administration]
- Securities services administration [*see* 43.0112 Securities Services Administration/Management]

43.0199 Criminal Justice and Corrections, Other

This instructional program class comprises any program not listed above that relates to Criminal Justice and Corrections.

Examples of included programs
- Bylaw enforcement
- Municipal by-law certificate

Example of excluded programs
- Court and administrative tribunal agent [*see* 22.0399 Legal Support Services, Other]

43.02 Fire Protection

This subseries comprises instructional program classes 43.0201 to 43.0299.

43.0201 Fire Protection and Safety Technology/Technician

This instructional program class comprises any program that prepares individuals to apply a knowledge of fire prevention and control skills to problems of reducing fire risk, loss limitation, supervising substance removal, conducting fire investigations, and advising on matters of safety procedures and fire prevention policy.

Examples of included programs
- Fire inspection
- Fire prevention
- Fire protection
- Fire protection inspection and testing
- Fire protection technology
- Fire safety techniques

Examples of excluded programs
- Fire safety engineering [*see* 14.9999 Engineering, Other]
- Hazardous materials information systems technology [*see* 15.0704 Hazardous Materials Information Systems Technology/Technician]
- Fire protection engineering technician [*see* 15.9999 Engineering Technologies/Technicians, Other]
- Firefighting [*see* 43.0203 Fire Science/Firefighting]

43.0202 Fire Services Administration

This instructional program class comprises any program that prepares individuals to structure, manage, direct and control fire departments, fire prevention services, fire inspection and investigation offices and ancillary rescue services.

Examples of included programs
- Fire service administration
- Fire service management

43.0203 Fire Science/Firefighting

This instructional program class comprises any program that prepares individuals to perform the duties of firefighters. These programs include courses in firefighting equipment operation and maintenance, principles of fire science and combustible substances, methods of controlling different types of fires, hazardous material handling and control, fire rescue procedures, public relations and applicable laws and regulations.

Examples of included programs
- Fire science
- Fire science technology
- Firefighting
- Firefighting technology
- Preservice firefighter

Examples of excluded programs
- Fire protection [*see* 43.0201 Fire Protection and Safety Technology/Technician]
- Paramedic [*see* 51.0904 Emergency Medical Technology/Technician (EMT Paramedic)]

43.0299 Fire Protection, Other

This instructional program class comprises any program not listed above that relates to Fire Protection.

Examples of excluded programs
- Fire safety engineering [*see* 14.9999 Engineering, Other]
- Fire protection engineering technician [*see* 15.9999 Engineering Technologies/Technicians, Other]
- Fire alarm technician [*see* 47.0110 Security System Installation, Repair and Inspection Technology/Technician]

43.99 Security and Protective Services, Other

This subseries comprises instructional program class 43.9999.

43.9999 Security and Protective Services, Other

This instructional program class comprises any program not listed above that relates to Security and Protective Services.

Examples of included programs
- Disaster and emergency management
- Disaster and emergency studies
- Private investigation
- Public and private investigations
- Search and rescue

Example of excluded programs
- Paramedic [*see* 51.0904 Emergency Medical Technology/Technician (EMT Paramedic)]

44. Public Administration and Social Service Professions

This series comprises instructional programs that prepare individuals to analyse, manage, and deliver public programs and services.

44.00 Human Services, General

This subseries comprises instructional program class 44.0000.

44.0000 Human Services, General

This instructional program class comprises any program that focuses on the general study and provision of human and social services to individuals and communities and prepares individuals to work in public and private human services agencies and organizations. These programs include courses in the social sciences, psychology, principles of social service, human services policy, planning and evaluation, social services law and administration, and applications to particular issues, services, localities, and populations.

Examples of included programs
- Human service worker
- Human services
- Human services counsellor

Examples of excluded programs
- Human development studies [*see* 19.0701 Human Development and Family Studies, General]
- Community services [*see* 19.0707 Family and Community Services]
- Social work [*see* 44.0701 Social Work, General]
- Addiction counselling [*see* 51.1501 Substance Abuse/Addiction Counselling]

44.02 Community Organization and Advocacy

This subseries comprises instructional program class 44.0201.

44.0201 Community Organization and Advocacy

This instructional program class comprises any program that focuses on the theories, principles, and practice of providing services to communities, organizing communities and neighbourhoods for social action, serving as community liaisons to public agencies, and using community resources to furnish information, instruction, and assistance to all members of a community. Prepares individuals to apply such knowledge and skills in community service positions.

Example of included programs
- Community advocacy

Examples of excluded programs
- Community worker [*see* 19.0707 Family and Community Services]
- Community awareness [*see* 33.0103 Community Awareness]
- Community involvement [*see* 33.0104 Community Involvement]
- Community psychology [*see* 42.0401 Community Psychology]
- Social work [*see* 44.0701 Social Work, General]
- Community health care [*see* 51.1504 Community Health Services/Liaison/Counselling]

44.04 Public Administration

This subseries comprises instructional program class 44.0401.

44.0401 Public Administration

This instructional program class comprises any program that prepares individuals to serve as managers in the executive arm of government; and that focuses on the systematic study of executive organization and management. These programs include courses in the roles, development, and principles of public administration; the management of public policy; executive-legislative relations; public budgetary processes and financial management; administrative law; public personnel management; professional ethics; and research methods.

Examples of included programs
- First Nations public administration
- Government administration
- Municipal administration
- Public administration
- Public management
- Public sector management

Examples of excluded programs
- Public relations [*see* 09.0902 Public Relations/Image Management]
- Public policy [*see* 44.0501 Public Policy Analysis]
- Political science [*see* 45.1001 Political Science and Government, General]
- Fundraising [*see* 52.0206 Non-profit/Public/Organizational Management]
- Public finance [*see* 52.0808 Public Finance]

44.05 Public Policy Analysis

This subseries comprises instructional program class 44.0501.

44.0501 Public Policy Analysis

This instructional program class comprises any program that focuses on the systematic analysis of public policy issues and decision processes. These programs include courses in the role of economic and political factors in public decision making and policy formulation; microeconomic analysis of policy issues; resource allocation and decision modelling; cost/benefit analysis; statistical methods; and applications to specific public policy topics.

Examples of included programs
- Public policy
- Public policy analysis

Examples of excluded programs
- Resource management [*see* 03.0201 Natural Resources Management and Policy, General]
- Cultural resource management and policy analysis [*see* 30.1202 Cultural Resource Management and Policy Analysis]
- Public administration [*see* 44.0401 Public Administration]

44.07 Social Work

This subseries comprises instructional program classes 44.0701 to 44.0799.

44.0701 Social Work, General

This instructional program class comprises any program that prepares individuals for the professional practice of social welfare administration and counselling, and that focuses on the study of organized means of providing basic support services for vulnerable individuals and groups. These programs include courses in social welfare policy; case work planning; social counselling and intervention strategies; administrative procedures and regulations; and specific applications in areas such as child welfare and family services, probation, employment services, and disability counselling.

Example of included programs
- Social work

Examples of excluded programs
- Community service worker [*see* 19.0707 Family and Community Services]
- Human services [*see* 44.0000 Human Services, General]
- Child and youth worker [*see* 44.0702 Youth Services/Administration]
- Addiction counselling [*see* 51.1501 Substance Abuse/Addiction Counselling]
- Clinical social work [*see* 51.1503 Clinical/Medical Social Work]

44.0702 Youth Services/Administration

This instructional program class comprises any program that prepares individuals to plan, manage, and implement social services for children, youth, and families. These programs include courses in child development and psychology, adolescence, family studies, social work, social services administration, juvenile and family law, program and facilities planning, youth leadership, counselling, probation, casework, applicable procedures, and regulations, and professional standards and ethics.

Examples of included programs
- Child and youth care
- Child and youth care counsellor
- Child and youth worker
- Youth care worker
- Youth counsellor

Examples of excluded programs
- Family and community studies [*see* 19.0707 Family and Community Services]
- Child care worker [*see* 19.0709 Child Care Provider/Assistant]
- Youth ministry [*see* 39.0702 Youth Ministry]
- Social work [*see* 44.0701 Social Work, General]

44.0799 Social Work, Other

This instructional program class comprises any program not listed above that relates to Social Work.

Example of excluded programs
- Youth corrections [*see* 43.0110 Juvenile Corrections]

44.99 Public Administration and Social Service Professions, Other

This subseries comprises instructional program class 44.9999.

44.9999 Public Administration and Social Service Professions, Other

This instructional program class comprises any program not listed above that relates to Public Administration and Social Service Professions.

Example of excluded programs
- Human service worker [*see* 44.0000 Human Services, General]

45. Social Sciences

This series comprises instructional programs that focus on the systematic study of social systems, social institutions, and social behaviour.

45.01 Social Sciences, General

This subseries comprises instructional program class 45.0101.

45.0101 Social Sciences, General

This instructional program class comprises any program that focuses on the general study of human social behaviour and social institutions using any of the methodologies common to the social sciences and/or history, or an undifferentiated program of study in the social sciences.

Examples of included programs
- Social sciences
- Social studies

Examples of excluded programs
- Social sciences education [*see* 13.1317 Social Science Teacher Education]
- Social studies education [*see* 13.1318 Social Studies Teacher Education]
- Applied human sciences [*see* 19.0101 Family and Consumer Sciences/Human Sciences, General]
- Humanities [*see* 24.0103 Humanities/Humanistic Studies]
- Sociology [*see* 45.1101 Sociology]

45.02 Anthropology

This subseries comprises instructional program classes 45.0201 to 45.0299.

45.0201 Anthropology, General

This instructional program class comprises any program that focuses on the systematic study of human beings, their antecedents and related primates, and their cultural behaviour and institutions, in comparative perspective. These programs include courses in biological/physical anthropology, primatology, human paleontology and prehistoric archeology, hominid evolution, anthropological linguistics, ethnography, ethnology, ethnohistory, sociocultural anthropology, psychological anthropology, research methods, and applications to areas such as medicine, forensic pathology, museum studies, and international affairs.

Examples of included programs
- Anthropology
- Ethnology
- Human paleontology
- Primatology

Examples of excluded programs
- Museology [*see* 30.1401 Museology/Museum Studies]
- Ancient studies [*see* 30.2201 Ancient Studies/Civilization]
- Physical anthropology [*see* 45.0202 Physical Anthropology]
- Archeology [*see* 45.0301 Archeology]

45.0202 Physical Anthropology

This instructional program class comprises any program that focuses on the application of the biological sciences and anthropology to the study of the adaptations, variability, and the evolution of human beings and their living and fossil relatives. These programs include courses in anthropology, human and mammalian anatomy, cell biology, paleontology, human culture and behaviour, neuroscience, forensic anthropology, anatomical reconstruction, comparative anatomy, and laboratory science and methods.

Examples of included programs
- Anthropological sciences
- Forensic anthropology
- Physical anthropology

Examples of excluded programs
- Anatomy [*see* 26.0403 Anatomy]
- Ancient studies [*see* 30.2201 Ancient Studies/Civilization]
- Forensic science [*see* 43.0106 Forensic Science and Technology]
- Anthropology [*see* 45.0201 Anthropology, General]

45.0299 Anthropology, Other

This instructional program class comprises any program not listed above that relates to Anthropology.

Examples of excluded programs
- Cultural resource management [*see* 30.1202 Cultural Resource Management and Policy Analysis]
- Museology [*see* 30.1401 Museology/Museum Studies]
- Ancient studies [*see* 30.2201 Ancient Studies/Civilization]
- Anthropology [*see* 45.0201 Anthropology, General]
- Physical anthropology [*see* 45.0202 Physical Anthropology]

45.03 Archeology

This subseries comprises instructional program class 45.0301.

45.0301 Archeology

This instructional program class comprises any program that focuses on the systematic study of extinct societies, and the past of living societies, via the excavation, analysis and interpretation of their artifactual, human, and associated remains. These programs include courses in archeological theory, field methods, dating methods, conservation and museum studies, cultural and physical evolution, and the study of specific past cultures.

Examples of included programs
- Archeology
- Classical archeology
- Historical archeology

Examples of excluded programs
- Cultural resource management [*see* 30.1202 Cultural Resource Management and Policy Analysis]
- Museology [*see* 30.1401 Museology/Museum Studies]
- Ancient studies [*see* 30.2201 Ancient Studies/Civilization]
- Classical civilization [*see* 30.2202 Classical, Ancient Mediterranean and Near Eastern Studies and Archeology]
- Art conservation [*see* 50.0703 Art History, Criticism and Conservation]

45.04 Criminology

This subseries comprises instructional program class 45.0401.

45.0401 Criminology

This instructional program class comprises any program that focuses on the systematic study of crime as a sociopathological phenomenon, the behaviour of criminals, and the social institutions evolved to respond to crime. These programs include courses in the theory of crime, psychological and social bases of criminal behaviour, social value systems and the theory of punishment, criminal law and criminal justice systems, penology, rehabilitation and recidivism, studies of specific types of crime, social attitudes and policy, and applications to specific issues in law enforcement administration and policy.

Examples of included programs
- Applied criminology
- Criminal deviance
- Criminology

Examples of excluded programs
- Criminal law (except graduate level) [*see* 22.0101 Law (LLB, JD, BCL)]
- Psychosociology [*see* 42.1601 Social Psychology]
- Criminal psychology [*see* 42.2601 Forensic Psychology]
- Corrections [*see* 43.0102 Corrections]
- Criminal justice studies [*see* 43.0104 Criminal Justice/Safety Studies]
- Forensic science [*see* 43.0106 Forensic Science and Technology]
- Criminalistics [*see* 43.0111 Criminalistics and Criminal Science]

45.05 Demography and Population Studies

This subseries comprises instructional program class 45.0501.

45.0501 Demography and Population Studies

This instructional program class comprises any program that focuses on the systematic study of population models and population phenomena, and related problems of social structure and behaviour. These programs include courses in population growth, spatial distribution, mortality and fertility factors, migration, dynamic population modelling, population estimation and projection, mathematical and statistical analysis of population data, population policy studies, and applications to problems in economics and government planning.

Examples of included programs
- Demography
- Population studies
- Social demography

Examples of excluded programs
- Epidemiology [*see* 26.1309 Epidemiology]
- Human geography [*see* 45.0701 Geography]
- Sociology [*see* 45.1101 Sociology]
- Public health education [*see* 51.2207 Public Health Education and Promotion]

45.06 Economics

This subseries comprises instructional program classes 45.0601 to 45.0699.

45.0601 Economics, General

This instructional program class comprises any general program that focuses on the systematic study of the production, conservation and allocation of resources in conditions of scarcity, together with the organizational frameworks related to these processes. These programs include courses in economic theory, microeconomics and macroeconomics, comparative economic systems, money and banking systems, international economics, quantitative analytical methods, and applications to specific industries and public policy issues.

Examples of included programs
- Economic sciences
- Economic studies
- Economics

Examples of excluded programs
- Agricultural economics [*see* 01.0103 Agricultural Economics]
- Natural resource economics [*see* 03.0204 Natural Resource Economics]
- Consumer economics [*see* 19.0402 Consumer Economics]
- Applied economics [*see* 45.0602 Applied Economics]
- Econometrics [*see* 45.0603 Econometrics and Quantitative Economics]
- Development economics [*see* 45.0604 Development Economics and International Development]
- Global economics [*see* 45.0605 International Economics]
- Social economics [*see* 45.0699 Economics, Other]
- Pharmacoeconomics/pharmaceutical economics (MSc, PhD) [*see* 51.2007 Pharmacoeconomics/Pharmaceutical Economics (MSc, PhD)]
- Business economics [*see* 52.0601 Business/Managerial Economics]

45.0602 Applied Economics

This instructional program class comprises any program that focuses on the application of economic principles and analytical techniques to the study of particular industries, activities, or the exploitation of particular resources. These programs include courses in economic theory; microeconomic analysis and modelling of specific industries and commodities; the economic consequences of resource allocation decisions; regulatory and consumer factors; and the technical aspects of specific subjects as they relate to economic analysis.

Examples of included programs
- Applied economics
- Industrial economics

Examples of excluded programs
- Economics [*see* 45.0601 Economics, General]
- Econometrics [*see* 45.0603 Econometrics and Quantitative Economics]
- International economics [*see* 45.0605 International Economics]
- Business economics [*see* 52.0601 Business/Managerial Economics]

45.0603 Econometrics and Quantitative Economics

This instructional program class comprises any program that focuses on the systematic study of mathematical and statistical analysis of economic phenomena and problems. These programs include courses in economic statistics, optimization theory, cost/benefit analysis, price theory, economic modelling, and economic forecasting and evaluation.

Examples of included programs
- Econometrics
- Mathematical economics
- Quantitative economics

Examples of excluded programs
- Operations research [*see* 14.3701 Operations Research]
- Mathematical sciences [*see* 27.0301 Applied Mathematics, General]
- Applied statistics [*see* 27.0501 Statistics, General]
- Mathematical statistics [*see* 27.0502 Mathematical Statistics and Probability]
- Applied economics [*see* 45.0602 Applied Economics]

45.0604 Development Economics and International Development

This instructional program class comprises any program that focuses on the systematic study of the economic development process and its application to the problems of specific countries and regions. These programs include courses in economic development theory, industrialization, land reform, infrastructural development, investment policy, the role of governments and business in development, international development organizations, and the study of social, health, and environmental influences on economic development.

Examples of included programs
- Community economic development
- Development economics
- Economic development
- International development
- International development studies

Examples of excluded programs
- Regional and urban development [*see* 04.0301 City/Urban, Community and Regional Planning]
- International economics [*see* 45.0605 International Economics]
- International business [*see* 52.1101 International Business/Trade/Commerce]

45.0605 International Economics

This instructional program class comprises any program that focuses on the systematic study and analysis of international commercial behaviour and trade policy. These programs include courses in international trade theory, tariffs and quotas, commercial policy, trade factor flows, international finance and investment, currency regulation and trade exchange rates and markets, international trade negotiation, and international payments and accounting policy.

Examples of included programs
- Global economics
- International economics

Examples of excluded programs
- International studies [*see* 30.2001 International/Global Studies]
- Economics [*see* 45.0601 Economics, General]
- International development studies [*see* 45.0604 Development Economics and International Development]
- International business [*see* 52.1101 International Business/Trade/Commerce]

45.0699 Economics, Other

This instructional program class comprises any program not listed above that relates to Economics.

Examples of included programs
- History of economics
- Social economics

Example of excluded programs
- Economics [*see* 45.0601 Economics, General]

45.07 Geography and Cartography

This subseries comprises instructional program classes 45.0701 to 45.0799.

45.0701 Geography

This instructional program class comprises any program that focuses on the systematic study of the spatial distribution and interrelationships of people, natural resources, plant and animal life. These programs include courses in historical and political geography, cultural geography, economic and physical geography, regional science, cartographic methods, remote sensing, spatial analysis, and applications to areas such as land-use planning, development studies, and analyses of specific countries, regions, and resources.

Examples of included programs
- Applied geography
- Cultural geography
- Geographic sciences
- Geography
- Human geography
- Physical geography

Examples of excluded programs
- Range and pasture management [*see* 01.1106 Range Science and Management]
- Geography teacher [*see* 13.1332 Geography Teacher Education]
- Geodesy and geomatics engineering [*see* 14.3801 Surveying Engineering]
- Surveying [*see* 15.1102 Surveying Technology/Surveying]
- Demography [*see* 45.0501 Demography and Population Studies]
- Geomatics [*see* 45.0702 Cartography]

45.0702 Cartography

This instructional program class comprises any program that focuses on the systematic study of mapmaking and the application of mathematical, computer, and other techniques to the science of mapping geographic information. These programs include courses in cartographic theory and map projections, computer-assisted cartography, map design and layout, photogrammetry, air photo interpretation, remote sensing, cartographic editing, and applications to specific industrial, commercial, research, and governmental mapping problems.

Examples of included programs
- Cartography
- Digital mapping
- Geographic information systems (GIS)
- Geomatics
- Geomatics technician
- Geomatics technology
- Map design
- Map making
- Photogrammetry
- Topography

Examples of excluded programs
- Surveying engineering [*see* 14.3801 Surveying Engineering]
- Surveying and mapping [*see* 15.1102 Surveying Technology/Surveying]
- Drafting [*see* 15.1301 Drafting and Design Technology/Technician, General]
- Topology [*see* 27.0105 Topology and Foundations]
- Geography [*see* 45.0701 Geography]

45.0799 Geography and Cartography, Other

This instructional program class comprises any program not listed above that relates to Geography and Cartography.

Example of included programs
- Historical geography

Examples of excluded programs
- Geography education [*see* 13.1332 Geography Teacher Education]
- Earth sciences [*see* 40.0601 Geology/Earth Science, General]
- Geography [*see* 45.0701 Geography]
- Cartography [*see* 45.0702 Cartography]

45.09 International Relations and Affairs

This subseries comprises instructional program class 45.0901.

45.0901 International Relations and Affairs

This instructional program class comprises any program that focuses on the systematic study of international politics and institutions, and the conduct of diplomacy and foreign policy. These programs include courses in international relations theory, foreign policy analysis, national security and strategic studies, international law and organization, the comparative study of specific countries and regions, and the theory and practice of diplomacy.

Examples of included programs
- International affairs
- International politics
- International relations

Examples of excluded programs
- Conflict resolution studies [*see* 30.0501 Peace Studies and Conflict Resolution]
- International studies [*see* 30.2001 International/Global Studies]
- Political science and government [*see* 45.1001 Political Science and Government, General]

45.10 Political Science and Government

This subseries comprises instructional program classes 45.1001 to 45.1099.

45.1001 Political Science and Government, General

This instructional program class comprises any general program that focuses on the systematic study of political institutions and behaviour. These programs include courses in political philosophy, political theory, comparative government and politics, political parties and interest groups, public opinion, political research methods, studies of the government and politics of specific countries, and studies of specific political institutions and processes.

Examples of included programs
- Comparative government and politics
- Comparative politics
- Political philosophy
- Political science
- Political science and government
- Political studies

Examples of excluded programs
- Political communication [*see* 09.0904 Political Communication]
- Public administration [*see* 44.0401 Public Administration]
- Public policy [*see* 44.0501 Public Policy Analysis]
- International politics [*see* 45.0901 International Relations and Affairs]
- American politics [*see* 45.1002 American Government and Politics (United States)]
- Canadian government and politics [*see* 45.1003 Canadian Government and Politics]

45.1002 American Government and Politics (United States)

This instructional program class comprises any program that focuses on the systematic study of United States political institutions and behaviour. These programs include courses in American political theory, political parties and interest groups, state and local governments, Constitutional law, federalism and national institutions, executive and legislative politics, judicial politics, popular attitudes and media influences, political research methods, and applications to the study of specific issues and institutions.

Example of included programs
- American politics

Examples of excluded programs
- American studies [*see* 05.0102 American/United States Studies/Civilization]
- Political communication [*see* 09.0904 Political Communication]
- Government administration [*see* 44.0401 Public Administration]
- Political science and government [*see* 45.1001 Political Science and Government, General]

45.1003 Canadian Government and Politics

This instructional program class comprises any program that focuses on the systematic study of Canadian political institutions and behaviour. These programs include courses in British and North American political theory, political parties and interest groups, provincial and local governments, constitutional law, federalism and national institutions, executive and legislative politics, judicial politics, popular attitudes and media influences, political research methods, and applications to the study of specific issues and institutions.

Examples of included programs
- Canadian government and politics
- Canadian political science
- Canadian political studies
- Canadian politics

Examples of excluded programs
- Canadian studies [*see* 05.0115 Canadian Studies]
- Political communication [*see* 09.0904 Political Communication]
- Government administration [*see* 44.0401 Public Administration]
- Political science and government [*see* 45.1001 Political Science and Government, General]
- Canadian history [*see* 54.0107 Canadian History]

45.1099 Political Science and Government, Other

This instructional program class comprises any program not listed above that relates to Political Science and Government.

Examples of excluded programs
- Public relations and communication management [*see* 09.0902 Public Relations/Image Management]
- Political communication [*see* 09.0904 Political Communication]
- Public administration [*see* 44.0401 Public Administration]
- International politics [*see* 45.0901 International Relations and Affairs]
- American politics [*see* 45.1002 American Government and Politics (United States)]
- Canadian government and politics [*see* 45.1003 Canadian Government and Politics]

45.11 Sociology

This subseries comprises instructional program class 45.1101.

45.1101 Sociology

This instructional program class comprises any program that focuses on the systematic study of human social institutions and social relationships. These programs include courses in social theory, sociological research methods, social organization and structure, social stratification and hierarchies, dynamics of social change, family structures, social deviance and control, and applications to the study of specific social groups, social institutions, and social problems.

Example of included programs
- Sociology

Examples of excluded programs
- Sociology education [*see* 13.1317 Social Science Teacher Education]
- Behavioural science [*see* 30.1701 Behavioural Sciences]
- Psychosociology [*see* 42.1601 Social Psychology]
- Social sciences [*see* 45.0101 Social Sciences, General]

45.12 Urban Studies/Affairs

This subseries comprises instructional program class 45.1201.

45.1201 Urban Studies/Affairs

This instructional program class comprises any program that focuses on the application of social science principles to the study of urban institutions and the forces influencing urban social and political life. These

programs include courses in urban theory, the development and evolution of urban areas, urban sociology, principles of urban and social planning, and the politics and economics of urban government and services.

Examples of included programs
- Urban affairs
- Urban studies

Examples of excluded programs
- Urban forestry [*see* 03.0508 Urban Forestry]
- Urban development [*see* 04.0301 City/Urban, Community and Regional Planning]
- Urban education leadership [*see* 13.0410 Urban Education and Leadership]
- Social economics [*see* 45.0699 Economics, Other]

45.99 Social Sciences, Other

This subseries comprises instructional program class 45.9999.

45.9999 Social Sciences, Other

This instructional program class comprises any program not listed above that relates to Social Sciences.

Examples of excluded programs
- Social sciences [*see* 45.0101 Social Sciences, General]
- Social demography [*see* 45.0501 Demography and Population Studies]
- Sociology [*see* 45.1101 Sociology]

46. Construction Trades

This series comprises instructional programs that prepare individuals to apply technical knowledge and skills in the building, inspecting, and maintaining of structures and related properties.

46.00 Construction Trades, General

This subseries comprises instructional program class 46.0000.

46.0000 Construction Trades, General

This instructional program class comprises any program that generally prepares individuals to apply technical knowledge and skills in the building, inspecting, and maintaining of structures and related properties. These programs include courses in masonry, carpentry, electrical and power transmission installation, building/construction finishing, management, inspection and other construction-related applications.

Examples of included programs
- Construction
- Construction trades
- General construction
- Home building
- Residential construction

Examples of excluded programs
- Construction engineering [*see* 14.3301 Construction Engineering]
- Construction engineering technician [*see* 15.1001 Construction Engineering Technology/Technician]
- Construction drafting [*see* 15.1303 Architectural Drafting and Architectural CAD/CADD]
- Heavy construction equipment operator [*see* 49.0202 Construction/Heavy Equipment/Earthmoving Equipment Operation]
- Construction management [*see* 52.2001 Construction Management]

46.01 Masonry/Mason

This subseries comprises instructional program class 46.0101.

46.0101 Masonry/Mason

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills in the laying and/or setting of brick, concrete block, hard tile, marble and related materials, using trowels, levels, hammers, chisels, and other hand tools. These programs include courses in technical mathematics, blueprint reading, structural masonry, decorative masonry, foundations, reinforcement, mortar preparation, cutting and finishing, and applicable codes and standards.

Examples of included programs
- Brick masonry
- Bricklaying
- Concrete block laying
- Masonry
- Restoration masonry
- Stone masonry

Example of excluded programs
- Concrete finishing [*see* 46.0402 Concrete Finishing/Concrete Finisher]

46.02 Carpentry/Carpenter

This subseries comprises instructional program class 46.0201.

46.0201 Carpentry/Carpenter

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to lay out, cut, fabricate, erect, install, and repair wooden structures and fixtures, using hand and power tools. These programs include courses in technical mathematics, framing, construction materials and selection, job estimating, blueprint reading, foundations and roughing-in, finish carpentry techniques, and applicable codes and standards.

Examples of included programs
- Carpentry
- Construction carpentry
- Finishing carpentry

Examples of excluded programs
- Woodworking [*see* 48.0701 Woodworking, General]
- Cabinet making [*see* 48.0703 Cabinetmaking and Millwork]

46.03 Electrical and Power Transmission Installers

This subseries comprises instructional program classes 46.0301 to 46.0399.

46.0301 Electrical and Power Transmission Installation/Installer, General

This instructional program class comprises any program that generally prepares individuals to apply technical knowledge and skills to install indoor and outdoor residential, commercial, and industrial electrical systems, and associated power transmission lines. These programs include courses in electricity, safety procedures, wiring, insulation and grounding, schematic blueprint interpretation, equipment operation and maintenance, and applicable codes and standards.

Example of included programs
- Electrical systems installation

Examples of excluded programs
- Electrical engineering [*see* 14.1001 Electrical, Electronics and Communications Engineering]
- Electrical technician [*see* 15.0303 Electrical, Electronic and Communications Engineering Technology/Technician]
- Electrician [*see* 46.0302 Electrician]
- Electrical power lineman/woman [*see* 46.0303 Lineworker]
- Electronics repair [*see* 47.0101 Electrical/Electronics Equipment Installation and Repair, General]
- Power engineering (1st to 5th class) [*see* 47.0501 Stationary Energy Sources Installer and Operator]

46.0302 Electrician

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to install, operate, maintain, and repair electric apparatus and systems such as residential, commercial, and industrial electric-power wiring; and DC and AC motors, controls, and electrical distribution panels. These programs include courses in the principles of electronics and electrical systems, wiring, power transmission, safety, industrial and household appliances, job estimation, electrical testing and inspection, and applicable codes and standards.

Examples of included programs
- Construction electrician
- Electrician
- Industrial electrician
- Licensed electrician
- Master electrician

Examples of excluded programs
- Electrical technician [*see* 15.0303 Electrical, Electronic and Communications Engineering Technology/Technician]
- Electromechanical technician [*see* 15.0403 Electromechanical Technology/Electromechanical Engineering Technology]
- Electrical systems installation [*see* 46.0301 Electrical and Power Transmission Installation/Installer, General]
- Electrical power lineman/woman [*see* 46.0303 Lineworker]
- Electrical repair [*see* 47.0101 Electrical/Electronics Equipment Installation and Repair, General]

46.0303 Lineworker

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to install, operate, maintain and repair local, long-distance, and rural electric power cables and communication lines; erect and construct pole and tower lines; and install underground lines and cables. These programs include courses in cable installation and repair, fibre-optic technology, trenching, mobile equipment and crane operation, high-voltage installations, maintenance and inspection, safety, remote communications, and applicable codes and standards.

Examples of included programs
- Cable splicer
- Electrical power lineman/woman
- High voltage lineman
- Power line installation
- Power line maintenance
- Power line repair
- Power line technician
- Power lineman/woman
- Telephone line installation
- Telephone line repair

Examples of excluded programs
- Electrical technician [*see* 15.0303 Electrical, Electronic and Communications Engineering Technology/Technician]
- Electromechanical technician [*see* 15.0403 Electromechanical Technology/Electromechanical Engineering Technology]
- Electrical systems installation [*see* 46.0301 Electrical and Power Transmission Installation/Installer, General]
- Electrical repair [*see* 47.0101 Electrical/Electronics Equipment Installation and Repair, General]

46.0399 Electrical and Power Transmission Installers, Other

This instructional program class comprises any program not listed above that relates to Electrical and Power Transmission Installers.

46.04 Building/Construction Finishing, Management and Inspection

This subseries comprises instructional program classes 46.0401 to 46.0499.

46.0401 Building/Property Maintenance and Management

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to keep a building functioning, and to service a variety of structures including commercial and industrial buildings and mobile homes. These programs include courses in the basic maintenance and repair skills required to service building systems, such as air conditioning, heating, plumbing, electrical, major appliances, and other mechanical systems.

Examples of included programs
- Building maintenance
- Building management
- Building service technician
- Property maintenance

Examples of excluded programs
- Facilities management [*see* 19.0604 Facilities Planning and Management]
- Site management [*see* 46.0412 Building/Construction Site Management/Manager]
- Heating and air conditioning (HAC) technician [*see* 47.0201 Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/Technician (HAC, HACR, HVAC, HVACR)]
- Real estate [*see* 52.1501 Real Estate]

46.0402 Concrete Finishing/Concrete Finisher

This instructional program class comprises any program that prepares individuals to prepare, construct, and finish buildings, components, and related structures using masonry mixtures of stone, gravel, sand, cement, and water. These programs include courses in site preparation, applied mathematics, mixing formulas and applications, job estimation, concrete design, finishing techniques, mold preparation, reinforcement installation, site safety, and equipment operation and maintenance.

Examples of included programs
- Cement finishing
- Concrete finishing

Example of excluded programs
- Concrete block laying [*see* 46.0101 Masonry/Mason]

46.0403 Building/Home/Construction Inspection/Inspector

This instructional program class comprises any program that prepares individuals to apply industrial, labour, and governmental standards and laws to the oversight of construction projects and the maintenance of completed buildings and other structures. These programs include courses in construction processes and techniques, materials analysis, occupational safety and health, industry standards, building codes and specifications, blueprint interpretation, testing equipment and procedures, communication skills, accident investigation, and documentation.

Examples of included programs
- Building inspection
- Home inspection

Examples of excluded programs
- Quality inspector training [*see* 15.0702 Quality Control Technology/Technician]
- Construction supervision [*see* 46.0412 Building/Construction Site Management/Manager]
- Construction management [*see* 52.2001 Construction Management]

46.0404 Drywall Installation/Drywaller

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to install, tape, and plaster drywall installations in interior and exterior construction jobs. These programs include courses in drywall handling and transport, cutting and mounting, taping and spackling, finishing, job analysis and estimation, site safety, tool operation and maintenance, blueprint and specification interpretation, and applicable codes and standards.

Examples of included programs
- Drywall finishing
- Drywall installation
- Drywall taping
- Drywalling
- Lather
- Plastering
- Wall and ceiling installation

Example of excluded programs
- Insulation [*see* 46.0499 Building/Construction Finishing, Management and Inspection, Other]

46.0406 Glazier

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to install and repair fixtures, sheets, windows, and skylights made of glass, plexiglass, and other transparent materials. These programs include courses in site measurement, job analysis and estimation, material cutting and trimming, window and door installation, site safety, equipment operation and maintenance, specification interpretation, and applicable codes and standards.

Examples of included programs
- Auto glass technician
- Glass working
- Glazier
- Glazier—auto glass technician
- Glazing

Examples of excluded programs
- Auto body repair [*see* 47.0603 Autobody/Collision and Repair Technology/Technician]
- Glass blowing [*see* 50.0799 Fine Arts and Art Studies, Other]
- Opticianry [*see* 51.1801 Opticianry/Ophthalmic Dispensing Optician]

46.0408 Painting/Painter and Wall Coverer

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to finish exterior and interior structural surfaces by applying protective or decorative coating materials, such as paint, lacquer, and wallpaper. These programs include courses in surface preparation; selecting, preparing, and applying paints and other coatings; hanging wallpaper; equipment operation and maintenance; finish selection; safety and clean-up; environmental effects on finishes; adhesion properties; and applicable codes and standards.

Examples of included programs
- Commercial painting
- House painting
- Industrial painting

Examples of excluded programs
- Home decorating [*see* 19.0605 Home Furnishings and Equipment Installers]
- Auto body painting [*see* 47.0603 Autobody/Collision and Repair Technology/Technician]
- Sign painting [*see* 50.0402 Commercial and Advertising Art]
- Interior design [*see* 50.0408 Interior Design]
- Painting [*see* 50.0708 Painting]

46.0410 Roofer

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to prepare, install, and maintain exterior roofing materials and roofs. These programs include courses in building materials, flashing, lag bolts, site safety, equipment operation and maintenance, layering, site preparation, basic internal structural design, finishing, waterproofing, and applicable codes and standards.

Examples of included programs
- Commercial roofing
- Industrial roofing
- Roofer
- Roofing

Example of excluded programs
- Construction trades [*see* 46.0000 Construction Trades, General]

46.0411 Metal Building Assembly/Assembler

This instructional program class comprises any program that prepares individuals to construct industrial, storage, and commercial metal structures using prefabricated framing and siding components. These programs include courses in sheet metal working, ironworking, assembly and fastening techniques, blueprint reading, site preparation, structural design principles, safety, and applicable codes and regulations.

Example of included programs
- Metal building assembly

Examples of excluded programs
- Metal engineering [*see* 14.2001 Metallurgical Engineering]
- Sheet metal technician [*see* 48.0506 Sheet Metal Technology/Sheetworking]
- Welding [*see* 48.0508 Welding Technology/Welder]
- Ironworker [*see* 48.0509 Ironworking/Ironworker]
- Jewellery design [*see* 50.0713 Metal and Jewellery Arts]

46.0412 Building/Construction Site Management/Manager

This instructional program class comprises any program that prepares individuals to supervise, manage, and inspect construction sites, buildings, and associated facilities. These programs include courses in site safety, personnel supervision, labour relations, diversity training, construction documentation, scheduling, resource and cost control, bid strategies, rework prevention, construction insurance and bonding, accident management and investigation, applicable laws and regulations, and communication skills.

Examples of included programs
- Construction foreman/woman
- Construction supervision
- Site management

Examples of excluded programs
- Construction engineering [*see* 14.3301 Construction Engineering]
- Quality inspector training [*see* 15.0702 Quality Control Technology/Technician]
- Building construction technology [*see* 15.1001 Construction Engineering Technology/Technician]
- Building inspection [*see* 46.0403 Building/Home/Construction Inspection/Inspector]
- Construction management [*see* 52.2001 Construction Management]

46.0499 Building/Construction Finishing, Management and Inspection, Other

This instructional program class comprises any program not listed above that relates to Building/Construction Finishing, Management and Inspection.

Examples of included programs
- Carpet installation
- Carpet laying
- Ceramic tile installation
- Ceramic tile setting
- Floor covering installation
- Floor laying
- Insulation

Example of excluded programs
- Construction [*see* 46.0000 Construction Trades, General]

46.05 Plumbing and Related Water Supply Services

This subseries comprises instructional program classes 46.0502 to 46.0599.

46.0502 Pipefitting/Pipefitter and Sprinkler Fitter

This instructional program class comprises any program that prepares individuals to design, install, and test industrial and commercial piping systems and automatic fire and exposure protection systems. These programs include courses in water systems, steam systems, heating and cooling systems, lubricating systems, piping materials, installation tools operation and maintenance, valve installation and repair, technical mathematics, blueprint interpretation, and applicable codes and standards.

Examples of included programs
- Gas fitting
- Industrial pipefitting
- Pipefitting
- Sprinkler fitter
- Sprinkler installation
- Sprinkler systems installer
- Steamfitting

Examples of excluded programs
- Air conditioning and refrigeration engineering technician [*see* 15.0501 Heating, Air Conditioning and Refrigeration Technology/Technician (ACH/ACR/ACHR/HRAC/HVAC/AC Technology)]
- Fire protection engineering technician [*see* 15.9999 Engineering Technologies/Technicians, Other]
- Plumber [*see* 46.0503 Plumbing Technology/Plumber]
- Heating, air conditioning and refrigeration (HACR) technician [*see* 47.0201 Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/Technician (HAC, HACR, HVAC, HVACR)]

46.0503 Plumbing Technology/Plumber

This instructional program class comprises any program that prepares individuals to practice as licensed plumbers by applying technical knowledge and skills to lay out, assemble, install, and maintain piping fixtures and systems for steam, natural gas, oil, hot water, heating, cooling, drainage, lubricating, in home and business environments. These programs include courses in source determination, water distribution, waster removal, pressure adjustment, basic physics, technical mathematics, blueprint reading, pipe installation, pumps, welding and soldering, plumbing inspection, and applicable codes and standards.

Examples of included programs
- Master plumber
- Plumber
- Plumbing

Examples of excluded programs
- Air conditioning and refrigeration engineering technician [*see* 15.0501 Heating, Air Conditioning and Refrigeration Technology/Technician (ACH/ACR/ACHR/HRAC/HVAC/AC Technology)]
- Pipefitting [*see* 46.0502 Pipefitting/Pipefitter and Sprinkler Fitter]
- Heating and air conditioning (HAC) technician [*see* 47.0201 Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/Technician (HAC, HACR, HVAC, HVACR)]
- Pressure welding [*see* 48.0508 Welding Technology/Welder]

46.0504 Well Drilling/Driller

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to set up, maintain, repair, and operate well drilling equipment; locate, drill, construct, and develop water, gas, and oil wells; and test and monitor wells to ensure adequate flow. These programs include courses with applications to home, business, and industrial uses.

Examples of included programs
- Natural gas drilling
- Oil and gas drilling
- Oil drilling
- Oil field drilling
- Oil well drilling
- Water wells drilling
- Well drilling

Examples of excluded programs
- Mining engineering [*see* 14.2101 Mining and Mineral Engineering]
- Oil and gas engineering [*see* 14.2501 Petroleum Engineering]
- Mining technology [*see* 15.0901 Mining Technology/Technician]
- Oil and gas field operations [*see* 15.0903 Petroleum Technology/Technician]
- Drilling and blasting [*see* 46.0505 Blasting/Blaster]

46.0505 Blasting/Blaster

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills in using a variety of explosive materials to aid in the construction process. These programs include courses in safety procedures for storing, handling, placement, charge power determination, drilling, pounding, building demolition, preparing rocky surfaces, building foundations and destruction of explosives.

Examples of included programs
- Blasting
- Blasting technician
- Drilling and blasting
- Explosives technician

Example of excluded programs
- Oil and gas drilling [*see* 46.0504 Well Drilling/Driller]

46.0599 Plumbing and Related Water Supply Services, Other

This instructional program class comprises any program not listed above that relates to Plumbing and Related Water Supply Services.

46.99 Construction Trades, Other

This subseries comprises instructional program class 46.9999.

46.9999 Construction Trades, Other

This instructional program class comprises any program not listed above that relates to Construction Trades.

Examples of included programs
- Building renovation technician
- Building restoration technician
- Elevator installation
- Elevator mechanic
- Elevator technology

Example of excluded programs
- Heavy construction equipment operator [*see* 49.0202 Construction/Heavy Equipment/Earthmoving Equipment Operation]

47. Mechanic and Repair Technologies/Technicians

This series comprises instructional programs that prepare individuals to apply technical knowledge and skills in the adjustment, maintenance, part replacement, and repair of tools, equipment, and machines.

47.00 Mechanics and Repairers, General

This subseries comprises instructional program class 47.0000.

47.0000 Mechanics and Repairers, General

This instructional program class comprises any program that generally prepares individuals to apply technical knowledge and skills in the adjustment, maintenance, part replacement, and repair of tools, equipment, and machines.

Examples of included programs
- Equipment mechanic
- Equipment repair
- General mechanic
- Machine mechanic
- Machine repair
- Maintenance mechanic

Examples of excluded programs
- Agricultural machinery technician [*see* 01.0205 Agricultural Mechanics and Equipment/Machine Technology]
- Mechanical engineering [*see* 14.1901 Mechanical Engineering]
- Electromechanical technician [*see* 15.0403 Electromechanical Technology/Electromechanical Engineering Technology]
- Mechanical technician [*see* 15.0805 Mechanical Engineering/Mechanical Technology/Technician]
- Heavy equipment mechanic [*see* 47.0302 Heavy Equipment Maintenance Technology/Technician]
- Industrial mechanic [*see* 47.0303 Industrial Mechanics and Maintenance Technology]
- Heavy duty/commercial transport repair mechanic [*see* 47.0613 Medium/Heavy Vehicle and Truck Technology/Technician]

47.01 Electrical/Electronics Maintenance and Repair Technology

This subseries comprises instructional program classes 47.0101 to 47.0199.

47.0101 Electrical/Electronics Equipment Installation and Repair, General

This instructional program class comprises any program that generally prepares individuals to apply technical knowledge and skills to operate, maintain, and repair electrical and electronic equipment. These

programs include courses in electrical circuitry, simple gearing, linkages and lubrication of machines and appliances, and the use of testing equipment.

Examples of included programs
- Electrical maintenance
- Electrical motor systems technician
- Electrical repair
- Electronics repair
- Radio and TV repair
- TV and VCR repair

Examples of excluded programs
- Electrical and electronic engineering [*see* 14.1001 Electrical, Electronics and Communications Engineering]
- Electronic systems technician [*see* 15.0303 Electrical, Electronic and Communications Engineering Technology/Technician]
- Electromechanical technician [*see* 15.0403 Electromechanical Technology/Electromechanical Engineering Technology]
- Electrical systems installation [*see* 46.0301 Electrical and Power Transmission Installation/Installer, General]

47.0102 Business Machine Repair

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to maintain and repair a variety of office machines, such as typewriters, word processing and dictation machines, calculators, duplicating machines, and mailing machines. These programs include courses in diagnostic techniques, the use of testing equipment, and the principles of mechanics, electricity, and electronics as they relate to the repair of business machines.

Examples of included programs
- Business equipment repair
- Business machine repair
- Business machine technician
- Office machine technician
- Photocopier technician

Example of excluded programs
- Microcomputer maintenance and support [*see* 47.0104 Computer Installation and Repair Technology/Technician]

47.0103 Communications Systems Installation and Repair Technology

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to assemble, install, operate, maintain, and repair one- and two- way communications equipment and systems, including television cable systems and mobile or stationary communication devices. These programs include courses in diagnostic techniques, the use of testing equipment and the principles of mechanics, electricity, and electronics as they relate to the repair of communications systems.

Examples of included programs
- Cable installation
- Cable technician
- Telephone installation
- Telephone repair

Examples of excluded programs
- Communications technician [*see* 10.0105 Communications Technology/Technician]
- Audiovisual technician [*see* 10.0299 Audiovisual Communications Technologies/Technicians, Other]
- Electronic engineering technology—communication [*see* 15.0303 Electrical, Electronic and Communications Engineering Technology/Technician]
- Telecommunications technician [*see* 15.0305 Telecommunications Technology/Technician]

47.0104 Computer Installation and Repair Technology/Technician

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to assemble, install, operate, maintain, and repair computers and related equipment. These programs include courses in power supplies, number systems, memory structure, buffers and registers, microprocessor design, peripheral equipment, programming, and networking.

Examples of included programs
- Computer service technician
- Computer systems service technician
- Microcomputer maintenance and support

Examples of excluded programs
- Computer systems technology [*see* 15.1202 Computer Technology/Computer Systems Technology]
- Business equipment repair [*see* 47.0102 Business Machine Repair]

47.0105 Industrial Electronics Technology/Technician

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to assemble, install, operate, maintain, and repair electrical/electronic equipment used in industry and manufacturing. These programs include courses in installing, maintaining and testing various types of equipment.

Examples of included programs
- Industrial electronics technician
- Industrial electronics technology

Examples of excluded programs
- Electronic engineering [*see* 14.1001 Electrical, Electronics and Communications Engineering]
- Electronic systems technician [*see* 15.0303 Electrical, Electronic and Communications Engineering Technology/Technician]
- Industrial technician [*see* 15.0612 Industrial Technology/Technician]
- Electrical systems installation [*see* 46.0301 Electrical and Power Transmission Installation/Installer, General]
- Industrial electrician [*see* 46.0302 Electrician]
- Electronics repair [*see* 47.0101 Electrical/Electronics Equipment Installation and Repair, General]

47.0106 Appliance Installation and Repair Technology/Technician

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to repair, install, and service major gas, electric, and consumer appliances such as stoves, microwaves, refrigerators, dryers, water heaters, washers, dishwashers, and commercial units such as ice makers and coffee makers.

Examples of included programs
- Appliance repair
- Appliance service technician
- Appliance technician

Examples of excluded programs
- General mechanic [*see* 47.0000 Mechanics and Repairers, General]
- TV and VCR repair [*see* 47.0101 Electrical/Electronics Equipment Installation and Repair, General]
- Telephone installation [*see* 47.0103 Communications Systems Installation and Repair Technology]

47.0110 Security System Installation, Repair and Inspection Technology/Technician

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to install and repair household, business, and industrial security alarms, sensors, video and sound recording devices, identification systems, protective barriers, and related technologies.

Examples of included programs
- Alarm installation
- Fire alarm and protection system
- Fire alarm technician
- Security alarm installation
- Security alarm service technician
- Security alarm technician
- Security and alarm systems technician

Examples of excluded programs
- Computer security and investigations [*see* 11.1003 Computer and Information Systems Security]
- Security and loss prevention services [*see* 43.0109 Security and Loss Prevention Services]

47.0199 Electrical/Electronics Maintenance and Repair Technology, Other

This instructional program class comprises any program not listed above that relates to Electrical/Electronics Maintenance and Repair Technology.

Examples of included programs
- Motor rewinding
- Motor winding

Examples of excluded programs
- Automotive electrical repair [*see* 47.0604 Automobile/Automotive Mechanics Technology/Technician]
- Aircraft electronics service technician [*see* 47.0609 Avionics Maintenance Technology/Technician]
- Electric vehicle service technician [*see* 47.0614 Alternative Fuel Vehicle Technology/Technician]

47.02 Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/Technician (HAC, HACR, HVAC, HVACR)

This subseries comprises instructional program class 47.0201.

47.0201 Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/Technician (HAC, HACR, HVAC, HVACR)

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to repair, install, service and maintain the operating condition of heating, air conditioning, and refrigeration systems. These programs include courses in diagnostic techniques, the use of testing equipment and the principles of mechanics, electricity, and electronics as they relate to the repair of heating, air conditioning and refrigeration systems.

Examples of included programs
- Gas and oil burner technician
- Heating and air conditioning (HAC) technician
- Heating, air conditioning and refrigeration (HACR) technician
- Heating, ventilation and air conditioning (HVAC) mechanics
- Heating, ventilation, air conditioning and refrigeration (HVACR) technician
- Oil burner mechanics
- Refrigeration mechanic
- Transport refrigeration service technician

Examples of excluded programs
- Heating, ventilation and air conditioning (HVAC) technology [*see* 15.0501 Heating, Air Conditioning and Refrigeration Technology/Technician (ACH/ACR/ACHR/HRAC/HVAC/AC Technology)]
- Energy systems technology [*see* 15.0503 Energy Management and Systems Technology/Technician]
- Insulation [*see* 46.0499 Building/Construction Finishing, Management and Inspection, Other]
- Plumbing [*see* 46.0503 Plumbing Technology/Plumber]

47.03 Heavy/Industrial Equipment Maintenance Technologies

This subseries comprises instructional program classes 47.0302 to 47.0399.

47.0302 Heavy Equipment Maintenance Technology/Technician

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills in the field maintenance and repair of heavy equipment, and in the general maintenance and overhaul of such equipment. These programs include courses in inspection, maintenance, and repair of tracks, wheels, brakes, operating controls, pneumatic and hydraulic systems, electrical circuitry, engines and in techniques of welding and brazing.

Examples of included programs
- Fluid power and control mechanic
- Heavy duty equipment mechanic
- Heavy equipment maintenance
- Heavy equipment mechanic
- Heavy equipment repair
- Heavy equipment service technician
- Heavy equipment technician
- Heavy equipment techniques
- Hydraulic mechanic
- Motive power techniques—heavy equipment

Examples of excluded programs
- Agricultural machinery technician [*see* 01.0205 Agricultural Mechanics and Equipment/Machine Technology]
- Agricultural mechanics [*see* 01.0205 Agricultural Mechanics and Equipment/Machine Technology]
- Heavy duty/commercial transport repair mechanic [*see* 47.0613 Medium/Heavy Vehicle and Truck Technology/Technician]
- Heavy duty equipment operator [*see* 49.0202 Construction/Heavy Equipment/Earthmoving Equipment Operation]

47.0303 Industrial Mechanics and Maintenance Technology

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to repair and maintain industrial machinery and equipment such as cranes, pumps,

engines and motors, pneumatic tools, conveyor systems, production machinery, marine deck machinery, and steam propulsion, refinery, and pipeline-distribution systems.

Examples of included programs
- Industrial maintenance mechanic
- Industrial maintenance technician
- Industrial mechanic
- Industrial mechanic millwright
- Industrial mechanics
- Industrial millwright
- Mechanical millwright
- Millwright

Examples of excluded programs
- Industrial electronics technician [*see* 47.0105 Industrial Electronics Technology/Technician]
- Engine machinist [*see* 47.0615 Engine Machinist]
- Industrial machinist [*see* 48.0501 Machine Tool Technology/Machinist]

47.0399 Heavy/Industrial Equipment Maintenance Technologies, Other

This instructional program class comprises any program not listed above that relates to Heavy/Industrial Equipment Maintenance Technologies.

47.04 Precision Systems Maintenance and Repair Technologies

This subseries comprises instructional program classes 47.0402 to 47.0499.

47.0402 Gunsmithing/Gunsmith

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to make, repair, maintain, and modify firearms according to blueprints or customer specifications, using specialized hand tools and machines.

Examples of included programs
- Firearms repair
- Gunsmith
- Gunsmithing

Examples of excluded programs
- Law enforcement [*see* 43.0107 Criminal Justice/Police Science]
- Machining [*see* 48.0501 Machine Tool Technology/Machinist]

47.0403 Locksmithing and Safe Repair

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to make, repair, maintain, modify, and open locks; to make keys; to enter and change lock and safe combinations; and install and repair safes.

Examples of included programs
- Locksmith
- Locksmithing

Examples of excluded programs
- Security [*see* 43.0109 Security and Loss Prevention Services]
- Machinist [*see* 48.0501 Machine Tool Technology/Machinist]
- Tool making [*see* 48.0507 Tool and Die Technology/Technician]

47.0404 Musical Instrument Fabrication and Repair

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to make, repair, maintain, and tune acoustic and electric musical instruments. These programs include courses in methods and equipment for making musical instruments, electronic instrument amplification systems, techniques of cleaning, and methods of tuning musical instruments.

Examples of included programs
- Musical instrument repair
- Piano technician
- Piano technology
- Piano tuning
- Violin making

Examples of excluded programs
- Sound engineering [*see* 10.0203 Recording Arts Technology/Technician]
- Woodworking [*see* 48.0701 Woodworking, General]
- Music [*see* 50.0901 Music, General]
- Music performance [*see* 50.0903 Music Performance, General]
- Sonic design [*see* 50.0904 Music Theory and Composition]

47.0408 Watchmaking and Jewellery Making

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to make repairs, and maintain timepieces, time-measuring devices, and jewellery items. These programs include courses in mechanical timekeeping systems, digital timekeeping systems, timesetting, casting, engraving, polishing, stonesetting, soldering, fine microscopic work, equipment and tool maintenance, redesign and restyling techniques, and customer relations.

Examples of included programs
- Clock repair
- Clockmaking
- Jewellery making
- Jewellery repair
- Watch repair
- Watchmaking

Example of excluded programs
- Jewellery design [*see* 50.0713 Metal and Jewellery Arts]

47.0409 Parts and Warehousing Operations and Maintenance Technology/Technician

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to maintain inventory control, care for inventory, and make minor repairs to warehouse equipment.

Examples of included programs
- Automotive parts and light warehousing
- Automotive partsman/woman
- Industrial warehousing
- Parts technician
- Partsman/woman
- Warehouse technician

Example of excluded programs
- Warehouse management [*see* 52.0409 Parts, Warehousing and Inventory Management Operations]

47.0499 Precision Systems Maintenance and Repair Technologies, Other

This instructional program class comprises any program not listed above that relates to Precision Systems Maintenance and Repair Technologies.

47.05 Stationary Energy Sources Installer and Operator^{CAN}

This subseries comprises instructional program class 47.0501.

47.0501 Stationary Energy Sources Installer and Operator^{CAN}

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to install, repair, operate, and maintain large power sources that could include generating electricity and heat.

Examples of included programs
- Power engineering (1st to 5th class)
- Power engineering technician
- Power engineering technology
- Power plant engineering technology
- Power system electrician
- Power system operation
- Stationary engineering
- Steam engineering

Examples of excluded programs
- Heating, ventilation and air conditioning (HVAC) technology [*see* 15.0501 Heating, Air Conditioning and Refrigeration Technology/Technician (ACH/ACR/ACHR/HRAC/HVAC/AC Technology)]
- Energy systems [*see* 15.0503 Energy Management and Systems Technology/Technician]
- Electrical systems installation [*see* 46.0301 Electrical and Power Transmission Installation/Installer, General]
- Heating, ventilation, air conditioning and refrigeration (HVACR) technician [*see* 47.0201 Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/Technician (HAC, HACR, HVAC, HVACR)]

47.06 Vehicle Maintenance and Repair Technologies

This subseries comprises instructional program classes 47.0603 to 47.0699.

47.0603 Autobody/Collision and Repair Technology/Technician

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to repair, reconstruct and finish automobile bodies, fenders, and external features. These programs include courses in structure analysis, damage repair, non-structural analysis, mechanical and electrical components, plastics and adhesives, painting and refinishing techniques, and damage analysis and estimating.

Examples of included programs
- Auto body
- Auto body collision repair
- Auto body mechanic
- Auto body painting
- Auto body refinisher
- Auto body repair
- Auto body technician
- Auto body work
- Automotive spray painting
- Motor vehicle body repair

Examples of excluded programs
- Auto glass technician [*see* 46.0406 Glazier]
- Commercial painting [*see* 46.0408 Painting/Painter and Wall Coverer]
- Automotive partsman/woman [*see* 47.0409 Parts and Warehousing Operations and Maintenance Technology/Technician]

47.0604 Automobile/Automotive Mechanics Technology/Technician

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain all types of automobiles. These programs include courses in brake systems, electrical systems, engine performance, engine repair, suspension and steering, automatic and manual transmissions and drive trains, and heating and air condition systems.

Examples of included programs
- Alignment and brakes technician
- Alignment mechanic
- Auto mechanic
- Auto repair
- Auto service technician
- Automobile mechanic
- Automotive electrical repair
- Automotive electronics
- Automotive mechanic
- Automotive repair
- Automotive service technician
- Automotive transmission repair
- Car mechanic
- Car repair
- Class A mechanic

Examples of excluded programs
- Farm machinery mechanic [*see* 01.0205 Agricultural Mechanics and Equipment/Machine Technology]
- Automotive engineering technician [*see* 15.0803 Automotive Engineering Technology/Technician]
- Mechanical technician [*see* 15.0805 Mechanical Engineering/Mechanical Technology/Technician]
- Auto body technician [*see* 47.0603 Autobody/Collision and Repair Technology/Technician]
- Heavy duty/commercial transport repair mechanic [*see* 47.0613 Medium/Heavy Vehicle and Truck Technology/Technician]
- Natural gas powered vehicle service technician [*see* 47.0614 Alternative Fuel Vehicle Technology/Technician]

47.0605 Diesel Mechanics Technology/Technician

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain diesel engines in vehicles such as automobiles, buses, ships, trucks, railroad locomotives, and construction equipment; as well as stationary diesel engines in electrical generators and related equipment.

Examples of included programs
- Automotive diesel mechanics
- Diesel engine mechanic
- Diesel mechanic
- Diesel service technician
- Diesel technician
- Heavy duty diesel mechanic
- Locomotive diesel mechanics
- Marine diesel mechanic
- Stationary diesel mechanics

Examples of excluded programs
- Farm machinery mechanic [*see* 01.0205 Agricultural Mechanics and Equipment/Machine Technology]
- Automotive engineering technology [*see* 15.0803 Automotive Engineering Technology/Technician]
- Mechanical systems [*see* 15.0805 Mechanical Engineering/Mechanical Technology/Technician]
- Heavy equipment mechanic [*see* 47.0302 Heavy Equipment Maintenance Technology/Technician]
- Automotive service technician [*see* 47.0604 Automobile/Automotive Mechanics Technology/Technician]
- Small engine repair [*see* 47.0606 Small Engine Mechanics and Repair Technology/Technician]

47.0606 Small Engine Mechanics and Repair Technology/Technician

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain small internal-combustion engines used on portable power equipment such as lawnmowers, chain saws, rotary tillers, and snowmobiles.

Examples of included programs
- Outdoor power equipment technician
- Small engine mechanic
- Small engine repair
- Small engine technician
- Small gas engine repair
- Small motor mechanic
- Snowmobile mechanics

Examples of excluded programs
- Automotive service technician [*see* 47.0604 Automobile/Automotive Mechanics Technology/Technician]
- Diesel engine mechanic [*see* 47.0605 Diesel Mechanics Technology/Technician]
- Engine machinist [*see* 47.0615 Engine Machinist]

47.0607 Airframe Mechanics and Aircraft Maintenance Technology/Technician

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain all aircraft components other than engines, propellers, avionics, and instruments. These programs include courses in layout and fabrication of sheet metal, fabric, wood, and other materials into structural members, parts, and fittings, and replacement of damaged or worn parts such as control cables and hydraulic units.

Examples of included programs
- Aircraft mechanic
- Aircraft structural repair technician
- Airframe mechanic

Examples of excluded programs
- Aerospace engineering technology [*see* 15.0801 Aeronautical/Aerospace Engineering Technology/Technician]
- Aircraft engine mechanic [*see* 47.0608 Aircraft Powerplant Technology/Technician]
- Avionics maintenance technician [*see* 47.0609 Avionics Maintenance Technology/Technician]
- Aviation sciences [*see* 49.0101 Aeronautics/Aviation/Aerospace Science and Technology, General]
- Flight engineer [*see* 49.0102 Airline/Commercial/Professional Pilot and Flight Crew]

47.0608 Aircraft Powerplant Technology/Technician

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain all types of aircraft powerplant and related systems. These programs include courses in engine inspection and maintenance, lubrication and cooling, electrical and ignition systems, carburetion, fuels and fuel systems, propeller and fan assemblies.

Examples of included programs
- Aero engine technician
- Aircraft engine mechanic
- Aircraft engine technician

Examples of excluded programs
- Aircraft engineering [*see* 14.0201 Aerospace, Aeronautical and Astronautical Engineering]
- Aeronautical engineering technology [*see* 15.0801 Aeronautical/Aerospace Engineering Technology/Technician]
- Aircraft mechanic [*see* 47.0607 Airframe Mechanics and Aircraft Maintenance Technology/Technician]
- Avionics technician [*see* 47.0609 Avionics Maintenance Technology/Technician]
- Aviation sciences [*see* 49.0101 Aeronautics/Aviation/Aerospace Science and Technology, General]

47.0609 Avionics Maintenance Technology/Technician

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain all types of aircraft operating, control, and electronic systems. These programs include courses in flight instrumentation, aircraft communications and homing systems, radar and other sensory systems, navigation aids, and specialized systems for various types of civilian and military aircraft.

Examples of included programs
- Aircraft electronics
- Aircraft electronics service technician
- Aircraft radar technician
- Aviation electronics
- Avionics maintenance technician
- Avionics technician
- Avionics technology

Examples of excluded programs
- Electrical and electronic engineering [*see* 14.1001 Electrical, Electronics and Communications Engineering]
- Electronic systems technician [*see* 15.0303 Electrical, Electronic and Communications Engineering Technology/Technician]
- Electromechanical technician [*see* 15.0403 Electromechanical Technology/Electromechanical Engineering Technology]
- Electrical maintenance [*see* 47.0101 Electrical/Electronics Equipment Installation and Repair, General]
- Aircraft structural repair technician [*see* 47.0607 Airframe Mechanics and Aircraft Maintenance Technology/Technician]
- Aircraft engine mechanic [*see* 47.0608 Aircraft Powerplant Technology/Technician]

47.0610 Bicycle Mechanics and Repair Technology/Technician

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain bicycles and other human-powered vehicles. These programs include courses in lubrication, adjustments of moving parts, and wheel building.

Examples of included programs
- Bicycle mechanics
- Bicycle repair

Example of excluded programs
- Motorcycle mechanic [*see* 47.0611 Motorcycle Maintenance and Repair Technology/Technician]

47.0611 Motorcycle Maintenance and Repair Technology/Technician

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain motorcycles and other similar powered vehicles. These programs include courses in lubrication and cooling systems, electrical and ignition systems, carburetion, fuel systems and adjustments of moving parts.

Examples of included programs
- Motorcycle mechanic
- Motorcycle repair
- Motorcycle service technician
- Motorcycle technician

Examples of excluded programs
- Maintenance mechanic [*see* 47.0000 Mechanics and Repairers, General]
- Small engine repair [*see* 47.0606 Small Engine Mechanics and Repair Technology/Technician]
- Bicycle mechanics [*see* 47.0610 Bicycle Mechanics and Repair Technology/Technician]

47.0612 Vehicle Emissions Inspection and Maintenance Technology/Technician

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to test, repair, service, and maintain vehicle emission systems in accordance with relevant laws and regulations.

Example of included programs
- Vehicle emissions technician

Example of excluded programs
- Muffler installer [*see* 47.0699 Vehicle Maintenance and Repair Technologies, Other]

47.0613 Medium/Heavy Vehicle and Truck Technology/Technician

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to the specialized maintenance and repair of trucks, buses, and other commercial and industrial vehicles. These programs include courses in diesel engine mechanics, suspension and steering, brake systems, electrical and electronic systems, preventive maintenance inspections, drive trains, gasoline engine mechanics, HVAC systems, and auxiliary equipment installation and repair.

Examples of included programs
- Commercial transport mechanic
- Commercial transport vehicle mechanic
- Heavy duty/commercial transport repair mechanic
- Truck and coach mechanic
- Truck and coach technician
- Truck and trailer mechanic
- Truck mechanic
- Truck service technician
- Truck transport service technician

Examples of excluded programs
- Agricultural machinery technician [*see* 01.0205 Agricultural Mechanics and Equipment/Machine Technology]
- Agricultural mechanics [*see* 01.0205 Agricultural Mechanics and Equipment/Machine Technology]
- Automotive engineering technician [*see* 15.0803 Automotive Engineering Technology/Technician]
- Machine mechanic [*see* 47.0000 Mechanics and Repairers, General]
- Heavy equipment technician [*see* 47.0302 Heavy Equipment Maintenance Technology/Technician]
- Industrial mechanic [*see* 47.0303 Industrial Mechanics and Maintenance Technology]
- Auto mechanic [*see* 47.0604 Automobile/Automotive Mechanics Technology/Technician]

47.0614 Alternative Fuel Vehicle Technology/Technician

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to the maintenance of alternative fuel vehicles and the conversion of standard vehicles to AFV status. These programs include courses in electrical vehicles, liquefied petroleum gas (LPG) vehicles, compressed natural gas, (CNG) vehicles, hybrid fuel technology, electrical and electronic systems, engine performance, diagnosis and repair, and conversion/installation.

Examples of included programs
- Alternative fuel powered vehicle technician
- Electric vehicle service technician
- Hybrid powered automobile service technician
- Natural gas powered vehicle service technician

Examples of excluded programs
- Automotive service technician [*see* 47.0604 Automobile/Automotive Mechanics Technology/Technician]
- Heavy duty/commercial transport repair mechanic [*see* 47.0613 Medium/Heavy Vehicle and Truck Technology/Technician]

47.0615 Engine Machinist

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to the building and reconstruction of automotive and commercial vehicle engines. These programs include courses in cylinder head and block, crack repair, crankshaft inspection and repair, connecting rods and pistons, balancing, block preparation, disassembly and repair, engine assembly, gas and diesel technology, and inspection and machining.

Examples of included programs
- Engine machinist
- Engine rebuilding

Examples of excluded programs
- Automotive mechanic [*see* 47.0604 Automobile/Automotive Mechanics Technology/Technician]
- Diesel engine mechanic [*see* 47.0605 Diesel Mechanics Technology/Technician]
- Small engine mechanic [*see* 47.0606 Small Engine Mechanics and Repair Technology/Technician]
- Machinist [*see* 48.0501 Machine Tool Technology/Machinist]

47.0616 Marine Maintenance/Fitter and Ship Repair Technology/Technician

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to repair outboard and inboard engines; test, maintain, and repair steering devices and electrical systems; repair metal, wood, and fibreglass hulls and vessel components; fabricate and maintain sails; and repair and balance propellers and drive shafts.

Examples of included programs
- Fibreglass boat repair
- Hull technician
- Marine service technician
- Outboard mechanics
- Shipwright

Examples of excluded programs
- Marine engineering [*see* 14.2201 Naval Architecture and Marine Engineering]
- Marine engineering technology [*see* 15.0899 Mechanical Engineering Related Technologies/Technicians, Other]
- Marine diesel mechanic [*see* 47.0605 Diesel Mechanics Technology/Technician]

47.0699 Vehicle Maintenance and Repair Technologies, Other

This instructional program class comprises any program not listed above that relates to Vehicle Maintenance and Repair Technologies.

Examples of included programs
- Fuel and lube technician
- Muffler installer
- Railway car service and repair
- Recreational vehicle (RV) mechanic
- Recreational vehicle service technician
- Tire repair

Examples of excluded programs
- Farm machinery mechanic [*see* 01.0205 Agricultural Mechanics and Equipment/Machine Technology]
- Marine service technician [*see* 47.0616 Marine Maintenance/Fitter and Ship Repair Technology/Technician]

47.99 Mechanic and Repair Technologies/Technicians, Other

This subseries comprises instructional program class 47.9999.

47.9999 Mechanic and Repair Technologies/Technicians, Other

This instructional program class comprises any program not listed above that relates to Mechanic and Repair Technologies/Technicians.

Example of included programs
- Sewing machine mechanic

Example of excluded programs
- Small engine mechanic [*see* 47.0606 Small Engine Mechanics and Repair Technology/Technician]

48. Precision Production

This series comprises instructional programs that prepare individuals to apply technical knowledge and skills to create products using techniques of precision craftsmanship or technical illustration.

48.00 Precision Production Trades, General

This subseries comprises instructional program class 48.0000.

48.0000 Precision Production Trades, General

This instructional program class comprises any program that generally prepares individuals to apply technical knowledge and skills in creating products using precision crafting and technical illustration.

Examples of excluded programs
- Graphic production and printing [*see* 10.0301 Graphic Communications, General]
- Graphic design for print and web [*see* 10.0303 Prepress/Desktop Publishing and Digital Imaging Design]
- Design and drafting technology [*see* 15.1301 Drafting and Design Technology/Technician, General]
- Gunsmithing [*see* 47.0402 Gunsmithing/Gunsmith]
- Watchmaking [*see* 47.0408 Watchmaking and Jewellery Making]
- Jewellery design [*see* 50.0713 Metal and Jewellery Arts]

48.03 Leatherworking and Upholstery

This subseries comprises instructional program classes 48.0303 to 48.0399.

48.0303 Upholstery/Upholsterer

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to install springs, filling, padding, covering and finishing on items such as furniture, automobile seats, caskets, mattresses, and bedsprings.

Examples of included programs
- Auto upholstery
- Furniture upholstery
- Upholstering
- Upholstery

Examples of excluded programs
- Textile manufacturing [*see* 19.0902 Apparel and Textile Manufacture]
- Motor vehicle body repair [*see* 47.0603 Autobody/Collision and Repair Technology/Technician]
- Furniture design [*see* 48.0702 Furniture Design and Manufacturing]

48.0304 Shoe, Boot and Leather Repair

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to make or repair all types of footwear, including replacement and mending of worn parts; repairing orthopedic footwear; refinishing and dyeing leather; and repairing other leather goods such as handbags, belts, and luggage.

Examples of included programs
- Cobbler
- Leather goods repair
- Shoe making
- Shoe repair

Examples of excluded programs
- Sewing [*see* 19.0999 Apparel and Textiles, Other]
- Handicrafts [*see* 50.0201 Crafts/Craft Design, Folk Art and Artisanry]

48.0399 Leatherworking and Upholstery, Other

This instructional program class comprises any program not listed above that relates to Leatherworking and Upholstery.

Examples of excluded programs
- Sewing [*see* 19.0999 Apparel and Textiles, Other]
- Handicrafts [*see* 50.0201 Crafts/Craft Design, Folk Art and Artisanry]

48.05 Precision Metal Working

This subseries comprises instructional program classes 48.0501 to 48.0599.

48.0501 Machine Tool Technology/Machinist

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to plan, manufacture, assemble, test, and repair parts, mechanisms, machines, and structures in which materials are cast, formed, shaped, moulded, heat treated, cut, twisted, pressed, fused, stamped or worked.

Examples of included programs
- Computer numerical control (CNC) machining
- Computerized numerically controlled manufacturing
- General machinist
- Industrial machinist
- Machine building
- Machine tool fitter
- Machine tool operator
- Machining
- Machinist
- Numerical control machine tool operation
- Numerical control operator

Examples of excluded programs
- Gunsmithing [*see* 47.0402 Gunsmithing/Gunsmith]
- Locksmithing [*see* 47.0403 Locksmithing and Safe Repair]
- Engine machinist [*see* 47.0615 Engine Machinist]
- Machine shop technology [*see* 48.0503 Machine Shop Technology/Assistant]
- Tool and die technician [*see* 48.0507 Tool and Die Technology/Technician]

48.0503 Machine Shop Technology/Assistant

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to fabricate and modify metal parts in support of other manufacturing, repair or design activities, or as an independent business.

Examples of included programs
- Machine shop
- Machine shop technology

Examples of excluded programs
- Locksmithing [*see* 47.0403 Locksmithing and Safe Repair]
- Musical instrument repair [*see* 47.0404 Musical Instrument Fabrication and Repair]
- Machine tool fitter [*see* 48.0501 Machine Tool Technology/Machinist]
- Tool and die technician [*see* 48.0507 Tool and Die Technology/Technician]

48.0506 Sheet Metal Technology/Sheetworking

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to form, shape, bend and fold extruded metals, including the creation of new products, using hand tools and machines such as cornice brakes, forming rolls, and squaring shears.

Examples of included programs
- Precision sheet metal
- Sheet metal
- Sheet metal fabrication
- Sheet metal technician
- Sheet metal work
- Tinsmith

Examples of excluded programs
- Metal building assembly [*see* 46.0411 Metal Building Assembly/Assembler]
- Airframe mechanic [*see* 47.0607 Airframe Mechanics and Aircraft Maintenance Technology/Technician]
- Metal pattern maker [*see* 48.0507 Tool and Die Technology/Technician]
- Welder [*see* 48.0508 Welding Technology/Welder]
- Ironworker [*see* 48.0509 Ironworking/Ironworker]

48.0507 Tool and Die Technology/Technician

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to operate machine tools used in the forming of metal components, as well as the fabrication of special tools, dies, jigs and fixtures used in cutting, working and finishing metal components.

Examples of included programs
- Die making
- Metal pattern maker
- Mould making
- Saw filing
- Tool and die
- Tool and die technician
- Tool making

Examples of excluded programs
- Machine tool fitter [*see* 48.0501 Machine Tool Technology/Machinist]
- Machine shop technology [*see* 48.0503 Machine Shop Technology/Assistant]

48.0508 Welding Technology/Welder

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to join or cut metal surfaces. These programs include courses in arc welding, resistance welding, brazing and soldering, cutting, high-energy beam welding and cutting, solid state welding, ferrous and non-ferrous materials, oxidation-reduction reactions, welding metallurgy, welding processes and heat treating, structural design, safety, and applicable codes and standards.

Examples of included programs
- Arc welding
- High pressure welding
- Industrial welding
- Pressure welding
- Underwater welding
- Welder
- Welding
- Welding technician
- Welding technology

Examples of excluded programs
- Welding engineering technology [*see* 15.0699 Industrial Production Technologies/Technicians, Other]
- Sheet metal [*see* 48.0506 Sheet Metal Technology/Sheetworking]
- Ironworker [*see* 48.0509 Ironworking/Ironworker]
- Sculpture [*see* 50.0709 Sculpture]

48.0509 Ironworking/Ironworker

This instructional program class comprises any program that prepares individuals to make and install structural, ornamental, and reinforcing metal structures and supports. These programs include courses in drafting, technical mathematics, blueprint interpretation, welding, riveting, beam placement, ornamental design, structural reinforcement, crane operation, safety, and applicable codes and standards.

Examples of included programs
- Ironwork
- Ironworker
- Ironworking

Examples of excluded programs
- Metallurgical engineering [*see* 14.2001 Metallurgical Engineering]
- Metallurgy technology [*see* 15.0611 Metallurgical Technology/Technician]
- Sheet metal [*see* 48.0506 Sheet Metal Technology/Sheetworking]
- Sculpture [*see* 50.0709 Sculpture]

48.0599 Precision Metal Working, Other

This instructional program class comprises any program not listed above that relates to Precision Metal Working.

Examples of included programs
- Blacksmith
- Steel fabrication

Examples of excluded programs
- Horseshoeing [*see* 01.0307 Horse Husbandry/Equine Science and Management]
- Metal engineering [*see* 14.2001 Metallurgical Engineering]
- Materials engineering technology [*see* 15.0699 Industrial Production Technologies/Technicians, Other]
- Metal building assembly [*see* 46.0411 Metal Building Assembly/Assembler]

48.07 Woodworking

This subseries comprises instructional program classes 48.0701 to 48.0799.

48.0701 Woodworking, General

This instructional program class comprises any program that generally prepares individuals to apply technical knowledge and skills to lay out and shape stock; assemble wooden articles or subassemblies; mark, bind, saw, carve, and sand wooden products; repair wooden articles, and use a variety of hand and power tools.

Examples of included programs
- Benchwork and joinery
- Industrial woodworking
- Joinery
- Woodworking
- Woodworking technician
- Woodworking technology

Examples of excluded programs
- Wood science [*see* 03.0509 Wood Science and Wood Products/Pulp and Paper Technology]
- Carpentry [*see* 46.0201 Carpentry/Carpenter]
- Furniture making [*see* 48.0702 Furniture Design and Manufacturing]
- Cabinet making [*see* 48.0703 Cabinetmaking and Millwork]
- Carving [*see* 50.0709 Sculpture]

48.0702 Furniture Design and Manufacturing

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to prepare and execute furniture design projects; assemble and finish furniture articles or subassemblies; repair furniture; and use a variety of hand and power tools.

Examples of included programs
- Furniture design
- Furniture making

Examples of excluded programs
- Manufacturing technician [*see* 15.0613 Manufacturing Technology/Technician]
- Home decorating [*see* 19.0605 Home Furnishings and Equipment Installers]
- Upholstery [*see* 48.0303 Upholstery/Upholsterer]
- Woodworking [*see* 48.0701 Woodworking, General]
- Cabinet making [*see* 48.0703 Cabinetmaking and Millwork]

48.0703 Cabinetmaking and Millwork

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to set up, operate and repair industrial woodworking machinery, and to use such machinery to design and fabricate wooden components and complete articles.

Examples of included programs
- Cabinet making
- Cabinetry
- Millwork

Examples of excluded programs
- Wood products processing [*see* 03.0509 Wood Science and Wood Products/Pulp and Paper Technology]
- Carpentry [*see* 46.0201 Carpentry/Carpenter]
- Furniture design [*see* 48.0702 Furniture Design and Manufacturing]
- Carving [*see* 50.0709 Sculpture]

48.0799 Woodworking, Other

This instructional program class comprises any program not listed above that relates to Woodworking.

Examples of excluded programs
- Wood products processing [*see* 03.0509 Wood Science and Wood Products/Pulp and Paper Technology]
- Woodworking [*see* 48.0701 Woodworking, General]

48.08 Boilermaking/Boilermaker

This subseries comprises instructional program class 48.0801.

48.0801 Boilermaking/Boilermaker

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to fabricate and repair steam boiler components. These programs include courses in principles of steam power, material selection, welding, riveting, sealing materials, pressure testing, pipefitting, and applicable codes and standards.

Examples of included programs
- Boilermaker
- Boilermaking
- Construction boilermaker

Examples of excluded programs
- Environmental systems engineering technology [*see* 15.0501 Heating, Air Conditioning and Refrigeration Technology/Technician (ACH/ACR/ACHR/HRAC/HVAC/AC Technology)]
- Pipefitting [*see* 46.0502 Pipefitting/Pipefitter and Sprinkler Fitter]
- Plumbing [*see* 46.0503 Plumbing Technology/Plumber]
- Heating, ventilation, air conditioning and refrigeration (HVACR) technician [*see* 47.0201 Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/Technician (HAC, HACR, HVAC, HVACR)]
- Welding [*see* 48.0508 Welding Technology/Welder]

48.99 Precision Production, Other

This subseries comprises instructional program class 48.9999.

48.9999 Precision Production, Other

This instructional program class comprises any program not listed above that relates to Precision Production.

Example of included programs
- Lathe operator

49. Transportation and Materials Moving

This series comprises instructional programs that prepare individuals to apply technical knowledge and skills to perform tasks and services that facilitate the movement of people or materials.

49.01 Air Transportation

This subseries comprises instructional program classes 49.0101 to 49.0199.

49.0101 Aeronautics/Aviation/Aerospace Science and Technology, General

This instructional program class comprises any program that focuses on the general study of aviation and the aviation industry, including in-flight and ground support operations. These programs include courses in the technical, business, and general aspects of air transportation systems.

Examples of included programs
- Aeronautical science
- Aviation sciences

Examples of excluded programs
- Aeronautical engineering [*see* 14.0201 Aerospace, Aeronautical and Astronautical Engineering]
- Aeronautical engineering technology [*see* 15.0801 Aeronautical/Aerospace Engineering Technology/Technician]
- Aircraft structural repair technician [*see* 47.0607 Airframe Mechanics and Aircraft Maintenance Technology/Technician]
- Avionics technician [*see* 47.0609 Avionics Maintenance Technology/Technician]

49.0102 Airline/Commercial/Professional Pilot and Flight Crew

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to the flying and/or navigation of commercial passenger and cargo, agricultural, public service, corporate and rescue fixed wing aircraft. These programs include courses in principles of aircraft design and performance; aircraft flight systems and controls; flight crew operations and procedures; radio communications; navigation procedures and systems; airways safety and traffic regulations; and governmental rules and regulations pertaining to piloting aircraft. Programs may qualify individuals to sit for commercial and airline aircrew examinations.

Examples of included programs
- Airline pilot
- Airplane pilot
- Bush pilot
- Commercial pilot
- Flight engineer
- Helicopter pilot

Examples of excluded programs
- Aircraft pilot (private) [*see* 36.0119 Aircraft Pilot (Private)]
- Aircraft structural repair technician [*see* 47.0607 Airframe Mechanics and Aircraft Maintenance Technology/Technician]
- Aviation flight management [*see* 49.0104 Aviation/Airway Management and Operations]
- Flight attendant [*see* 49.0106 Airline Flight Attendant]
- Flight instructor [*see* 49.0108 Flight Instructor]
- Ship pilot [*see* 49.0309 Nautical Science/Merchant Marine Officer]

49.0104 Aviation/Airway Management and Operations

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to the management of aviation industry operations and services. These programs include courses in airport operations, ground traffic direction, ground support and flightline operations, passenger and cargo operations, flight safety and security operations, aviation industry regulation, and related business aspects of managing aviation enterprises.

Examples of included programs
- Airline and flight operations
- Airport management
- Airport operations
- Aviation flight management
- Aviation management
- Business administration in aviation
- Commercial aviation management

Examples of excluded programs
- Flight engineer [*see* 49.0102 Airline/Commercial/Professional Pilot and Flight Crew]
- Transportation management [*see* 52.0209 Transportation/Transportation Management]
- Traffic technician [*see* 52.0410 Traffic, Customs and Transportation Clerk/Technician]
- Tourism and travel management [*see* 52.0903 Tourism and Travel Services Management]

49.0105 Air Traffic Controller

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to air-traffic management and control. These programs include courses in flight control; the use of radar and electronic scanning devices; plotting of flights; radio communication; interpretation of weather conditions affecting flights; flight instrumentation used by pilots; and maintenance of flight-control centre or control-tower log books.

Examples of included programs
- Air traffic control
- Air traffic controller

Examples of excluded programs
- Airline and flight operations [*see* 49.0104 Aviation/Airway Management and Operations]
- Aviation flight management [*see* 49.0104 Aviation/Airway Management and Operations]
- Traffic technician [*see* 52.0410 Traffic, Customs and Transportation Clerk/Technician]

49.0106 Airline Flight Attendant

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to the performance of a variety of personal services conducive to the safety and comfort of airline passengers during flight, including verifying tickets, explaining the use of safety equipment, providing passenger services, and responding to in-flight emergencies.

Examples of included programs
- Air hostess
- Flight attendant
- Flight steward

Example of excluded programs
- Food and beverage service [*see* 12.0507 Food Service, Waiter/Waitress and Dining Room Management/Manager]

49.0108 Flight Instructor

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to the training of pilots or navigators to fly and/or navigate commercial passenger and cargo, agricultural, public service, corporate and rescue aircraft, fixed or rotary wing. These programs include courses in principles of aircraft design and performance; aircraft flight systems and controls; flight crew operations and procedures; radio communications and navigation procedures and systems; airways safety and traffic regulations; and governmental rules and regulations pertaining to piloting aircraft. Programs may qualify individuals to administer commercial aircrew examinations.

Examples of included programs
- Flight instructor
- Flying instructor
- Pilot instructor

Examples of excluded programs
- Airplane pilot [*see* 49.0102 Airline/Commercial/Professional Pilot and Flight Crew]
- Helicopter pilot [*see* 49.0102 Airline/Commercial/Professional Pilot and Flight Crew]

49.0199 Air Transportation, Other

This instructional program class comprises any program not listed above that relates to Air Transportation.

Example of included programs
- Airline ticket agent

Examples of excluded programs
- Call centre service representative [*see* 52.0411 Customer Service Support/Call Centre/Teleservice Operation]
- Travel industry management [*see* 52.0903 Tourism and Travel Services Management]

49.02 Ground Transportation

This subseries comprises instructional program classes 49.0202 to 49.0299.

49.0202 Construction/Heavy Equipment/Earthmoving Equipment Operation

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to operate and maintain a variety of heavy equipment, such as crawler tractors, motor graders and scrapers, shovels, rigging devices, hoists, and jacks. These programs include courses in digging, ditching, sloping, stripping, grading, and backfilling, clearing and excavating.

Examples of included programs
- Grader operator
- Heavy construction equipment operator
- Heavy duty equipment operator
- Heavy equipment operator
- Heavy machinery operator
- Loader operator
- Pile driving

Examples of excluded programs
- Agricultural power machinery operation [*see* 01.0204 Agricultural Power Machinery Operation]
- Heavy equipment mechanic [*see* 47.0302 Heavy Equipment Maintenance Technology/Technician]
- Heavy duty/commercial transport repair mechanic [*see* 47.0613 Medium/Heavy Vehicle and Truck Technology/Technician]
- Heavy truck driving [*see* 49.0205 Truck and Bus Driver/Commercial Vehicle Operation]
- Crane operator [*see* 49.0206 Mobile Crane Operation/Operator]

49.0205 Truck and Bus Driver/Commercial Vehicle Operation

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to drive trucks and buses, delivery vehicles, for-hire vehicles and other commercial vehicles. These programs include courses in operating gas, diesel, or electrically-powered vehicles; loading and unloading cargo or passengers; reporting delays or accidents on the road; verifying load against shipping papers; arranging transportation for personnel; and keeping records of receipts and fares.

Examples of included programs
- Bus driving
- Class 1 truck driver
- Commercial driver
- Commercial driver education
- Heavy truck driving
- Professional truck driver
- School bus driver
- Taxi driver
- Tractor trailer driver
- Tractor trailer operation
- Truck driving
- Trucking

Examples of excluded programs
- Farm equipment operator [*see* 01.0204 Agricultural Power Machinery Operation]
- Driving instructor [*see* 13.1304 Driver and Safety Teacher Education]
- Heavy machinery operator [*see* 49.0202 Construction/Heavy Equipment/Earthmoving Equipment Operation]
- Crane operator [*see* 49.0206 Mobile Crane Operation/Operator]

49.0206 Mobile Crane Operation/Operator

This instructional program class comprises any program that prepares individuals to hoist and swing loads via complex rotating machinery that is driver operated. These programs include courses in crane operational characteristics, load and capacity chart usage, emergency control skills, safety, specific types of mobile cranes and loading devices, applicable codes and standards, and applications to particular types of jobs and loads.

Examples of included programs
- Crane operating
- Crane operator
- Hoisting engineer
- Hoistman/woman
- Mobile crane operator

Examples of excluded programs
- Heavy construction equipment operator [*see* 49.0202 Construction/Heavy Equipment/Earthmoving Equipment Operation]
- Heavy equipment operator [*see* 49.0202 Construction/Heavy Equipment/Earthmoving Equipment Operation]
- Heavy truck driving [*see* 49.0205 Truck and Bus Driver/Commercial Vehicle Operation]

49.0299 Ground Transportation, Other

This instructional program class comprises any program not listed above that relates to Ground Transportation.

Examples of included programs
- Locomotive engineer
- Rail traffic controller
- Railroad conductor
- Railway conductor
- Train conductor

Examples of excluded programs
- Driving instructor [*see* 13.1304 Driver and Safety Teacher Education]
- Traffic engineering [*see* 14.0804 Transportation and Highway Engineering]
- Transportation management [*see* 52.0209 Transportation/Transportation Management]
- Traffic technician [*see* 52.0410 Traffic, Customs and Transportation Clerk/Technician]

49.03 Marine Transportation

This subseries comprises instructional program classes 49.0303 to 49.0399.

49.0303 Commercial Fishing

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to function as commercial fishermen, fishing operations supervisors or in related fishing industry operations. These programs include courses in fishing vessel operation; fishing equipment operation and maintenance; equipment repair; catch identification, sorting, and storage; safety procedures; record keeping; and applicable legal regulations.

Examples of included programs
- Commercial fishing
- Fisherman/woman
- Fishing
- Fishing captain
- Fishing master

Examples of excluded programs
- Fish farming [*see* 01.0303 Aquaculture]
- Marine resources management [*see* 03.0205 Water, Wetlands and Marine Resources Management]
- Fisheries science [*see* 03.0301 Fishing and Fisheries Sciences and Management]

49.0304 Diver, Professional and Instructor

This instructional program class comprises any program that prepares individuals to apply technical knowledge and skills to function as professional deep-water or scuba divers, diving instructors, or diving support personnel. These programs include courses in the use of diving equipment and related specialized gear; diving safety procedures; operation and maintenance of underwater life-support systems; underwater communication systems; decompression systems; underwater salvage; exploration, rescue, and photography; and installation and fitting of underwater mechanical systems and their maintenance, repair or demolition.

Examples of included programs
- Commercial diving
- Deep-sea diving
- Diving instructor
- Offshore diver
- Professional diving
- Scuba diving
- Scuba diving instructor

Examples of excluded programs
- Athletic/sport coach [*see* 31.0501 Health and Physical Education, General]
- Fitness instructor [*see* 31.0501 Health and Physical Education, General]

49.0309 Nautical Science/Merchant Marine Officer

This instructional program class comprises any program that prepares individuals to serve as captains, executive officers, engineers and ranking mates on commercially licensed inland, coastal and ocean-going vessels. These programs include courses in maritime traditions and law; maritime policy; economics and management of commercial marine operations; basic naval architecture and engineering; shipboard power systems engineering; crew supervision; and administrative procedures.

Examples of included programs
- Deck officer
- Marine captain
- Marine navigation
- Master mariner
- Merchant marine
- Merchant marine officer
- Nautical science
- Sea captain
- Ship pilot
- Shipmaster
- Tugboat master
- Watchkeeping mate

Examples of excluded programs
- Nautical engineering [*see* 14.2201 Naval Architecture and Marine Engineering]
- Marine engineering technology [*see* 15.0899 Mechanical Engineering Related Technologies/Technicians, Other]
- Marine biology [*see* 26.1302 Marine Biology and Biological Oceanography]
- Marine service technician [*see* 47.0616 Marine Maintenance/Fitter and Ship Repair Technology/Technician]
- Fishing captain [*see* 49.0303 Commercial Fishing]

49.0399 Marine Transportation, Other

This instructional program class comprises any program not listed above that relates to Marine Transportation.

Examples of included programs
- Lighthouse keeper
- Longshoreman/woman

Examples of excluded programs
- Marine diesel mechanic [*see* 47.0605 Diesel Mechanics Technology/Technician]
- Marine service technician [*see* 47.0616 Marine Maintenance/Fitter and Ship Repair Technology/Technician]

49.99 Transportation and Materials Moving, Other

This subseries comprises instructional program class 49.9999.

49.9999 Transportation and Materials Moving, Other

This instructional program class comprises any program not listed above that relates to Transportation and Materials Moving.

Example of included programs
- Freight forwarding

Examples of excluded programs
- Transportation planning [*see* 04.0301 City/Urban, Community and Regional Planning]
- Train conductor [*see* 49.0299 Ground Transportation, Other]
- Transportation management [*see* 52.0209 Transportation/Transportation Management]
- Transportation clerk [*see* 52.0410 Traffic, Customs and Transportation Clerk/Technician]

50. Visual and Performing Arts

This series comprises instructional programs that focus on the creation and interpretation of works and performances that use auditory, kinesthetic, and visual phenomena to express ideas and emotions in various forms, subject to aesthetic criteria.

50.01 Visual and Performing Arts, General

This subseries comprises instructional program class 50.0101.

50.0101 Visual and Performing Arts, General

This instructional program class comprises any general, undifferentiated program that focuses on the visual and performing arts and that prepares individuals in any of the visual artistic media or performing disciplines.

Examples of included programs
- Performing arts
- Visual and creative arts
- Visual and performing arts
- Visual arts

Examples of excluded programs
- Arts and crafts [*see* 50.0201 Crafts/Craft Design, Folk Art and Artisanry]
- Art therapy [*see* 51.2301 Art Therapy/Therapist]

50.02 Crafts/Craft Design, Folk Art and Artisanry

This subseries comprises instructional program class 50.0201.

50.0201 Crafts/Craft Design, Folk Art and Artisanry

This instructional program class comprises any program that focuses on the aesthetics, techniques, and creative processes for designing and fashioning objects in one or more of the handcraft or folk art traditions, and that prepares individuals to create in any of these media.

Examples of included programs
- Arts and crafts
- Crafts
- Handicrafts
- Indian art
- Native art

Examples of excluded programs
- Handicrafts and model-making [*see* 36.0102 Handicrafts and Model-making]
- Art (not for credit) [*see* 36.0110 Art (not for credit)]
- Visual and creative arts [*see* 50.0101 Visual and Performing Arts, General]
- Pottery [*see* 50.0711 Ceramic Arts and Ceramics]
- Fabric design [*see* 50.0712 Fibre, Textile and Weaving Arts]
- Silversmithing [*see* 50.0713 Metal and Jewellery Arts]

50.03 Dance

This subseries comprises instructional program classes 50.0301 to 50.0399.

50.0301 Dance, General

This instructional program class comprises any general program that prepares individuals to express ideas, feelings, and/or inner visions through the performance of one or more of the dance disciplines, including but not limited to ballet, modern, jazz, ethnic, and folk dance, and that focuses on the study and analysis of dance as a cultural phenomenon. These programs include courses in technique, choreography, Laban notation, dance history and criticism, and dance production.

Examples of included programs
- Choreography
- Classical dance
- Contemporary dance
- Dance
- Dancing
- Modern dance

Examples of excluded programs
- Dance instructor [*see* 13.1324 Drama and Dance Teacher Education]
- Dancing (not for credit) [*see* 36.0114 Dancing (not for credit)]
- Visual and performing arts [*see* 50.0101 Visual and Performing Arts, General]
- Ballet dancer [*see* 50.0302 Ballet]
- Dance therapy [*see* 51.2302 Dance Therapy/Therapist]

50.0302 Ballet

This instructional program class comprises any program that prepares individuals to express ideals and feelings through interpretation of classical dance choreography. These programs include courses in ballet exercise, solo and ensemble dance, history of ballet, ballet choreography, Laban notation, ballet technique, and interpretations of specific styles and schools.

Examples of included programs
- Ballet
- Ballet dancer
- Ballet dancing
- Classical ballet

Examples of excluded programs
- Ballet teacher [*see* 13.1324 Drama and Dance Teacher Education]
- Dancing (not for credit) [*see* 36.0114 Dancing (not for credit)]
- Classical dance [*see* 50.0301 Dance, General]
- Dance therapy [*see* 51.2302 Dance Therapy/Therapist]

50.0399 Dance, Other

This instructional program class comprises any program not listed above that relates to Dance.

Examples of excluded programs
- Dance instructor [*see* 13.1324 Drama and Dance Teacher Education]
- Dancing (not for credit) [*see* 36.0114 Dancing (not for credit)]
- Dance [*see* 50.0301 Dance, General]
- Ballet [*see* 50.0302 Ballet]
- Dance therapy [*see* 51.2302 Dance Therapy/Therapist]

50.04 Design and Applied Arts

This subseries comprises instructional program classes 50.0401 to 50.0499.

50.0401 Design and Visual Communications, General

This instructional program class comprises any program in the applied visual arts that focuses on the general principles and techniques for effectively communicating ideas and information, and packaging products, in digital and other formats to business and consumer audiences, and that prepares individuals in any of the applied art media.

Examples of included programs
- Applied arts
- Communication design
- Creative design
- Design arts
- Visual communications

Examples of excluded programs
- Audiovisual communications [*see* 10.0299 Audiovisual Communications Technologies/Technicians, Other]
- Graphic communications [*see* 10.0301 Graphic Communications, General]
- Web design [*see* 11.0801 Web Page, Digital/Multimedia and Information Resources Design]
- Advertising design [*see* 50.0402 Commercial and Advertising Art]
- Industrial design [*see* 50.0404 Industrial Design]
- Graphic design [*see* 50.0409 Graphic Design]
- Art studies [*see* 50.0701 Art/Art Studies, General]

50.0402 Commercial and Advertising Art

This instructional program class comprises any program in the applied visual arts that prepares individuals to use artistic techniques to effectively communicate ideas and information to business and consumer audiences via illustrations and other forms of digital or printed media. These programs include courses in concept design, layout, paste-up, and techniques such as engraving, etching, silkscreen, lithography, offset, drawing and cartooning, painting, collage, and computer graphics.

Examples of included programs
- Advertising art
- Advertising design
- Commercial art
- Commercial artist
- Creative advertising design
- Sign painting

Examples of excluded programs
- Advertising [*see* 09.0903 Advertising]
- Graphic communications [*see* 10.0301 Graphic Communications, General]
- Commercial photography [*see* 50.0406 Commercial Photography]
- Illustration [*see* 50.0410 Illustration]

50.0404 Industrial Design

This instructional program class comprises any program in the applied visual arts that prepares individuals to use artistic techniques to effectively communicate ideas and information to business and consumer audiences via the creation of effective forms, shapes, and packaging for manufactured products. These programs include courses in designing in a wide variety of plastic and digital media, prototype construction, design development and refinement, principles of cost saving, and product structure and performance criteria relevant to aesthetic design parameters.

Example of included programs
- Industrial design

Examples of excluded programs
- Industrial arts teacher [*see* 13.1309 Technology Teacher Education/Industrial Arts Teacher Education]
- Industrial engineering [*see* 14.3501 Industrial Engineering]
- Industrial engineering technology [*see* 15.0612 Industrial Technology/Technician]
- Industrial drafting [*see* 15.1301 Drafting and Design Technology/Technician, General]
- Design arts [*see* 50.0401 Design and Visual Communications, General]

50.0406 Commercial Photography

This instructional program class comprises any program in the applied visual arts that prepares individuals to use artistic techniques to effectively communicate ideas and information to business and consumer audiences, and recording events and people, via digital, film, still and video photography. These programs include courses in specialized camera and equipment operation and maintenance, applications to commercial and industrial needs, and photography business operations.

Examples of included programs
- Applied photography
- Commercial photography

Examples of excluded programs
- Photojournalism [*see* 09.0404 Photojournalism]
- Photofinishing [*see* 10.0201 Photographic and Film/Video Technology/Technician and Assistant]
- Commercial art [*see* 50.0402 Commercial and Advertising Art]
- Photography [*see* 50.0605 Photography]

50.0407 Fashion/Apparel Design

This instructional program class comprises any program that prepares individuals to apply artistic principles and techniques to the professional design of commercial fashions, apparel, and accessories, and the management of fashion development projects. These programs include courses in apparel design; accessory design; the design of men's, women's, and children's wear; flat pattern design; computer-assisted design and manufacturing; concept planning; designing in specific materials; labour and cost analysis; history of fashion; fabric art and printing; and the principles of management and operations in the fashion industry.

Examples of included programs
- Apparel design
- Clothing design
- Creative fashion design
- Dress design
- Fashion design
- Fashion production
- Fashion techniques and design
- Garment design

Examples of excluded programs
- Textile manufacturing [*see* 19.0902 Apparel and Textile Manufacture]
- Fashion techniques and management [*see* 19.0905 Apparel and Textile Marketing Management]
- Fashion consultant [*see* 19.0906 Fashion and Fabric Consultant]
- Fabric design [*see* 50.0712 Fibre, Textile and Weaving Arts]

50.0408 Interior Design

This instructional program class comprises any program in the applied visual arts that prepares individuals to apply artistic principles and techniques to the professional planning, designing, equipping, and furnishing residential and commercial interior spaces. These programs include courses in computer applications drafting and graphic techniques; principles of interior lighting, acoustics, systems integration, and colour coordination; furniture and furnishings; textiles and their finishing; the history of interior design and period styles; basic structural design; building codes and inspection regulations; and applications to office, hotel, factory, restaurant and housing design.

Example of included programs
- Interior design

Examples of excluded programs
- Environmental design [*see* 04.0401 Environmental Design/Architecture]
- Interior architecture [*see* 04.0501 Interior Architecture]
- Interior environments [*see* 19.0601 Housing and Human Environments, General]
- Interior decorating [*see* 19.0605 Home Furnishings and Equipment Installers]

50.0409 Graphic Design

This instructional program class comprises any program that prepares individuals to apply artistic and computer techniques to the interpretation of technical and commercial concepts. These programs include courses in computer-assisted art and design, printmaking, concepts sketching, technical drawing, colour theory, imaging, studio technique, still and life modelling, communication skills and commercial art business operations.

Examples of included programs
- Creative graphics
- Graphic design

Examples of excluded programs
- Graphic communications [*see* 10.0301 Graphic Communications, General]
- Web page design [*see* 11.0801 Web Page, Digital/Multimedia and Information Resources Design]
- Computer graphics [*see* 11.0803 Computer Graphics]
- Computer-aided design [*see* 15.1302 CAD/CADD Drafting and/or Design Technology/Technician]

50.0410 Illustration

This instructional program class comprises any program that prepares individuals to use artistic techniques to develop and execute interpretations of the concepts of authors and designers to specifications. These programs include courses in book illustration, fashion illustration, map illustration, rendering, exhibit preparation, textual layout, cartooning, and the use of various artistic techniques as requested by clients.

Examples of included programs
- Graphic illustration
- Illustration
- Technical illustration

Examples of excluded programs
- Computer animation [*see* 10.0304 Animation, Interactive Technology, Video Graphics and Special Effects]
- Computer-aided design [*see* 15.1302 CAD/CADD Drafting and/or Design Technology/Technician]
- Drawing [*see* 50.0705 Drawing]
- Medical illustration [*see* 51.2703 Medical Illustration/Medical Illustrator]

50.0499 Design and Applied Arts, Other

This instructional program class comprises any program not listed above that relates to Design and Applied Arts.

Examples of excluded programs
- Floral design [*see* 01.0608 Floriculture/Floristry Operations and Management]
- Environmental design [*see* 04.0401 Environmental Design/Architecture]
- Computer-aided design [*see* 15.1302 CAD/CADD Drafting and/or Design Technology/Technician]
- Theatrical design [*see* 50.0502 Technical Theatre/Theatre Design and Technology]

50.05 Drama/Theatre Arts and Stagecraft

This subseries comprises instructional program classes 50.0501 to 50.0599.

50.0501 Drama and Dramatics/Theatre Arts, General

This instructional program class comprises any program that focuses on the general study of dramatic works and their performance. These programs include courses in major works of dramatic literature, dramatic styles and types, and the principles of organizing and producing full live or filmed productions.

Examples of included programs
- Drama
- Drama and theatre
- Dramatic arts
- Theatre
- Theatre arts
- Theatre studies

Examples of excluded programs
- Drama education [*see* 13.1324 Drama and Dance Teacher Education]
- Theatre (not for credit) [*see* 36.0117 Theatre (not for credit)]
- Performing arts [*see* 50.0101 Visual and Performing Arts, General]
- Dance [*see* 50.0301 Dance, General]

50.0502 Technical Theatre/Theatre Design and Technology

This instructional program class comprises any program that prepares individuals to apply artistic, technical and dramatic principles and techniques to the communication of dramatic information, ideas, moods, and feelings through technical theatre methods. These programs include courses in set design, lighting design, sound effects, theatre acoustics, scene painting, property management, costume design, technical direction and production and the use of related computer applications.

Examples of included programs
- Costume design
- Design, scenery, costume and lighting
- Technical scenography
- Technical theatre
- Theatre technical production
- Theatre technician
- Theatrical design

Examples of excluded programs
- Makeup [*see* 12.0406 Makeup Artist/Specialist]
- Technical drafting [*see* 15.1301 Drafting and Design Technology/Technician, General]
- Theatre (not for credit) [*see* 36.0117 Theatre (not for credit)]
- Creative fashion design [*see* 50.0407 Fashion/Apparel Design]

50.0504 Playwriting and Screenwriting

This instructional program class comprises any program that focuses on the principles and techniques for communicating dramatic information, ideas, moods, and feelings through the composition of creative written works for the theatre and/or film. These programs include courses in creative writing craft, scene writing, script development, stage and/or camera instructions, line and moment analysis, script reading, script editing, and the creation of full productions.

Examples of included programs
- Playwriting
- Screenwriting
- Scriptwriting

Examples of excluded programs
- Creative writing [*see* 23.0501 English Creative Writing]
- Technical and professional writing [*see* 23.1101 English Technical and Business Writing]
- French creative writing [*see* 55.0401 French Creative Writing]

50.0505 Theatre Literature, History and Criticism

This instructional program class comprises any program that focuses on the study of the history, literature, theory, and analysis of written plays, theatrical productions, and theatre methods and organization. These programs include courses in historical method; critical theory; literary analysis; the study of themes and archetypes in dramatic literature; the history of acting, directing, and technical theatre; and the study of specific historical and cultural styles and traditions.

Examples of included programs
- Dramatic literature
- Theatre history
- Theatre literature, history and criticism

Examples of excluded programs
- Comparative literature [*see* 16.0104 Comparative Literature]
- Film history, theory, and criticism [*see* 50.0601 Film/Cinema Studies]
- History [*see* 54.0101 History, General]

50.0506 Acting

This instructional program class comprises any program that prepares individuals to communicate dramatic information, ideas, moods, and feelings through the achievement of naturalistic and believable behaviour in imaginary circumstances. These programs include courses in voice and acting speech, stage dialects, movement, improvisation, acting styles, theatre history, script interpretation, and actor coaching.

Examples of included programs
- Acting
- Dramatic art—acting
- Theatre performance

Examples of excluded programs
- Drama education [*see* 13.1324 Drama and Dance Teacher Education]
- Speech and rhetorical studies [*see* 23.1001 English Speech and Rhetorical Studies]
- French speech and rhetoric studies [*see* 55.0701 French Speech and Rhetorical Studies]

50.0507 Directing and Theatrical Production

This instructional program class comprises any program that prepares individuals to manage the planning, design, preparation, and production of plays and other theatrical entertainment programs. These programs include courses in theatrical design, program management, dramatic production, rehearsal management, personnel management and casting, actor coaching, directing concepts and techniques, theatre history, scene work, script interpretation, business management, marketing, public relations, and communications skills.

Examples of included programs
- Direction of plays
- Stage direction
- Theatre directing
- Theatre production

Examples of excluded programs
- Theatrical management [*see* 50.0508 Theatre/Theatre Arts Management]
- Film directing [*see* 50.0602 Cinematography and Film/Video Production]
- Film production [*see* 50.0602 Cinematography and Film/Video Production]
- Artist management [*see* 50.9999 Visual and Performing Arts, Other]

50.0508 Theatre/Theatre Arts Management

This instructional program class comprises any program that prepares individuals to apply business management principles to the management of theatres and production corporations. These programs include courses in theatrical production, theatre design and planning, fund-raising and promotion, investment strategies, human resources management, theatre operations management, marketing, public relations, financial management and insurance, and applicable laws and regulations.

Examples of included programs
- Theatre arts management
- Theatrical management

Examples of excluded programs
- Arts administration [*see* 50.0704 Arts Management]
- Artist management [*see* 50.9999 Visual and Performing Arts, Other]
- Business administration [*see* 52.0201 Business Administration and Management, General]
- Fundraising [*see* 52.0206 Non-profit/Public/Organizational Management]

50.0599 Drama/Theatre Arts and Stagecraft, Other

This instructional program class comprises any program not listed above that relates to Drama/Theatre Arts and Stagecraft.

50.06 Film/Video and Photographic Arts

This subseries comprises instructional program classes 50.0601 to 50.0699.

50.0601 Film/Cinema Studies

This instructional program class comprises any program in the visual arts that focuses on the study of the history, development, theory, and criticism of the film/video arts, as well as the basic principles of film making and film production.

Examples of included programs
- Cinema studies
- Film and video studies
- Film history
- Film history, theory, and criticism
- Film studies
- Film theory
- Motion picture studies

Examples of excluded programs
- Photo lab technician [*see* 10.0201 Photographic and Film/Video Technology/Technician and Assistant]
- Theatre history [*see* 50.0505 Theatre Literature, History and Criticism]
- Film production [*see* 50.0602 Cinematography and Film/Video Production]

50.0602 Cinematography and Film/Video Production

This instructional program class comprises any program that prepares individuals to communicate dramatic information, ideas, moods, and feelings through the making and producing of films and videos. These programs include courses in theory of film; film technology and equipment operation; film production; film directing; film editing; cinematographic art; film audio; techniques for making specific types of films and/or videos; the use of computer applications to record or enhance images, audio or effect and the planning and management of film/video operations.

Examples of included programs
- Cinematography
- Film and video production
- Film directing
- Film making
- Film production
- Motion picture production

Examples of excluded programs
- Photo lab technician [*see* 10.0201 Photographic and Film/Video Technology/Technician and Assistant]
- 3D for production—broadcast design and animation [*see* 10.0304 Animation, Interactive Technology, Video Graphics and Special Effects]
- Theatre production [*see* 50.0507 Directing and Theatrical Production]
- Film studies [*see* 50.0601 Film/Cinema Studies]

50.0605 Photography

This instructional program class comprises any program that focuses on the principles and techniques of communicating information, ideas, moods, and feelings through the creation of images on photographic film, plates, digital images and that prepares individuals to be professional photographic artists. These programs include courses in camera and equipment operation and maintenance, film and plate developing, light and composition, films and printing media, colour and special effects, photographic art, photographic history, use of computer applications to record or enhance images and applications to the photography of various subjects.

Examples of included programs
- Creative photography
- Photographic arts
- Photography

Examples of excluded programs
- Photojournalism [*see* 09.0404 Photojournalism]
- Photofinishing [*see* 10.0201 Photographic and Film/Video Technology/Technician and Assistant]
- Commercial photography [*see* 50.0406 Commercial Photography]

50.0699 Film/Video and Photographic Arts, Other

This instructional program class comprises any program not listed above that relates to Film/Video and Photographic Arts.

Examples of excluded programs
- Photojournalism [*see* 09.0404 Photojournalism]
- Photo lab technician [*see* 10.0201 Photographic and Film/Video Technology/Technician and Assistant]
- Audiovisual communications [*see* 10.0299 Audiovisual Communications Technologies/Technicians, Other]
- Commercial photography [*see* 50.0406 Commercial Photography]

50.07 Fine Arts and Art Studies

This subseries comprises instructional program classes 50.0701 to 50.0799.

50.0701 Art/Art Studies, General

This instructional program class comprises any general program that focuses on the introductory study and appreciation of the visual arts. These programs include courses in art, photography, and other visual communications media.

Example of included programs
- Art studies

Examples of excluded programs
- Art teacher [*see* 13.1302 Art Teacher Education]
- Art (not for credit) [*see* 36.0110 Art (not for credit)]
- Arts and crafts [*see* 50.0201 Crafts/Craft Design, Folk Art and Artisanry]
- Design arts [*see* 50.0401 Design and Visual Communications, General]
- Art therapy [*see* 51.2301 Art Therapy/Therapist]

50.0702 Fine/Studio Arts, General

This instructional program class comprises any program that prepares individuals to generally function as creative artists in the visual and plastic media. These programs include courses in the traditional fine arts media (drawing, painting, sculpture, printmaking, CAD/CAM) and/or modern media (ceramics, textiles, intermedia, photography, digital images); theory of art; colour theory; composition and perspective; anatomy; the techniques and procedures for maintaining equipment and managing a studio; and art portfolio marketing.

Examples of included programs
- Fine arts
- Studio arts

Examples of excluded programs
- Fine arts education [*see* 13.1302 Art Teacher Education]
- Art (not for credit) [*see* 36.0110 Art (not for credit)]
- Arts and crafts [*see* 50.0201 Crafts/Craft Design, Folk Art and Artisanry]
- Commercial art [*see* 50.0402 Commercial and Advertising Art]
- Photographic arts [*see* 50.0605 Photography]

50.0703 Art History, Criticism and Conservation

This instructional program class comprises any program that focuses on the study of the historical development of art as a social and intellectual phenomenon, the analysis of works of art, and art conservation. These programs include courses in the theory of art, art history research methods, connoisseurship, the preservation and conservation of works of art, and the study of specific periods, cultures, styles, and themes.

Examples of included programs
- Art conservation
- Art history
- Art history and criticism
- Fine art history
- History and philosophy of art

Examples of excluded programs
- Cultural resource management [*see* 30.1202 Cultural Resource Management and Policy Analysis]
- Museology [*see* 30.1401 Museology/Museum Studies]
- History [*see* 54.0101 History, General]

50.0704 Arts Management

This instructional program class comprises any program that prepares individuals to organize and manage art organizations, operations, and facilities. These programs include courses in business and financial management; marketing and fundraising; personnel management and labour relations; event promotion and management; public relations and arts advocacy; arts law; and applications to specific arts activities such as galleries, museums, studios, foundations, and community organizations.

Example of included programs
- Arts administration

Examples of excluded programs
- Theatre arts management [*see* 50.0508 Theatre/Theatre Arts Management]
- Music industry management [*see* 50.0909 Music Management and Merchandising]
- Artist management [*see* 50.9999 Visual and Performing Arts, Other]

50.0705 Drawing

This instructional program class comprises any program that prepares individuals creatively and technically to express emotions, ideas, or inner visions through representation by lines made on a surface. These programs include courses in eye-hand coordination; line, value, shape, and perspective; figure and still life drawing; the use of media such as pen and ink, pencil, charcoal, pastel, and brush; and personal style development.

Example of included programs
- Drawing

Examples of excluded programs
- Technical drawing [*see* 15.1301 Drafting and Design Technology/Technician, General]
- Art (not for credit) [*see* 36.0110 Art (not for credit)]
- Graphic design [*see* 50.0409 Graphic Design]
- Illustration [*see* 50.0410 Illustration]

50.0706 Intermedia/Multimedia

This instructional program class comprises any program that prepares individuals creatively and technically to express emotions, ideas, or inner visions in either two or three dimensions, through simultaneous use of a variety of materials and media.

Examples of included programs
- Intermedia
- Multimedia art

Examples of excluded programs
- Digital media [*see* 09.0702 Digital Communication and Media/Multimedia]
- Interactive multimedia and design [*see* 11.0801 Web Page, Digital/Multimedia and Information Resources Design]
- Educational media [*see* 13.0501 Educational/Instructional Media Design]

50.0708 Painting

This instructional program class comprises any program that prepares individuals creatively and technically to express emotions, ideas, or inner visions by the application of paints and related chemical colour substances to canvases or other materials. These programs include courses in colour and colour mixing; surface preparation; composition; oil and acrylic media; watercolour media; painting techniques; and personal style development.

Examples of included programs
- Painting
- Painting arts

Examples of excluded programs
- Art (not for credit) [*see* 36.0110 Art (not for credit)]
- Commercial painting [*see* 46.0408 Painting/Painter and Wall Coverer]
- Sign painting [*see* 50.0402 Commercial and Advertising Art]

50.0709 Sculpture

This instructional program class comprises any program that prepares individuals creatively and technically to express emotions, ideas, or inner visions by creating three-dimensional art works. These programs include courses in the analysis of form in space; round and relief concepts; sculptural composition; modern and experimental methods; different media such as clay, plaster, wood, stone, and metal; techniques such as carving, moulding, welding, casting, and modelling; and personal style development.

Examples of included programs
- Carving
- Sculpture

Examples of excluded programs
- Art (not for credit) [*see* 36.0110 Art (not for credit)]
- Ironwork [*see* 48.0509 Ironworking/Ironworker]
- Woodworking [*see* 48.0701 Woodworking, General]
- Handicrafts [*see* 50.0201 Crafts/Craft Design, Folk Art and Artisanry]
- Jewellery design [*see* 50.0713 Metal and Jewellery Arts]

50.0710 Printmaking

This instructional program class comprises any program that prepares individuals creatively and technically to express emotions, ideas, or inner visions by rendering art concepts onto surfaces and transferring images, via ink or dyes, onto paper or fabric. These programs include courses in monochrome and colour printing; tonality; chemistry; equipment set-up and maintenance; techniques such as serigraphy, lithography, intaglio, woodcut, block, stencil, relief, etching, and composite; and personal style development.

Examples of included programs
- Lithography
- Photolythography
- Printmaking
- Serigraphy

Examples of excluded programs
- Graphic communications [*see* 10.0301 Graphic Communications, General]
- Screen printing [*see* 10.0305 Graphic and Printing Equipment Operator, General Production]
- Platemaking [*see* 10.0306 Platemaker/Imager]

50.0711 Ceramic Arts and Ceramics

This instructional program class comprises any program that prepares individuals creatively and technically to express emotions, ideas, or inner visions by producing art works out of clay and similar materials. These programs include courses in hand-built and wheel-thrown techniques; moulding; slips and glazes; trimming and decorating; firing and kiln operation; oxidation; mixed media; ceramic murals; and personal style development.

Examples of included programs
- Ceramic art
- Ceramics
- Pottery

Examples of excluded programs
- Ceramic sciences [*see* 14.0601 Ceramic Sciences and Engineering]
- Crafts [*see* 50.0201 Crafts/Craft Design, Folk Art and Artisanry]
- Art studies [*see* 50.0701 Art/Art Studies, General]

50.0712 Fibre, Textile and Weaving Arts

This instructional program class comprises any program that prepares individuals creatively and technically to express emotions, ideas, or inner visions by constructing art works from woven or non-woven fabrics and fibrous materials. These programs include courses in weaving techniques and loom operation; non-woven techniques such as knitting, coiling, netting, and crocheting; quilting; dyeing and pigmentation; printing and other finishing techniques; pattern design; tapestry; and personal style development.

Examples of included programs
- Fabric design
- Fibre arts
- Textile arts
- Textile design
- Textile studies

Examples of excluded programs
- Clothing and textiles [*see* 19.0901 Apparel and Textiles, General]
- Handicrafts [*see* 50.0201 Crafts/Craft Design, Folk Art and Artisanry]
- Fashion design [*see* 50.0407 Fashion/Apparel Design]

50.0713 Metal and Jewellery Arts

This instructional program class comprises any program that prepares individuals creatively and technically to express emotions, ideas, or inner visions by fashioning art works from gems, other stones, and precious metals. These programs include courses in gemology; metalsmithing and finishing; stone cutting and polishing; metal and non-metal casting and moulding; electroforming; metal colouring; enamelling; photo etching; lapidary technique and art; design concepts; and personal style development.

Examples of included programs
- Gemology
- Goldsmithing
- Jewellery
- Jewellery arts
- Jewellery design
- Silversmithing

Examples of excluded programs
- Jewellery repair [*see* 47.0408 Watchmaking and Jewellery Making]
- Crafts [*see* 50.0201 Crafts/Craft Design, Folk Art and Artisanry]

50.0799 Fine Arts and Art Studies, Other

This instructional program class comprises any program not listed above that relates to Fine Arts and Art Studies.

Examples of included programs
- Glass blowing
- Picture framing

Examples of excluded programs
- Glazier [*see* 46.0406 Glazier]
- Arts and crafts [*see* 50.0201 Crafts/Craft Design, Folk Art and Artisanry]
- Art therapy [*see* 51.2301 Art Therapy/Therapist]

50.09 Music

This subseries comprises instructional program classes 50.0901 to 50.0999.

50.0901 Music, General

This instructional program class comprises any general program that focuses on the introductory study and appreciation of music and the performing arts. These programs include courses in music, dance, and other performing arts media.

Examples of included programs
- Classical music
- Music
- Music foundation
- Musical arts

Examples of excluded programs
- Sound engineering [*see* 10.0203 Recording Arts Technology/Technician]
- Music teacher [*see* 13.1312 Music Teacher Education]
- Music (not for credit) [*see* 36.0115 Music (not for credit)]
- Religious music [*see* 39.0501 Religious/Sacred Music]
- Piano tuning [*see* 47.0404 Musical Instrument Fabrication and Repair]
- Music therapy [*see* 51.2305 Music Therapy/Therapist]

50.0902 Music History, Literature and Theory

This instructional program class comprises any program that focuses on the study of the historical evolution of music as a social and intellectual phenomenon, the development of musical instruments and techniques, and the analysis and criticism of musical literature. These programs include courses in music history research methods, aesthetic analysis of musical compositions, history of musical writing and notation, the development of musical instruments, the development of music theory, and the study of specific periods, cultural traditions, styles, and themes.

Examples of included programs
- Music criticism
- Music history
- Music literature

Examples of excluded programs
- Music teacher [*see* 13.1312 Music Teacher Education]
- Art history and criticism [*see* 50.0703 Art History, Criticism and Conservation]
- Music theory and composition [*see* 50.0904 Music Theory and Composition]
- Musicology [*see* 50.0905 Musicology and Ethnomusicology]
- History [*see* 54.0101 History, General]

50.0903 Music Performance, General

This instructional program class comprises any program that generally prepares individuals to master musical instruments and performing art as solo and/or ensemble performers. Includes instruction in one or more specific instruments from various instrumental groupings.

Examples of included programs
- Chamber music
- Early music performance
- Instrumental performance
- Music performance
- Music performance studies
- Music—acoustic
- Music—percussion
- Music—trombone
- Music—trumpet
- Music—woodwind
- Orchestral instruments
- Orchestral training

Examples of excluded programs
- Music (not for credit) [*see* 36.0115 Music (not for credit)]
- Music performance—piano [*see* 50.0907 Piano and Organ]
- Opera singing [*see* 50.0908 Voice and Opera]
- Jazz performance [*see* 50.0910 Jazz/Jazz Studies]
- Guitar [*see* 50.0911 Violin, Viola, Guitar and Other Stringed Instruments]
- Violin performance [*see* 50.0911 Violin, Viola, Guitar and Other Stringed Instruments]

50.0904 Music Theory and Composition

This instructional program class comprises any program that focuses on the study of the principles of sound manipulation as applied to the creation of music, and the techniques of creating and arranging music. These programs include courses in aural theory, melody, counterpoint, complex harmony, modulation, chromatics, improvisation, progressions, musical writing, instrumentation, orchestration, electronic and computer applications, studies of specific musical styles, and development of original creative ability.

Examples of included programs
- Electroacoustic studies
- Music composition
- Music composition and literature
- Music composition/arranging
- Music theory and composition
- Music—interactive digital design
- Musical composition and orchestration
- Sonic design

Examples of excluded programs
- Music teacher [*see* 13.1312 Music Teacher Education]
- Music foundation [*see* 50.0901 Music, General]
- Music history [*see* 50.0902 Music History, Literature and Theory]

50.0905 Musicology and Ethnomusicology

This instructional program class comprises any program that focuses on the systematic study of the forms and methods of music art, and the functions of music, in Western and non-Western societies and cultures. These programs include courses in music theory, musicological research methods, and studies of specific cultural styles such as jazz, folk music, rock, ethnic musical traditions, and the music of non-Western cultures.

Examples of included programs
- Ethnomusicology
- Musicology
- Systematic musicology

Examples of excluded programs
- Music teacher [*see* 13.1312 Music Teacher Education]
- Musical arts [*see* 50.0901 Music, General]
- Music history [*see* 50.0902 Music History, Literature and Theory]

50.0906 Conducting

This instructional program class comprises any program that prepares individuals to master the art of leading bands, choirs, orchestras and other ensembles in performance, and related music leadership. These programs include courses in score analysis and arranging, rehearsal and performance leadership, music coaching, arrangement and performance planning, ensemble operations management, and applications to specific school or professional ensembles.

Examples of included programs
- Choral conducting
- Conducting
- Music conductor
- Symphonic band and wind conducting

Examples of excluded programs
- Music teacher [*see* 13.1312 Music Teacher Education]
- Religious music [*see* 39.0501 Religious/Sacred Music]
- Musical composition and orchestration [*see* 50.0904 Music Theory and Composition]

50.0907 Piano and Organ

This instructional program class comprises any program that prepares individuals to master the piano, organ, or related keyboard instruments and performing art as solo, ensemble, and/or accompanist performers. These programs include courses in piano and keyboard pedagogy, ensemble playing, accompanying, service playing, repertoire, keyboard and pedal skills, recital, and personal style development.

Examples of included programs
- Harpsichord
- Music performance—piano
- Music—keyboard
- Organ
- Piano
- Piano performance

Examples of excluded programs
- Music teacher [*see* 13.1312 Music Teacher Education]
- Religious music [*see* 39.0501 Religious/Sacred Music]
- Piano technician [*see* 47.0404 Musical Instrument Fabrication and Repair]
- Music performance [*see* 50.0903 Music Performance, General]

50.0908 Voice and Opera

This instructional program class comprises any program that prepares individuals to master the human voice and performing art as solo and/or ensemble performers in concert, choir, opera, or other forms of singing. These programs include courses in voice pedagogy, diction, vocal physiology and exercise, expressive movement, repertoire, recital, and personal style development.

Examples of included programs
- Music—vocal
- Opera
- Opera performance
- Opera singing
- Operatic performance
- Vocal performance
- Voice

Examples of excluded programs
- Music teacher [*see* 13.1312 Music Teacher Education]
- Religious music [*see* 39.0501 Religious/Sacred Music]
- Music performance [*see* 50.0903 Music Performance, General]

50.0909 Music Management and Merchandising

This instructional program class comprises any program that prepares individuals to organize and manage music organizations, operations, facilities, and personnel. These programs include courses in business and financial management; marketing and fundraising; personnel management and labour relations; event promotion and management; music products merchandising; artist agency and promotion; music law; and applications to specific activities such as managing theatres, recording studios and companies, bands and other ensembles, individual artists, and music organizations.

Examples of included programs
- Music administrative studies
- Music business
- Music industry management
- Music management
- Music merchandising

Examples of excluded programs
- Arts administration [*see* 50.0704 Arts Management]
- Artist management [*see* 50.9999 Visual and Performing Arts, Other]

50.0910 Jazz/Jazz Studies

This instructional program class comprises any program that prepares individuals to study and master the performance and composition of jazz. These programs include courses in the history of Jazz and related musical styles such as the Blues, Jazz composition and theory, improvisation, Jazz instrument and ensemble performance, and related topics.

Examples of included programs
- Jazz
- Jazz music
- Jazz performance
- Jazz studies

Examples of excluded programs
- Music teaching [*see* 13.1312 Music Teacher Education]
- Music performance [*see* 50.0903 Music Performance, General]

50.0911 Violin, Viola, Guitar and Other Stringed Instruments

This instructional program class comprises any program that prepares individuals to master a stringed instrument and performing arts as solo, ensemble and/or accompanist performers. These programs include courses in playing and personal style development.

Examples of included programs
- Cello
- Guitar
- Harp
- Music—bass
- Music—guitar
- Viola
- Violin
- Violin performance

Examples of excluded programs
- Music teacher [*see* 13.1312 Music Teacher Education]
- Violin making [*see* 47.0404 Musical Instrument Fabrication and Repair]
- Music performance [*see* 50.0903 Music Performance, General]

50.0912 Music Pedagogy

This instructional program class comprises any program that prepares individuals to provide musical instruction and tutoring to clients in private and institutional settings. These programs include courses in music theory, music composition, mastery of one or more instruments, familiarity with various musical genres and styles, principles of music education, and client communications.

Examples of included programs
- Kodaly concept of music education
- Kodaly methodology
- Music pedagogy
- Suzuki piano pedagogy

Examples of excluded programs
- Music education [*see* 13.1312 Music Teacher Education]
- Music [*see* 50.0901 Music, General]

50.0999 Music, Other

This instructional program class comprises any program not listed above that relates to Music.

Example of included programs
- Music production

Examples of excluded programs
- Music recording engineering [*see* 10.0203 Recording Arts Technology/Technician]
- Music teacher [*see* 13.1312 Music Teacher Education]
- Religious music [*see* 39.0501 Religious/Sacred Music]
- Piano tuning [*see* 47.0404 Musical Instrument Fabrication and Repair]
- Music therapy [*see* 51.2305 Music Therapy/Therapist]

50.99 Visual and Performing Arts, Other

This subseries comprises instructional program class 50.9999.

50.9999 Visual and Performing Arts, Other

This instructional program class comprises any program not listed above that relates to Visual and Performing Arts.

Examples of included programs
- Artist management
- Music theatre
- Musical theatre
- Musical theatre performance

Examples of excluded programs
- Music teacher [*see* 13.1312 Music Teacher Education]
- Drama education [*see* 13.1324 Drama and Dance Teacher Education]
- Art therapy [*see* 51.2301 Art Therapy/Therapist]
- Dance therapy [*see* 51.2302 Dance Therapy/Therapist]
- Music therapy [*see* 51.2305 Music Therapy/Therapist]

51. Health Professions and Related Clinical Sciences

This series comprises instructional programs that prepare individuals to practice as licensed professionals and assistants in the health care professions and focus on the study of related clinical sciences.

51.00 Health Services/Allied Health/Health Sciences, General

This subseries comprises instructional program class 51.0000.

51.0000 Health Services/Allied Health/Health Sciences, General

This instructional program class comprises any general, introductory, undifferentiated, or joint program in health services occupations that prepares individuals for either entry into specialized training programs or for a variety of concentrations in the allied health area. These programs include courses in the basic sciences, research and clinical procedures, and aspects of the subject matter related to various health occupations.

Examples of included programs
- Health
- Health sciences
- Health services
- Health studies

Examples of excluded programs
- Medical biology [*see* 26.0102 Biomedical Sciences, General]
- Medicine [*see* 51.1201 Medicine (MD)]
- Nursing [*see* 51.1601 Nursing/Registered Nurse (RN, ASN, BScN, MScN)]
- Home health aide [*see* 51.2602 Home Health Aide/Home Attendant]

51.01 Chiropractic (DC)

This subseries comprises instructional program class 51.0101.

51.0101 Chiropractic (DC)

This instructional program class comprises any program that prepares individuals for the independent professional practice of chiropractic, a health care and healing system based on the application of non-invasive treatments and spinal adjustments to alleviate health problems caused by vertebral misalignments affecting bodily function as derived from the philosophy of Daniel Palmer. These programs include courses in the basic medical sciences, chiropractic theory and science, postural and spinal analysis, diagnostic radiology and ultrasound, adjustment technique, patient counselling, professional standards and ethics, and practice management.

Examples of included programs
- Chiropractic
- Chiropractor

Examples of excluded programs
- Chiropractic assistant [*see* 51.0813 Chiropractic Assistant/Technician]
- Chiropodist [*see* 51.2101 Podiatric Medicine/Podiatry (DPM)]

51.02 Communication Disorders Sciences and Services

This subseries comprises instructional program classes 51.0201 to 51.0299.

51.0201 Communication Disorders, General

This instructional program class comprises any program that focuses on the general study of the application of biomedical, psychological, and physical principles to the study of the genesis, development, and treatment of speech, language, hearing, and cognitive communication problems caused by disease, injury, or disability. These programs include courses in language science, hearing science, speech and voice science, biology of communication, behavioural linguistics, psychology, and applications to the development of diagnostic and rehabilitative strategies and technologies.

Examples of included programs
- Communication sciences and disorders
- Communications disorders
- Human communication disorders

Examples of excluded programs
- Speech communication [*see* 09.0101 Communication Studies/Speech Communication and Rhetoric]
- Teacher of the deaf [*see* 13.1003 Education/Teaching of Individuals with Hearing Impairments Including Deafness]
- Audiology [*see* 51.0202 Audiology/Audiologist and Hearing Sciences]
- Speech-language pathology [*see* 51.0203 Speech-language Pathology/Pathologist]

51.0202 Audiology/Audiologist and Hearing Sciences

This instructional program class comprises any program that focuses on the scientific study of hearing processes and hearing loss, and that prepares individuals to diagnose hearing loss and impairments and advise patients on means to use their remaining hearing and select and fit hearing aids and other devices. These programs include courses in acoustics, anatomy and physiology of hearing, hearing measurement, auditory pathology, middle and inner ear analysis, rehabilitation therapies and assistive technologies, and pediatric and other special applications.

Examples of included programs
- Audiologist
- Audiology

Examples of excluded programs
- Teacher of the deaf [*see* 13.1003 Education/Teaching of Individuals with Hearing Impairments Including Deafness]
- Communications disorders [*see* 51.0201 Communication Disorders, General]
- Speech therapy and audiology [*see* 51.0204 Audiology/Audiologist and Speech-language Pathology/Pathologist]

51.0203 Speech-language Pathology/Pathologist

This instructional program class comprises any program that prepares individuals to evaluate the speaking, language interpretation, and related physiological and cognitive capabilities of children and/or adults and develop treatment and rehabilitative solutions in consultation with clinicians and educators. These programs include courses in the anatomy and physiology of speech and hearing; biomechanics of swallowing and vocal articulation; communications disorders; psychology of auditory function and cognitive communication; language assessment and diagnostic techniques; and rehabilitative and management therapies.

Examples of included programs
- Speech pathologist
- Speech pathology
- Speech therapy
- Speech-language pathology

Examples of excluded programs
- Communication studies [*see* 09.0101 Communication Studies/Speech Communication and Rhetoric]
- Education of individuals with speech or language impairments [*see* 13.1012 Education/Teaching of Individuals with Speech or Language Impairments]
- Speech teacher education [*see* 13.1331 Speech Teacher Education]
- Communications disorders [*see* 51.0201 Communication Disorders, General]

51.0204 Audiology/Audiologist and Speech-language Pathology/Pathologist

This instructional program class comprises any integrated or coordinated program that prepares individuals as audiologists and speech-language pathologists. These programs include courses in a variety of communication disorder studies, audiology, speech pathology, language acquisition, and the design and implementation of comprehensive therapeutic and rehabilitative solutions to communications problems.

Examples of included programs
- Speech pathology and audiology
- Speech therapy and audiology

Examples of excluded programs
- Education of individuals with speech or language impairments [*see* 13.1012 Education/Teaching of Individuals with Speech or Language Impairments]
- Communications disorders [*see* 51.0201 Communication Disorders, General]
- Audiologist [*see* 51.0202 Audiology/Audiologist and Hearing Sciences]
- Speech-language pathology [*see* 51.0203 Speech-language Pathology/Pathologist]

51.0299 Communication Disorders Sciences and Services, Other

This instructional program class comprises any program not listed above that relates to Communication Disorders Sciences and Services.

Example of included programs
- Communication disorders assistant

Example of excluded programs
- Communication sciences and disorders [*see* 51.0201 Communication Disorders, General]

51.04 Dentistry (DDS, DMD)

This subseries comprises instructional program class 51.0401.

51.0401 Dentistry (DDS, DMD)

This instructional program class comprises any program that prepares individuals for the independent professional practice of dentistry/dental medicine, encompassing the evaluation, diagnosis, prevention, and treatment of diseases, disorders, and conditions of the oral cavity, maxillofacial area, and adjacent structures and their impact on the human body and health. These programs include courses in the basic biomedical sciences; occlusion; dental health and prevention; oral pathology; cariology; operative dentistry; oral radiology; principles of the various dental specialties; pain management; oral medicine; clinic and health care management; patient counselling; and professional standards and ethics.

Examples of included programs
- Dentist
- Dentistry
- Doctor of dental medicine

Examples of excluded programs
- Dental sciences (MSc, PhD) [*see* 51.0501 Dental Clinical Sciences, General (MSc, PhD)]
- Advanced education in general dentistry program (AEGD) [*see* 51.0502 Advanced General Dentistry (Cert., MSc, PhD)]
- Oral and maxillofacial surgery (MSc, PhD) [*see* 51.0507 Oral/Maxillofacial Surgery (Cert., MSc, PhD)]
- Pediatric dentistry (MSc, PhD) [*see* 51.0509 Pediatric Dentistry/Pedodontics (Cert., MSc, PhD)]
- Predentistry [*see* 51.1101 Predentistry Studies]
- Dental/oral surgery specialty—residency [*see* 60.0101 Dental/Oral Surgery Specialty Residency Programs]

51.05 Advanced/Graduate Dentistry and Oral Sciences (Cert., MSc, PhD)

This subseries comprises instructional program classes 51.0501- 51.0599.

51.0501 Dental Clinical Sciences, General (MSc, PhD)

This instructional program class comprises any program integrated or undifferentiated program that generally prepares dentists in one or more of the oral sciences and advanced/graduate dentistry specialties.

Example of included programs
- Dental sciences (MSc, PhD)

Examples of excluded programs
- Dentistry [*see* 51.0401 Dentistry (DDS, DMD)]
- Dental assistant [*see* 51.0601 Dental Assisting/Assistant]
- Dental hygienist [*see* 51.0602 Dental Hygiene/Hygienist]
- Dental technology [*see* 51.0603 Dental Laboratory Technology/Technician]
- Dental/oral surgery specialty—residency [*see* 60.0101 Dental/Oral Surgery Specialty Residency Programs]

51.0502 Advanced General Dentistry (Cert., MSc, PhD)

This instructional program class comprises any program that focuses on the advanced study of dental clinical techniques and dental practice issues. These programs include courses in subjects such as the history of dentistry; advanced dental practice management; dental ethics and jurisprudence; social and behavioural science studies of dentistry; advanced restorative dentistry; oral medicine; oral radiology; advanced clinical procedures and technology; and others.

Example of included programs
- Advanced education in general dentistry program (AEGD)

Examples of excluded programs
- Dentistry [*see* 51.0401 Dentistry (DDS, DMD)]
- Dental/oral surgery specialty—residency [*see* 60.0101 Dental/Oral Surgery Specialty Residency Programs]

51.0503 Oral Biology and Oral Pathology (MSc, PhD)

This instructional program class comprises any program that focuses on the scientific study of the growth, development, diseases, healing properties, and neurological components of the oral cavity, related tissues and organs, and associated craniofacial areas. These programs include courses in oral microbiology microanatomy, craniofacial pain, humoral aspects of disease, etiology and histology of caries, plaque ecology, wound healing, oral disease epidemiology, oral manifestations of systemic disease, lesions, normal and pathologic physiology, and related molecular and physical studies.

Examples of included programs
- Oral biology
- Oral pathology

Examples of excluded programs
- Biology [*see* 26.0101 Biology/Biological Sciences, General]
- Pathology [*see* 26.0910 Pathology/Experimental Pathology]

51.0504 Dental Public Health and Education (Cert., MSc, MPH, PhD, DPH)

This instructional program class comprises any program that focuses on the scientific study of dental disease prevention and control, community dental health promotion, and prepares dentists and public health professionals to function as dental health specialists. These programs include courses in preventive dentistry; the relationship of oral disease to health and quality of life; patient and practitioner behaviour; dental epidemiology; nutrition and dental health; dental care policy and delivery; oral health program planning and administration; biostatistics; and research methods.

Example of included programs
- Dental public health and education

Examples of excluded programs
- Dental hygienist [*see* 51.0602 Dental Hygiene/Hygienist]
- Public health (MPH, DPH) [*see* 51.2201 Public Health, General (MPH, DPH)]
- Public health education [*see* 51.2207 Public Health Education and Promotion]
- Dental public health specialty—residency [*see* 60.0102 Dental Public Health Specialty Residency Programs]

51.0505 Dental Materials (MSc, PhD)

This instructional program class comprises any program that focuses on the scientific study of the biomaterials and inert and active compounds used in dental procedures; the development of dental materials; and their effects on the living tissues of the oral cavity and systemic bodily health. These programs include courses in materials science, dental bioengineering, biocompatibility of materials; physics and mechanics of dental materials; elastic and plastic deformation; surface bonding; and applications to fixed and removable prostheses and restorative procedures.

Example of included programs
- Dental materials

Examples of excluded programs
- Materials science [*see* 14.3101 Materials Science]
- Prosthodontics (MSc, PhD) [*see* 51.0511 Prosthodontics/Prosthodontology (Cert., MSc, PhD)]
- Dental technology [*see* 51.0603 Dental Laboratory Technology/Technician]
- Prosthodontics specialty—residency [*see* 60.0108 Prosthodontics Specialty Residency Programs]

51.0506 Endodontics/Endodontology (Cert., MSc, PhD)

This instructional program class comprises any program that focuses on the advanced study of the morphology, physiology, and pathology of human dental pulp and periradicular tissues, and prepares dentists to diagnose and treat internal diseases and injuries of teeth. These programs include courses in theory and practice of endodontics; pulpal disease; relationship of endodontic conditions to other dental/oral health issues; endodontic operative technique; and patient care and management.

Examples of included programs
- Endodontics (MSc, PhD)
- Endodontist (MSc, PhD)

Example of excluded programs
- Endodontics specialty—residency [*see* 60.0103 Endodontics Specialty Residency Programs]

51.0507 Oral/Maxillofacial Surgery (Cert., MSc, PhD)

This instructional program class comprises any program that focuses on the advanced study of the diagnosis and intrusive and adjunctive treatment of diseases, injuries, and defects of the oral and maxillofacial regions, including functional and aesthetic aspects. These programs include courses in pharmacology, analgesia, anesthesia, anxiety control, surgical procedures and techniques, surgical instrumentation, exodontia, oral diseases and malfunctions, soft and hard tissue pathology, dentoalveolar surgery, infection management, and prosthetic implantation.

Examples of included programs
- Oral and maxillofacial surgery (MSc, PhD)
- Oral surgery (MSc, PhD)

Examples of excluded programs
- Dentistry [*see* 51.0401 Dentistry (DDS, DMD)]
- Dental/oral surgery specialty—residency [*see* 60.0101 Dental/Oral Surgery Specialty Residency Programs]

51.0508 Orthodontics/Orthodontology (Cert., MSc, PhD)

This instructional program class comprises any program that focuses on the advanced study of the guidance of growing dental structures and the correction of misalignments, disproportionate growth, and traumas caused by genetics, disease, injuries, and dysfunctional behaviours. These programs include courses in malocclusion, design and fabrication of orthodontic appliances, craniofacial alignment, physiological function and analysis, cephalometrics, model analysis, space analysis, surgical orthodontics, cleft lip and palate, and treatment planning and management.

Examples of included programs
- Orthodontics (MSc, PhD)
- Orthodontist (MSc, PhD)
- Orthodontology (MSc, PhD)

Examples of excluded programs
- Orthodontic assistant [*see* 51.0699 Dental Support Services and Allied Professions, Other]
- Orthodontics specialty—residency [*see* 60.0105 Orthodontics Specialty Residency Programs]

51.0509 Pediatric Dentistry/Pedodontics (Cert., MSc, PhD)

This instructional program class comprises any program that focuses on the advanced study of the therapeutic and preventive care of the oral health of children from birth through adolescence, and the care of adults with physical, mental, and emotional disabilities. These programs include courses in developmental oral biology, preventive medicine, diet therapy and counselling, patient management, pediatric restorative procedures, pulp therapy, trauma management, anesthesia, treatment planning, patient management, and the treatment of handicapped patients.

Examples of included programs
- Pediatric dentistry (MSc, PhD)
- Pedodonctics (MSc, PhD)

Example of excluded programs
- Pedodontics specialty—residency [*see* 60.0106 Pedodontics Specialty Residency Programs]

51.0510 Periodontics/Periodontology (Cert., MSc, PhD)

This instructional program class comprises any program that focuses on the advanced study of the etiology and treatment of diseases of the gingivae (gum tissue) and supporting bone, nerve, and vascular structures. These programs include courses in periodontium pathology, diagnostic procedures and equipment, occlusion, nutritional aspects of periodontology, surgical treatments, and patient care and management.

Examples of included programs
- Periodontics (MSc, PhD)
- Periodontist (MSc, PhD)

Example of excluded programs
- Periodontics specialty—residency [*see* 60.0107 Periodontics Specialty Residency Programs]

51.0511 Prosthodontics/Prosthodontology (Cert., MSc, PhD)

This instructional program class comprises any program that focuses on the advanced study of the restoration and maintenance of teeth, oral function, and aesthetic form through the use of single or compound materials, structures, and artificial devices. These programs include courses in implant dentistry, surgical procedures, denture design and fabrication, fixed and removable prosthodontics, restorative techniques, occlusion therapy and devices, geriatric dentistry, cosmetic dentistry, and temporomandibular joint dysfunction.

Examples of included programs
- Prosthodontics (MSc, PhD)
- Prosthodontology (MSc, PhD)

Example of excluded programs
- Prosthodontics specialty—residency [*see* 60.0108 Prosthodontics Specialty Residency Programs]

51.0599 Advanced/Graduate Dentistry and Oral Sciences (Cert., MSc, PhD), Other

This instructional program class comprises any program not listed above that relates to Advanced/Graduate Dentistry and Oral Sciences (Cert., MSc, PhD).

51.06 Dental Support Services and Allied Professions

This subseries comprises instructional program classes 51.0601 to 51.0699.

51.0601 Dental Assisting/Assistant

This instructional program class comprises any program that prepares individuals to provide patient care, take dental radiographs (X-ray photographs), prepare patients and equipment for dental procedures, and discharge office administrative functions under the supervision of dentists and dental hygienists. These programs include courses in medical record-keeping, general office duties, reception and patient intake, scheduling, equipment maintenance and sterilization, basic radiography, pre-operative and postoperative patient care and instruction, chairside assisting, taking tooth and mouth impressions, and supervised practice.

Examples of included programs
- Certified dental assistant (CDA)
- Chairside dental assistant
- Dental assistant
- Dental assisting
- Dental nursing
- Registered dental assistant (RDA)

Examples of excluded programs
- Dental hygienist [*see* 51.0602 Dental Hygiene/Hygienist]
- Dental laboratory technician [*see* 51.0603 Dental Laboratory Technology/Technician]
- Dental office administration [*see* 51.0705 Medical Office Management/Administration]
- Dental receptionist [*see* 51.0712 Medical Reception/Receptionist]

51.0602 Dental Hygiene/Hygienist

This instructional program class comprises any program that prepares individuals to clean teeth and apply preventive materials; provide oral health education and treatment counselling to patients; identify oral pathologies and injuries; and manage dental hygiene practices. These programs include courses in dental anatomy, microbiology, and pathology; dental hygiene theory and techniques; cleaning equipment

operation and maintenance; dental materials; radiology; patient education and counselling; office management; supervised clinical training; and professional standards.

Examples of included programs
- Dental hygiene
- Dental hygienist
- Registered dental hygienist (RDH)

Examples of excluded programs
- Dental assistant [*see* 51.0601 Dental Assisting/Assistant]
- Dental therapy [*see* 51.0699 Dental Support Services and Allied Professions, Other]

51.0603 Dental Laboratory Technology/Technician

This instructional program class comprises any program that prepares individuals, under the supervision of dentists, to design and construct dental prostheses such as caps, crowns, bridges, dentures, splints, and orthodontic appliances. These programs include courses in dental anatomy, dental materials, ceramics technology, impressions, complete dentures, partial dentures, orthodontics, crowns and bridges, sculpture, bonding and assembly techniques, and equipment operation.

Examples of included programs
- Dental laboratory technician
- Dental laboratory technology
- Dental technician
- Dental technology
- Denturist

Examples of excluded programs
- Dental assistant [*see* 51.0601 Dental Assisting/Assistant]
- Dental hygienist [*see* 51.0602 Dental Hygiene/Hygienist]

51.0699 Dental Support Services and Allied Professions, Other

This instructional program class comprises any program not listed above that relates to Dental Support Services and Allied Professions.

Examples of included programs
- Dental therapy
- Orthodontic assistant

Examples of excluded programs
- Orthodontics (MSc, PhD) [*see* 51.0508 Orthodontics/Orthodontology (Cert., MSc, PhD)]
- Dental assistant [*see* 51.0601 Dental Assisting/Assistant]
- Dental hygienist [*see* 51.0602 Dental Hygiene/Hygienist]

51.07 Health and Medical Administrative Services

This subseries comprises instructional program classes 51.0701 to 51.0799.

51.0701 Health/Health Care Administration/Management

This instructional program class comprises any program that prepares individuals to develop, plan, and manage health care operations and services within health care facilities and across health care systems. These programs include courses in planning, business management, financial management, public relations,

human resources management, health care systems operation and management, health care resource allocation and policy making, health laws and regulations, and applications to specific types of health care services.

Examples of included programs
- Health administration
- Health care administration
- Health care management
- Health management

Examples of excluded programs
- Hospital management [*see* 51.0702 Hospital and Health Care Facilities Administration/Management]
- Medical administrative assistant [*see* 51.0716 Medical Administrative/Executive Assistant and Medical Secretary]
- Health services administration [*see* 51.2211 Health Services Administration]

51.0702 Hospital and Health Care Facilities Administration/Management

This instructional program class comprises any program that prepares individuals to apply managerial principles to the administration of hospitals, clinics, nursing homes, and other health care facilities. These programs include courses in facilities planning, building and operations management, business management, financial management and insurance, fund-raising and marketing, public relations, human resources management and labour relations, health care facilities operations, principles of health care delivery, and applicable laws and regulations.

Examples of included programs
- Hospital administration
- Hospital management
- Management of health care organizations

Examples of excluded programs
- Health care administration [*see* 51.0701 Health/Health Care Administration/Management]
- Medical administrative assistant [*see* 51.0716 Medical Administrative/Executive Assistant and Medical Secretary]
- Health services administration [*see* 51.2211 Health Services Administration]

51.0703 Health Unit Coordinator/Ward Clerk

This instructional program class comprises any program that prepares individuals, under the supervision of nurses or ward supervisors, to perform routine administrative and reception duties in a patient care unit within a hospital or other health care facility. These programs include courses in receiving and directing visitors, transcribing medical and nursing orders, preparing requisition forms, scheduling patient appointments and procedures, monitoring patients and personnel, and interpersonal skills.

Examples of included programs
- Health unit clerk
- Health unit coordinator
- Hospital unit clerk
- Medical unit clerk
- Nursing unit clerk
- Unit clerk
- Ward clerk

51.0704 Health Unit Manager/Ward Supervisor

This instructional program class comprises any program that prepares individuals, under the supervision of nursing or medical service administrators, to supervise and coordinate the operations of one or more patient care units in hospitals or other health care facilities. These programs include courses in planning and initiating administrative procedures, personnel supervision, interpersonal skills, general and/or specialized health care operations and procedures, and consultation with other medical, nursing, and administrative team members.

Examples of included programs
- Health unit manager
- Ward supervisor

Example of excluded programs
- Health unit coordinator [*see* 51.0703 Health Unit Coordinator/Ward Clerk]

51.0705 Medical Office Management/Administration

This instructional program class comprises any program that prepares individuals to manage the specialized business functions of a medical or clinical office. These programs include courses in business office operations, business and financial record-keeping, personnel supervision, medical and health care policy administration, conference planning, scheduling and coordination, public relations, and applicable laws and regulations.

Examples of included programs
- Dental office administration
- Health office administration
- Medical administration
- Medical office administration
- Medical office manager

Examples of excluded programs
- Health care management [*see* 51.0701 Health/Health Care Administration/Management]
- Hospital administration [*see* 51.0702 Hospital and Health Care Facilities Administration/Management]
- Medical administrative assistant [*see* 51.0716 Medical Administrative/Executive Assistant and Medical Secretary]
- Office management [*see* 52.0204 Office Management and Supervision]

51.0706 Health Information/Medical Records Administration/Administrator

This instructional program class comprises any program that prepares individuals to plan, design, and manage systems, processes, and facilities used to collect, store, secure, retrieve, analyse, and transmit medical records and other health information used by clinical professionals and health care organizations. These programs include courses in the principles and basic content of the biomedical and clinical sciences; information technology and applications; data and database management; clinical research methodologies; health information resources and systems; office management; legal requirements; and professional standards.

Examples of included programs
- Health information management
- Health record administration
- Health records administration
- Medical records administration
- Medical records management

Examples of excluded programs
- Medical records technology [*see* 51.0707 Health Information/Medical Records Technology/Technician]
- Management information systems [*see* 52.1201 Management Information Systems, General]

51.0707 Health Information/Medical Records Technology/Technician

This instructional program class comprises any program that prepares individuals, under the supervision of health information administrators and other professionals, to construct medical records and clinical databases, perform manipulations on retrieved data, control the security and quality of records, and supervise data entry and technical maintenance personnel. These programs include courses in clinical and biomedical science data and information requirements; database management; data coding and validation; information security; quality control; health information content and structure; medical business procedures; and legal requirements.

Examples of included programs
- Health information technology
- Health record technician
- Health record technology
- Medical records technician
- Medical records technology

Examples of excluded programs
- Health records administration [*see* 51.0706 Health Information/Medical Records Administration/Administrator]
- Medical administrative assistant [*see* 51.0716 Medical Administrative/Executive Assistant and Medical Secretary]
- Records management [*see* 54.0105 Public/Applied History and Archival Administration]

51.0708 Medical Transcription/Transcriptionist

This instructional program class comprises any program that prepares individuals to execute verbatim medical conference minutes, medical reports, and medical orders. These programs include courses in dictation and simultaneous recording, analysis of notes and visual evidence, medical terminology, data processing applications and skills, formal medical report and correspondence formats, professional standards, and applicable laws and regulations.

Examples of included programs
- Medical dictatypist
- Medical stenographer
- Medical terminology
- Medical transcription
- Medical transcriptionist

51.0709 Medical Office Computer Specialist/Assistant

This instructional program class comprises any program that prepares individuals to apply computer programming, troubleshooting, and information technology skills to the installation, maintenance, and upgrade of standard, customized, or proprietary medical software and associated hardware. These programs include courses in computer programming, systems analysis, networking, telecommunications, medical records and informatics software applications, information technology, systems administration, computer security, and applicable regulations and certifications or licenses.

Example of included programs
- Medical office computer specialist/assistant

Examples of excluded programs
- Computer programming [*see* 11.0201 Computer Programming/Programmer, General]
- Computer software technician [*see* 15.1204 Computer Software Technology/Technician]
- Medical administrative assistant [*see* 51.0716 Medical Administrative/Executive Assistant and Medical Secretary]
- Medical informatics [*see* 51.2706 Medical Informatics]

51.0710 Medical Office Assistant/Specialist

This instructional program class comprises any program that prepares individuals, under the supervision of office managers and other professionals, to perform routine administrative duties in a medical, clinical, or health care facility/system office environment. These programs include courses in general office skills, data processing, office equipment operation, principles of medical record-keeping and business regulations, medical/clinical office procedures, and communications skills.

Examples of included programs
- Clinic office assistant
- Doctor's office assistant
- Medical clerk
- Medical office assistant

Examples of excluded programs
- Medical office administration [*see* 51.0705 Medical Office Management/Administration]
- Medical records technician [*see* 51.0707 Health Information/Medical Records Technology/Technician]
- Medical administrative assistant [*see* 51.0716 Medical Administrative/Executive Assistant and Medical Secretary]

51.0711 Medical/Health Management and Clinical Assistant/Specialist

This instructional program class comprises any program that prepares individuals, under the supervision of physicians, nurses, or other health care professionals, to perform medical office or facilities management services and perform one or more clinical allied health specialties. These programs include courses in health care management; medical office administration; medical laws and regulations; training in one or more diagnostic, treatment, therapy, or laboratory specialties at the assistant level or above; and applicable professional standards and ethics.

Example of included programs
- Medical/health management and clinical assistant/specialist

Examples of excluded programs
- Health care management [*see* 51.0701 Health/Health Care Administration/Management]
- Medical office administration [*see* 51.0705 Medical Office Management/Administration]
- Medical administrative assistant [*see* 51.0716 Medical Administrative/Executive Assistant and Medical Secretary]
- Medical assistant [*see* 51.0801 Medical/Clinical Assistant]
- Physician assistant [*see* 51.0912 Physician Assistant]

51.0712 Medical Reception/Receptionist

This instructional program class comprises any program that prepares individuals, under the supervision of office managers, nurses, or physicians, to provide customer service, visitor reception, and patient intake and discharge services. These programs include courses in medical office and health care facility procedures, medical terminology, interpersonal skills, record-keeping, customer service, telephone skills, data entry, interpersonal communications skills, and applicable policies and regulations.

Examples of included programs
- Dental reception
- Dental reception coordinator
- Dental receptionist
- Medical office receptionist
- Medical reception
- Medical receptionist
- Veterinary receptionist

Examples of excluded programs
- Medical secretary [*see* 51.0716 Medical Administrative/Executive Assistant and Medical Secretary]
- Receptionist [*see* 52.0406 Receptionist]

51.0713 Medical Insurance Coding Specialist/Coder

This instructional program class comprises any program that prepares individuals to perform specialized data entry, classification, and record-keeping procedures related to medical diagnostic, treatment, billing, and insurance documentation. These programs include courses in medical records and insurance software applications, basic anatomy and physiology, medical terminology, fundamentals of medical science and treatment procedures, data classification and coding, data entry skills, and regulations relating to Medicare and insurance documentation.

Example of included programs
- Medical insurance coding

Examples of excluded programs
- Medical insurance billing [*see* 51.0714 Medical Insurance Specialist/Medical Biller]
- Health/medical claims examiner [*see* 51.0715 Health/Medical Claims Examiner]
- Insurance [*see* 52.1701 Insurance]

51.0714 Medical Insurance Specialist/Medical Biller

This instructional program class comprises any program that prepares individuals to perform and manage the medical and health insurance operations in a medical office, health care facility, health maintenance organization, or insurance provider. These programs include courses in health and medical insurance processes; health insurance laws, policies, and regulations; insurance records and paperwork administration; insurance office administration; health/medical insurance software applications; personnel supervision; business mathematics; billing and collection procedures; medical terminology; and communications skills.

Example of included programs
- Medical insurance billing

Examples of excluded programs
- Medical insurance coding [*see* 51.0713 Medical Insurance Coding Specialist/Coder]
- Health/medical claims examiner [*see* 51.0715 Health/Medical Claims Examiner]
- Insurance [*see* 52.1701 Insurance]

51.0715 Health/Medical Claims Examiner

This instructional program class comprises any program that prepares individuals to perform specialized investigatory, analytical, evaluative, and consultative functions related to health/medical insurance operations and their regulation. These programs include courses in health and medical insurance processes and procedures; health insurance laws and regulations; health care industry laws; record-keeping; analytic and investigatory techniques; evaluation methods; field operations methods; office procedures; related

software applications; oral and written communications skills; interviewing techniques; and professional standards and ethics.

Example of included programs
- Health/medical claims examiner

Examples of excluded programs
- Medical insurance coding [*see* 51.0713 Medical Insurance Coding Specialist/Coder]
- Medical insurance billing [*see* 51.0714 Medical Insurance Specialist/Medical Biller]
- Insurance [*see* 52.1701 Insurance]

51.0716 Medical Administrative/Executive Assistant and Medical Secretary

This instructional program class comprises any program that prepares individuals to perform the duties of special assistants and personal secretaries for practicing physicians and nurses, health care facilities and services administrators, and other health care professionals. These programs include courses in business and medical communications, medical terminology, principles of health care operations, public relations and interpersonal communications, software applications, record-keeping and filing systems, scheduling and meeting planning, applicable policies and regulations, and professional standards and ethics.

Examples of included programs
- Dental secretary
- Medical administrative assistant
- Medical secretarial
- Medical secretary

Examples of excluded programs
- Medical administration [*see* 51.0705 Medical Office Management/Administration]
- Medical office assistant [*see* 51.0710 Medical Office Assistant/Specialist]
- Administrative assistant [*see* 52.0401 Administrative Assistant and Secretarial Science, General]
- Executive assistant [*see* 52.0402 Executive Assistant/Executive Secretary]

51.0717 Medical Staff Services Technology/Technician

This instructional program class comprises any program that prepares individuals to perform credentialing, privileging, personnel management, and accreditation compliance services for hospitals and other health care facilities and organizations. These programs include courses in medical staff organization and management, medical terminology, credentialing and re-credentialing, health care accreditation and regulatory standards, health care laws, meeting and negotiation management, and office information systems management.

Example of included programs
- Medical staff services technology/technician

51.0799 Health and Medical Administrative Services, Other

This instructional program class comprises any program not listed above that relates to Health and Medical Administrative Services.

51.08 Allied Health and Medical Assisting Services

This subseries comprises instructional program classes 51.0801 to 51.0899.

51.0801 Medical/Clinical Assistant

This instructional program class comprises any program that prepares individuals, under the supervision of physicians, to provide medical office administrative services and perform clinical duties including patient intake and care, routine diagnostic and recording procedures, pre-examination and examination assistance, and the administration of medications and first aid. These programs include courses in basic anatomy and physiology; medical terminology; medical laws and ethics; patient psychology and communications; medical office procedures; and clinical diagnostic, examination, testing, and treatment procedures.

Examples of included programs
- Clinical assistant
- Medical assistant
- Medical clinical assistant

Examples of excluded programs
- Medical office assistant [*see* 51.0710 Medical Office Assistant/Specialist]
- Medical/health management and clinical assistant/specialist [*see* 51.0711 Medical/Health Management and Clinical Assistant/Specialist]
- Physician assistant [*see* 51.0912 Physician Assistant]
- Nursing assistant [*see* 51.1614 Nurse/Nursing Assistant/Aide and Patient Care Assistant]

51.0802 Clinical/Medical Laboratory Assistant

This instructional program class comprises any program that prepares individuals, under the supervision of physicians or laboratory scientists or technologists, to perform testing procedures, phlebotomy, and other duties in support of laboratory teams. These programs include courses in clinical procedures, various laboratory tests, laboratory mathematics, computer technology, equipment operation and maintenance, sterilization and safety, communications skills, and interpersonal skills.

Example of included programs
- Medical laboratory assistant

Examples of excluded programs
- Biology lab technology [*see* 41.0101 Biology Technician/Biotechnology Laboratory Technician]
- Medical assistant [*see* 51.0801 Medical/Clinical Assistant]
- Clinical/medical laboratory technician [*see* 51.1004 Clinical/Medical Laboratory Technician]
- Clinical laboratory science/medical technology/technologist [*see* 51.1005 Clinical Laboratory Science/Medical Technology/Technologist]

51.0803 Occupational Therapist Assistant

This instructional program class comprises any program that prepares individuals, under the supervision of occupational therapists, to direct patient participation in skill-enhancing, learning, and motivational tasks; correct or diminish pathologies; and to provide direct health education and promotion services. These programs include courses in human lifespan development, occupational therapy principles and practice skills, treatment planning and implementation, record-keeping and documentation, patient education and intervention, activity and program direction, and assistive services management.

Example of included programs
- Occupational therapist assistant

Examples of excluded programs
- Physiotherapy assistant [*see* 51.0806 Physical Therapist Assistant]
- Occupational health nursing [*see* 51.1618 Occupational and Environmental Health Nursing]
- Occupational therapist [*see* 51.2306 Occupational Therapy/Therapist]
- Occupational medicine—residency [*see* 60.0239 Occupational Medicine Residency Programs]

51.0805 Pharmacy Technician/Assistant

This instructional program class comprises any program that prepares individuals, under the supervision of pharmacists, to prepare medications, provide medications and related assistance to patients, and manage pharmacy clinical and business operations. These programs include courses in medical and pharmaceutical terminology; principles of pharmacology and pharmaceutics; drug identification; pharmacy laboratory procedures; prescription interpretation; patient communication and education; safety procedures; record-keeping; measurement and testing techniques; pharmacy business operations; prescription preparation; logistics and dispensing operations; and applicable standards and regulations.

Examples of included programs
- Pharmacy assistant
- Pharmacy technician
- Pharmacy technology

Examples of excluded programs
- Pharmacology [*see* 26.1001 Pharmacology]
- Prepharmacy [*see* 51.1103 Prepharmacy Studies]
- Pharmacy [*see* 51.2001 Pharmacy (PharmD [USA], PharmD or BSc/BPharm [Canada])]

51.0806 Physical Therapist Assistant

This instructional program class comprises any program that prepares individuals, under the supervision of a physical therapist, to implement physical therapy treatment care plans, train patients, conduct treatment interventions, use equipment, and observe and record patient progress. These programs include courses in applied anatomy and physiology, applied kinesiology, principles and procedures of physical therapy, basic neurology and orthopedics, physical therapy modalities, documentation skills, psychosocial aspects of health care, wound and injury care, electrotherapy, working with orthotics and prostheses, and personal and professional ethics.

Examples of included programs
- Physical therapy assistant
- Physiotherapist assistant
- Physiotherapy assistant

Examples of excluded programs
- Kinesiology and health science [*see* 31.0505 Kinesiology and Exercise Science]
- Occupational therapist assistant [*see* 51.0803 Occupational Therapist Assistant]
- Physical therapy [*see* 51.2308 Physical Therapy/Therapist]

51.0808 Veterinary/Animal Health Technology/Technician and Veterinary Assistant

This instructional program class comprises any program that prepares individuals, under the supervision of veterinarians, laboratory animal specialists, and zoological professionals, to provide patient management, care, and clinical procedures assistance as well as owner communication. These programs include courses in animal nursing care, animal health and nutrition, animal handling, clinical pathology, radiology, anesthesiology, dental prophylaxis, surgical assisting, clinical laboratory procedures, office administration skills, patient and owner management, and applicable standards and regulations.

Examples of included programs
- Animal care technology
- Animal health technician
- Animal health technology
- Veterinarian technician
- Veterinary assistant
- Veterinary technician
- Veterinary technology

Examples of excluded programs
- Animal health [*see* 01.0903 Animal Health]
- Veterinary medicine [*see* 51.2401 Veterinary Medicine (DVM)]

51.0809 Anesthesiologist Assistant

This instructional program class comprises any program that prepares individuals to assist anesthesiologists and nurse anesthetists in developing and implementing patient anesthesia care plans, including pre-operative, surgical theatre, recovery room, and postoperative/intensive care procedures. These programs include courses in patient data collection, catheter insertion, airway management and drug administration, assisting the administration and monitoring of regional and peripheral nerve blockades, support therapy, adjusting anesthetic levels during surgery, interoperative monitoring, postoperative procedures, pain clinics and patient education, and administrative tasks.

Example of included programs
- Anesthesiologist assistant

Examples of excluded programs
- Respiratory technology [*see* 51.0812 Respiratory Therapy Technician/Assistant]
- Nurse anesthetist [*see* 51.1604 Nurse Anesthetist]
- Anesthesiology—residency [*see* 60.0203 Anesthesiology Residency Programs]
- Critical care anesthesiology—residency [*see* 60.0210 Critical Care Anesthesiology Residency Programs]
- Veterinary anesthesiology—residency [*see* 60.0301 Veterinary Anesthesiology Residency Programs]

51.0810 Emergency Care Attendant (EMT Ambulance)

This instructional program class comprises any program that prepares individuals to assist licensed EMTs, under the supervision of a physician, to prepare and transport ill or injured patients, and to operate emergency vehicles and equipment such as life support units. These programs include courses in first aid and emergency medicine field techniques; patient stabilization and care; medical field communications; equipment operation and maintenance; emergency vehicle operation; and applicable standards and regulations.

Examples of included programs
- Ambulance attendant
- Emergency medical responder (EMR)
- Emergency medical technician—ambulance (EMT-A)

Examples of excluded programs
- Emergency medical technician paramedic [*see* 51.0904 Emergency Medical Technology/Technician (EMT Paramedic)]
- Paramedic [*see* 51.0904 Emergency Medical Technology/Technician (EMT Paramedic)]

51.0811 Pathology/Pathologist Assistant

This instructional program class comprises any program that prepares individuals, under the supervision of pathologists, to assist in the performance of autopsies, obtaining and preparing surgical specimens, preparing autopsy reports, and interacting with other clinicians, officials, and individuals. These programs include courses in anatomy; physiology; medical terminology; general, systemic, forensic, and pediatric pathology; autopsy procedures; surgical technique; medical photography; tissue preparation; record keeping and laboratory administration; interpersonal skills; and applicable standards and regulations.

Example of included programs
- Pathology technician

Examples of excluded programs
- Pathology [*see* 26.0910 Pathology/Experimental Pathology]
- Pathology—residency [*see* 60.0244 Pathology Residency Programs]

51.0812 Respiratory Therapy Technician/Assistant

This instructional program class comprises any program that prepares individuals to administer general respiratory care procedures under the supervision of respiratory therapists in a variety of clinical settings. These programs include courses in patient data collection and monitoring, airway management, installation of nebulizers and other respiratory assistance devices, application and monitoring of breathing gases, equipment operation and maintenance, safety and sanitation procedures, and applicable regulations.

Example of included programs
- Respiratory technology

Examples of excluded programs
- Anesthesiologist assistant [*see* 51.0809 Anesthesiologist Assistant]
- Respiratory therapist [*see* 51.0908 Respiratory Care Therapy/Therapist]
- Nurse anesthetist [*see* 51.1604 Nurse Anesthetist]

51.0813 Chiropractic Assistant/Technician

This instructional program class comprises any program that prepares individuals, under the supervision of a chiropractor, to provide patient management, examination, and treatment services. These programs include courses in the principles and procedures of chiropractic; radiographic X-ray procedures and techniques; X-ray film analysis and media studies; orthopedic and neurological testing; clinical laboratory procedures; patient management and education; office administrative skills; and applicable laws and regulations.

Example of included programs
- Chiropractic assistant

Examples of excluded programs
- Chiropractor [*see* 51.0101 Chiropractic (DC)]
- Medical office assistant [*see* 51.0710 Medical Office Assistant/Specialist]
- Medical assistant [*see* 51.0801 Medical/Clinical Assistant]

51.0899 Allied Health and Medical Assisting Services, Other

This instructional program class comprises any program not listed above that relates to Allied Health and Medical Assisting Services.

51.09 Allied Health Diagnostic, Intervention and Treatment Professions

This subseries comprises instructional program classes 51.0901 to 51.0999.

51.0901 Cardiovascular Technology/Technologist

This instructional program class comprises any program that prepares individuals to perform invasive, non-invasive, and peripheral examinations of the cardiovascular system at the request of physicians to aid in diagnoses and therapeutic treatments. These programs include courses in reviewing and recording patient histories and clinical data; patient care; investigative and examination procedures; diagnostic procedures; data analysis and documentation; physician consultation; equipment operation and monitoring; and professional standards and ethics.

Examples of included programs
- Cardiology technician
- Cardiology technologist
- Cardiology technology
- Cardiovascular technician

Examples of excluded programs
- Cardiovascular science [*see* 26.0907 Cardiovascular Science]
- EKG technician [*see* 51.0902 Electrocardiograph Technology/Technician]
- Cardiology—residency [*see* 60.0205 Cardiology Residency Programs]

51.0902 Electrocardiograph Technology/Technician

This instructional program class comprises any program that prepares individuals, under the supervision of physicians and nurses, to administer EKG and ECG diagnostic examinations and report results to the treatment team. These programs include courses in basic anatomy and physiology, the cardiovascular system, medical terminology, cardiovascular medications and effects, patient care, EKG and ECG administration, equipment operation and maintenance, interpretation of cardiac rhythm, patient record management, and professional standards and ethics.

Examples of included programs
- ECG technician
- EKG technician

Example of excluded programs
- Cardiovascular technician [*see* 51.0901 Cardiovascular Technology/Technologist]

51.0903 Electroneurodiagnostic/Electroencephalographic Technology/Technologist

This instructional program class comprises any program that prepares individuals, under the supervision of a physician, to study and record electrical activity in the brain and nervous system for purposes of patient monitoring and supporting diagnoses. These programs include courses in patient communication and care; taking and abstracting patient histories; application of recording electrodes; electroencephalogram (EEG), evoked potential (EP), and polysomnogram (PSG) equipment operation and procedural techniques; and data recording and documentation.

Example of included programs
- EEG technician

51.0904 Emergency Medical Technology/Technician (EMT Paramedic)

This instructional program class comprises any program that prepares individuals, under the remote supervision of physicians, to recognize, assess, and manage medical emergencies in prehospital settings and to supervise ambulance personnel. These programs include courses in basic, intermediate, and advanced EMT procedures; emergency surgical procedures; medical triage; rescue operations; crisis scene management and personnel supervision; equipment operation and maintenance; patient stabilization, monitoring, and care; drug administration; identification and preliminary diagnosis of diseases and injuries; communication and computer operations; basic anatomy, physiology, pathology, and toxicology; and professional standards and regulations.

Examples of included programs
- Emergency medical care attendant
- Emergency medical technician (EMT)
- Emergency medical technician paramedic
- Paramedic

Examples of excluded programs
- Ambulance attendant [*see* 51.0810 Emergency Care Attendant (EMT Ambulance)]
- Emergency medicine—residency [*see* 60.0216 Emergency Medicine Residency Programs]

51.0905 Nuclear Medical Technology/Technologist

This instructional program class comprises any program that prepares individuals, under the supervision of physicians, to employ radioactive and stable nuclides in diagnostic evaluations and therapeutic applications while monitoring for patient health and safety. These programs include courses in nuclear physics, health physics, instrumentation and statistics, biochemistry, immunology, radiopharmacology, radiation biology, clinical nuclear medicine, radionuclide therapy, computer applications, safety regulations, equipment operation, quality control, laboratory procedures, taking patient histories, patient evaluation and monitoring, emergency first aid, administration and record-keeping, and personnel supervision.

Examples of included programs
- Nuclear medicine technologist
- Nuclear medicine technology

Examples of excluded programs
- Nuclear engineering [*see* 14.2301 Nuclear Engineering]
- Radiation biology [*see* 26.0209 Radiation Biology/Radiobiology]
- Medical radiation technology [*see* 51.0907 Medical Radiologic Technology/Science - Radiation Therapist]
- Radiological technologist [*see* 51.0911 Radiologic Technology/Science - Radiographer]
- Nuclear medicine—residency [*see* 60.0236 Nuclear Medicine Residency Programs]
- Nuclear radiology—residency [*see* 60.0237 Nuclear Radiology Residency Programs]

51.0906 Perfusion Technology/Perfusionist

This instructional program class comprises any program that prepares individuals, under the supervision of physicians and nurses, to operate extracorporeal circulation and autotransfusion equipment during medical procedures and surgeries where the support or temporary replacement of a patient's own respiratory or circulatory system is required. These programs include courses in equipment selection and operation; physician and medical team consultation; patient condition monitoring; procedural techniques; and principles of respiratory and circulatory physiology.

Example of included programs
- Perfusionist

51.0907 Medical Radiologic Technology/Science - Radiation Therapist

This instructional program class comprises any program that prepares individuals to administer prescribed courses of radiation treatment, manage patients undergoing radiation therapy, and maintain pertinent records. These programs include courses in applied anatomy and physiology, oncologic pathology, radiation biology, radiation oncology procedures and techniques, radiation dosimetry, tumour localization, treatment planning, patient communication and management, data collection, record-keeping, and applicable standards and regulations.

Examples of included programs
- Medical radiation technology
- Radiation technology
- Radiation therapy
- Radiotherapy

Examples of excluded programs
- Nuclear engineering technology [*see* 15.1401 Nuclear Engineering Technology/Technician]
- Radiological technologist [*see* 51.0911 Radiologic Technology/Science - Radiographer]
- Radiation oncology—residency [*see* 60.0258 Radiation Oncology Residency Programs]

51.0908 Respiratory Care Therapy/Therapist

This instructional program class comprises any program that prepares individuals, under the supervision of physicians, to assist in developing respiratory care plans, administer respiratory care procedures, supervise personnel and equipment operation, maintain records, and consult with other health care team members. These programs include courses in the applied basic biomedical sciences; anatomy, physiology, and pathology of the respiratory system; clinical medicine; therapeutic procedures; clinical expressions; data collection and record-keeping; patient communication; equipment operation and maintenance; personnel supervision; and procedures for special population groups.

Examples of included programs
- Inhalation therapy
- Respiratory therapist
- Respiratory therapy

Example of excluded programs
- Respiratory technology [*see* 51.0812 Respiratory Therapy Technician/Assistant]

51.0909 Surgical Technology/Technologist

This instructional program class comprises any program that prepares individuals, under the supervision of physicians and surgical nurses, to maintain, monitor, and enforce the sterile field and adherence to aseptic technique by pre-operative, surgical team, and postoperative personnel. These programs include courses in instrument and equipment sterilization and handling; surgical supplies management; wound exposure and closure; surgical computer and robot operation and monitoring; maintenance of hemostasis; and patient and team scrubbing.

Examples of included programs
- Sterile processing
- Sterile supply technician
- Sterile technician
- Sterilization technician

Examples of excluded programs
- Medical assistant [*see* 51.0801 Medical/Clinical Assistant]
- Surgical nursing [*see* 51.1612 Perioperative/Operating Room and Surgical Nurse/Nursing]

51.0910 Diagnostic Medical Sonography/Sonographer and Ultrasound Technician

This instructional program class comprises any program that prepares individuals, under the supervision of physicians, to utilize medical ultrasound techniques to gather sonographic data used to diagnose a variety of conditions and diseases. These programs include courses in obtaining, reviewing, and integrating patient histories and data; patient instruction and care; anatomic, physiologic and pathologic data recording; sonographic data processing; sonography equipment operation; and professional standards and ethics.

Examples of included programs
- Diagnostic medical sonography
- Medical sonography
- Medical ultrasound technology
- Sonography
- Ultrasonography
- Ultrasound
- Ultrasound technician
- Ultrasound technology

Examples of excluded programs
- Acoustical physics [*see* 40.0809 Acoustics]
- X-ray technician [*see* 51.0911 Radiologic Technology/Science - Radiographer]

51.0911 Radiologic Technology/Science - Radiographer

This instructional program class comprises any program that prepares individuals, under the supervision of physicians, to provide medical imaging services to patients and attending health care professionals. These programs include courses in applied anatomy and physiology, patient positioning, radiographic technique, radiation biology, safety and emergency procedures, equipment operation and maintenance, quality assurance, patient education, and medical imaging/radiologic services management.

Examples of included programs
- Radiological technologist
- Radiology technologist
- X-ray technician
- X-ray technology

Examples of excluded programs
- Nuclear engineering technology [*see* 15.1401 Nuclear Engineering Technology/Technician]
- Radiation biology [*see* 26.0209 Radiation Biology/Radiobiology]
- Medical radiation technology [*see* 51.0907 Medical Radiologic Technology/Science - Radiation Therapist]
- Radiation protection/health physics technician [*see* 51.0916 Radiation Protection/Health Physics Technician]
- Diagnostic radiology—residency [*see* 60.0215 Diagnostic Radiology Residency Programs]
- Nuclear radiology—residency [*see* 60.0237 Nuclear Radiology Residency Programs]

51.0912 Physician Assistant

This instructional program class comprises any program that prepares individuals to practice medicine, including diagnoses and treatment therapies, under the supervision of a physician. These programs include courses in the basic medical and clinical sciences and specialized preparation in fields such as family medicine; pediatrics; obstetrics; gynecology; general surgery; psychiatry; behavioural medicine; the delivery of health care services to homebound patients, rural populations, underserved populations; and community health services.

Example of included programs
- Physician assistant

Examples of excluded programs
- Doctor's office assistant [*see* 51.0710 Medical Office Assistant/Specialist]
- Medical assistant [*see* 51.0801 Medical/Clinical Assistant]
- Nursing [*see* 51.1601 Nursing/Registered Nurse (RN, ASN, BScN, MScN)]

51.0913 Athletic Training/Trainer

This instructional program class comprises any program that prepares individuals to work in consultation with, and under the supervision of physicians to prevent and treat sports injuries and associated conditions. These programs include courses in the identification, evaluation, and treatment of athletic injuries and illnesses; first aid and emergency care; therapeutic exercise; anatomy and physiology; exercise physiology; kinesiology and biomechanics; nutrition; sports psychology; personal and community health; knowledge of various sports and their biomechanical and physiological demands; and applicable professional standards and regulations.

Examples of included programs
- Athletic therapy
- Athletic training/trainer

Examples of excluded programs
- Exercise physiology [*see* 26.0908 Exercise Physiology]
- Coaching [*see* 31.0501 Health and Physical Education, General]
- Personal training [*see* 31.0501 Health and Physical Education, General]
- Kinesiology [*see* 31.0505 Kinesiology and Exercise Science]
- Physical therapy [*see* 51.2308 Physical Therapy/Therapist]

51.0914 Gene/Genetic Therapy

This instructional program class comprises any program that focuses on the application of genetics to the therapeutic treatment of diseases and inherited abnormalities through the targeted modification of gene expression, and prepares individuals to administer genetic therapies. These programs include courses in medical genetics, genome analysis, pharmacology of gene transfer, viral vectors, non-viral therapeutic techniques, genetic screening, targeted gene delivery, vector production, safety and quality assurance, clinical trials management, and bioethics.

Example of included programs
- Gene therapy

Examples of excluded programs
- Genetics [*see* 26.0801 Genetics, General]
- Cytogenetics [*see* 51.1010 Cytogenetics/Genetics/Clinical Genetics Technology/Technologist]
- Genetic counselling [*see* 51.1509 Genetic Counselling/Counsellor]

51.0915 Cardiopulmonary Technology/Technologist

This instructional program class comprises any program that prepares individuals, under the supervision of physicians and nurses, to perform both cardiovascular and pulmonary diagnostic and therapeutic procedures. These programs include courses in cardiopulmonary pharmacology; anatomy and physiology of the heart, peripheral vascular system, and lungs; pulmonary and cardiovascular disease and dysfunction; peripheral vascular Doppler procedures; invasive and non-invasive cardiology; pulmonary function tests; blood gas analysis; echocardiograph procedures; bronchoscopy; patient management; patient history taking and record-keeping; applications to clinical research; and emergency procedures.

Example of included programs
- Cardiopulmonary technology/technologist

Examples of excluded programs
- Cardiovascular science [*see* 26.0907 Cardiovascular Science]
- Cardiovascular technician [*see* 51.0901 Cardiovascular Technology/Technologist]
- EKG technician [*see* 51.0902 Electrocardiograph Technology/Technician]
- Respiratory therapist [*see* 51.0908 Respiratory Care Therapy/Therapist]

51.0916 Radiation Protection/Health Physics Technician

This instructional program class comprises any program that prepares individuals, under the supervision of health physicists, occupational safety and health specialists, and public health officials, to monitor and control radiation exposure and implement preventive measures in health care, work, and natural environments. These programs include courses in radiation physics, environmental radioactivity, radiological instrumentation, electronics of radiation detection equipment, radioactive waste management and control, safety and handling procedures, decontamination procedures, radioactivity testing and analysis, and communications skills.

Example of included programs
- Radiation protection/health physics technician

Examples of excluded programs
- Hazardous materials management [*see* 15.0508 Hazardous Materials Management and Waste Technology/Technician]
- Health physics [*see* 51.2205 Health/Medical Physics]

51.0999 Allied Health Diagnostic, Intervention and Treatment Professions, Other

This instructional program class comprises any program not listed above that relates to Allied Health Diagnostic, Intervention and Treatment Professions.

51.10 Clinical/Medical Laboratory Science and Allied Professions

This subseries comprises instructional program classes 51.1001 to 51.1099.

51.1001 Blood Bank Technology Specialist

This instructional program class comprises any program that prepares individuals to perform routine and specialized blood testing procedures, collect and process blood donations, and support physicians and other clinicians administering transfusion therapy. These programs include courses in basic cellular biology, immunohematology, blood bank procedures, blood typing, antigen and antibody identification tests, hemolytic and transfusion responses and diseases, donor selection, blood drawing and storage, blood separation, viral marker testing, laboratory and personnel supervision, safety and sterilization, and applicable laws and regulations.

Example of included programs
- Blood bank technology specialist

Example of excluded programs
- Hematology technology/technician [*see* 51.1003 Hematology Technology/Technician]

51.1002 Cytotechnology/Cytotechnologist

This instructional program class comprises any program that prepares individuals to work with pathologists to detect changes in body cells that may indicate, and permit diagnosis of, the early development of cancers and other diseases. These programs include courses in biochemistry, microbiology, applied mathematics, microscopy, slide preparation, identification of cellular structures and abnormalities, and laboratory procedures and safety.

Examples of included programs
- Cytotechnologist
- Cytotechnology

Examples of excluded programs
- Cytology [*see* 26.0401 Cell/Cellular Biology and Histology]
- Cytogenetics [*see* 51.1010 Cytogenetics/Genetics/Clinical Genetics Technology/Technologist]
- Cytopathology—residency [*see* 60.0267 Cytopathology Residency Programs]

51.1003 Hematology Technology/Technician

This instructional program class comprises any program that prepares individuals, under the supervision of clinical laboratory scientists and health care professionals, to perform tests and analyses of blood samples. These programs include courses in clinical laboratory procedures; blood anatomy and physiology; cellular and molecular biology; blood pathology and disease indicators; quantitative, qualitative, and coagulation testing methodologies; equipment operation and maintenance; and recordkeeping.

Example of included programs
- Hematology technology/technician

Examples of excluded programs
- Blood bank technology specialist [*see* 51.1001 Blood Bank Technology Specialist]
- Hematology—residency [*see* 60.0224 Hematology Residency Programs]
- Hematological pathology—residency [*see* 60.0225 Hematological Pathology Residency Programs]

51.1004 Clinical/Medical Laboratory Technician

This instructional program class comprises any program that prepares individuals, under the supervision of clinical laboratory scientists/medical technologists, to perform routine medical laboratory procedures and tests and to apply preset strategies to record and analyse data. These programs include courses in general laboratory procedures and skills; laboratory mathematics; medical computer applications; interpersonal and communications skills; and the basic principles of hematology; medical microbiology; immunohematology; immunology; clinical chemistry, and urinalysis.

Example of included programs
- Clinical/medical laboratory technician

Examples of excluded programs
- Biology lab technology [*see* 41.0101 Biology Technician/Biotechnology Laboratory Technician]
- Medical laboratory assistant [*see* 51.0802 Clinical/Medical Laboratory Assistant]
- Clinical laboratory science/medical technology/technologist [*see* 51.1005 Clinical Laboratory Science/Medical Technology/Technologist]
- Laboratory medicine—residency [*see* 60.0229 Laboratory Medicine Residency Programs]

51.1005 Clinical Laboratory Science/Medical Technology/Technologist

This instructional program class comprises any program that prepares individuals to conduct and supervise complex medical tests, clinical trials, and research experiments; manage clinical laboratories; and consult with physicians and clinical researchers on diagnoses, disease causation and spread, and research outcomes. These programs include courses in the theory and practice of hematology; clinical chemistry; microbiology; immunology; immunohematology; physiological relationships to test results; laboratory procedures and quality assurance controls; test and research design and implementation; analytic techniques; laboratory management and personnel supervision; data development and reporting; medical informatics; and professional standards and regulations.

Example of included programs
- Clinical laboratory science/medical technology/technologist

Examples of excluded programs
- Biology lab technology [*see* 41.0101 Biology Technician/Biotechnology Laboratory Technician]
- Medical laboratory assistant [*see* 51.0802 Clinical/Medical Laboratory Assistant]
- Clinical/medical laboratory technician [*see* 51.1004 Clinical/Medical Laboratory Technician]
- Laboratory medicine—residency [*see* 60.0229 Laboratory Medicine Residency Programs]

51.1006 Ophthalmic Laboratory Technology/Technician

This instructional program class comprises any program that prepares individuals, under the supervision of ophthalmologists and optometrists, to cut, grind, edge, and finish corrective lenses and to fabricate eyewear. These programs include courses in optical theory, applied mathematics, lens surfacing and finishing, tinting and coating, impact resistance treatment and testing, frame construction and repair, prescription interpretation, equipment operation and maintenance, follow-up adjustment, record-keeping, and laboratory safety procedures.

Example of included programs
- Ophthalmic laboratory technician

Examples of excluded programs
- Optometry [*see* 51.1701 Optometry (OD)]
- Ophthalmic dispensing [*see* 51.1801 Opticianry/Ophthalmic Dispensing Optician]
- Optometric assistant [*see* 51.1802 Optometric Technician/Assistant]
- Ophthalmic assistant [*see* 51.1803 Ophthalmic Technician/Technologist]
- Ophthalmology—residency [*see* 60.0241 Ophthalmology Residency Programs]

51.1007 Histologic Technology/Histotechnologist

This instructional program class comprises any program that prepares individuals, at the request of physicians, researchers, and laboratory scientists, to identify tissue structures and cell components and relate these findings to physiological functions and to the detection and diagnosis of diseases and other abnormalities. These programs include courses in medical chemistry; histochemistry; biochemistry; anatomy; physiology; medical informatics; applied mathematics; electron microscopy; instrumentation; quality control procedures; data recording and analysis; laboratory administration; medical terminology; and professional standards and ethics.

Example of included programs
- Histologic technologist

Examples of excluded programs
- Histology [*see* 26.0401 Cell/Cellular Biology and Histology]
- Histologic technician [*see* 51.1008 Histologic Technician]

51.1008 Histologic Technician

This instructional program class comprises any program that prepares individuals, under the supervision of histotechnologists and other clinical laboratory scientists, to prepare and process tissue samples and perform routine histologic procedures and tests. These programs include courses in fixation, dehydration, embedding, sectioning, decalcification, microincineration, mounting, routine and special steaming, laboratory mathematics, laboratory procedures and safety, instrumentation and microscopy, computer applications, preparation of museum specimens, and recording and administrative procedures.

Example of included programs
- Histologic technician

Examples of excluded programs
- Histology [*see* 26.0401 Cell/Cellular Biology and Histology]
- Histologic technologist [*see* 51.1007 Histologic Technology/Histotechnologist]

51.1009 Phlebotomy/Phlebotomist

This instructional program class comprises any program that prepares individuals, under the supervision of physicians and other health care professionals, to draw blood samples from patients using a variety of intrusive procedures. These programs include courses in basic vascular anatomy and physiology, blood physiology, skin puncture techniques, venipuncture, venous specimen collection and handling, safety and sanitation procedures, and applicable standards and regulations.

Example of included programs
- Phlebotomy

Examples of excluded programs
- Hematology technology/technician [*see* 51.1003 Hematology Technology/Technician]
- Hematology—residency [*see* 60.0224 Hematology Residency Programs]

51.1010 Cytogenetics/Genetics/Clinical Genetics Technology/Technologist

This instructional program class comprises any program that prepares individuals to perform analyses of the human genome and chromosomes for the research and diagnosis of genetic diseases and defects, in preparation for organ transplants, and in support of treatments for cancers and leukemias. These programs include courses in chromosome analysis, fluorescent in situ hybridization (FISH), molecular genetic techniques, cytotechnology, and photomicrography.

Example of included programs
- Cytogenetics

Examples of excluded programs
- Cytology [*see* 26.0401 Cell/Cellular Biology and Histology]
- Cytotechnology [*see* 51.1002 Cytotechnology/Cytotechnologist]
- Cytopathology—residency [*see* 60.0267 Cytopathology Residency Programs]

51.1011 Renal/Dialysis Technologist/Technician

This instructional program class comprises any program that prepares individuals to administer hemodialysis treatments to patients with renal failure under the supervision of a nurse or physician. These programs include courses in basic anatomy and physiology, dialysis prescription interpretation, dialysite preparation, extracorporeal circuit and dialyzer set-up and maintenance, equipment monitoring, patient preparation, taking vital signs, documentation and communication, venipuncture and local anesthesia administration, emergency intervention, safety and sanitation, and professional standards and ethics.

Example of included programs
- Dialysis technologist

51.1099 Clinical/Medical Laboratory Science and Allied Professions, Other

This instructional program class comprises any program not listed above that relates to Clinical/Medical Laboratory Science and Allied Professions.

Examples of included programs
- Pharmaceutical technician
- Pharmaceutical technology

Example of excluded programs
- Clinical/medical laboratory technician [*see* 51.1004 Clinical/Medical Laboratory Technician]

51.11 Health/Medical Preparatory Programs

This subseries comprises instructional program classes 51.1101 to 51.1199.

51.1101 Predentistry Studies

This instructional program class comprises any program that prepares individuals for admission to a first-professional program in dentistry.

Example of included programs
- Predentistry

Examples of excluded programs
- Dentistry [*see* 51.0401 Dentistry (DDS, DMD)]
- Dental/oral surgery specialty—residency [*see* 60.0101 Dental/Oral Surgery Specialty Residency Programs]

51.1102 Premedicine/Premedical Studies

This instructional program class comprises any program that prepares individuals for admission to a first-professional program in medicine, osteopathic medicine, or podiatric medicine.

Examples of included programs
- Premed
- Premedical science
- Premedicine
- Science premed

Examples of excluded programs
- Medical biology [*see* 26.0102 Biomedical Sciences, General]
- Medicine [*see* 51.1201 Medicine (MD)]
- Medical science [*see* 51.1401 Medical Scientist (MSc, PhD)]
- Family medicine—residency [*see* 60.0218 Family Medicine Residency Programs]
- Internal medicine—residency [*see* 60.0228 Internal Medicine Residency Programs]

51.1103 Prepharmacy Studies

This instructional program class comprises any program that prepares individuals for admission to a first-professional program in pharmacy.

Example of included programs
- Prepharmacy

Examples of excluded programs
- Pharmacology [*see* 26.1001 Pharmacology]
- Pharmacy [*see* 51.2001 Pharmacy (PharmD [USA], PharmD or BSc/BPharm [Canada])]
- Pharmacy administration [*see* 51.2002 Pharmacy Administration and Pharmacy Policy and Regulatory Affairs (MSc, PhD)]

51.1104 Preveterinary Studies

This instructional program class comprises any program that prepares individuals for admission to a first-professional program in veterinary medicine.

Example of included programs
- Preveterinary medicine

Examples of excluded programs
- Animal health [*see* 01.0903 Animal Health]
- Animal biology [*see* 26.0701 Zoology/Animal Biology, General]
- Veterinary medicine [*see* 51.2401 Veterinary Medicine (DVM)]
- Veterinary practice—residency [*see* 60.0311 Veterinary Practice Residency Programs]

51.1105 Prenursing Studies

This instructional program class comprises any program that prepares individuals for admission to a professional program in Nursing.

Example of included programs
- Prenursing

Examples of excluded programs
- Medical assistant [*see* 51.0801 Medical/Clinical Assistant]
- Nursing [*see* 51.1601 Nursing/Registered Nurse (RN, ASN, BScN, MScN)]
- Nursing administration [*see* 51.1602 Nursing Administration (MScN, MSc, PhD)]

51.1199 Health/Medical Preparatory Programs, Other

This instructional program class comprises any program not listed above that relates to Health/Medical Preparatory Programs.

Example of included programs
- Prehealth science

51.12 Medicine (MD)

This subseries comprises instructional program class 51.1201.

51.1201 Medicine (MD)

This instructional program class comprises any program that prepares individuals for the independent professional practice of medicine, involving the prevention, diagnosis, and treatment of illnesses, injuries, and other disorders of the human body. These programs include courses in the basic medical sciences, clinical medicine, examination and diagnosis, patient communications, medical ethics and laws, professional standards, and rotations in specialties such as internal medicine, surgery, pediatrics, obstetrics

and gynecology, orthopedics, neurology, ophthalmology, radiology, clinical pathology, anesthesiology, family medicine, and psychiatry.

Examples of included programs
- Doctor
- Doctor of medicine
- General medicine
- General physician
- Medical doctor (MD)
- Medicine
- Physician

Examples of excluded programs
- Medical biology [*see* 26.0102 Biomedical Sciences, General]
- Premedicine [*see* 51.1102 Premedicine/Premedical Studies]
- Medical science [*see* 51.1401 Medical Scientist (MSc, PhD)]
- Family medicine—residency [*see* 60.0218 Family Medicine Residency Programs]
- Internal medicine—residency [*see* 60.0228 Internal Medicine Residency Programs]

51.14 Medical Scientist (MSc, PhD)

This subseries comprises instructional program class 51.1401.

51.1401 Medical Scientist (MSc, PhD)

This instructional program class comprises any undifferentiated clinical science program that prepares graduated physicians (M.D. or D.O.) as research scientists in various areas.

Examples of included programs
- Medical research
- Medical science

Examples of excluded programs
- Biomedical engineering [*see* 14.0501 Biomedical/Medical Engineering]
- Medical biology [*see* 26.0102 Biomedical Sciences, General]
- Medicine [*see* 51.1201 Medicine (MD)]
- Laboratory medicine—residency [*see* 60.0229 Laboratory Medicine Residency Programs]

51.15 Mental and Social Health Services and Allied Professions

This subseries comprises instructional program classes 51.1501 to 51.1599.

51.1501 Substance Abuse/Addiction Counselling

This instructional program class comprises any program that prepares individuals to help prevent substance abuse, counsel individuals and families with drug and alcohol problems, and perform intervention and therapeutic services for persons suffering from addiction. These programs include courses in individual and group counselling skills, psychology of addiction, sociology, crisis intervention, substance abuse identification methodologies, substance abuse treatment modalities, substance abuse prevention and treatment resources, pharmacology and behavioural aspects of abused substances, treatment evaluation, patient observation and education, group dynamics, professional standards and ethics, and applicable laws and regulations.

Examples of included programs
- Addiction counselling
- Drug and alcohol counselling
- Substance abuse counselling

Examples of excluded programs
- Counselling psychology [*see* 42.0601 Counselling Psychology]
- Psychopharmacology [*see* 42.2401 Psychopharmacology]
- Social work [*see* 44.0701 Social Work, General]

51.1502 Psychiatric/Mental Health Services Technician

This instructional program class comprises any program that prepares individuals, under the supervision of psychiatrists, psychologists, nurses, and other mental health care professionals, to provide direct patient care services, assist in developing and implementing treatment plans, administer medications, and perform related administrative functions. These programs include courses in mental health theory, applied psychopathology, patient communication and management, crisis intervention, psychotropic medication, mental health treatment procedures, substance abuse, record-keeping, clinical administrative skills, and applicable standards and regulations.

Example of included programs
- Mental health care

Examples of excluded programs
- Suicide prevention [*see* 51.1508 Mental Health Counselling/Counsellor]
- Psychiatric nurse [*see* 51.1610 Psychiatric/Mental Health Nurse/Nursing]
- Psychiatry—residency [*see* 60.0255 Psychiatry Residency Programs]

51.1503 Clinical/Medical Social Work

This instructional program class comprises any program that prepares individuals for the specialized professional practice of social work, in collaboration with other health care professionals, in hospitals and other health care facilities and organizations. These programs include courses in social work, psychiatric case work, clinical interviewing techniques, therapeutic intervention strategies, patient testing and evaluation, patient and family counselling, social rehabilitation, patient care planning, record-keeping, and support services liaison.

Examples of included programs
- Clinical social work
- Medical social work

Example of excluded programs
- Social work [*see* 44.0701 Social Work, General]

51.1504 Community Health Services/Liaison/Counselling

This instructional program class comprises any program that prepares individuals to serve as facilitators, advocates, and referral professionals linking health care and related social services with affected recipient communities. These programs include courses in public and community health, human and social services, health services administration, group counselling, health education, group advocacy, cross-cultural and multilingual communication, and applicable laws and policies.

Examples of included programs
- Community health care
- Community health representative
- Community health service

Examples of excluded programs
- Social work [*see* 44.0701 Social Work, General]
- Community health nursing [*see* 51.1611 Public Health/Community Nurse/Nursing]
- Community health management [*see* 51.2208 Community Health and Preventive Medicine]

51.1505 Marriage and Family Therapy/Counselling

This instructional program class comprises any program that prepares individuals for the independent professional practice of marriage and family therapy, involving the diagnosis of cognitive, affective, and behavioural domain disorders, both mental and emotional, within the context of marriage and family systems and the application of short- and long-term therapeutic strategies in family group contexts. These programs include courses in psychotherapy, family systems and studies, small group intervention and therapy, marital problems, depression, identification of psychopathologies and behavioural disorders, holistic health care, practice management, applicable regulations, and professional standards and ethics.

Examples of included programs
- Family counselling
- Family therapy
- Marriage and family counselling
- Marriage and family therapy

Examples of excluded programs
- Family systems [*see* 19.0704 Family Systems]
- Family psychology [*see* 42.2501 Family Psychology]

51.1506 Clinical Pastoral Counselling/Patient Counselling

This instructional program class comprises any program that prepares ordained clergy and other counselling professionals to respond to the emotional and spiritual needs of patients and families in health care emergencies and other situations, and to consult with and counsel other health care professionals. These programs include courses in advanced interpersonal communication; individual and small group counselling; interdisciplinary teamwork; crisis management; extended care relationships; self-analysis; medical ethics; pastoral care art; spiritual dimensions of human growth and health; counselling psychology and therapy; and applications to grief, death, emotional collapse, injury, individual/family adjustment, and chronic illness situations.

Example of included programs
- Clinical pastoral counselling

Examples of excluded programs
- Pastoral counselling [*see* 39.0701 Pastoral Studies/Counselling]
- Counselling psychology [*see* 42.0601 Counselling Psychology]

51.1507 Psychoanalysis and Psychotherapy

This instructional program class comprises any program that prepares individuals to practice the provision of psychoanalytic counselling to individuals and groups based on the psychodynamic principles evolved from authorities such as Freud, Adler, and Jung. These programs include courses in self-analysis, personality theory, dream analysis, free association and transference theory and techniques, psychodynamic theory, developmental processes, applications to specific clinical conditions, practice management, and professional standards and ethics.

Examples of included programs
- Psychoanalysis
- Psychotherapy

Examples of excluded programs
- Psychologist [*see* 42.0101 Psychology, General]
- Psychometrics [*see* 42.1901 Psychometrics and Quantitative Psychology]
- Psychiatry—residency [*see* 60.0255 Psychiatry Residency Programs]

51.1508 Mental Health Counselling/Counsellor

This instructional program class comprises any program that prepares individuals to provide evaluations, referrals, and short-term counselling services to help people prevent or remediate personal problems, conflicts, and emotional crises. These programs include courses in human development, psychopathology, individual and group counselling, personality theory, career assessment, patient screening and referral, observation and testing techniques, interviewing skills, professional standards and ethics, and applicable laws and regulations.

Example of included programs
- Suicide prevention

Examples of excluded programs
- Mental health care [*see* 51.1502 Psychiatric/Mental Health Services Technician]
- Mental health nursing [*see* 51.1610 Psychiatric/Mental Health Nurse/Nursing]
- Psychiatry—residency [*see* 60.0255 Psychiatry Residency Programs]

51.1509 Genetic Counselling/Counsellor

This instructional program class comprises any program that prepares individuals to counsel patients and families concerning inherited genetic disorders and diseases, children with birth defects; assess risk factors and planning options associated with potential and actual inherited conditions; and serve as patient advocates and provide referral services in relation to private and public support services. These programs include courses in clinical/medical genetics, methods of genetic testing, interviewing and counselling skills, genetic and support services delivery, principles of public health, medical ethics, laws and regulations, patient advocacy, and professional standards.

Example of included programs
- Genetic counselling

Examples of excluded programs
- Genetics [*see* 26.0801 Genetics, General]
- Gene therapy [*see* 51.0914 Gene/Genetic Therapy]

51.1599 Mental and Social Health Services and Allied Professions, Other

This instructional program class comprises any program not listed above that relates to Mental and Social Health Services and Allied Professions.

Example of included programs
- Sexology

51.16 Nursing

This subseries comprises instructional program classes 51.1601 to 51.1699.

51.1601 Nursing/Registered Nurse (RN, ASN, BScN, MScN)

This instructional program class comprises any program that generally prepares individuals in the knowledge, techniques and procedures for promoting health, providing care for sick, disabled, infirm,

or other individuals or groups. These programs include courses in the administration of medication and treatments, assisting a physician during treatments and examinations, Referring patients to physicians and other health care specialists, and planning education for health maintenance.

Examples of included programs
- Nursing
- Registered nurse
- Registered nursing

Examples of excluded programs
- Nursing sciences (MSc, PhD) [*see* 51.1608 Nursing Science (MSc, PhD)]
- Practical nursing [*see* 51.1613 Licensed Practical/Vocational Nurse Training (LPN, LVN, Cert., Dipl., AAS)]
- Nursing assistant [*see* 51.1614 Nurse/Nursing Assistant/Aide and Patient Care Assistant]

51.1602 Nursing Administration (MScN, MSc, PhD)

This instructional program class comprises any program that prepares registered nurses (RNs) to manage Nursing personnel and services in hospitals and other health care delivery agencies. These programs include courses in principles of health care administration, resource and financial management, health care laws and policies, medical personnel management, and managed care operations.

Examples of included programs
- Nurse management
- Nursing administration
- Nursing management

Examples of excluded programs
- Health care administration [*see* 51.0701 Health/Health Care Administration/Management]
- Nursing [*see* 51.1601 Nursing/Registered Nurse (RN, ASN, BScN, MScN)]
- Health services administration [*see* 51.2211 Health Services Administration]

51.1603 Adult Health Nurse/Nursing

This instructional program class comprises any program that prepares registered nurses (RNs) to provide general care for adult patients. These programs include courses in adult primary care, adult pathophysiology, clinical management of medication and treatments, patient assessment and education, patient referral, and planning adult health maintenance programs.

Example of included programs
- Adult health nursing

Examples of excluded programs
- Nursing [*see* 51.1601 Nursing/Registered Nurse (RN, ASN, BScN, MScN)]
- Practical nursing [*see* 51.1613 Licensed Practical/Vocational Nurse Training (LPN, LVN, Cert., Dipl., AAS)]
- Nursing assistant [*see* 51.1614 Nurse/Nursing Assistant/Aide and Patient Care Assistant]

51.1604 Nurse Anesthetist

This instructional program class comprises any program that prepares registered nurses (RNs) to administer anesthetics and provide care for patients before, during and after anesthesia. These programs include courses in the biochemistry and physics of anesthesia; advanced anatomy and physiology; clinical pharmacology of anesthetics and adjunctive drugs; pain management; acute care and operating room

practice; clinical technology and procedures; emergency intervention; patient assessment and education; and legal issues.

Example of included programs
- Nurse anesthetist

Examples of excluded programs
- Anesthesiologist assistant [*see* 51.0809 Anesthesiologist Assistant]
- Nursing [*see* 51.1601 Nursing/Registered Nurse (RN, ASN, BScN, MScN)]

51.1605 Family Practice Nurse/Nurse Practitioner

This instructional program class comprises any program that prepares registered nurses (RNs) to provide independent general care for family groups and individuals in the context of family living. These programs include courses in family theory and intervention, role synthesis, family primary care, nursing practice and health care policy, holistic practice, pediatric practice, gerontological practice, health assessment, clinical pharmacotherapeutics, clinical techniques, and pathopsychology.

Example of included programs
- Nurse practitioner

Examples of excluded programs
- Nursing [*see* 51.1601 Nursing/Registered Nurse (RN, ASN, BScN, MScN)]
- Practical nursing [*see* 51.1613 Licensed Practical/Vocational Nurse Training (LPN, LVN, Cert., Dipl., AAS)]
- Nursing assistant [*see* 51.1614 Nurse/Nursing Assistant/Aide and Patient Care Assistant]

51.1606 Maternal/Child Health and Neonatal Nurse/Nursing

This instructional program class comprises any program that prepares registered nurses (RNs) to provide prenatal care to pregnant women and to mothers and their newborn infants. These programs include courses in perinatal and newborn health assessment, stabilization, and care; pathophysiology of pregnancy, fetuses, and the newborn; clinical management of high-risk pregnancies and newborns; perinatal and neonatal technology and clinical procedures; and patient education.

Example of included programs
- Maternity nursing

Examples of excluded programs
- Birthing and parenting knowledge and skills [*see* 34.0102 Birthing and Parenting Knowledge and Skills]
- Nursing [*see* 51.1601 Nursing/Registered Nurse (RN, ASN, BScN, MScN)]
- Nursing midwifery [*see* 51.1607 Nurse Midwife/Nursing Midwifery]
- Midwifery [*see* 51.3401 Direct Entry Midwifery (LM, CPM)]

51.1607 Nurse Midwife/Nursing Midwifery

This instructional program class comprises any program that prepares registered nurses (RNs) to independently deliver babies and treat mothers in the prenatal, delivery, and post-delivery periods. These programs include courses in predelivery screening, physician referral, and the care of infants during the delivery and immediate post-delivery phases.

Examples of included programs
- Nursing and midwifery
- Nursing midwifery
- Registered nurse midwife

Examples of excluded programs
- Birthing and parenting knowledge and skills [*see* 34.0102 Birthing and Parenting Knowledge and Skills]
- Maternity nursing [*see* 51.1606 Maternal/Child Health and Neonatal Nurse/Nursing]
- Midwifery [*see* 51.3401 Direct Entry Midwifery (LM, CPM)]

51.1608 Nursing Science (MSc, PhD)

This instructional program class comprises any research program that focuses on the study of advanced clinical practices, research methodologies, the administration of complex nursing services, and that prepares nurses to further the progress of nursing research through experimentation and clinical applications.

Example of included programs
- Nursing sciences (MSc, PhD)

Example of excluded programs
- Nursing [*see* 51.1601 Nursing/Registered Nurse (RN, ASN, BScN, MScN)]

51.1609 Pediatric Nurse/Nursing

This instructional program class comprises any program that prepares registered nurses (RNs) to provide care for children from infancy through adolescence. These programs include courses in the administration of medication and treatments, assisting physicians, patient examination and referral, and planning and delivering health maintenance and health education programs.

Examples of included programs
- Children's nurse
- Pediatric nursing

Examples of excluded programs
- Nursing [*see* 51.1601 Nursing/Registered Nurse (RN, ASN, BScN, MScN)]
- Maternity nursing [*see* 51.1606 Maternal/Child Health and Neonatal Nurse/Nursing]
- Licensed practical nurse [*see* 51.1613 Licensed Practical/Vocational Nurse Training (LPN, LVN, Cert., Dipl., AAS)]
- Nursing assistant [*see* 51.1614 Nurse/Nursing Assistant/Aide and Patient Care Assistant]
- Pediatrics—residency [*see* 60.0251 Pediatrics Residency Programs]

51.1610 Psychiatric/Mental Health Nurse/Nursing

This instructional program class comprises any program that prepares registered nurses (RNs) to promote mental health and provide nursing care to patients with mental, emotional or behavioural disorders, in mental institutions or other settings. These programs include courses in psychopathology, behavioural health, counselling and intervention strategies, psychoeducation, mental health assessment and dual diagnosis, stabilization and management of psychotic illness, psychiatric care and rehabilitation, substance abuse, and crisis intervention.

Examples of included programs
- Mental health nursing
- Psychiatric nurse
- Psychiatric nursing
- Registered psychiatric nurse

Examples of excluded programs
- Mental health care [*see* 51.1502 Psychiatric/Mental Health Services Technician]
- Nursing [*see* 51.1601 Nursing/Registered Nurse (RN, ASN, BScN, MScN)]
- Psychiatry—residency [*see* 60.0255 Psychiatry Residency Programs]

51.1611 Public Health/Community Nurse/Nursing

This instructional program class comprises any program that prepares registered nurses (RNs) to promote health and provide preventive and curative nursing services for groups or communities under the supervision of a public health agency. These programs include courses in community and rural health, family therapy and intervention, disease prevention, health education, and community health assessment.

Examples of included programs
- Community health nursing
- Public health nursing

Examples of excluded programs
- Nursing [*see* 51.1601 Nursing/Registered Nurse (RN, ASN, BScN, MScN)]
- Public health (MPH, DPH) [*see* 51.2201 Public Health, General (MPH, DPH)]
- Public health medicine—residency [*see* 60.0256 Public Health Medicine Residency Programs]

51.1612 Perioperative/Operating Room and Surgical Nurse/Nursing

This instructional program class comprises any program that prepares registered nurses (RNs) to provide care to patients before and during surgery, and provide tableside assistance to surgeons. These programs include courses in operating room safety and preparation, aseptic technique, anesthesia, patient preparation, surgical instruments and procedures, sterilization and disinfecting, surgical drugs and solutions, hemostasis, emergency procedures, and patient/family education.

Examples of included programs
- O.R. nurse
- Operating room nurse
- Operating room nursing
- Surgical nursing

Example of excluded programs
- Nursing [*see* 51.1601 Nursing/Registered Nurse (RN, ASN, BScN, MScN)]

51.1613 Licensed Practical/Vocational Nurse Training (LPN, LVN, Cert., Dipl., AAS)

This instructional program class comprises any program that prepares individuals to assist in providing general nursing care under the direction of a registered nurse, physician or dentist. These programs include courses in taking patient vital signs, applying sterile dressings, patient health education and assistance with examinations and treatment.

Examples of included programs
- Licensed practical nurse
- Practical nursing
- Registered practical nurse

Examples of excluded programs
- Nursing [*see* 51.1601 Nursing/Registered Nurse (RN, ASN, BScN, MScN)]
- Nursing assistant [*see* 51.1614 Nurse/Nursing Assistant/Aide and Patient Care Assistant]

51.1614 Nurse/Nursing Assistant/Aide and Patient Care Assistant

This instructional program class comprises any program that prepares individuals to perform routine nursing-related services to patients in hospitals or long-term care facilities, under the training and supervision of a registered nurse or licensed practical nurse.

Examples of included programs
- Nurses aide
- Nursing aide
- Nursing assistant
- Practical nursing assistant
- Registered nursing assistant

Examples of excluded programs
- Nursing [*see* 51.1601 Nursing/Registered Nurse (RN, ASN, BScN, MScN)]
- Licensed practical nurse [*see* 51.1613 Licensed Practical/Vocational Nurse Training (LPN, LVN, Cert., Dipl., AAS)]
- Health aide [*see* 51.2601 Health Aide]

51.1616 Clinical Nurse Specialist

This instructional program class comprises any program that prepares registered nurses to deliver direct patient and client care in clinical settings. These programs include courses in clinical pharmacotherapeutics, advanced clinical practice, holistic nursing, nursing practice and health care policy, administration and consultation services, health assessment, patient stabilization and care, and patient education.

Example of included programs
- Clinical nursing

Examples of excluded programs
- Nursing [*see* 51.1601 Nursing/Registered Nurse (RN, ASN, BScN, MScN)]
- Nursing sciences (MSc, PhD) [*see* 51.1608 Nursing Science (MSc, PhD)]
- Licensed practical nurse [*see* 51.1613 Licensed Practical/Vocational Nurse Training (LPN, LVN, Cert., Dipl., AAS)]
- Nursing aide [*see* 51.1614 Nurse/Nursing Assistant/Aide and Patient Care Assistant]

51.1617 Critical Care Nursing

This instructional program class comprises any program that prepares registered nurses to provide specialized care to patients with life-threatening problems, including those in intensive care facilities and on life support. These programs include courses in adult, neonatal, and pediatric critical care; technical skills; patient monitoring and assessment; normal and abnormal readings; and troubleshooting.

Examples of included programs
- Critical care nursing
- Intensive care nursing

Example of excluded programs
- Nursing [*see* 51.1601 Nursing/Registered Nurse (RN, ASN, BScN, MScN)]

51.1618 Occupational and Environmental Health Nursing

This instructional program class comprises any program that prepares registered nurses to deliver nursing health care services to workers and worker populations in clinical settings and at job sites. These programs include courses in public and community health; occupational safety and health; occupational health surveillance; case management; fitness for duty testing; medication; allergies and immunization; emergency and ambulatory care; and applicable laws and regulations.

Examples of included programs
- Occupational health and safety nursing
- Occupational health nursing

Examples of excluded programs
- Nursing [*see* 51.1601 Nursing/Registered Nurse (RN, ASN, BScN, MScN)]
- Public health nursing [*see* 51.1611 Public Health/Community Nurse/Nursing]

51.1699 Nursing, Other

This instructional program class comprises any program not listed above that relates to Nursing.

Examples of included programs
- Coronary care nursing
- Emergency nursing
- Geriatric nursing
- Nephrology nursing
- Neuroscience nursing
- Oncology nursing
- Trauma nursing

Example of excluded programs
- Dental nursing [*see* 51.0601 Dental Assisting/Assistant]

51.17 Optometry (OD)

This subseries comprises instructional program class 51.1701.

51.1701 Optometry (OD)

This instructional program class comprises any program that prepares individuals for the independent professional practice of optometry and that focuses on the principles and techniques for examining, diagnosing and treating conditions of the visual system. These programs include courses in prescribing glasses and contact lenses, other optical aids, corrective therapies, patient counselling, physician referral, practice management, and ethics and professional standards.

Examples of included programs
- Optometrist
- Optometry

Examples of excluded programs
- Optical science [*see* 40.0807 Optics/Optical Sciences]
- Opticianry [*see* 51.1801 Opticianry/Ophthalmic Dispensing Optician]
- Orthoptics [*see* 51.1804 Orthoptics/Orthoptist]
- Ophthalmology—residency [*see* 60.0241 Ophthalmology Residency Programs]

51.18 Ophthalmic and Optometric Support Services and Allied Professions

This subseries comprises instructional program classes 51.1801 to 51.1899.

51.1801 Opticianry/Ophthalmic Dispensing Optician

This instructional program class comprises any program that prepares individuals to adapt and fit corrective eyewear, including eyeglasses and contact lenses, as prescribed by ophthalmologists or optometrists; to assist patients in selecting appropriate frames; and to prepare work orders for ophthalmic laboratory technicians. These programs include courses in geometrical optics; ophthalmic optics; anatomy of the eye; optical instrumentation; use and maintenance of adjustment and cleaning tools; prescription interpretation;

contact lens adaptation and fitting; prosthesis fitting; facial and eye measuring; pathology identification; record-keeping; and patient and business administrative tasks.

Examples of included programs
- Ophthalmic dispenser
- Ophthalmic dispensing
- Opticianry

Examples of excluded programs
- Vision science [*see* 26.0909 Vision Science/Physiological Optics]
- Optical science [*see* 40.0807 Optics/Optical Sciences]
- Optometrist [*see* 51.1701 Optometry (OD)]
- Optometric assistant [*see* 51.1802 Optometric Technician/Assistant]
- Ophthalmology—residency [*see* 60.0241 Ophthalmology Residency Programs]

51.1802 Optometric Technician/Assistant

This instructional program class comprises any program that prepares individuals to assist optometrists in providing patient care, administering examinations and treatments, and performing office administrative functions. These programs include courses in applied anatomy and physiology of the eye, visual testing, patient communication, patient preparation, medications and administration, dispensing and fitting of eyeglasses and contact lenses, record-keeping, and office management skills.

Example of included programs
- Optometric assistant

Examples of excluded programs
- Vision science [*see* 26.0909 Vision Science/Physiological Optics]
- Optical science [*see* 40.0807 Optics/Optical Sciences]
- Optometrist [*see* 51.1701 Optometry (OD)]
- Ophthalmic dispensing [*see* 51.1801 Opticianry/Ophthalmic Dispensing Optician]

51.1803 Ophthalmic Technician/Technologist

This instructional program class comprises any program that prepares individuals to assist ophthalmologists and optometrists in examining and treating patients with vision problems, vision disorders, and eye diseases. These programs include courses in taking patient histories; administering directed treatments and topical medications; diagnostic test procedures and equipment operation; anatomical and functional ocular measurements; patient care and instruction; ophthalmic and surgical equipment maintenance; safety and sterilization procedures; and office administrative procedures.

Examples of included programs
- Ophthalmic assistant
- Ophthalmic technician

Example of excluded programs
- Ophthalmic dispenser [*see* 51.1801 Opticianry/Ophthalmic Dispensing Optician]

51.1804 Orthoptics/Orthoptist

This instructional program class comprises any program that prepares individuals, under the supervision of ophthalmologists, to analyse, evaluate, and treat specific disorders of vision, eye movement, and eye alignment in children and adults. These programs include courses in eye anatomy, neuroanatomy, physiology, pharmacology, ophthalmic optics, diagnostic testing and measurement, orthoptic treatment

therapy, systemic ocular diseases and disorders, principles of surgery, examination techniques, patient education, child psychology and development, learning disabilities, medical writing, and record-keeping.

Examples of included programs
- Orthoptics
- Orthoptist

51.1899 Ophthalmic and Optometric Support Services and Allied Professions, Other

This instructional program class comprises any program not listed above that relates to Ophthalmic and Optometric Support Services and Allied Professions.

51.19 Osteopathic Medicine/Osteopathy (DO)

This subseries comprises instructional program class 51.1901.

51.1901 Osteopathic Medicine/Osteopathy (DO)

This instructional program class comprises any program that prepares individuals for the independent professional practice of osteopathic medicine, involving a combination of medical principles and procedures and osteopathic principles of holistic medicine and the relationship of the musculoskeletal system to general health. These programs include courses in the basic medical sciences, preventive medicine, family and community medicine, medical informatics, disease systems, organ and physiologic systems, osteopathic principles and practice, osteopathic manipulative treatment, musculoskeletal and skin systems, clinical specialty rotations, medical ethics, and professional standards and practice management.

Examples of included programs
- Osteopathic medicine
- Osteopathy

Example of excluded programs
- Homeopathic medicine [*see* 51.3304 Homeopathic Medicine/Homeopathy]

51.20 Pharmacy, Pharmaceutical Sciences and Administration

This subseries comprises instructional program classes 51.2001 to 51.2099.

51.2001 Pharmacy (PharmD [USA], PharmD or BSc/BPharm [Canada])

This instructional program class comprises any program that prepares individuals for the independent or employed practice of preparing and dispensing drugs and medications in consultation with prescribing physicians and other health care professionals, and for managing pharmacy practices and counselling patients. These programs include courses in mathematics, physics, chemistry, biochemistry, anatomy, physiology, pharmacology, pharmaceutical chemistry, pharmacognosy, pharmacy practice, pharmacy administration, applicable regulations, and professional standards and ethics.

Examples of included programs
- Pharmacist
- Pharmacy

Examples of excluded programs
- Pharmacy assistant [*see* 51.0805 Pharmacy Technician/Assistant]
- Pharmacy administration [*see* 51.2002 Pharmacy Administration and Pharmacy Policy and Regulatory Affairs (MSc, PhD)]
- Clinical pharmacy [*see* 51.2008 Clinical, Hospital and Managed Care Pharmacy (MSc, PhD)]

51.2002 Pharmacy Administration and Pharmacy Policy and Regulatory Affairs (MSc, PhD)

This instructional program class comprises any program that prepares individuals to apply managerial, social, and economic sciences to the study and management of the distribution and use of pharmaceutical products and the provision of pharmacy services. These programs include courses in research design and methods, statistics, social and organizational behaviour, pharmacoeconomics, management of pharmacy services, outcomes research, product planning and reimbursement, cost-benefit analysis, drug marketing, pharmacy and pharmaceutics laws and regulations, risk assessment, and organization of the health care system.

Example of included programs
- Pharmacy administration

Example of excluded programs
- Health services administration [*see* 51.2211 Health Services Administration]

51.2003 Pharmaceutics and Drug Design (MSc, PhD)

This instructional program class comprises any program that focuses on the scientific study of the formulation of medicinal substances into product vehicles capable of being stored, transported, and then introduced into the patient and behaving in ways optimal to therapeutic interaction. These programs include courses in statistics, biopharmaceutics, drug metabolism, pharmacokinetics, pharmacodynamics, physical pharmacy, pharmacological analysis, drug design and development, pharmacological biotechnology, chemical separations, spectroscopy, drug-host interactions, immunology, quantitative drug measurement, enzymatic transformations, and metabolic excretion.

Example of included programs
- Pharmaceutics

Examples of excluded programs
- Pharmacology [*see* 26.1001 Pharmacology]
- Biomedical toxicology [*see* 26.1004 Toxicology]

51.2004 Medicinal and Pharmaceutical Chemistry (MSc, PhD)

This instructional program class comprises any program that focuses on the application of chemistry to the study of biologically and clinically active substances, biological and pharmacological interactions, and the development of associated research methods, techniques, and clinical trial procedures. These programs include courses in organic chemistry, biochemistry, molecular graphics, rational drug design, toxicology, molecular biology, pharmacology, enzyme mechanisms, receptor theory, neurochemistry, drug metabolism, drug synthesis, biological mechanisms of drug action, research tools and techniques, and laboratory safety.

Examples of included programs
- Medicinal chemistry
- Pharmaceutical chemistry

Examples of excluded programs
- Biochemical engineering [*see* 14.9999 Engineering, Other]
- Pharmacology [*see* 26.1001 Pharmacology]
- Pharmaceutics [*see* 51.2003 Pharmaceutics and Drug Design (MSc, PhD)]

51.2005 Natural Products Chemistry and Pharmacognosy (MSc, PhD)

This instructional program class comprises any program that focuses on the scientific study of biologically active compounds found in naturally occurring sources such as plants, animals, and microbes and their use and/or modification as medicinal substances. These programs include courses in medicinal chemistry, organic medicinals, pharmacological therapeutics, pharmacokinetics, molecular biology, structural chemistry, enzymes, nucleic acids, economic botany, ethnobotany, bioprospecting, bioassay, compound identification and isolation, mass spectrometry, and analytical instrumentation and techniques.

Example of included programs
- Natural products chemistry and pharmacognosy (MSc, PhD)

51.2006 Clinical and Industrial Drug Development (MSc, PhD)

This instructional program class comprises any program that focuses on the scientific application of pharmacology, pharmaceutics, and industrial management to the development, production, marketing, and distribution of pharmaceutical products. These programs include courses in industrial microbiology, plasmids, expression vectors, protein chemistry, assay and evaluation, drug synthesis and purification, quality control, industrial management, production security, patent procedures, intellectual property regulations and issues, patent enforcement and defence, and research design and testing.

Example of included programs
- Clinical and industrial drug development (MSc, PhD)

Example of excluded programs
- Pharmaceutics [*see* 51.2003 Pharmaceutics and Drug Design (MSc, PhD)]

51.2007 Pharmacoeconomics/Pharmaceutical Economics (MSc, PhD)

This instructional program class comprises any program that focuses on the application of economics and policy analysis to the study of the relationship of pharmacy services and pharmaceutical processes and products to the health care system and their impact on health care organizations. These programs include courses in health economics, pharmacoeconomics, health care systems, health care organization and management, statistics and biostatistics, outcomes research, health care policy, pharmacy services, and pharmaceutical industry operations.

Example of included programs
- Pharmacoeconomics/pharmaceutical economics (MSc, PhD)

51.2008 Clinical, Hospital and Managed Care Pharmacy (MSc, PhD)

This instructional program class comprises any program that prepares individuals to deliver specialized pharmacy services and produce pharmaceutical products in clinical settings in conjunction with other health care professionals. These programs include courses in biostatistics; clinical pharmacokinetics; biopharmaceutics; neuropharmacology; pharmacodynamics; drug metabolism; clinical sampling and research design; drug delivery systems; chemotherapy; pharmacotherapy; clinical pharmacy management; medical and research ethics; and applications to nuclear, nutrition support, oncology, psychiatric, and therapeutic pharmacy.

Examples of included programs
- Clinical pharmacy
- Hospital pharmacy

51.2009 Industrial and Physical Pharmacy and Cosmetic Sciences (MSc, PhD)

This instructional program class comprises any program that focuses on the application of pharmaceutical sciences and pharmacy to the study of pharmaceuticals production and distribution, and prepares individuals to manage pharmaceutical industry operations. These programs include courses in pharmacoeconomics, industrial management, operations management, preformulation evaluation, product formulation/reformulation, drug product development, stability testing, dosage design, pilot scale-up, drug marketing, quality control, drug information, and legal and regulatory affairs.

Example of included programs
- Industrial pharmacy

Examples of excluded programs
- Cosmetologist [*see* 12.0401 Cosmetology/Cosmetologist, General]
- Pharmaceutics [*see* 51.2003 Pharmaceutics and Drug Design (MSc, PhD)]
- Clinical and industrial drug development (MSc, PhD) [*see* 51.2006 Clinical and Industrial Drug Development (MSc, PhD)]

51.2099 Pharmacy, Pharmaceutical Sciences and Administration, Other

This instructional program class comprises any program not listed above that relates to Pharmacy, Pharmaceutical Sciences and Administration.

Example of included programs
- Pharmaceutical engineering

51.21 Podiatric Medicine/Podiatry (DPM)

This subseries comprises instructional program class 51.2101.

51.2101 Podiatric Medicine/Podiatry (DPM)

This instructional program class comprises any program that prepares individuals for the independent professional practice of podiatric medicine, involving the prevention, diagnosis, and treatment of diseases, disorders, and injuries to the foot and lower extremities. These programs include courses in the basic medical sciences; anatomy of the lower extremity; functional orthopedics; foot biomechanics; podiatric radiology; dermatology; podiatric surgery; podopediatrics; sports medicine; physical diagnosis; emergency medicine and traumatology; practice management; and professional standards and ethics.

Examples of included programs
- Chiropodist
- Chiropody
- Podiatric medicine
- Podiatrist
- Podiatry

Example of excluded programs
- Pediatrics—residency [*see* 60.0251 Pediatrics Residency Programs]

51.22 Public Health

This subseries comprises instructional program classes 51.2201 to 51.2299.

51.2201 Public Health, General (MPH, DPH)

This instructional program class comprises any program that generally prepares individuals to plan, manage, and evaluate public health care services and to function as public health officers. These programs include courses in epidemiology, biostatistics, public health principles, preventive medicine, health policies and regulations, health care services and related administrative functions, public health law enforcement, health economics and budgeting, public communications, and professional standards and ethics.

Examples of included programs
- Public health (MPH, DPH)
- Public health administration

Examples of excluded programs
- Health communication [*see* 09.0905 Health Communication]
- Public health nursing [*see* 51.1611 Public Health/Community Nurse/Nursing]
- Public health education [*see* 51.2207 Public Health Education and Promotion]
- International public health/international health [*see* 51.2210 International Public Health/International Health]
- Public health medicine—residency [*see* 60.0256 Public Health Medicine Residency Programs]

51.2202 Environmental Health

This instructional program class comprises any program that focuses on the application of environmental sciences, public health, the biomedical sciences, and environmental toxicology to the study of environmental factors affecting human health and related ecological issues, and prepares individuals to function as professional environmental health specialists. These programs include courses in epidemiology, biostatistics, toxicology, public policy analysis, public management, risk assessment, communications, environmental laws and applications such as air quality, food protection, radiation protection, solid and hazardous waste management, water quality, noise abatement, housing quality, and environmental control of recreational areas.

Example of included programs
- Environmental health

Examples of excluded programs
- Environmental health engineering [*see* 14.1401 Environmental/Environmental Health Engineering]
- Occupational safety and health [*see* 15.0701 Occupational Safety and Health Technology/Technician]
- Public health (MPH, DPH) [*see* 51.2201 Public Health, General (MPH, DPH)]

51.2205 Health/Medical Physics

This instructional program class comprises any program that focuses on the application of physics, nuclear science, and engineering physics to diagnostic, treatment, and therapeutic processes and public health protection. These programs include courses in radiation biophysics, biophysics, health effects of natural and artificially induced radiation, hazard evaluation, environmental radioactivity, nuclear physics, engineering physics, radiobiology, medical radiology, calibration and dosage theory, computer applications and medical informatics, and specific research problems.

Examples of included programs
- Health physics
- Medical physics

51.2206 Occupational Health and Industrial Hygiene

This instructional program class comprises any program that prepares public health specialists to monitor and evaluate health and related safety standards in industrial, commercial, and government workplaces and facilities. These programs include courses in occupational health and safety standards and regulations; health-related aspects of various occupations and work environments; health hazard testing and evaluation; test equipment operation and maintenance; industrial toxicology; worker health and safety education; and the analysis and testing of job-related equipment, behaviour practices, and protective devices and procedures.

Example of included programs
- Occupational health and industrial hygiene

Examples of excluded programs
- Occupational safety and health [*see* 15.0701 Occupational Safety and Health Technology/Technician]
- Public health (MPH, DPH) [*see* 51.2201 Public Health, General (MPH, DPH)]
- Environmental health [*see* 51.2202 Environmental Health]

51.2207 Public Health Education and Promotion

This instructional program class comprises any program that focuses on the application of educational and communications principles and methods to the promotion of preventive health measures and the education of targeted populations on health issues, and prepares individuals to function as public health educators and health promotion specialists. These programs include courses in human development; health issues across the lifespan; population-specific health issues; principles and methods of public health education; administration of health education campaigns and programs; evaluation methods; public communications; and applications to specific public health subjects and issues.

Examples of included programs
- Health education
- Health promotion
- Public health education

Examples of excluded programs
- Health communication [*see* 09.0905 Health Communication]
- Public health (MPH, DPH) [*see* 51.2201 Public Health, General (MPH, DPH)]
- Environmental health [*see* 51.2202 Environmental Health]
- Community health management [*see* 51.2208 Community Health and Preventive Medicine]

51.2208 Community Health and Preventive Medicine

This instructional program class comprises any program that prepares public health specialists to plan and manage health services in local community settings, including the coordination of related support services, government agencies, and private resources. These programs include courses in public health, community health services and delivery, health behaviour and cultural factors, local government operations, human services, health communication and promotion, health services administration in local settings, environmental health, preventive and comparative medicine, epidemiology, biostatistcs, family and community health, and applicable laws and regulations.

Examples of included programs
- Community health and epidemiology
- Community health management
- Community health science
- Community medicine

Examples of excluded programs
- Public health (MPH, DPH) [*see* 51.2201 Public Health, General (MPH, DPH)]
- Health education [*see* 51.2207 Public Health Education and Promotion]

51.2209 Maternal and Child Health

This instructional program class comprises any program that focuses on the application of public health specializations, public policy studies, and the social and behavioural sciences to issues of health affecting women, children, and families; and prepares individuals to function as maternal and child health specialists. These programs include courses in research design and testing, program evaluation, public policy analysis, public finance, economics of health care, community health, family development and dynamics, women's studies, social psychology, fetal and child development, biostatistics, health education and promotion, nutrition, neonatal development, psychology, and social services delivery.

Example of included programs
- Maternal and child health

51.2210 International Public Health/International Health

This instructional program class comprises any program that focuses on the application of public health specializations, the social and behavioural sciences, and policy and communications methods to the study of health problems in low- and middle-income countries and regions, and prepares individuals to function as professional international health specialists. These programs include courses in health education and promotion, research design and evaluation, infectious disease epidemiology, international health policy and management, public nutrition and food security, information systems, program evaluation, medical anthropology, international communication, behavioural sciences, maternal and child health, demography and population policy, and health care finance and economics.

Example of included programs
- International public health/international health

51.2211 Health Services Administration

This instructional program class comprises any program that focuses on the application of policy analysis, public administration, business management, and communications to the planning and management of health services delivery systems in the public and private sectors, and prepares individuals to function as health services administrators and managers. These programs include courses in health systems planning, public health organization and management, pubic health policy formulation and analysis, finance, business and operations management, economics of health care, organizational and health communications, marketing, human resources management, and public health laws and regulations.

Examples of included programs
- Health services administration
- Health services management

Examples of excluded programs
- Health care administration [*see* 51.0701 Health/Health Care Administration/Management]
- Hospital administration [*see* 51.0702 Hospital and Health Care Facilities Administration/Management]

51.2299 Public Health, Other

This instructional program class comprises any program not listed above that relates to Public Health.

51.23 Rehabilitation and Therapeutic Professions

This subseries comprises instructional program classes 51.2301 to 51.2399.

51.2301 Art Therapy/Therapist

This instructional program class comprises any program that prepares individuals, in consultation with other rehabilitation team members or in private practice, to use drawing and other art media forms to assess, treat, and rehabilitate individuals with mental, emotional, developmental, or physical disorders. These programs include courses in art, history and theory of art therapy, art therapeutic techniques, psychopathology, patient assessment and diagnosis, cultural diversity issues, legal and ethical practice issues, and professional standards and regulations.

Examples of included programs
- Art psychotherapy
- Art therapy

51.2302 Dance Therapy/Therapist

This instructional program class comprises any program that prepares individuals, in consultation with other rehabilitation team members or in private practice, to use the therapeutic application of creative dance movement to assist in promoting client rehabilitation and physical, emotional, and mental health. These programs include courses in neuroanatomy, personality development, movement and motor behaviour, psychology, dance, creative expression modalities, improvisation, group psychology and leadership, client evaluation and supervision, dance therapy practice, and professional standards and ethics.

Example of included programs
- Dance therapy

Example of excluded programs
- Movement therapy [*see* 51.3601 Movement Therapy]

51.2305 Music Therapy/Therapist

This instructional program class comprises any program that prepares individuals, in association with a rehabilitation team or in private practice, to use music in therapeutic relationships to address patients' physical, psychological, cognitive, emotional, and social needs. These programs include courses in music theory and performance, human growth and development, biomedical sciences, abnormal psychology, disabling conditions, patient assessment and diagnosis, treatment plan development and implementation, clinical evaluation, record-keeping, and professional standards and ethics.

Examples of included programs
- Music therapist
- Music therapy

51.2306 Occupational Therapy/Therapist

This instructional program class comprises any program that prepares individuals to assist patients limited by physical, cognitive, psychosocial, mental, developmental, and learning disabilities, as well as adverse environmental conditions, to maximize their independence and maintain optimum health through a planned mix of acquired skills, performance motivation, environmental adaptations, assistive technologies, and physical agents. These programs include courses in the basic medical sciences, psychology, sociology, patient assessment and evaluation, standardized and non-standardized tests and measurements, assistive and rehabilitative technologies, ergonomics, environmental health, special education, vocational counselling, health education and promotion, and professional standards and ethics.

Examples of included programs
- Occupational therapist
- Occupational therapy

Examples of excluded programs
- Ergonomics engineering [*see* 14.3501 Industrial Engineering]
- Occupational therapist assistant [*see* 51.0803 Occupational Therapist Assistant]

51.2307 Orthotist/Prosthetist

This instructional program class comprises any program that prepares individuals, in consultation with physicians and other therapists, to design and fit orthoses for patients with disabling conditions of the limbs and/or spine, and prostheses for patients who have partial or total absence of a limb or significant superficial deformity. These programs include courses in biomechanics, gait analysis, pathomechanics, kinesiology, pathology, neuroanatomy, materials science, diagnostic imaging, patient analysis and measurement, impression taking, model rectification, assistive/restorative technology and engineering applications, product finishing, diagnostic and definitive fitting and alignment, power devices, postoperative management, and patient counselling and follow-up.

Examples of included programs
- Orthotics
- Prosthetics

Example of excluded programs
- Orthoptist [*see* 51.1804 Orthoptics/Orthoptist]

51.2308 Physical Therapy/Therapist

This instructional program class comprises any program that prepares individuals to alleviate physical and functional impairments and limitations caused by injury or disease through the design and implementation of therapeutic interventions to promote fitness and health. These programs include courses in functional anatomy and physiology, kinesiology, neuroscience, pathological physiology, analysis of dysfunction, movement dynamics, physical growth process, management of musculoskeletal disorders, clinical evaluation and measurement, client assessment and supervision, care plan development and documentation, physical therapy modalities, rehabilitation psychology, physical therapy administration, and professional standards and ethics.

Examples of included programs
- Physical therapy
- Physiotherapy

Examples of excluded programs
- Kinesiology [*see* 31.0505 Kinesiology and Exercise Science]
- Physical therapy assistant [*see* 51.0806 Physical Therapist Assistant]
- Therapeutic recreation [*see* 51.2309 Therapeutic Recreation/Recreational Therapy]
- Kinesiotherapy [*see* 51.2311 Kinesiotherapy/Kinesiotherapist]
- Physical and rehabilitation medicine—residency [*see* 60.0252 Physical and Rehabilitation Medicine Residency Programs]

51.2309 Therapeutic Recreation/Recreational Therapy

This instructional program class comprises any program that prepares individuals to plan, organize, and direct recreational activities designed to promote health and well-being for patients who are physically, mentally, or emotionally disabled. These programs include courses in the foundations of therapeutic recreation, leisure education and counselling, program planning, therapeutic recreational modalities, basic anatomy and physiology, psychology, medical terminology, human growth and development, patient observation and evaluation, special needs populations, and professional standards and ethics.

Examples of included programs
- Recreational therapy
- Therapeutic recreation

Example of excluded programs
- Physiotherapy [*see* 51.2308 Physical Therapy/Therapist]

51.2310 Vocational Rehabilitation Counselling/Counsellor

This instructional program class comprises any program that prepares individuals to counsel disabled individuals and recovering patients in psychological, personal, social, and vocational adjustment in order to have fulfilling and productive lives. These programs include courses in patient evaluation and testing, rehabilitation program planning, patient support services and referral, job analysis, adjustment psychology, rehabilitation services provision, patient counselling and education, applicable laws and regulations, and professional standards and ethics.

Example of included programs
- Vocational rehabilitation counselling

Examples of excluded programs
- Counselling psychology [*see* 42.0601 Counselling Psychology]
- Health psychology [*see* 42.2301 Health/Medical Psychology]

51.2311 Kinesiotherapy/Kinesiotherapist

This instructional program class comprises any program that prepares individuals, under the direction of physicians, to treat the effects of disease, injury, and congenital disorders through therapeutic exercise and education. These programs include courses in human anatomy, human physiology, kinesiology, biomechanics, therapeutic exercise and adapted physical education, human growth and development, motor learning and performance, testing and measurement, first aid and cardiopulmonary resuscitation, psychology, rehabilitation procedures, patient assessment and management, and professional standards and ethics.

Example of included programs
- Kinesiotherapy

Examples of excluded programs
- Kinesiology [*see* 31.0505 Kinesiology and Exercise Science]
- Physiotherapy [*see* 51.2308 Physical Therapy/Therapist]

51.2312 Assistive/Augmentative Technology and Rehabilitation Engineering

This instructional program class comprises any program that prepares individuals to apply the principles of psychology, engineering, and occupational therapy to the design and implementation of technological interventions and systems to promote patient rehabilitation and function. These programs include courses in ergonomics, seating and mobility design, universal and near environment systems design, rehabilitation research, rehabilitation biomechanics, access and communications design, microprocessor-based technologies, neurological trauma, standards and testing, and service delivery management.

Example of included programs
- Assistive/augmentative technology and rehabilitation engineering

Example of excluded programs
- Physical and rehabilitation medicine—residency [*see* 60.0252 Physical and Rehabilitation Medicine Residency Programs]

51.2399 Rehabilitation and Therapeutic Professions, Other

This instructional program class comprises any program not listed above that relates to Rehabilitation and Therapeutic Professions.

51.24 Veterinary Medicine (DVM)

This subseries comprises instructional program class 51.2401.

51.2401 Veterinary Medicine (DVM)

This instructional program class comprises any program that prepares individuals for the independent professional practice of veterinary medicine, involving the diagnosis, treatment, and health care management of animals and animal populations and the prevention and management of zoonosis. These programs include courses in the veterinary basic sciences, infectious and non-infectious disease, diagnostic procedures, veterinary clinical medicine, obstetrics, radiology, anesthesiology, surgery, toxicology, animal health and preventive medicine, clinical nutrition, practice management, and professional standards and ethics.

Example of included programs
- Veterinary medicine

Examples of excluded programs
- Veterinary technician [*see* 51.0808 Veterinary/Animal Health Technology/Technician and Veterinary Assistant]
- Veterinary sciences (Cert., MSc, PhD) [*see* 51.2501 Veterinary Sciences/Veterinary Clinical Sciences, General (Cert., MSc, PhD)]
- Veterinary practice—residency [*see* 60.0311 Veterinary Practice Residency Programs]

51.25 Veterinary Biomedical and Clinical Sciences (Cert., MSc, PhD)

This subseries comprises instructional program classes 51.2501- 51.2599.

51.2501 Veterinary Sciences/Veterinary Clinical Sciences, General (Cert., MSc, PhD)

This instructional program class comprises any integrated program of study in one or more of the veterinary medical or clinical sciences or a program undifferentiated as to title.

Example of included programs
- Veterinary sciences (Cert., MSc, PhD)

Examples of excluded programs
- Animal biology [*see* 26.0701 Zoology / Animal Biology, General]
- Veterinary medicine [*see* 51.2401 Veterinary Medicine (DVM)]
- Veterinary practice—residency [*see* 60.0311 Veterinary Practice Residency Programs]

51.2502 Veterinary Anatomy (Cert., MSc, PhD)

This instructional program class comprises any program that focuses on the scientific study of the structure of small and large animal cellular, organ, tissue, and body systems and their relation to physiologic function, disease, and therapeutic treatment. These programs include courses in histology, ultrastructure, molecular biology, biochemistry, developmental biology, neuroscience, electrophysiology, electron microscopy, computer imaging, and applications to specific species.

Example of included programs
- Veterinary anatomy and public health

Example of excluded programs
- Veterinary medicine [*see* 51.2401 Veterinary Medicine (DVM)]

51.2503 Veterinary Physiology (Cert., MSc, PhD)

This instructional program class comprises any program that focuses on the scientific study of the functional dynamics of animal biological systems and their relationship to the diagnosis and treatment of disease and injury. These programs include courses in mammalian and non-mammalian physiology, laboratory physiology, physiological responses to the environment, endocrinology, animal biotechnology, mechanisms of hormone action, organ systems, metabolism, and pathophysiology.

Example of included programs
- Veterinary physiological sciences (Cert., MSc, PhD)

Example of excluded programs
- Veterinary medicine [*see* 51.2401 Veterinary Medicine (DVM)]

51.2504 Veterinary Microbiology and Immunobiology (Cert., MSc, PhD)

This instructional program class comprises any program that focuses on the scientific study of the microbial causation and immunologic processes related to animal disease, prevention, and treatment. These programs include courses in bacteriology, mycology, virology, immune response mechanisms, humoral and cell function, cancer defences, immune system dysfunction, immunologic diseases, parasitology, pathogenesis, and disease vectors.

Example of included programs
- Veterinary microbiology and immunobiology (Cert., MSc, PhD)

Example of excluded programs
- Veterinary microbiology—residency [*see* 60.0307 Veterinary Microbiology Residency Programs]

51.2505 Veterinary Pathology and Pathobiology (Cert., MSc, PhD)

This instructional program class comprises any program that focuses on the scientific study of the development and process of disease in domestic and wild animals and applications to diagnosis, prevention, and treatment. These programs include courses in pathogenesis, immunoparasitology, viral therapy, inherited metabolic diseases, environmental toxicology, anatomical and clinical pathology, necropsy and biopsy techniques, clinical laboratory analysis, pathological interpretation, and disease diagnosis.

Example of included programs
- Veterinary pathology and pathobiology (Cert., MSc, PhD)

Examples of excluded programs
- Biomedical toxicology [*see* 26.1004 Toxicology]
- Veterinary pathology—residency [*see* 60.0310 Veterinary Pathology Residency Programs]

51.2506 Veterinary Toxicology and Pharmacology (Cert., MSc, PhD)

This instructional program class comprises any program that focuses on the scientific study of specific environmental and food hazards affecting domestic and wild animals and the development and action of chemical antidotes and treatments. These programs include courses in small and large animal toxicology and pharmacology, neurotoxicology, pharmacodynamics, pharmacokinetics, neuropharmacology, xenobiotics, drug resistance, pesticides, toxicological pathology, genetic and molecular toxicology, environmental toxicology, drug and toxicant analysis and evaluation, and environmental radiology.

Example of included programs
- Veterinary toxicology and pharmacology (Cert., MSc, PhD)

Example of excluded programs
- Veterinary toxicology—residency [*see* 60.0316 Veterinary Toxicology Residency Programs]

51.2507 Large Animal/Food Animal and Equine Surgery and Medicine (Cert., MSc, PhD)

This instructional program class comprises any program that focuses on the scientific study of the internal medicine and invasive and non-invasive treatment of herd, work, sport, and food animals. These programs include courses in equine medicine, swine and dairy medicine, food animal medicine, pathophysiology, large animal diseases, large animal anesthesiology and surgical procedures, pre-operative and postoperative care, and specific medical specialties such as dentistry, ophthalmology, oncology, obstetrics/theriogenology, and orthopedics.

Example of included programs
- Herd medicine and theriogenology (Cert., MSc, PhD)

Examples of excluded programs
- Veterinary practice—residency [*see* 60.0311 Veterinary Practice Residency Programs]
- Veterinary surgery—residency [*see* 60.0314 Veterinary Surgery Residency Programs]

51.2508 Small/Companion Animal Surgery and Medicine (Cert., MSc, PhD)

This instructional program class comprises any program that focuses on the scientific study of the internal medicine and invasive and non-invasive treatment of companion and household animals. These programs include courses in avian medicine, pet care, companion animal medicine, pathophysiology, small animal diseases, small animal anesthesiology and surgical procedures, pre-operative and postoperative care, and specific medical specialties such as dentistry, ophthalmology, oncology, obstetrics/theriogenology, and orthopedics.

Example of included programs
- Small/companion animal surgery and medicine (Cert., MSc, PhD)

Examples of excluded programs
- Veterinary medicine [*see* 51.2401 Veterinary Medicine (DVM)]
- Veterinary practice—residency [*see* 60.0311 Veterinary Practice Residency Programs]
- Veterinary surgery—residency [*see* 60.0314 Veterinary Surgery Residency Programs]

51.2509 Comparative and Laboratory Animal Medicine (Cert., MSc, PhD)

This instructional program class comprises any program that focuses on the scientific study of animal models of human disease and related experimental procedures, and prepares veterinarians and animal health specialists to manage the laboratory use and care of experimental animals. These programs include courses in laboratory animal husbandry, laboratory animal disease, biohazard control, gnotobiology, breeding, comparative anatomy and physiology, comparative gene mapping, protein function, physical and mathematical modelling, computer modelling, stem cell technology, colony and genetic stock management, cryopreservation, applicable regulations, and bioethics.

Example of included programs
- Comparative and laboratory animal medicine (Cert., MSc, PhD)

Examples of excluded programs
- Veterinary medicine [*see* 51.2401 Veterinary Medicine (DVM)]
- Laboratory animal medicine—residency [*see* 60.0306 Laboratory Animal Medicine Residency Programs]

51.2510 Veterinary Preventive Medicine, Epidemiology and Public Health (Cert., MSc, PhD)

This instructional program class comprises any program that focuses on the study of the prevention and control of communicable animal diseases, diseases affecting humans, and prepares veterinarians to function as public health specialists. These programs include courses in animal epidemiology, biostatistics, food safety and quality assurance, food toxicology, zoonotic and infectious diseases, disease vectors and transference, production medicine, animal health, veterinary public health practice, and inspection and evaluation methods.

Example of included programs
- Veterinary epidemiology

Examples of excluded programs
- Veterinary medicine [*see* 51.2401 Veterinary Medicine (DVM)]
- Veterinary preventive medicine—residency [*see* 60.0312 Veterinary Preventive Medicine Residency Programs]

51.2511 Veterinary Infectious Diseases (Cert., MSc, PhD)

This instructional program class comprises any program that focuses on the scientific study of zoonotic infectious diseases, disease mechanisms, and prevention and treatment strategies. These programs include courses in disease pathogenesis, vector biology, mycobacterial infection, blood parasites, retroviruses, food-borne diseases, new infectious agents, ecotoxicology, mechanisms of disease transfer, antibody resistance, comparative pathology, communicable diseases, and disease prevention and eradication.

Example of included programs
- Veterinary parasitology (Cert., MSc, PhD)

Examples of excluded programs
- Veterinary epidemiology [*see* 51.2510 Veterinary Preventive Medicine, Epidemiology and Public Health (Cert., MSc, PhD)]
- Veterinary pathology—residency [*see* 60.0310 Veterinary Pathology Residency Programs]
- Veterinary toxicology—residency [*see* 60.0316 Veterinary Toxicology Residency Programs]

51.2599 Veterinary Biomedical and Clinical Sciences (Cert., MSc, PhD), Other

This instructional program class comprises any program not listed above that relates to Veterinary Biomedical and Clinical Sciences (Cert., MSc, PhD).

51.26 Health Aides/Attendants/Orderlies

This subseries comprises instructional program classes 51.2601 to 51.2699.

51.2601 Health Aide

This instructional program class comprises any program that prepares individuals to provide routine care and assistance to patients under the direct supervision of other health care professionals, and/or to perform routine maintenance and general assistance in health care facilities and laboratories.

Examples of included programs
- Health aide
- Health care aide
- Health care attendant
- Health care worker
- Orderly
- Personal support worker
- Special care aide

Examples of excluded programs
- Human service worker [*see* 44.0000 Human Services, General]
- Nursing aide [*see* 51.1614 Nurse/Nursing Assistant/Aide and Patient Care Assistant]
- Home care aide [*see* 51.2602 Home Health Aide/Home Attendant]
- Home health aide [*see* 51.2602 Home Health Aide/Home Attendant]

51.2602 Home Health Aide/Home Attendant

This instructional program class comprises any program that prepares individuals to provide routine care and support services for homebound disabled, recovering, or elderly people. These programs include courses in basic nutrition, home sanitation, infection control, first aid, taking vital signs, personal hygiene, interpersonal communication skills, supervised home management, emergency recognition and referral, geriatric care, and legal and ethical responsibilities.

Examples of included programs
- Home care aide
- Home care attendant
- Home health aide
- Home support aide
- Home support attendant
- Resident care aide
- Resident care attendant

Examples of excluded programs
- Human service worker [*see* 44.0000 Human Services, General]
- Nurses aide [*see* 51.1614 Nurse/Nursing Assistant/Aide and Patient Care Assistant]
- Health aide [*see* 51.2601 Health Aide]

51.2603 Medication Aide

This instructional program class comprises any program that prepares individuals to administer prescribed medications; observe and report patient reactions and side effects; and perform related emergency and recording duties under the supervision of nurses and/or physicians. These programs include courses in basic anatomy and physiology, common medications and their effects, taking vital signs, oxygen administration, medication administration and application, record-keeping, and patient observation.

Example of included programs
- Medication aide

51.2699 Health Aides/Attendants/Orderlies, Other

This instructional program class comprises any program not listed above that relates to Health Aides/Attendants/Orderlies.

51.27 Medical Illustration and Informatics

This subseries comprises instructional program classes 51.2703 to 51.2799.

51.2703 Medical Illustration/Medical Illustrator

This instructional program class comprises any program that prepares individuals to apply the principles and techniques of art and computer-assisted imaging, graphics, and animation to create visual materials to facilitate the recording and dissemination of biomedical knowledge for educational, research, and clinical purposes. These programs include courses in anatomy, physiology, pathology, histology, embryology, neuroanatomy, medical terminology, artistic media and techniques, illustration techniques, three-dimensional modelling, prosthetics, data display design, exhibit design and production, medical photography, multimedia, computer graphics and animation, digital imaging, business management, production technology, and instructional design.

Examples of included programs
- Biomedical animation
- Medical illustration
- Medical illustrator

Examples of excluded programs
- Digital animation [*see* 10.0304 Animation, Interactive Technology, Video Graphics and Special Effects]
- Instructional media [*see* 13.0501 Educational/Instructional Media Design]
- Illustration [*see* 50.0410 Illustration]
- X-ray technician [*see* 51.0911 Radiologic Technology/Science - Radiographer]

51.2706 Medical Informatics

This instructional program class comprises any program that focuses on the application of computer science and software engineering to medical research and clinical information technology support, and the development of advanced imaging, database, and decision systems. These programs include courses in computer science, health information systems architecture, medical knowledge structures, medical language and image processing, quantitative medical decision modelling, imaging techniques, electronic

medical records, medical research systems, clinical decision support, and informatics aspects of specific research and practice problems.

Examples of included programs
- Health informatics
- Medical informatics

Examples of excluded programs
- Bioinformatics [*see* 26.1103 Bioinformatics]
- Biomedical animation [*see* 51.2703 Medical Illustration/Medical Illustrator]

51.2799 Medical Illustration and Informatics, Other

This instructional program class comprises any program not listed above that relates to Medical Illustration and Informatics.

51.31 Dietetics and Clinical Nutrition Services

This subseries comprises instructional program classes 51.3101 to 51.3199.

51.3101 Dietetics/Dietitian (RD)

This instructional program class comprises any program that prepares individuals to integrate and apply the principles of the food and nutrition sciences, human behaviour, and the biomedical sciences to design and manage effective nutrition programs in a variety of settings. These programs include courses in human nutrition; nutrient metabolism; the role of foods and nutrition in health promotion and disease prevention; planning and directing food service activities; diet and nutrition analysis and planning; supervision of food storage and preparation; client education; and professional standards and regulations.

Examples of included programs
- Dietetics
- Dietitian

Examples of excluded programs
- Food science [*see* 01.1001 Food Science]
- Food and nutrition [*see* 19.0501 Foods, Nutrition and Wellness Studies, General]
- Human nutrition [*see* 19.0504 Human Nutrition]
- Nutrition science [*see* 30.1901 Nutrition Sciences]

51.3102 Clinical Nutrition/Nutritionist

This instructional program class comprises any program that prepares individuals to apply the principles of dietetics and the biomedical and nutrition sciences to design and manage effective nutrition programs as part of clinical treatment and therapy programs, and to manage health care facility food services. These programs include courses in human nutrition, nutrient metabolism, the role of foods and nutrition in health promotion and disease prevention, nutrition as a treatment regime, planning and directing hospital food service programs, diet and nutrition analysis and planning, supervision of food storage and preparation, special diets, client education, and professional standards and regulations.

Examples of included programs
- Clinical nutrition
- Nutritionist

Examples of excluded programs
- Food science [*see* 01.1001 Food Science]
- Human nutrition [*see* 19.0504 Human Nutrition]
- Nutrition science [*see* 30.1901 Nutrition Sciences]
- Dietitian [*see* 51.3101 Dietetics/Dietitian (RD)]

51.3103 Dietetic Technician (DTR)

This instructional program class comprises any program that prepares individuals, under the supervision of registered dietitians and nutritionists, to implement nutritional and dietetic plans and provide direct client and patient services. These programs include courses in human nutrition, client interviewing and record keeping, dietary planning, food preparation and safety, food worker supervision, food service establishment monitoring and inspection, and applicable procedures and regulations.

Example of included programs
- Dietetic technician

Examples of excluded programs
- Human nutrition [*see* 19.0504 Human Nutrition]
- Nutrition science [*see* 30.1901 Nutrition Sciences]
- Dietitian [*see* 51.3101 Dietetics/Dietitian (RD)]
- Dietary aide [*see* 51.3104 Dietitian Assistant]

51.3104 Dietitian Assistant

This instructional program class comprises any program that prepares individuals to assist registered dietitians in planning, preparing and serving meals to individuals with specific dietary needs. These programs include courses in equipment use, food preparation, diet regulations, food handling, safety and sanitary standards and administrative techniques and procedures.

Examples of included programs
- Dietary aide
- Dietary assistant

Examples of excluded programs
- Human nutrition [*see* 19.0504 Human Nutrition]
- Nutrition science [*see* 30.1901 Nutrition Sciences]
- Dietitian [*see* 51.3101 Dietetics/Dietitian (RD)]
- Dietetic technician [*see* 51.3103 Dietetic Technician (DTR)]

51.3199 Dietetics and Clinical Nutrition Services, Other

This instructional program class comprises any program not listed above that relates to Dietetics and Clinical Nutrition Services.

Example of included programs
- Holistic nutrition

51.32 Bioethics/Medical Ethics

This subseries comprises instructional program class 51.3201.

51.3201 Bioethics/Medical Ethics

This instructional program class comprises any program that focuses on the application of ethics, religion, jurisprudence, and the social sciences to the analysis of health care issues, clinical decision making, and research procedures. These programs include courses in philosophical ethics, moral value, medical sociology, theology, spirituality and health, policy analysis, decision theory, and applications to problems such as death and dying, therapeutic relationships, organ transplantation, human and animal subjects, reproduction and fertility, health care justice, cultural sensitivity, needs assessment, professionalism, conflict of interest, chaplaincy, and clinical or emergency procedures.

Example of included programs
- Bioethics

Example of excluded programs
- Ethics [*see* 38.0103 Ethics]

51.33 Alternative and Complementary Medicine and Medical Systems

This subseries comprises instructional program classes 51.3301 to 51.3399.

51.3301 Acupuncture

This instructional program class comprises any program that prepares individuals for the independent professional practice of acupuncture, a Chinese system of healing based on the use of pulse diagnosis, acupuncture point selection, and needle insertion to treat imbalances in the state of bodily health or Qi. These programs include courses in basic Western medical sciences, Chinese medical anatomy and physiology, diagnostic techniques, patient observation and communication, acupuncture points and point selection, auricular and scalp acupuncture, moxibustion, acupuncture technique, acupuncture of extremities, pain management, practice management, and professional standards and ethics.

Examples of included programs
- Acupuncture
- Acupuncturist

Example of excluded programs
- Chinese traditional medicine [*see* 51.3302 Traditional Chinese/Asian Medicine and Chinese Herbology]

51.3302 Traditional Chinese/Asian Medicine and Chinese Herbology

This instructional program class comprises any program that prepares individuals for the independent professional practice of Chinese herbal medicine, a system based on the use of nutrition, natural products, and prescribed medical formulae to treat imbalances in the state of bodily health as defined in the Nei Ching Su Wen and other authorities. These programs include courses in the basic Western medical sciences, history and theory of Chinese medicine, Chinese medical anatomy and physiology, Chinese herbology, herbal prescription preparation, herbal patent medicine, herbal pharmacology, Chinese internal medicine and gynecology, febrile diseases, food therapy, practice management, and professional standards and ethics.

Examples of included programs
- Chinese herbal medicine
- Chinese traditional medicine
- Oriental medicine
- Traditional Chinese medicine

Example of excluded programs
- Herbology [*see* 51.3702 Herbalism/Herbalist]

51.3303 Naturopathic Medicine/Naturopathy (ND)

This instructional program class comprises any program that prepares individuals for the independent professional practice of naturopathic medicine, a holistic therapeutic approach combining medical knowledge with non-invasive natural, homeopathic, and non-Western therapies and emphasizing disease prevention, wellness, and self-healing. These programs include courses in the basic medical sciences, epidemiology, neuroscience, biostatistics, public and community health, laboratory and clinical diagnosis, pharmacognosy, botanical medicine, homeopathy, principles of Oriental medicine and Ayurveda, manipulative therapy, naturopathic therapeutics, therapeutic nutrition, case analysis and management, philosophy of naturopathy, patient counselling, practice management, and professional standards and ethics.

Examples of included programs
- Naturopathic medicine
- Naturopathy

51.3304 Homeopathic Medicine/Homeopathy

This instructional program class comprises any program that prepares individuals for the independent professional practice of homeopathic medicine, a holistic therapeutic system using naturally occurring substances in highly diluted forms to mimic symptoms of illness and trigger autoimmune responses, based on the law of similars and other principles derived from the work of Samuel Hahnemann and others. These programs include courses in anatomy, physiology, pathology, toxicology, philosophy and theory of homeopathy, casetaking and case analysis, repertory, materia medica, constitutional typing, proving, practice management, and professional standards and ethics.

Examples of included programs
- Homeopathic medicine
- Homeopathy

Example of excluded programs
- Naturopathic medicine [*see* 51.3303 Naturopathic Medicine/Naturopathy (ND)]

51.3305 Ayurvedic Medicine/Ayurveda

This instructional program class comprises any program that prepares individuals for the independent professional practice of Ayurveda, a holistic health care system based on the use of dietary, lifestyle, spiritual, pharmacological and physical therapies to remove imbalances and restore health as defined in Vedic and other classical Sanskrit authorities in the Indian tradition. These programs include courses in Sanskrit; history, philosophy, and principles of Ayurveda; Ayurvedic pharmacology; anatomy and physiology; internal medicine; herbology; diagnostic techniques; patient examination and communication; therapeutic modalities; detoxification theory and practice; mind and body behaviour modification; Yoga; clinical pediatrics and gynecology; diet therapies; treatment of specific diseases; and professional standards and ethics.

Example of included programs
- Ayurvedic medicine/Ayurveda

Example of excluded programs
- Yoga instructor [*see* 51.3602 Yoga Teacher Training/Yoga Therapy]

51.3399 Alternative and Complementary Medicine and Medical Systems, Other

This instructional program class comprises any program not listed above that relates to Alternative and Complementary Medicine and Medical Systems.

Examples of included programs
- Alternative health
- Alternative medicine
- Holistic health
- Holistic medicine

51.34 Alternative and Complementary Medical Support Services

This subseries comprises instructional program classes 51.3401 and 51.3499.

51.3401 Direct Entry Midwifery (LM, CPM)

This instructional program class comprises any program that prepares individuals to provide prenatal, natural birth, and immediate postpartum care to pregnant women in jurisdictions licensing direct (non-nursing) training for midwives. These programs include courses in basic obstetrics, women's health, fetal development, childbirth education, maternal nutrition and health, labour support, natural childbirth, postpartum support, prebirth counselling and risk screening, management of obstetric emergencies, patient referral, applicable regulations, and professional standards and ethics.

Examples of included programs
- Midwife
- Midwifery

Examples of excluded programs
- Birthing and parenting knowledge and skills [*see* 34.0102 Birthing and Parenting Knowledge and Skills]
- Maternity nursing [*see* 51.1606 Maternal/Child Health and Neonatal Nurse/Nursing]
- Nursing midwifery [*see* 51.1607 Nurse Midwife/Nursing Midwifery]

51.3499 Alternative and Complementary Medical Support Services, Other

This instructional program class comprises any program not listed above that relates to Alternative and Complementary Medical Support Services.

51.35 Somatic Bodywork and Related Therapeutic Services

This subseries comprises instructional program classes 51.3501 to 51.3599.

51.3501 Massage Therapy/Therapeutic Massage

This instructional program class comprises any program that prepares individuals to provide relief and improved health and well-being to clients through the application of manual techniques for manipulating skin, muscles, and connective tissues. These programs include courses in Western (Swedish) massage; sports massage; myotherapy/trigger point massage; myofascial release; deep tissue massage; cranio-sacral

therapy; reflexology; massage safety and emergency management; client counselling; practice management; applicable regulations; and professional standards and ethics.

Examples of included programs
- Massage therapist
- Massage therapy
- Reflexology
- Therapeutic massage

Examples of excluded programs
- Kinesiology [*see* 31.0505 Kinesiology and Exercise Science]
- Kinesiotherapy [*see* 51.2311 Kinesiotherapy/Kinesiotherapist]
- Acupressure [*see* 51.3502 Asian Bodywork Therapy]
- Somatic bodywork [*see* 51.3503 Somatic Bodywork]

51.3502 Asian Bodywork Therapy

This instructional program class comprises any program that prepares individuals to provide relief and improved health and well-being based on Chinese medical principles through one or more of the traditional bodywork therapies of Asia. These programs include courses in acupressure, AMMA© Therapy, Chi Nei Tsang, Five Element Shiatsu, Integrative Eclectic Shiatsu, Japanese Shiatsu, Jin Shin Do© Body-mind Acupressure™, Macrobiotic Shiatsu, Anma Therapy, Thai massage, Tui na, Zen Shiatsu, Qigong, Okazaki© Restorative Massage, principles of Western and Chinese medicine, patient counselling and observation, practice management, applicable regulations, and professional standards and ethics.

Examples of included programs
- Acupressure
- Acupressurist
- Shiatsu

Example of excluded programs
- Massage therapy [*see* 51.3501 Massage Therapy/Therapeutic Massage]

51.3503 Somatic Bodywork

This instructional program class comprises any program that prepares individuals to promote physical and emotional balance and well-being through the application of skilled touch principles and techniques. These programs include courses in therapeutic massage and other hands-on touch methods; anatomy and physiology; structural/functional integration and various holistic health systems (Rolfing/Structural Integration, colon hydrotherapy, Breema, Hellerwork, lymphatic drainage, Rosen Method, hydrotherapy, and others); client counselling, practice management, and applicable regulations and professional standards.

Example of included programs
- Somatic bodywork

51.3599 Somatic Bodywork and Related Therapeutic Services, Other

This instructional program class comprises any program not listed above that relates to Somatic Bodywork and Related Therapeutic Services.

51.36 Movement and Mind-Body Therapies

This subseries comprises instructional program classes 51.3601 to 51.3699.

51.3601 Movement Therapy

This instructional program class comprises any program that prepares individuals to use functional and expressive integration strategies to help promote somatic awareness and optimal psychophysical functioning. These programs include courses in skilled touch techniques, kinesthetic awareness processes, movement observation, patterning, client assessment and guidance, verbal and non-verbal communication, practice management, professional standards and ethics, and specific therapeutic and educational modalities (Alexander Technique, Aston Patterning, Body-Mind Centering, Feldenkrais Method©, Laban Movement Analysis, Trager Approach, and others).

Example of included programs
- Movement therapy

Examples of excluded programs
- Kinesiology [*see* 31.0505 Kinesiology and Exercise Science]
- Dance therapy [*see* 51.2302 Dance Therapy/Therapist]
- Physiotherapy [*see* 51.2308 Physical Therapy/Therapist]

51.3602 Yoga Teacher Training/Yoga Therapy

This instructional program class comprises any program that prepares individuals to function as professional instructors in the spiritual and physical therapy of Yoga in private, institutional, and clinical settings, These programs include courses in the principles of Ayurveda, philosophy of Yoga, warm-up and progressive exercises, breathing exercises, meditation, Yamas and Niyamas, instructional techniques, posture adjustment, student/client counselling and assessment, advanced Yoga disciplines and styles, business practices, and professional standards and ethics.

Examples of included programs
- Yoga instructor
- Yoga teacher

Example of excluded programs
- Ayurvedic medicine/Ayurveda [*see* 51.3305 Ayurvedic Medicine/Ayurveda]

51.3603 Hypnotherapy/Hypnotherapist

This instructional program class comprises any program that prepares individuals to employ the controlled inducement of altered states of consciousness, or trance, to reduce pain, resolve emotional conflicts, and enhance communications as part of diagnostic and treatment programs. These programs include courses in the principles of hypnosis and suggestion, induction and deepening, post-hypnotic suggestion, awakening techniques, regression, pacing and leading, resistance transformation, client testing and management, practice management and regulation, and professional standards and ethics.

Examples of included programs
- Clinical hypnosis
- Clinical hypnotherapy
- Hypnotherapy

51.3699 Movement and Mind-Body Therapies, Other

This instructional program class comprises any program not listed above that relates to Movement and Mind-Body Therapies.

51.37 Energy-based and Biologically-based Therapies

This subseries comprises instructional program classes 51.3701 to 51.3799.

51.3701 Aromatherapy

This instructional program class comprises any program that prepares individuals to provide therapeutic care through the preparation and application of extracted essential oils from plants, including flowers (botanicals), roots, berries, and bark. These programs include courses in aromatherapy history and theory, basic physiology of absorption, aromachemistry, organic chemistry, botanical taxonomy, carrier oils, essential oils, extraction methods, blending techniques, application methods, safety, client consultation and treatment planning, business management, professional standards and ethics, and applicable regulations.

Examples of included programs
- Aromatherapist
- Aromatherapy

Example of excluded programs
- Recreational therapy [*see* 51.2309 Therapeutic Recreation/Recreational Therapy]

51.3702 Herbalism/Herbalist

This instructional program class comprises any program that prepares individuals to utilize the materia medica and clinical practices of Western, Native American, African, Australasian, and other herbal medicine traditions to prevent and cure illness and temporary physical disorders. These programs include courses in basic anatomy, physiology, pathology, and toxicology; nutrition; terminology and materia medica; therapeutic herbalism; herbal pharmacy; botanicals and ethnobotany; wildcrafting and harvesting; labelling and dispensing phytotherapy; counterindications; practice management; consultation skills; and professional standards and ethics.

Examples of included programs
- Herbal medicine
- Herbalism
- Herbalist
- Herbology

Examples of excluded programs
- Recreational therapy [*see* 51.2309 Therapeutic Recreation/Recreational Therapy]
- Traditional Chinese medicine [*see* 51.3302 Traditional Chinese/Asian Medicine and Chinese Herbology]

51.3703 Polarity Therapy

This instructional program class comprises any program that prepares individuals to promote health and well-being through application of the integrative therapeutic system based on the Human Energy Field theory developed by Randolph Stone. These programs include courses in polarity theory and principles, energy-based and orthodox anatomy and physiology, polarity processing, polarity bodywork, polarity yoga, energetic nutrition, energetic evaluation and assessment, client communication, practice management, and professional standards and ethics.

Example of included programs
- Polarity therapy

Examples of excluded programs
- Recreational therapy [*see* 51.2309 Therapeutic Recreation/Recreational Therapy]
- Kinesiotherapy [*see* 51.2311 Kinesiotherapy/Kinesiotherapist]

51.3704 Reiki

This instructional program class comprises any program that prepares individuals to promote physical, emotional, and spiritual balance and healing through the manipulation of the body's energy field to increase healing energy. These programs include courses in the history and philosophy of Usui Reiki, attunement, empowerment, self-treatment, direct and distance healing techniques, healing symbols, aura clearing, Reiki meditation, practice management, and related Reiki systems such as Lightarian, Urevia, and Magnified Healing.

Example of included programs
- Reiki

Example of excluded programs
- Acupressure [*see* 51.3502 Asian Bodywork Therapy]

51.3799 Energy-based and Biologically-based Therapies, Other

This instructional program class comprises any program not listed above that relates to Energy-based and Biologically-based Therapies.

Example of included programs
- Integrative energy healing

51.99 Health Professions and Related Clinical Sciences, Other

This subseries comprises instructional program class 51.9999.

51.9999 Health Professions and Related Clinical Sciences, Other

This instructional program class comprises any program not listed above that relates to Health Professions and Related Clinical Sciences.

52. Business, Management, Marketing and Related Support Services

This series comprises instructional programs that prepare individuals to perform managerial, technical support, and applied research functions related to the operation of commercial and non-profit enterprises and the buying and selling of goods and services.

52.01 Business/Commerce, General

This subseries comprises instructional program class 52.0101.

52.0101 Business/Commerce, General

This instructional program class comprises any program that focuses on the general study of business, including the processes of interchanging goods and services (buying, selling and producing), business organization, and accounting as used in profit-making and non-profit public and private institutions and agencies. The program prepares individuals to apply business principles and techniques in various occupational settings.

Examples of included programs
- Business
- Business studies
- Commerce
- General business
- General business studies

Examples of excluded programs
- Business education [*see* 13.1303 Business Teacher Education]
- Business administration [*see* 52.0201 Business Administration and Management, General]
- E-business [*see* 52.0208 E-commerce/Electronic Commerce]
- Entrepreneurial studies [*see* 52.0701 Entrepreneurship/Entrepreneurial Studies]
- International business [*see* 52.1101 International Business/Trade/Commerce]

52.02 Business Administration, Management and Operations

This subseries comprises instructional program classes 52.0201 to 52.0299.

52.0201 Business Administration and Management, General

This instructional program class comprises any program that generally prepares individuals to plan, organize, direct, and control the functions and processes of a firm or organization. These programs include courses in management theory, human resources management and behaviour, accounting and other quantitative methods, purchasing and logistics, organization and production, marketing, and business decision-making.

Examples of included programs
- Administration
- Administrative studies
- Business administration
- Business management
- Management
- Management studies

Examples of excluded programs
- Agricultural business management [*see* 01.0101 Agricultural Business and Management, General]
- Theatre arts management [*see* 50.0508 Theatre/Theatre Arts Management]
- Health care administration [*see* 51.0701 Health/Health Care Administration/Management]
- Hospital administration [*see* 51.0702 Hospital and Health Care Facilities Administration/Management]
- Human resources management [*see* 52.1001 Human Resources Management/Personnel Administration, General]

52.0202 Purchasing, Procurement/Acquisitions and Contracts Management

This instructional program class comprises any program that prepares individuals to manage and/or administer the processes by which a firm or organization contracts for goods and services to support its operations, as well as contracts it to sell to other firms or organizations. These programs include courses in contract law, negotiations, buying procedures, government contracting, cost and price analysis, vendor relations, contract administration, auditing and inspection, relations with other firm departments, and applications to special areas such as high-technology systems, international purchasing, and construction.

Examples of included programs
- Procurement
- Procurement management
- Purchasing
- Purchasing administration
- Purchasing management

Examples of excluded programs
- Logistics and materials management [*see* 52.0203 Logistics and Materials Management]
- Retail buyer [*see* 52.1802 Merchandising and Buying Operations]

52.0203 Logistics and Materials Management

This instructional program class comprises any program that prepares individuals to manage and coordinate all logistical functions in an enterprise, ranging from acquisitions to receiving and handling, through internal allocation of resources to operations units, to the handling and delivery of output. These programs include courses in acquisitions and purchasing, inventory control, storage and handling, just-in-time manufacturing, logistics planning, shipping and delivery management, transportation, quality control, resource estimation and allocation, and budgeting.

Examples of included programs
- Logistics administration
- Logistics and materials management
- Logistics and supply management
- Logistics planning
- Materials management
- Supply chain management

Examples of excluded programs
- Procurement management [*see* 52.0202 Purchasing, Procurement/Acquisitions and Contracts Management]
- Transportation management [*see* 52.0209 Transportation/Transportation Management]
- Inventory management [*see* 52.0409 Parts, Warehousing and Inventory Management Operations]

52.0204 Office Management and Supervision

This instructional program class comprises any program that prepares individuals to supervise and manage the operations and personnel of business offices and management-level divisions. These programs include courses in employee supervision, management, and labour relations; budgeting; scheduling and coordination; office systems operation and maintenance; office records management, organization, and security; office facilities design and space management; preparation and evaluation of business management data; and public relations.

Example of included programs
- Office management

Examples of excluded programs
- Medical office administration [*see* 51.0705 Medical Office Management/Administration]
- Operations management [*see* 52.0205 Operations Management and Supervision]
- Human resources management [*see* 52.1001 Human Resources Management/Personnel Administration, General]

52.0205 Operations Management and Supervision

This instructional program class comprises any program that prepares individuals to manage and direct the physical and/or technical functions of a firm or organization, particularly those relating to development, production, and manufacturing. These programs include courses in principles of general management, manufacturing and production systems, plant management, equipment maintenance management, production control, industrial labour relations and skilled trades supervision, strategic manufacturing policy, systems analysis, productivity analysis and cost control, and materials planning.

Examples of included programs
- Industrial management
- Industrial supervision
- Manufacturing management
- Operations management
- Production management
- Production supervision

Examples of excluded programs
- Agricultural production management [*see* 01.0301 Agricultural Production Operations, General]
- Operations research [*see* 14.3701 Operations Research]
- Logistics and materials management [*see* 52.0203 Logistics and Materials Management]

52.0206 Non-profit/Public/Organizational Management

This instructional program class comprises any program that prepares individuals to manage the business affairs of non-profit corporations, including foundations, educational institutions, associations, and other such organizations, and public agencies and governmental operations. These programs include courses in business management, principles of public administration, principles of accounting and financial management, human resources management, taxation of non-profit organizations, and business law as applied to non-profit organizations.

Examples of included programs
- Fundraising
- Fundraising management
- Non-profit management
- Non-profit sector management
- Voluntary sector management
- Volunteer management

Examples of excluded programs
- School administration [*see* 13.0401 Educational Leadership and Administration, General]
- Public administration [*see* 44.0401 Public Administration]
- Health care administration [*see* 51.0701 Health/Health Care Administration/Management]
- Hospital administration [*see* 51.0702 Hospital and Health Care Facilities Administration/Management]

52.0207 Customer Service Management

This instructional program class comprises any program that prepares individuals to supervise and monitor customer service performance and manage frontline customer support services, call centres/help desks, and customer relations. These programs include courses in customer behaviour; specialized information technology and systems management; developing and using customer service databases; user surveys and other feedback mechanisms; strategic and performance planning and analysis; operations management; personnel supervision; and communications and marketing skills.

Examples of included programs
- Call centre administration
- Call centre management
- Customer service management

Example of excluded programs
- Customer service [*see* 52.0411 Customer Service Support/Call Centre/Teleservice Operation]

52.0208 E-commerce/Electronic Commerce

This instructional program class comprises any program that prepares individuals to plan, manage, supervise, and market electronic business operations, products, and services provided online via the Internet. These programs include courses in business administration, information technology, information resources management, web design, computer and Internet law and policy, computer privacy and security, e-trading, insurance, electronic marketing, investment capital planning, enterprise operations, personnel supervision, contracting, and product and service networking.

Examples of included programs
- E-business
- E-commerce
- Electronic commerce

Examples of excluded programs
- E-media development technology [*see* 11.0801 Web Page, Digital/Multimedia and Information Resources Design]
- Business [*see* 52.0101 Business/Commerce, General]
- E-marketing [*see* 52.1499 Marketing, Other]

52.0209 Transportation/Transportation Management

This instructional program class comprises any program that prepares individuals to plan, administer, and coordinate physical transportation operations, networks, and systems. These programs include courses in transportation systems and technologies; traffic logistics and engineering; multimodal and intermodal transportation systems; regional integration; facilities design and construction; transportation planning and finance; demand analysis and forecasting; carrier management; behavioural issues; transportation policy and law; intelligent systems; and applications to aviation, maritime, rail, and highway facilities and systems.

Examples of included programs
- Transportation logistics
- Transportation management

Examples of excluded programs
- Transportation planning [*see* 04.0301 City/Urban, Community and Regional Planning]
- Transportation engineering [*see* 14.0804 Transportation and Highway Engineering]
- Logistics and materials management [*see* 52.0203 Logistics and Materials Management]
- Transportation clerk [*see* 52.0410 Traffic, Customs and Transportation Clerk/Technician]

52.0299 Business Administration, Management and Operations, Other

This instructional program class comprises any program not listed above that relates to Business Administration, Management and Operations.

Examples of included programs
- Institutional administration
- Institutional management
- Project management

Examples of excluded programs
- Business [*see* 52.0101 Business/Commerce, General]
- Commerce [*see* 52.0101 Business/Commerce, General]
- Business administration [*see* 52.0201 Business Administration and Management, General]
- Non-profit management [*see* 52.0206 Non-profit/Public/Organizational Management]
- Construction management [*see* 52.2001 Construction Management]

52.03 Accounting and Related Services

This subseries comprises instructional program classes 52.0301 to 52.0399.

52.0301 Accounting

This instructional program class comprises any program that prepares individuals to practice the profession of accounting and to perform related business functions. These programs include courses in accounting

principles and theory, financial accounting, managerial accounting, cost accounting, budget control, tax accounting, legal aspects of accounting, auditing, reporting procedures, statement analysis, planning and consulting, business information systems, accounting research methods, professional standards and ethics, and applications to specific for-profit, public, and non-profit organizations.

Examples of included programs
- Accountancy
- Accounting
- Certified accountant
- Certified general accountant (CGA)
- Certified management accountant (CMA)
- Chartered accountancy
- Chartered accountant (CA)
- Professional accounting
- Public accounting

Examples of excluded programs
- Accounting teaching [*see* 13.1303 Business Teacher Education]
- Accounting and computer science [*see* 30.1601 Accounting and Computer Science]
- Accounting clerk [*see* 52.0302 Accounting Technology/Technician and Bookkeeping]
- Auditing [*see* 52.0303 Auditing]

52.0302 Accounting Technology/Technician and Bookkeeping

This instructional program class comprises any program that prepares individuals to provide technical administrative support to professional accountants and other financial management personnel. These programs include courses in posting transactions to accounts, record-keeping systems, accounting software operation, and general accounting principles and practices.

Examples of included programs
- Accounting assistant
- Accounting clerk
- Accounting technician
- Automated accounting
- Bookkeeper
- Bookkeeping
- Computerized accounting
- Computerized bookkeeping

Examples of excluded programs
- Accounting teaching [*see* 13.1303 Business Teacher Education]
- Accounting and computer science [*see* 30.1601 Accounting and Computer Science]
- Accounting [*see* 52.0301 Accounting]

52.0303 Auditing

This instructional program class comprises any program that prepares individuals, including certified accountants, to perform independent internal and external appraisals to evaluate organizational financial and operational activities, ensure compliance with laws and policies, safeguard assets, and promote effective planning and resource allocation. These programs include courses in advanced accounting, audit tools and techniques, sampling, risk and control, audit planning, audit function management, laws and regulations, environmental auditing, information technology applications, professional standards and ethics, and specific industry and service sector problems.

Examples of included programs
- Auditing
- Forensic accounting
- Internal audit
- Investigative and forensic accounting

Examples of excluded programs
- Accounting and computer science [*see* 30.1601 Accounting and Computer Science]
- Security and loss prevention services [*see* 43.0109 Security and Loss Prevention Services]
- Security management [*see* 43.0112 Securities Services Administration/Management]
- Accounting [*see* 52.0301 Accounting]

52.0304 Accounting and Finance

This instructional program class comprises any integrated or combined program in accounting and finance that prepares individuals to function as accountants and financial managers or analysts.

Examples of included programs
- Accounting and finance
- Financial accounting

Examples of excluded programs
- Accounting [*see* 52.0301 Accounting]
- Finance [*see* 52.0801 Finance, General]
- Financial planning [*see* 52.0804 Financial Planning and Services]
- Public finance [*see* 52.0808 Public Finance]

52.0305 Accounting and Business/Management

This instructional program class comprises any integrated or combined program in accounting and business administration/management that prepares individuals to function as accountants and business managers.

Examples of included programs
- Accounting and administration
- Accounting and business
- Accounting and business administration
- Accounting and business management

Examples of excluded programs
- Business management [*see* 52.0201 Business Administration and Management, General]
- Accounting [*see* 52.0301 Accounting]
- Accounting and finance [*see* 52.0304 Accounting and Finance]

52.0399 Accounting and Related Services, Other

This instructional program class comprises any program not listed above that relates to Accounting and Related Services.

Examples of excluded programs
- Business economics [*see* 52.0601 Business/Managerial Economics]
- Payroll administration [*see* 52.1099 Human Resources Management and Services, Other]

52.04 Business Operations Support and Assistant Services

This subseries comprises instructional program classes 52.0401 to 52.0499.

52.0401 Administrative Assistant and Secretarial Science, General

This instructional program class comprises any program that generally prepares individuals to perform the duties of administrative assistants and/or secretaries and stenographers. These programs include courses in business communications, principles of business law, word processing and data entry, office machines operation and maintenance, office procedures, public relations, secretarial accounting, filing systems and records management, and report preparation.

Examples of included programs
- Administrative assistant
- Bilingual secretary
- General secretariat
- Secretarial arts
- Secretarial science
- Secretarial studies
- Secretary
- Secretary-receptionist

Examples of excluded programs
- Word processing [*see* 11.0602 Word Processing]
- Legal administrative assistant [*see* 22.0301 Legal Administrative Assistant/Secretary]
- Medical administrative assistant [*see* 51.0716 Medical Administrative/Executive Assistant and Medical Secretary]
- Receptionist [*see* 52.0406 Receptionist]
- Administrative clerk [*see* 52.0408 General Office Occupations and Clerical Services]

52.0402 Executive Assistant/Executive Secretary

This instructional program class comprises any program that prepares individuals to perform the duties of special assistants and/or personal secretaries for business executives and top management. These programs include courses in business communications, principles of business law, public relations, scheduling and travel management, secretarial accounting, filing systems and records management, conference and meeting recording, report preparation, office equipment and procedures, office supervisory skills, and professional standards and legal requirements.

Examples of included programs
- Executive assistant
- Executive secretary

Examples of excluded programs
- Legal secretary [*see* 22.0301 Legal Administrative Assistant/Secretary]
- Medical secretary [*see* 51.0716 Medical Administrative/Executive Assistant and Medical Secretary]
- Secretary [*see* 52.0401 Administrative Assistant and Secretarial Science, General]

52.0406 Receptionist

This instructional program class comprises any program that prepares individuals to perform frontline public relations duties for a business, organization, or answering service. These programs include courses in telephone answering techniques, responding to information requests, keeping caller and/or visitor records, placing business calls, operating telephone switchboards and/or other communications equipment, relaying incoming and interoffice calls, schedule maintenance, and public relations skills.

Examples of included programs
- Receptionist
- Switchboard operator
- Telephone operator

Examples of excluded programs
- Dental receptionist [*see* 51.0712 Medical Reception/Receptionist]
- Secretary-receptionist [*see* 52.0401 Administrative Assistant and Secretarial Science, General]
- Customer service [*see* 52.0411 Customer Service Support/Call Centre/Teleservice Operation]

52.0407 Business/Office Automation/Technology/Data Entry

This instructional program class comprises any program that prepares individuals to support business information operations by using computer equipment to enter, process, and retrieve data for a wide variety of administrative purposes. These programs include courses in using basic business software and hardware; business computer networking; principles of desktop publishing; preparing mass mailings; compiling and editing spreadsheets; list maintenance; preparing tables and graphs; receipt control; and preparing business performance reports.

Examples of included programs
- Applied business technology
- Office automation

Examples of excluded programs
- Desktop publishing [*see* 10.0303 Prepress/Desktop Publishing and Digital Imaging Design]
- Data processor [*see* 11.0301 Data Processing and Data Processing Technology/Technician]
- Data entry operator [*see* 11.0601 Data Entry/Microcomputer Applications, General]
- Word processing [*see* 11.0602 Word Processing]

52.0408 General Office Occupations and Clerical Services

This instructional program class comprises any program that prepares individuals to provide basic administrative support under the supervision of office managers, administrative assistants, secretaries, and other office personnel. These programs include courses in typing, keyboarding, filing, general business correspondence, office equipment operation, and communications skills.

Examples of included programs
- Administrative clerk
- Business office skills
- Clerk typist
- Dicta-typing
- Office clerk
- Office skills
- Shorthand typing
- Typing
- Typist

Examples of excluded programs
- Word processing [*see* 11.0602 Word Processing]
- Legal assistant [*see* 22.0302 Legal Assistant/Paralegal]
- Secretary [*see* 52.0401 Administrative Assistant and Secretarial Science, General]
- Receptionist [*see* 52.0406 Receptionist]
- Sales clerk [*see* 52.1804 Selling Skills and Sales Operations]

52.0409 Parts, Warehousing and Inventory Management Operations

This instructional program class comprises any program that prepares individuals to provide administrative, technical, and managerial support in the operation of warehouses, control of inventory, parts identification, and the performance of counter services for customers. These programs include courses in record-keeping, equipment operation, database entry, supply logistics, shop operations and math, and customer and supplier relations.

Examples of included programs
- Inventory control
- Inventory management
- Parts management
- Warehouse management

Examples of excluded programs
- Warehouse technician [*see* 47.0409 Parts and Warehousing Operations and Maintenance Technology/Technician]
- Procurement [*see* 52.0202 Purchasing, Procurement/Acquisitions and Contracts Management]
- Logistics and materials management [*see* 52.0203 Logistics and Materials Management]
- Auto parts sales [*see* 52.1907 Vehicle and Vehicle Parts and Accessories Marketing Operations]

52.0410 Traffic, Customs and Transportation Clerk/Technician

This instructional program class comprises any program that prepares individuals to perform duties associated with managing revenue-based transportation services, such as toll roads and waterways, and to assist in the dispatch and control of fleet-based traffic for businesses and public services. These programs include courses in such subjects as record-keeping; operation of communications equipment; basic transportation operations management; revenue collection and changemaking; and applicable laws, policies, and procedures.

Examples of included programs
- Traffic technician
- Train dispatcher
- Transportation clerk

Examples of excluded programs
- Transportation planning [*see* 04.0301 City/Urban, Community and Regional Planning]
- Transportation engineering [*see* 14.0804 Transportation and Highway Engineering]
- Air traffic controller [*see* 49.0105 Air Traffic Controller]
- Transportation management [*see* 52.0209 Transportation/Transportation Management]

52.0411 Customer Service Support/Call Centre/Teleservice Operation

This instructional program class comprises any program that prepares individuals to assist customers with inquiries and problems in frontline call centres, help desks, teleservice centres, and online. These programs include courses in user interfaces and user behaviour; principles of hardware and software systems operation; customer interaction skills; telephone and e-mailing skills; data entry; and database and Internet searching and retrieval.

Examples of included programs
- Call centre service representative
- Customer service
- Customer service by telephone
- Customer service representative
- Teleservice
- Teleservice customer representative

Examples of excluded programs
- Customer service management [*see* 52.0207 Customer Service Management]
- Receptionist [*see* 52.0406 Receptionist]
- Salesperson [*see* 52.1804 Selling Skills and Sales Operations]

52.0499 Business Operations Support and Assistant Services, Other

This instructional program class comprises any program not listed above that relates to Business Operations Support and Assistant Services.

Example of included programs
- Comptometer operator

Examples of excluded programs
- Legal assistant [*see* 22.0302 Legal Assistant/Paralegal]
- Secretary [*see* 52.0401 Administrative Assistant and Secretarial Science, General]

52.05 Business/Corporate Communications

This subseries comprises instructional program class 52.0501.

52.0501 Business/Corporate Communications

This instructional program class comprises any program that prepares individuals to function in an organization as a composer, editor and proofreader of business or business-related communications.

Examples of included programs
- Business communications
- Corporate communications

Examples of excluded programs
- Mass communication [*see* 09.0102 Mass Communication/Media Studies]
- Organizational communication [*see* 09.0901 Organizational Communication, General]
- Public relations [*see* 09.0902 Public Relations/Image Management]
- Business writing [*see* 23.1101 English Technical and Business Writing]
- French business writing [*see* 55.0801 French Technical and Business Writing]

52.06 Business/Managerial Economics

This subseries comprises instructional program class 52.0601.

52.0601 Business/Managerial Economics

This instructional program class comprises any program that focuses on the application of economic principles to the analysis of the organization and operation of business enterprises. These programs include courses in monetary theory, banking and financial systems, theory of competition, pricing theory, wage and salary/incentive theory, analysis of markets, and applications of econometrics and quantitative methods to the study of particular businesses and business problems.

Examples of included programs
- Business economics
- Financial economics
- Management economics

Examples of excluded programs
- Consumer economics [*see* 19.0402 Consumer Economics]
- Economics [*see* 45.0601 Economics, General]
- Econometrics [*see* 45.0603 Econometrics and Quantitative Economics]

52.07 Entrepreneurial and Small Business Operations

This subseries comprises instructional program classes 52.0701 to 52.0799.

52.0701 Entrepreneurship/Entrepreneurial Studies

This instructional program class comprises any program that generally prepares individuals to perform development, marketing and management functions associated with owning and operating a business.

Examples of included programs
- Business entrepreneurship
- Entrepreneurial studies
- Entrepreneurship

Examples of excluded programs
- Business [*see* 52.0101 Business/Commerce, General]
- Business administration [*see* 52.0201 Business Administration and Management, General]
- Franchise operations [*see* 52.0702 Franchising and Franchise Operations]
- Small business administration [*see* 52.0703 Small Business Administration/Management]

52.0702 Franchising and Franchise Operations

This instructional program class comprises any program that prepares individuals to manage and operate franchises. These programs include courses in legal requirements, set-up costs and capitalization requirements, financing, and applications to specific franchise opportunities.

Examples of included programs
- Franchise operations
- Franchising

Examples of excluded programs
- Entrepreneurship [*see* 52.0701 Entrepreneurship/Entrepreneurial Studies]
- Small business administration [*see* 52.0703 Small Business Administration/Management]
- Hospitality management [*see* 52.0901 Hospitality Administration/Management, General]
- Restaurant manager [*see* 52.0905 Restaurant/Food Services Management]

52.0703 Small Business Administration/Management

This instructional program class comprises any program that prepares individuals to develop and manage independent small businesses. These programs include courses in business administration; enterprise planning and entrepreneurship; start-up; small business operations and problems; personnel supervision; capitalization and investment; taxation; business laws and regulations; e-commerce; home business operations; and applications to specific sectors, products, and services.

Examples of included programs
- Small and medium enterprise management
- Small business administration
- Small business management
- Small business management and ownership

Examples of excluded programs
- Business administration [*see* 52.0201 Business Administration and Management, General]
- Entrepreneurship [*see* 52.0701 Entrepreneurship/Entrepreneurial Studies]

52.0799 Entrepreneurial and Small Business Operations, Other

This instructional program class comprises any program not listed above that relates to Entrepreneurial and Small Business Operations.

52.08 Finance and Financial Management Services

This subseries comprises instructional program classes 52.0801 to 52.0899.

52.0801 Finance, General

This instructional program class comprises any program that generally prepares individuals to plan, manage, and analyse the financial and monetary aspects and performance of business enterprises, banking institutions, or other organizations. These programs include courses in principles of accounting; financial instruments; capital planning; funds acquisition; asset and debt management; budgeting; financial analysis; and investments and portfolio management.

Examples of included programs
- Business finance
- Finance
- Financial management

Examples of excluded programs
- Accounting and finance [*see* 52.0304 Accounting and Finance]
- Banking and financial services [*see* 52.0803 Banking and Financial Support Services]
- Financial services [*see* 52.0804 Financial Planning and Services]
- Public finance [*see* 52.0808 Public Finance]

52.0803 Banking and Financial Support Services

This instructional program class comprises any program that prepares individuals to perform a wide variety of customer services in banks, insurance agencies, savings and loan companies, and related enterprises. These programs include courses in communications and public relations skills, business equipment operation, and technical skills applicable to the methods and operations of specific financial or insurance services.

Examples of included programs
- Bank teller
- Banking and financial services

Examples of excluded programs
- E-commerce [*see* 52.0208 E-commerce/Electronic Commerce]
- Finance [*see* 52.0801 Finance, General]
- Financial investments [*see* 52.0807 Investments and Securities]
- Credit management [*see* 52.0809 Credit Management]

52.0804 Financial Planning and Services

This instructional program class comprises any program that prepares individuals to plan and manage the financial interests and growth of individuals and institutions. These programs include courses in portfolio management, investment management, estate planning, insurance, tax planning, strategic investing and planning, financial consulting services, and client relations.

Examples of included programs
- Certified financial planner
- Financial planning
- Financial services
- Financial services management
- Personal financial planner
- Professional financial planner

Examples of excluded programs
- Urban planning [*see* 04.0301 City/Urban, Community and Regional Planning]
- Finance [*see* 52.0801 Finance, General]
- Financial investments [*see* 52.0807 Investments and Securities]
- Life insurance [*see* 52.1701 Insurance]

52.0806 International Finance

This instructional program class comprises any program that prepares individuals to manage international financial operations and related currency transactions. These programs include courses in international banking, international monetary and financial policy, money and capital markets, foreign exchange, risk analysis, and international cash flow operations.

Example of included programs
- International finance

Examples of excluded programs
- International development [*see* 45.0604 Development Economics and International Development]
- International economics [*see* 45.0605 International Economics]
- Finance [*see* 52.0801 Finance, General]
- International commerce [*see* 52.1101 International Business/Trade/Commerce]

52.0807 Investments and Securities

This instructional program class comprises any program that prepares individuals to manage assets placed in capital markets, and related technical operations. These programs include courses in security analysis, debt and equity analysis, investment strategies, securities markets, computer-assisted research, portfolio management, portfolio performance analysis, and applications to specific investment problems and business situations.

Examples of included programs
- Asset and wealth management
- Canadian securities
- Financial investments
- Financial securities
- Investment advisor
- Investment management
- Investments
- Investments and securities
- Securities

Examples of excluded programs
- Securities services administration [*see* 43.0112 Securities Services Administration/Management]
- Financial planning [*see* 52.0804 Financial Planning and Services]
- Real estate [*see* 52.1501 Real Estate]

52.0808 Public Finance

This instructional program class comprises any program that prepares individuals to manage the financial assets and budgets of public sector organizations. These programs include courses in public trusts and investments; the laws and procedures used to plan, prepare and administer public agency budgets; and the preparation and analysis of public budget projections and policies.

Example of included programs
- Public finance

Examples of excluded programs
- Public administration [*see* 44.0401 Public Administration]
- Finance [*see* 52.0801 Finance, General]

52.0809 Credit Management

This instructional program class comprises any program that prepares individuals to perform and/or manage operations concerning personal and corporate credit, collateral, loan processing, and related financial agency communications. These programs include courses in general finance and banking principles, insurance, real estate, taxation, business laws and regulations, quantitative methods, financial computer systems applications, database management, communications skills, business and office management, and professional standards and ethics.

Example of included programs
- Credit management

Examples of excluded programs
- Finance [*see* 52.0801 Finance, General]
- Banking and financial services [*see* 52.0803 Banking and Financial Support Services]

52.0899 Finance and Financial Management Services, Other

This instructional program class comprises any program not listed above that relates to Finance and Financial Management Services.

52.09 Hospitality Administration/Management

This subseries comprises instructional program classes 52.0901 to 52.0999.

52.0901 Hospitality Administration/Management, General

This instructional program class comprises any program that prepares individuals to serve as general managers and directors of hospitality operations on a system-wide basis, including both travel arrangements and promotion and the provision of traveller facilities. These programs include courses in principles of operations in the travel and tourism, hotel and lodging facilities, food services, and recreation facilities industries; hospitality marketing strategies; hospitality planning; management and coordination of franchise and unit operations; business management; accounting and financial management; hospitality transportation and logistics; and hospitality industry policies and regulations.

Examples of included programs
- Hospitality administration
- Hospitality and tourism administration
- Hospitality and tourism management
- Hospitality industry management
- Hospitality management
- International hospitality management

Examples of excluded programs
- Facilities management [*see* 19.0604 Facilities Planning and Management]
- Leisure and recreation services management [*see* 31.0301 Parks, Recreation and Leisure Facilities Management]
- Hotel administration [*see* 52.0904 Hotel/Motel Administration/Management]
- Resort management [*see* 52.0906 Resort Management]
- Hospitality marketing [*see* 52.1910 Hospitality and Recreation Marketing Operations]

52.0903 Tourism and Travel Services Management

This instructional program class comprises any program that prepares individuals to manage travel-related enterprises and related convention and/or tour services. These programs include courses in travel agency management, tour arranging and planning, convention and event planning, travel industry operations and procedures, tourism marketing and promotion strategies, travel counselling, travel industry law, international and domestic operations, and travel and tourism policy.

Examples of included programs
- Conventions and meetings management
- Events and convention management
- Exposition, convention and trade show management
- Festivals/community events management
- Special event management
- Tourism and travel management
- Travel industry management

Examples of excluded programs
- Wildland recreation [*see* 31.0101 Parks, Recreation and Leisure Studies]
- Recreation management [*see* 31.0301 Parks, Recreation and Leisure Facilities Management]
- Travel and exploration [*see* 36.0109 Travel and Exploration]
- Hospitality and tourism management [*see* 52.0901 Hospitality Administration/Management, General]
- Tourism marketing management [*see* 52.1905 Tourism and Travel Services Marketing Operations]
- Tourism development [*see* 52.1906 Tourism Promotion Operations]

52.0904 Hotel/Motel Administration/Management

This instructional program class comprises any program that prepares individuals to manage operations and facilities that provide lodging services to the travelling public. These programs include courses in hospitality industry principles; supplies purchasing, storage and control; hotel facilities design and planning; hospitality industry law; personnel management and labour relations; financial management; marketing and sales promotion; convention and event management; front desk operations; and applications to specific types of hotel and motel operations.

Examples of included programs
- Hotel administration
- Hotel management
- Motel management

Examples of excluded programs
- Restaurant/catering management [*see* 12.0504 Restaurant, Culinary and Catering Management/Manager]
- Facilities management [*see* 19.0604 Facilities Planning and Management]
- Restaurant manager [*see* 52.0905 Restaurant/Food Services Management]
- Resort management [*see* 52.0906 Resort Management]

52.0905 Restaurant/Food Services Management

This instructional program class comprises any program that prepares individuals to plan, manage, and market restaurants, food services in hospitality establishments, food service chains and franchise networks, and restaurant supply operations. These programs include courses in hospitality administration, food services management, wholesale logistics and distribution, franchise operations, business networking, personnel management, culinary arts, business planning and capitalization, food industry operations, marketing and retailing, business laws and regulations, finance, and professional standards and ethics.

Example of included programs
- Restaurant manager

Examples of excluded programs
- Restaurant/catering management [*see* 12.0504 Restaurant, Culinary and Catering Management/Manager]
- Dietary and food service management [*see* 19.0505 Foodservice Systems Administration/Management]
- Facilities management [*see* 19.0604 Facilities Planning and Management]
- Hotel management [*see* 52.0904 Hotel/Motel Administration/Management]

52.0906 Resort Management

This instructional program class comprises any program that prepares individuals to plan, manage, and market comprehensive vacation facilities and services and related products. These programs include courses in hospitality administration, hotel/motel management, restaurant and food services management, facilities planning, leisure studies, recreation administration, marketing, recreation equipment and grounds operations and maintenance, business finance, insurance and taxation, event management and guest services, personnel management, travel and logistics management, safety and health services, professional standards and ethics, and applications to specific vacation types and locations.

Examples of included programs
- Resort management
- Ski resort management
- Ski resort operations and management

Examples of excluded programs
- Leisure and recreation services management [*see* 31.0301 Parks, Recreation and Leisure Facilities Management]
- Hotel management [*see* 52.0904 Hotel/Motel Administration/Management]
- Restaurant manager [*see* 52.0905 Restaurant/Food Services Management]

52.0999 Hospitality Administration/Management, Other

This instructional program class comprises any program not listed above that relates to Hospitality Administration/Management.

52.10 Human Resources Management and Services

This subseries comprises instructional program classes 52.1001 to 52.1099.

52.1001 Human Resources Management/Personnel Administration, General

This instructional program class comprises any program that generally prepares individuals to manage the development of human capital in organizations, and to provide related services to individuals and groups. These programs include courses in personnel and organization policy, human resource dynamics and flows, labour relations, sex roles, civil rights, human resources laws and regulations, motivation and compensation systems, work systems, career management, employee testing and assessment, recruitment and selection, managing employee and job training programs, and the management of human resources programs and operations.

Examples of included programs
- Human resources administration
- Human resources management
- Personnel administration
- Personnel management

Examples of excluded programs
- Office management [*see* 52.0204 Office Management and Supervision]
- Operations management [*see* 52.0205 Operations Management and Supervision]
- Labour-management relations [*see* 52.1002 Labour and Industrial Relations]
- Human resources development [*see* 52.1005 Human Resources Development]

52.1002 Labour and Industrial Relations

This instructional program class comprises any program that focuses on employee-management interactions and the management of issues and disputes regarding working conditions and worker benefit packages, and that prepares individuals to function as labour or personnel relations specialists. These programs include courses in labour history, policies and strategies of the labour movement, union organization, labour-management negotiation, labour law and contract interpretation, labour economics, welfare and benefit packages, grievance procedures, and labour policy studies.

Examples of included programs
- Industrial relations
- Labour relations
- Labour relations administration
- Labour-management relations

Examples of excluded programs
- Labour law (graduate level) [*see* 22.0299 Legal Research and Advanced Professional Studies (Post-LLB/JD), Other]
- Organizational psychology [*see* 42.0901 Industrial and Organizational Psychology]
- Human resources management [*see* 52.1001 Human Resources Management/Personnel Administration, General]
- Labour studies [*see* 52.1004 Labour Studies]

52.1003 Organizational Behaviour Studies

This instructional program class comprises any program that focuses on the scientific study of the behaviour and motivations of individuals functioning in organized groups, and its application to business and industrial settings. These programs include courses in organization theory, industrial and organizational psychology, social psychology, sociology of organizations, reinforcement and incentive

theory, employee relations strategies, organizational power and influence, organization stratification and hierarchy, leadership styles, and applications of operations research and other methodologies to organizational analysis.

Examples of included programs
- Organizational behaviour
- Organizational behaviour studies

Examples of excluded programs
- Organizational communication [*see* 09.0901 Organizational Communication, General]
- Behavioural science [*see* 30.1701 Behavioural Sciences]
- Organizational psychology [*see* 42.0901 Industrial and Organizational Psychology]
- Labour studies [*see* 52.1004 Labour Studies]

52.1004 Labour Studies

This instructional program class comprises any program that focuses on the study of various aspects of work, labour organization and policy, and labour movements from the perspective of the social sciences and history. These programs include courses in labour history; political and ideological issues; worker movements and social organizations; civil rights; labour law and policy studies; labour economics; international and comparative labour studies; and applications to specific industries, groups, locations, and time periods.

Examples of included programs
- Labour and workplace studies
- Labour studies

Examples of excluded programs
- Labour law (graduate level) [*see* 22.0299 Legal Research and Advanced Professional Studies (Post-LLB/JD), Other]
- Organizational psychology [*see* 42.0901 Industrial and Organizational Psychology]
- Labour relations [*see* 52.1002 Labour and Industrial Relations]

52.1005 Human Resources Development

This instructional program class comprises any program that prepares individuals to apply integrated training, organizational development, and career planning and counselling skills to the design, management, and evaluation of programs to improve individual productivity, employability, and job satisfaction and organizational effectiveness. These programs include courses in psychology; organizational behaviour; principles of adult education; occupational counselling; skill testing and evaluation; program design; consulting practice; organizational development; and applications to issues such as training, management development, customer service, and total quality management.

Example of included programs
- Human resources development

Example of excluded programs
- Human resources administration [*see* 52.1001 Human Resources Management/Personnel Administration, General]

52.1099 Human Resources Management and Services, Other

This instructional program class comprises any program not listed above that relates to Human Resources Management and Services.

Examples of included programs
- Payroll administration
- Payroll clerk
- Payroll management

Examples of excluded programs
- Vocational rehabilitation counselling [*see* 51.2310 Vocational Rehabilitation Counselling/Counsellor]
- Public accounting [*see* 52.0301 Accounting]
- Accounting clerk [*see* 52.0302 Accounting Technology/Technician and Bookkeeping]

52.11 International Business/Trade/Commerce

This subseries comprises instructional program class 52.1101.

52.1101 International Business/Trade/Commerce

This instructional program class comprises any program that prepares individuals to manage international businesses and/or business operations. These programs include courses in the principles and processes of export sales, trade controls, foreign operations and related problems, monetary issues, international business policy, and applications to doing business in specific countries and markets.

Examples of included programs
- Foreign trade
- International business
- International business management
- International commerce
- International management
- International trade

Examples of excluded programs
- International business law (graduate level) [*see* 22.0210 International Business, Trade and Tax Law (LLM, JSD/SJD)]
- International studies [*see* 30.2001 International/Global Studies]
- International economics [*see* 45.0605 International Economics]
- International finance [*see* 52.0806 International Finance]

52.12 Management Information Systems and Services

This subseries comprises instructional program classes 52.1201 to 52.1299.

52.1201 Management Information Systems, General

This instructional program class comprises any program that generally prepares individuals to provide and manage data systems and related facilities for processing and retrieving internal business information; select systems and train personnel; and respond to external data requests. These programs include courses in cost and accounting information systems, management control systems, personnel information systems, data storage and security, business systems networking, report preparation, computer facilities and equipment operation and maintenance, operator supervision and training, and management information systems policy and planning.

Example of included programs
- Management information systems

Examples of excluded programs
- Computing and information systems [*see* 11.0101 Computer and Information Sciences, General]
- Information science [*see* 11.0401 Information Science/Studies]
- Information systems security [*see* 11.1003 Computer and Information Systems Security]
- Information resources management [*see* 52.1206 Information Resources Management/Chief Information Officer (CIO) Training]

52.1206 Information Resources Management/Chief Information Officer (CIO) Training

This instructional program class comprises any program that prepares individuals to apply principles of information technology, computer systems management, and business operations to the planning, management, and evaluation of information services in organizations. These programs include courses in telecommunications, systems planning and integration, information policy, information security, contracting and purchasing, budgeting, information technology, operations management, human resources, communications skills, and applicable laws and regulations.

Example of included programs
- Information resources management

Examples of excluded programs
- Computing and information systems [*see* 11.0101 Computer and Information Sciences, General]
- Information science [*see* 11.0401 Information Science/Studies]
- Information systems security [*see* 11.1003 Computer and Information Systems Security]
- Management information systems [*see* 52.1201 Management Information Systems, General]

52.1207 Knowledge Management

This instructional program class comprises any program that focuses on the study of knowledge management in government agencies and corporations for the purpose of supporting stated organizational goals and objectives, and prepares individuals to function as information resource managers. These programs include courses in information technology, principles of computer and information systems, management information systems, applicable policy and regulations, and operations and personnel management.

Example of included programs
- Knowledge management

Examples of excluded programs
- Management information systems [*see* 52.1201 Management Information Systems, General]
- Information resources management [*see* 52.1206 Information Resources Management/Chief Information Officer (CIO) Training]

52.1299 Management Information Systems and Services, Other

This instructional program class comprises any program not listed above that relates to Management Information Systems and Services.

52.13 Management Sciences and Quantitative Methods

This subseries comprises instructional program classes 52.1301 to 52.1399.

52.1301 Management Science, General

This instructional program class comprises any general program that focuses on the application of mathematical modelling, programming, forecasting and operations research techniques to the analysis of problems of business organization and performance. These programs include courses in optimization theory and mathematical techniques, stochastic and dynamic modelling, operations analysis, and the design and testing of prototype systems and evaluation models.

Example of included programs
- Management science

Examples of excluded programs
- Operations research [*see* 14.3701 Operations Research]
- Management studies [*see* 52.0201 Business Administration and Management, General]
- Business statistics [*see* 52.1302 Business Statistics]

52.1302 Business Statistics

This instructional program class comprises any program that focuses on the application of mathematical statistics to the description, analysis, and forecasting of business data. These programs include courses in statistical theory and methods, computer applications, data analysis and display, long- and short-term forecasting methods, and market performance analysis.

Example of included programs
- Business statistics

Examples of excluded programs
- Statistics [*see* 27.0501 Statistics, General]
- Mathematical statistics [*see* 27.0502 Mathematical Statistics and Probability]
- Actuarial mathematics [*see* 52.1304 Actuarial Science]

52.1304 Actuarial Science

This instructional program class comprises any program that focuses on the mathematical and statistical analysis of risk, and their application to insurance and other business management problems. These programs include courses in forecasting theory, quantitative and non-quantitative risk measurement methodologies, development of risk tables, secondary data analysis, and computer-assisted research methods.

Example of included programs
- Actuarial mathematics

Examples of excluded programs
- Business finance [*see* 52.0801 Finance, General]
- Investments and securities [*see* 52.0807 Investments and Securities]
- Business statistics [*see* 52.1302 Business Statistics]

52.1399 Management Sciences and Quantitative Methods, Other

This instructional program class comprises any program not listed above that relates to Management Sciences and Quantitative Methods.

52.14 Marketing

This subseries comprises instructional program classes 52.1401 to 52.1499.

52.1401 Marketing/Marketing Management, General

This instructional program class comprises any program that generally prepares individuals to undertake and manage the process of developing consumer audiences and moving products from producers to consumers. These programs include courses in buyer behaviour and dynamics, principles of marketing research, demand analysis, cost-volume and profit relationships, pricing theory, marketing campaign and strategic planning, market segments, advertising methods, sales operations and management, consumer relations, retailing, and applications to specific products and markets.

Examples of included programs
- Business administration—marketing option
- Marketing
- Marketing management
- Marketing studies

Examples of excluded programs
- Marketing communication [*see* 09.0903 Advertising]
- Teaching marketing [*see* 13.1310 Sales and Marketing Operations/Marketing and Distribution Teacher Education]
- Marketing research [*see* 52.1402 Marketing Research]
- Sales and marketing [*see* 52.1801 Sales, Distribution and Marketing Operations, General]

52.1402 Marketing Research

This instructional program class comprises any program that prepares individuals to provide analytical descriptions of consumer behaviour patterns and market environments to marketing managers and other business decision makers. These programs include courses in survey research methods, research design, new product test marketing, exploratory marketing, consumer needs and preferences analysis, geographic analysis, and applications to specific products and markets.

Example of included programs
- Marketing research

Example of excluded programs
- Marketing [*see* 52.1401 Marketing/Marketing Management, General]

52.1403 International Marketing

This instructional program class comprises any program that prepares individuals to perform marketing activities in enterprises primarily engaged in exporting or importing goods and services in world markets. These programs include courses in international trade controls, foreign trade operations, locating markets, negotiation practices, monetary issues, and international public relations.

Example of included programs
- International marketing

Examples of excluded programs
- International trade [*see* 52.1101 International Business/Trade/Commerce]
- Marketing [*see* 52.1401 Marketing/Marketing Management, General]

52.1499 Marketing, Other

This instructional program class comprises any program not listed above that relates to Marketing.

Example of included programs
• E-marketing

Example of excluded programs
• Sales and marketing [*see* 52.1801 Sales, Distribution and Marketing Operations, General]

52.15 Real Estate

This subseries comprises instructional program class 52.1501.

52.1501 Real Estate

This instructional program class comprises any program that prepares individuals to develop, buy, sell, appraise, and manage real property. These programs include courses in land use development policy, real estate law, real estate marketing procedures, agency management, brokerage, property inspection and appraisal, real estate investing, leased and rental properties, commercial real estate, and property management.

Examples of included programs
• Real estate
• Real estate agent
• Real estate analysis
• Real estate appraisal
• Real estate broker
• Real estate sales
• Real estate studies
• Real property assessment
• Real property development
• Realtor

Examples of excluded programs
• Land management [*see* 03.0206 Land Use Planning and Management/Development]
• Housing [*see* 19.0601 Housing and Human Environments, General]
• Building management [*see* 46.0401 Building/Property Maintenance and Management]
• Investments [*see* 52.0807 Investments and Securities]

52.16 Taxation

This subseries comprises instructional program class 52.1601.

52.1601 Taxation

This instructional program class comprises any program that prepares individuals to provide tax advice and management services to individuals and corporations. These programs include courses in tax laws and regulations, tax record systems, individual and corporate income taxation, tax planning, partnerships and fiduciary relationships, estates and trusts, property depreciation, capital gains and losses, dispositions, transfers, liquidity, valuation, and applications to specific tax problems.

Example of included programs
• Taxation

Examples of excluded programs
- International tax law (graduate level) [*see* 22.0210 International Business, Trade and Tax Law (LLM, JSD/SJD)]
- Tax law (graduate level) [*see* 22.0211 Tax Law/Taxation (LLM, JSD/SJD)]
- Accounting [*see* 52.0301 Accounting]

52.17 Insurance

This subseries comprises instructional program class 52.1701.

52.1701 Insurance

This instructional program class comprises any program that prepares individuals to manage risk in organizational settings and provide insurance and risk-aversion services to businesses, individuals, and other organizations. These programs include courses in casualty insurance and general liability, property insurance, employee benefits, social and health insurance, loss adjustment, underwriting, risk theory, and pension planning.

Examples of included programs
- Business insurance
- Canadian Accredited Insurance Broker (CAIB)
- Fellow of the Insurance Institute of Canada (FIIC)
- Insurance
- Insurance adjuster
- Insurance agent
- Insurance broker
- Insurance underwriting
- Life insurance

Examples of excluded programs
- Medical insurance coding [*see* 51.0713 Medical Insurance Coding Specialist/Coder]
- Medical insurance billing [*see* 51.0714 Medical Insurance Specialist/Medical Biller]
- Health/medical claims examiner [*see* 51.0715 Health/Medical Claims Examiner]
- Actuarial mathematics [*see* 52.1304 Actuarial Science]

52.18 General Sales, Merchandising and Related Marketing Operations

This subseries comprises instructional program classes 52.1801 to 52.1899.

52.1801 Sales, Distribution and Marketing Operations, General

This instructional program class comprises any program that focuses on the general process and techniques of direct wholesale and retail buying and selling operations and introduces individuals to related careers. These programs include courses in the principles of entrepreneurial economics, basic sales skills, the distribution channels for goods and services, and supervised practical application experiences.

Examples of included programs
- Retail marketing
- Retail sales and marketing
- Sales and marketing

Examples of excluded programs
- Teaching marketing [*see* 13.1310 Sales and Marketing Operations/Marketing and Distribution Teacher Education]
- Marketing [*see* 52.1401 Marketing/Marketing Management, General]
- Travel marketing [*see* 52.1905 Tourism and Travel Services Marketing Operations]

52.1802 Merchandising and Buying Operations

This instructional program class comprises any program that prepares individuals to function as professional buyers of resale products and product lines for stores, chains, and other retail enterprises. These programs include courses in product evaluation, merchandising, applicable aspects of brand and consumer research, principles of purchasing, and negotiation skills.

Examples of included programs
- Buyer
- Professional buyer
- Retail buyer
- Retail merchandising

Examples of excluded programs
- Music merchandising [*see* 50.0909 Music Management and Merchandising]
- Purchasing management [*see* 52.0202 Purchasing, Procurement/Acquisitions and Contracts Management]
- Fashion merchandising [*see* 52.1902 Fashion Merchandising]

52.1803 Retailing and Retail Operations

This instructional program class comprises any program that prepares individuals to perform operations associated with retail sales in a variety of settings. These programs include courses in over-the-counter and other direct sales operations in business settings, basic bookkeeping principles, customer service, team/staff leadership and supervision, floor management, and applicable technical skills.

Examples of included programs
- Retail operations
- Retailing
- Retailing and consumer services

Examples of excluded programs
- Retail sales and marketing [*see* 52.1801 Sales, Distribution and Marketing Operations, General]
- Salesperson [*see* 52.1804 Selling Skills and Sales Operations]

52.1804 Selling Skills and Sales Operations

This instructional program class comprises any program that prepares individuals to possess the skills associated with direct promotion of products and services to potential customers and to function as independent sales representatives and managers. These programs include courses in consumer psychology, image projection, public speaking and interpersonal communications, sales organization and operations, customer relations, professional standards and ethics, and applicable technical skills.

Examples of included programs
- Retail clerk
- Sales clerk
- Sales management
- Sales representative
- Sales techniques
- Salesperson
- Telemarketing

Examples of excluded programs
- Retail sales and marketing [*see* 52.1801 Sales, Distribution and Marketing Operations, General]
- Retailing [*see* 52.1803 Retailing and Retail Operations]
- Car sales [*see* 52.1907 Vehicle and Vehicle Parts and Accessories Marketing Operations]
- Sport and event marketing [*see* 52.1910 Hospitality and Recreation Marketing Operations]

52.1899 General Sales, Merchandising and Related Marketing Operations, Other

This instructional program class comprises any program not listed above that relates to General Sales, Merchandising and Related Marketing Operations.

52.19 Specialized Sales, Merchandising and Marketing Operations

This subseries comprises instructional program classes 52.1901 to 52.1999.

52.1901 Auctioneering

This instructional program class comprises any program that prepares individuals for professional careers as auctioneers and auction managers, and for meeting applicable licensing requirements. These programs include courses in bid calling, public speaking, ringworking, auction techniques, salesmanship skills, auction clerking and cashiering, auction advertising, working independently or with auction houses, contracts and agencies, applicable sales law, and managing both general auctions and auctions specializing in commodities such as antiques, consignments, farm equipment, industrial equipment, real estate, livestock, and automobiles.

Example of included programs
• Auctioneering

Examples of excluded programs
• Agricultural supplies retailing and wholesaling [*see* 01.0105 Agricultural/Farm Supplies Retailing and Wholesaling]
• Sales and marketing [*see* 52.1801 Sales, Distribution and Marketing Operations, General]
• Salesperson [*see* 52.1804 Selling Skills and Sales Operations]

52.1902 Fashion Merchandising

This instructional program class comprises any program that prepares individuals to promote product lines/brands, and organize promotional campaigns, at the wholesale level to attract retailer interest, wholesale purchasing, and supply contracts. These programs include courses in wholesaling, wholesale advertising, selling, and customer relations.

Examples of included programs
• Fashion marketing
• Fashion merchandising

Examples of excluded programs
• Apparel marketing management [*see* 19.0905 Apparel and Textile Marketing Management]
• Fashion design [*see* 50.0407 Fashion/Apparel Design]
• Fashion retail [*see* 52.1904 Apparel and Accessories Marketing Operations]

52.1903 Fashion Modelling

This instructional program class comprises any program that prepares individuals to present and display fashion, apparel, and accessories products in wholesale and retail settings, either on the person or via props and natural or artificial settings. These programs include courses in modelling skills, health and cosmetic principles, fashion show management, display design and production, and applicable aspects of advertising and fashion photography.

Example of included programs
• Fashion modelling

Examples of excluded programs
- Fashion techniques and management [*see* 19.0905 Apparel and Textile Marketing Management]
- Fashion design [*see* 50.0407 Fashion/Apparel Design]
- Fashion marketing [*see* 52.1902 Fashion Merchandising]

52.1904 Apparel and Accessories Marketing Operations

This instructional program class comprises any program that prepares individuals to perform operations connected with the distribution and sale of apparel and accessories. These programs include courses in wholesaling and retailing; apparel technologies; distribution; customer sales and service skills; and principles of consumer research and sales forecasting.

Example of included programs
- Fashion retail

Examples of excluded programs
- Apparel marketing management [*see* 19.0905 Apparel and Textile Marketing Management]
- Fashion merchandising [*see* 52.1902 Fashion Merchandising]

52.1905 Tourism and Travel Services Marketing Operations

This instructional program class comprises any program that prepares individuals to provide direct retail services to hotel and motel clients and customers in a variety of settings. These programs include courses in the principles of hotel/motel operations, customer sales and assistance operations and techniques, telephone operations, and basic office management.

Examples of included programs
- Global tourism and marketing—tourism option
- Tourism and travel
- Tourism marketing
- Tourism marketing and operations
- Tourism marketing management
- Travel agent
- Travel consultant
- Travel counsellor
- Travel marketing
- Travel merchandising

Examples of excluded programs
- Travel and exploration [*see* 36.0109 Travel and Exploration]
- Hospitality and tourism management [*see* 52.0901 Hospitality Administration/Management, General]
- Tourism and travel management [*see* 52.0903 Tourism and Travel Services Management]
- Marketing [*see* 52.1401 Marketing/Marketing Management, General]
- Tourism development [*see* 52.1906 Tourism Promotion Operations]
- Hospitality marketing [*see* 52.1910 Hospitality and Recreation Marketing Operations]

52.1906 Tourism Promotion Operations

This instructional program class comprises any program that prepares individuals to perform marketing and sales operations connected with the promotion of tourism in public and private sector settings. These programs include courses in principles of marketing research and advertising, promotional campaign organization, media relations, and applicable technical and administrative skills.

Examples of included programs
- Development and promotion of travel products
- Tourism development
- Tourist product development

Examples of excluded programs
- Travel and exploration [*see* 36.0109 Travel and Exploration]
- Hospitality and tourism management [*see* 52.0901 Hospitality Administration/Management, General]
- Tourism and travel management [*see* 52.0903 Tourism and Travel Services Management]
- Tourism marketing [*see* 52.1905 Tourism and Travel Services Marketing Operations]
- Hospitality marketing [*see* 52.1910 Hospitality and Recreation Marketing Operations]

52.1907 Vehicle and Vehicle Parts and Accessories Marketing Operations

This instructional program class comprises any program that prepares individuals to perform operations connected with the distribution and sale of replacement parts and other end-use supplies in the automotive, marine, and aviation industries. These programs include courses in wholesaling and retailing; principles of vehicular technologies; storage and distribution; customer sales and service skills; and principles of consumer research and sales forecasting.

Examples of included programs
- Auto parts sales
- Automotive marketing
- Automotive sales
- Car sales

Examples of excluded programs
- Automotive parts and light warehousing [*see* 47.0409 Parts and Warehousing Operations and Maintenance Technology/Technician]
- Parts management [*see* 52.0409 Parts, Warehousing and Inventory Management Operations]
- Retail operations [*see* 52.1803 Retailing and Retail Operations]

52.1908 Business and Personal/Financial Services Marketing Operations

This instructional program class comprises any program that prepares individuals to perform marketing and operational tasks associated with the provision of personal and financial services. These programs include courses in banking, marketing research, advertising, promotional campaign organization, insurance, media relations, and applicable technical and administrative skills.

Example of included programs
- Financial services marketing

Examples of excluded programs
- Banking and financial services [*see* 52.0803 Banking and Financial Support Services]
- Financial services management [*see* 52.0804 Financial Planning and Services]
- Marketing [*see* 52.1401 Marketing/Marketing Management, General]

52.1909 Special Products Marketing Operations

This instructional program class comprises any program that prepares individuals to perform marketing and sales operations connected with the promotion of special products, including floristry, food, and home and office products. These programs include courses in principles of marketing research and advertising, promotional campaign organization, media relations, and applicable technical and administrative skills.

Examples of included programs
- Database marketing
- Media marketing and sales

Examples of excluded programs
- Agricultural supplies retailing and wholesaling [*see* 01.0105 Agricultural/Farm Supplies Retailing and Wholesaling]
- Floristry [*see* 01.0608 Floriculture/Floristry Operations and Management]
- Advertising [*see* 09.0903 Advertising]
- Marketing [*see* 52.1401 Marketing/Marketing Management, General]

52.1910 Hospitality and Recreation Marketing Operations

This instructional program class comprises any program that prepares individuals to provide marketing services in the hospitality and leisure fields. These programs include courses in hospitality operations, customer sales and assistance operations and techniques, telephone operations, basic office management, retail sports, recreation equipment, food and beverage.

Examples of included programs
- Hospitality marketing
- Sport and event marketing
- Sports marketing

Examples of excluded programs
- Recreation and sports administration [*see* 31.0504 Sport and Fitness Administration/Management]
- Hospitality administration [*see* 52.0901 Hospitality Administration/Management, General]
- Events and convention management [*see* 52.0903 Tourism and Travel Services Management]
- Tourism marketing and operations [*see* 52.1905 Tourism and Travel Services Marketing Operations]

52.1999 Specialized Sales, Merchandising and Marketing Operations, Other

This instructional program class comprises any program not listed above that relates to Specialized Sales, Merchandising and Marketing Operations.

52.20 Construction Management

This subseries comprises instructional program class 52.2001.

52.2001 Construction Management

This instructional program class comprises any program that prepares individuals to manage, coordinate, and supervise the construction process from concept development through project completion on timely and economic bases. These programs include courses in commercial, residential, mechanical, highway/heavy civil, electrical, environmental, industrial, and specialty construction; facilities management; project planning; budgeting and cost control; logistics and materials management; personnel management and labour relations; site safety; construction contracting; construction processes and techniques; organization and scheduling; and applicable codes and regulations.

Examples of included programs
- Construction management
- Construction project management
- General construction estimating

Examples of excluded programs
- Construction engineering [*see* 14.3301 Construction Engineering]
- Site management [*see* 46.0412 Building/Construction Site Management/Manager]

52.99 Business, Management, Marketing and Related Support Services, Other

This subseries comprises instructional program class 52.9999.

52.9999 Business, Management, Marketing and Related Support Services, Other

This instructional program class comprises any program not listed above that relates to Business, Management, Marketing and Related Support Services.

Examples of excluded programs
- Real property development [*see* 52.1501 Real Estate]
- Construction management [*see* 52.2001 Construction Management]

53. High School/Secondary Diploma and Certificate Programs. This series is found in chapter VI.

54. History

This series comprises instructional programs that focus on the study and interpretation of past events, institutions, issues, and cultures.

54.01 History

This subseries comprises instructional program classes 54.0101 to 54.0199.

54.0101 History, General

This instructional program class comprises any program that focuses on the general study and interpretation of the past, including the gathering, recording, synthesizing and criticizing of evidence and theories about past events. These programs include courses in historiography; historical research methods; studies of specific periods, issues and cultures; and applications to areas such as historic preservation, public policy, and records administration.

Examples of included programs
- General history
- Historical research
- Historical studies
- History
- Modern history

Examples of excluded programs
- History and theory of architecture [*see* 04.0801 Architectural History and Criticism]
- History teacher [*see* 13.1328 History Teacher Education]
- Historic preservation and conservation [*see* 30.1201 Historic Preservation and Conservation, General]
- Medieval studies [*see* 30.1301 Medieval and Renaissance Studies]
- Ancient studies [*see* 30.2201 Ancient Studies/Civilization]
- Theatre history [*see* 50.0505 Theatre Literature, History and Criticism]
- Art history [*see* 50.0703 Art History, Criticism and Conservation]
- Music history [*see* 50.0902 Music History, Literature and Theory]

54.0102 American History (United States)

This instructional program class comprises any program that focuses on the development of American society, culture, and institutions from the pre-Columbian period to the present. These programs include courses in American historiography, American history sources and materials, historical research methods, and applications to the study of specific themes, issues, periods, and institutions.

Examples of included programs
- American history
- U.S. history

Example of excluded programs
- American studies [*see* 05.0102 American/United States Studies/Civilization]

54.0103 European History

This instructional program class comprises any program that focuses on the development of European society, culture, and institutions from their origins to the present. These programs include courses in European historiography, European history sources and materials, historical research methods, and applications to the study of specific themes, issues, periods, and institutions.

Examples of included programs
- British history
- European cultural history
- European history
- European social history
- French history
- German history
- Irish history
- Russian history

Examples of excluded programs
- East European studies [*see* 05.0105 Central/Middle and Eastern European Studies]
- European studies [*see* 05.0106 European Studies/Civilization]
- West European studies [*see* 05.0114 Western European Studies]

54.0104 History and Philosophy of Science and Technology

This instructional program class comprises any program that focuses on the historical evolution of scientific theories and science applications and technologies, as well as the philosophy of science and its historical socio-economic context. These programs include courses in the concepts and methods of philosophical inquiry, historiography of science, and research methods in the history of the scientific and engineering disciplines, including mathematics.

Examples of included programs
- History and philosophy of science
- History of science
- Philosophy of science and technology

Examples of excluded programs
- Science, technology and society [*see* 30.1501 Science, Technology and Society]
- Metaphysics [*see* 38.0199 Philosophy, Logic and Ethics, Other]
- Philosophy of science [*see* 38.0199 Philosophy, Logic and Ethics, Other]

54.0105 Public/Applied History and Archival Administration

This instructional program class comprises any program that focuses on the application of history and administrative skills to the recording of public events and the management of related historical resources. These programs include courses in historical research methods, archives and records management, the planning and administration of public records services and history projects, and applications to specific problems in public organizations, government agencies, foundations, and records facilities.

Examples of included programs
- Applied history
- Archival administration
- Archival studies
- Archival technician
- Public history
- Records management

Examples of excluded programs
- Library and information studies [*see* 25.0101 Library Science/Librarianship]
- Health records administration [*see* 51.0706 Health Information/Medical Records Administration/Administrator]
- Health record technology [*see* 51.0707 Health Information/Medical Records Technology/Technician]

54.0106 Asian History

This instructional program class comprises any program that focuses on the development of the societies, cultures, and institutions of the Asian Continent from their origins to the present. These programs include courses in the historiography of specific cultures and periods; sources and materials; historical research methods; and applications to the study of specific themes, issues, periods, and institutions.

Examples of included programs
- Asian history
- Chinese history
- Korean history

Examples of excluded programs
- Asian studies [*see* 05.0103 Asian Studies/Civilization]
- Ancient studies [*see* 30.2201 Ancient Studies/Civilization]

54.0107 Canadian History

This instructional program class comprises any program that focuses on the study of the society, culture, and institutions of Canada from its origins to the present. These programs include courses in Canadian historiography, sources and materials, historical research methods, and applications to the study of specific themes, issues, periods, and institutions.

Examples of included programs
- Canadian history
- History of Quebec and Canada
- Inuit history

Example of excluded programs
- Canadian studies [*see* 05.0115 Canadian Studies]

54.0199 History, Other

This instructional program class comprises any program not listed above that relates to History.

Examples of included programs
- Ancient history
- International history
- Medieval history
- Middle East history
- Political history
- Women's history
- World history

Examples of excluded programs
- History of education [*see* 13.0901 Social and Philosophical Foundations of Education]
- Military history [*see* 29.0101 Military Technologies]
- History of religion [*see* 38.0299 Religion/Religious Studies, Other]
- Archeology [*see* 45.0301 Archeology]
- Music history [*see* 50.0902 Music History, Literature and Theory]

55. French Language and Literature/Letters^{CAN}

This series comprises instructional programs that focus on the structure and use of the French language and dialects, speech, writing, and various aspects of the literatures and cultures of the French-speaking peoples.

55.01 French Language and Literature, General^{CAN}

This subseries comprises instructional program class 55.0101.

55.0101 French Language and Literature, General^{CAN}

This instructional program class comprises any general program that focuses on the French language, including its history, structure and related communications skills; and the literature and culture of French-speaking peoples.

Examples of included programs
- French
- French language
- French language and literature

Examples of excluded programs
- French studies [*see* 05.0124 French Studies]
- French teacher [*see* 13.1325 French Language/French Language Arts Teacher Education]
- French linguistics [*see* 16.0102 Linguistics]
- French as a second language [*see* 16.1702 French as a Second Language]
- Second language learning (not for credit) [*see* 32.0109 Second Language Learning (not for credit)]
- Dramatic literature [*see* 50.0505 Theatre Literature, History and Criticism]
- French Canadian literature [*see* 55.0501 French Canadian Literature]

55.03 French Composition^{CAN}

This subseries comprises instructional program class 55.0301.

55.0301 French Composition^{CAN}

This instructional program class comprises any program that focuses on the principles of French vocabulary, grammar, morphology, syntax and semantics; and techniques of selecting, developing, arranging, combining and expressing ideas in appropriate written forms.

Example of included programs
- French composition

Examples of excluded programs
- Journalism [*see* 09.0401 Journalism, General]
- Creative non-fiction [*see* 23.0501 English Creative Writing]
- Technical and professional writing [*see* 23.1101 English Technical and Business Writing]
- Writing [*see* 36.0118 Writing]
- French creative writing [*see* 55.0401 French Creative Writing]
- French technical and business writing [*see* 55.0801 French Technical and Business Writing]

55.04 French Creative Writing^{CAN}

This subseries comprises instructional program class 55.0401.

55.0401 French Creative Writing^{CAN}

This instructional program class comprises any program that focuses on the process and techniques of original composition in various literary forms such as the short story, poetry, the novel, and others. These programs include courses in technical and editorial skills, criticism, and the marketing of finished manuscripts.

Example of included programs
- French creative writing

Examples of excluded programs
- Journalism [*see* 09.0401 Journalism, General]
- English composition [*see* 23.0401 English Composition]
- Creative writing [*see* 23.0501 English Creative Writing]
- Writing [*see* 36.0118 Writing]
- Scriptwriting [*see* 50.0504 Playwriting and Screenwriting]
- French composition [*see* 55.0301 French Composition]

55.05 French Canadian Literature^{CAN}

This subseries comprises instructional program class 55.0501.

55.0501 French Canadian Literature^{CAN}

This instructional program class comprises any study program that describes the study of the literature and of the formal and traditional literary development of French Canadians, from the colonial period to the present day. These programs include courses for the study of specific periods or styles, authors, literary criticism and regional traditions or oral language.

Example of included programs
- French Canadian literature

Examples of excluded programs
- Canadian literature [*see* 23.0702 English Canadian Literature]
- French language and literature [*see* 55.0101 French Language and Literature, General]
- Literature of France [*see* 55.0601 French Literature (France and the French Community)]

55.06 French Literature (France and the French Community)^{CAN}

This subseries comprises instructional program class 55.0601.

55.0601 French Literature (France and the French Community)^{CAN}

This instructional program class comprises any study program that describes the study of the literature and the formal and traditional literary development of France and other nations of the French-speaking Community, from the origins of the language to the present day. These programs include courses for the study of specific periods or styles, authors, literary criticism and regional traditions and dialects or oral language.

Example of included programs
- Literature of France

Examples of excluded programs
- Comparative literature [*see* 16.0104 Comparative Literature]
- English language and literature [*see* 23.0101 English Language and Literature, General]
- Canadian literature [*see* 23.0702 English Canadian Literature]
- French language and literature [*see* 55.0101 French Language and Literature, General]
- French Canadian literature [*see* 55.0501 French Canadian Literature]

55.07 French Speech and Rhetorical Studies^{CAN}

This subseries comprises instructional program class 55.0701.

55.0701 French Speech and Rhetorical Studies^{CAN}

This instructional program class comprises any program that focuses on human interpersonal communication from the scientific/behavioural and humanistic perspectives. These programs include courses in the theory and physiology of speech, the history of discourse, the structure and analysis of argument and types of public speech, the social role of speech, oral interpretation of literature, interpersonal interactions, and the relation of speech to non-verbal and other forms of message exchanges.

Example of included programs
- French speech and rhetoric studies

Examples of excluded programs
- Speech communication [*see* 09.0101 Communication Studies/Speech Communication and Rhetoric]
- Speech and rhetorical studies [*see* 23.1001 English Speech and Rhetorical Studies]
- Speech pathology [*see* 51.0203 Speech-language Pathology/Pathologist]
- Speech therapy and audiology [*see* 51.0204 Audiology/Audiologist and Speech-language Pathology/Pathologist]

55.08 French Technical and Business Writing[CAN]

This subseries comprises instructional program class 55.0801.

55.0801 French Technical and Business Writing[CAN]

This instructional program class comprises any program that focuses on the theory, methods, and skills needed for writing and editing scientific, technical and business papers and monographs.

Examples of included programs
- French business writing
- French technical and business writing
- French technical writing

Examples of excluded programs
- Technical and professional writing [*see* 23.1101 English Technical and Business Writing]
- Business communications [*see* 52.0501 Business/Corporate Communications]
- French composition [*see* 55.0301 French Composition]
- French creative writing [*see* 55.0401 French Creative Writing]

55.99 French Language and Literature/Letters, Other[CAN]

This subseries comprises instructional program class 55.9999.

55.9999 French Language and Literature/Letters, Other[CAN]

This instructional program class comprises any program not listed above that relates to French Language and Literature/Letters.

Chapter II: Dental, Medical and Veterinary Residency Programs

This chapter comprises residency programs in various dental, medical and veterinary specializations, offered in teaching hospitals and similar locations, that may lead to advanced professional certification.

60. Dental, Medical and Veterinary Residency Programs

This series comprises residency programs in various dental, medical, and veterinary specializations offered in teaching hospitals and similar locations, that may lead to advanced professional certification. Residency programs that also result in an academic degree completion, such as an MSc or a PhD, should be reported in series 26. Biological and Biomedical Sciences or in series 51. Health Professions and Related Clinical Sciences.

60.01 Dental Residency Programs

This subseries comprises instructional program classes 60.0101 to 60.0199.

60.0101 Dental/Oral Surgery Specialty Residency Programs

This instructional program class comprises any residency training program that prepares dentists and medical surgeons in advanced clinical training and practice in the surgery of the oral cavity and jaws,

including the removal of cancerous and other diseased tissue, removal of teeth, and reconstruction of the jaw and related facial structure.

Example of included programs
- Dental/oral surgery specialty—residency

Examples of excluded programs
- Dentist [*see* 51.0401 Dentistry (DDS, DMD)]
- Advanced education in general dentistry program (AEGD) [*see* 51.0502 Advanced General Dentistry (Cert., MSc, PhD)]
- Oral surgery (MSc, PhD) [*see* 51.0507 Oral/Maxillofacial Surgery (Cert., MSc, PhD)]

60.0102 Dental Public Health Specialty Residency Programs

This instructional program class comprises any residency training program that prepares dentists in the formulation and delivery of public preventive and curative dental health services.

Example of included programs
- Dental public health specialty—residency

Example of excluded programs
- Dental public health and education [*see* 51.0504 Dental Public Health and Education (Cert., MSc, MPH, PhD, DPH)]

60.0103 Endodontics Specialty Residency Programs

This instructional program class comprises any residency training program that prepares dentists in the etiology, diagnosis, prevention, and treatment of conditions that affect the dental and other periodontal tissues, including pulp canal therapy and root canal therapy.

Example of included programs
- Endodontics specialty—residency

Example of excluded programs
- Endodontics (MSc, PhD) [*see* 51.0506 Endodontics/Endodontology (Cert., MSc, PhD)]

60.0104 Oral Pathology Specialty Residency Programs

This instructional program class comprises any residency training program that prepares dentists in the functional and structural changes that affect the oral cavity, including diagnosis of diseases, abnormalities and tumours.

Example of included programs
- Oral pathology specialty—residency

60.0105 Orthodontics Specialty Residency Programs

This instructional program class comprises any residency training program that prepares dentists in the principles and techniques involved in the prevention and correction of dental malocclusions and oral cavity anomalies.

Example of included programs
- Orthodontics specialty—residency

Example of excluded programs
- Orthodontics (MSc, PhD) [*see* 51.0508 Orthodontics/Orthodontology (Cert., MSc, PhD)]

60.0106 Pedodontics Specialty Residency Programs

This instructional program class comprises any residency training program that prepares dentists in the principles and techniques of diagnosing and treating the dental and other oral cavity conditions of children.

Example of included programs
- Pedodontics specialty—residency

Example of excluded programs
- Pedodonctics (MSc, PhD) [*see* 51.0509 Pediatric Dentistry/Pedodontics (Cert., MSc, PhD)]

60.0107 Periodontics Specialty Residency Programs

This instructional program class comprises any residency training program that prepares dentists in the nature and treatment of diseases which affect the mucous membranes, gums and other soft tissues within the oral cavity.

Example of included programs
- Periodontics specialty—residency

Example of excluded programs
- Periodontics (MSc, PhD) [*see* 51.0510 Periodontics/Periodontology (Cert., MSc, PhD)]

60.0108 Prosthodontics Specialty Residency Programs

This instructional program class comprises any residency training program that prepares dentists in the principles and techniques of constructing oral prostheses, and the restoration and maintenance of oral function by the replacement of missing teeth and other oral structures with such artificial devices.

Example of included programs
- Prosthodontics specialty—residency

Example of excluded programs
- Prosthodontics (MSc, PhD) [*see* 51.0511 Prosthodontics/Prosthodontology (Cert., MSc, PhD)]

60.0199 Dental Residency Programs, Other

This instructional program class comprises any program not listed above that relates to Dental Residency Programs.

Example of excluded programs
- Advanced education in general dentistry program (AEGD) [*see* 51.0502 Advanced General Dentistry (Cert., MSc, PhD)]

60.02 Medical Residency Programs

This subseries comprises instructional program classes 60.0201 to 60.0299.

60.0201 Aerospace Medicine Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the health care of operating crews and passengers of air and space vehicles, plus support personnel. These

programs include courses in special conditions of physical and psychological stress, emergency medical procedures, adaptive systems and artificial environments.

Example of included programs
- Aerospace medicine—residency

60.0202 Allergies and Immunology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the delivery of skilled medical care to patients suffering from allergic, asthmatic and immunologic diseases. Requires completion of a prior program in internal medicine or pediatrics.

Example of included programs
- Allergies and immunology—residency

60.0203 Anesthesiology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the application of anesthesia for general and specialized surgery and obstetrics, critical patient care and the care of pain problems. These programs include courses in surgical procedures, current monitoring procedures, fluid therapy, pain management, diagnostic and therapeutic procedures outside the operating room and operating room safety.

Example of included programs
- Anesthesiology—residency

Examples of excluded programs
- Anesthesiologist assistant [*see* 51.0809 Anesthesiologist Assistant]
- Critical care anesthesiology—residency [*see* 60.0210 Critical Care Anesthesiology Residency Programs]

60.0204 Blood Banking Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the medical, technical, research and administrative aspects of operating blood banks. These programs include courses in transfusion and transplantation procedures, logistics and the training and supervision of blood bank technicians.

Example of included programs
- Blood banking—residency

60.0205 Cardiology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the natural history of cardiovascular disorders in adults and the diagnosis and treatment of diseases of the heart and blood vessels. These programs include courses in coronary care, diagnostic testing and evaluation, invasive and non-invasive therapies and pacemaker follow-up. Requires prior completion of a program in internal medicine.

Example of included programs
- Cardiology—residency

Examples of excluded programs
- Cardiovascular science [*see* 26.0907 Cardiovascular Science]
- Pediatric cardiology—residency [*see* 60.0245 Pediatric Cardiology Residency Programs]

60.0206 Chemical Pathology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the use and interpretation of chemical analyses, chemical diagnoses and management, and the supervision of chemical pathology laboratories.   These programs include courses in basic and applied analytical chemical pathology; instrumentation data processing and chemical laboratory management. Requires prior completion of a program in medical pathology.

Example of included programs
- Chemical pathology—residency

60.0207 Child/Pediatric Neurology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the diagnosis and management of neurological disorders of the newborn infant, early childhood and adolescence. Requires training in adult neurology and prior partial completion of a program in pediatrics.

Example of included programs
- Child/pediatric neurology—residency

Example of excluded programs
- Neurology—residency [*see* 60.0234 Neurology Residency Programs]

60.0208 Child Psychiatry Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the diagnosis and treatment of mental, emotional and behavioural disorders of infancy, early childhood and adolescence. Requires completion of the initial segment of a program in psychiatry.

Example of included programs
- Child psychiatry—residency

Example of excluded programs
- Child psychology [*see* 42.0701 Developmental and Child Psychology]

60.0209 Colon and Rectal Surgery Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the surgical care of patients with anorectal and colonic diseases. Also These programs include courses in diagnostic and therapeutic colonoscopy. Requires prior completion of a program in general surgery.

Example of included programs
- Colon and rectal surgery—residency

60.0210 Critical Care Anesthesiology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the administration of anesthesia to patients with acute, chronic or long-term illness and who have multiple organ system derangements. These programs include courses in high-risk and trauma procedures, respiratory therapy and biomedical engineering. Requires prior completion of a program in anesthesiology.

Example of included programs
- Critical care anesthesiology—residency

Examples of excluded programs
- Anesthesiologist assistant [*see* 51.0809 Anesthesiologist Assistant]
- Anesthesiology—residency [*see* 60.0203 Anesthesiology Residency Programs]

60.0211 Critical Care Medicine Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the management of care for patients with acutely life-threatening conditions which may include multiple organ failure. These programs include courses in the management of critical care units, emergency procedures and post-discharge care of former critical care patients. Requires prior completion of a program in internal medicine.

Example of included programs
- Critical care medicine—residency

60.0212 Critical Care Surgery Residency Programs

This instructional program class comprises any residency training program that prepares physicians in surgical procedures for patients with multiple trauma, critical illness, patients on life support and elderly or very young patients with disease complications. Requires full or partial prior completion of a program in general surgery or another surgical specialty.

Example of included programs
- Critical care surgery—residency

Example of excluded programs
- General surgery—residency [*see* 60.0221 General Surgery Residency Programs]

60.0213 Dermatology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the delivery of specialized care to patients with diseases of the skin, hair, nails and mucous membranes. These programs include courses in dermatologic surgical procedures, cutaneous allergies, sexually transmitted diseases, and diagnostic and therapeutic techniques.

Example of included programs
- Dermatology—residency

60.0214 Dermatopathology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the clinical and microscopic diagnosis and analysis of skin diseases and disorders. These programs include courses in laboratory administration and the supervision and training of support personnel. Requires prior completion of a program in dermatology or pathology.

Example of included programs
- Dermatopathology—residency

Example of excluded programs
- Pathology—residency [*see* 60.0244 Pathology Residency Programs]

60.0215 Diagnostic Radiology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the diagnostic use of roentgen, isotopic, ultrasound and other radiant energy imaging techniques. These programs include courses in intervention procedures, safety and imaging science and technology.

Example of included programs
- Diagnostic radiology—residency

60.0216 Emergency Medicine Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the methods, procedures, and techniques of providing and managing immediate health care services. These programs include courses in the initial recognition, stabilization, evaluation and care of the acutely ill or injured patient; patient follow-up and referral; management of prehospital care; training and supervision of emergency medical personnel; emergency department management; medicolegal and ethical issues; and disaster planning.

Example of included programs
- Emergency medicine—residency

Example of excluded programs
- Emergency medical technician paramedic [*see* 51.0904 Emergency Medical Technology/Technician (EMT Paramedic)]

60.0217 Endocrinology and Metabolism Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the diagnosis and treatment of diseases and disorders of the endocrine glands and metabolic system. These programs include courses in the diagnosis and care of diabetes, hypoglycemia, hormone disorders and sexual dysfunction. Requires prior completion of a program in internal medicine.

Example of included programs
- Endocrinology and metabolism—residency

Examples of excluded programs
- Endocrinology [*see* 26.0904 Endocrinology]
- Pediatric endocrinology—residency [*see* 60.0246 Pediatric Endocrinology Residency Programs]

60.0218 Family Medicine Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the provisions of regular and long-term care to individuals and family members. These programs include courses in comprehensive care and specialist referral, basic surgery, emergency medical procedures, and diagnostic imaging and practice management.

Example of included programs
- Family medicine—residency

Example of excluded programs
- General medicine [*see* 51.1201 Medicine (MD)]

60.0219 Forensic Pathology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the performance of medical autopsies, the analysis of human remains and crime scenes, and the legal follow-up and responsibilities of public pathologists. Requires prior completion of a program in pathology.

Example of included programs
- Forensic pathology—residency

Examples of excluded programs
- Forensic science [*see* 43.0106 Forensic Science and Technology]
- Pathology—residency [*see* 60.0244 Pathology Residency Programs]

60.0220 Gastroenterology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the diagnosis and treatment of patients with digestive and other gastrointestinal disorders. These programs include courses in surgical procedures, cancer of the digestive system, nutrition and malnutrition and counselling the behavioural adjustment of patients with chronic problems. Requires prior completion of a program in internal medicine.

Example of included programs
- Gastroenterology—residency

60.0221 General Surgery Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the care and treatment of diseases and disorders via invasive procedures and the etiology, pathogenesis, diagnosis and management of physical disorders. These programs include courses in clinical and operative skills, pre-operative and postoperative care, trauma management and endoscopic techniques.

Example of included programs
- General surgery—residency

Examples of excluded programs
- Critical care surgery—residency [*see* 60.0212 Critical Care Surgery Residency Programs]
- Hand surgery—residency [*see* 60.0223 Hand Surgery Residency Programs]
- Neurological surgery/neurosurgery—residency [*see* 60.0233 Neurological Surgery/Neurosurgery Residency Programs]
- Orthopedics/orthopedic surgery—residency [*see* 60.0242 Orthopedics/Orthopedic Surgery Residency Programs]
- Pediatric surgery—residency [*see* 60.0250 Pediatric Surgery Residency Programs]
- Plastic surgery—residency [*see* 60.0253 Plastic Surgery Residency Programs]
- Thoracic surgery—residency [*see* 60.0262 Thoracic Surgery Residency Programs]
- Vascular surgery—residency [*see* 60.0264 Vascular Surgery Residency Programs]

60.0222 Geriatric Medicine Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the care and management of elderly patients in acute, ambulatory, community and long-term care settings, and the treatment of diseases and conditions associated with the aging process. These programs include courses in ethical and legal issues, behavioural aspects of illness, socioeconomic factors in care and rehabilitation therapies. Requires prior completion of a program in family medicine or internal medicine.

Example of included programs
- Geriatric medicine—residency

Examples of excluded programs
- Gerontology [*see* 30.1101 Gerontology]
- Geriatric medicine (internal medicine)—residency [*see* 60.0268 Geriatric Medicine (Internal Medicine) Residency Programs]

60.0223 Hand Surgery Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the investigation, preservation and restoration by medical, surgical or physical methods of all structures of the upper extremity which directly affect the form and function of the limb, wrist and hand. Requires prior completion of a program in orthopedic surgery, plastic surgery or general surgery.

Example of included programs
- Hand surgery—residency

60.0224 Hematology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the mechanisms and therapy of diseases of the blood, including patient management, diagnostic tests, biopsies and other procedures. Requires prior completion of a program in internal medicine.

Example of included programs
- Hematology—residency

Example of excluded programs
- Hematology technology/technician [*see* 51.1003 Hematology Technology/Technician]

60.0225 Hematological Pathology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the laboratory and analytical procedures for studying all facets of hematologic and coagulation disorders. These programs include courses in the management of hematology laboratories. Requires prior completion of a program in pathology.

Example of included programs
- Hematological pathology—residency

Examples of excluded programs
- Hematology technology/technician [*see* 51.1003 Hematology Technology/Technician]
- Pathology—residency [*see* 60.0244 Pathology Residency Programs]

60.0226 Immunopathology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the diagnosis, treatment and laboratory management of immunologic diseases. These programs include courses in diagnostic surgical pathology, management of organ transplantation and immunotherapy. Requires prior completion of a program in pathology.

Example of included programs
- Immunopathology—residency

Example of excluded programs
- Immunology [*see* 26.0507 Immunology]

60.0227 Infectious Disease Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the natural history, prevention and treatment of major infectious diseases, including sexually transmitted diseases, and the long-term management of patients. These programs include courses in epidemiology, identification and specimen collection techniques, and quality assurance and cost containment. Requires prior completion of a program in internal medicine.

Example of included programs
- Infectious disease—residency

60.0228 Internal Medicine Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the provision of general medical services to adult patients with a wide range of non-surgical clinical problems. These programs include courses in behavioural aspects of diseases, patient and family counselling and practice management.

Example of included programs
- Internal medicine—residency

Example of excluded programs
- General medicine [*see* 51.1201 Medicine (MD)]

60.0229 Laboratory Medicine Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the principles and practices of applied medical research and related techniques, equipment, data systems and research design. These programs include courses in the management of medical laboratories in research and health care facilities.

Example of included programs
- Laboratory medicine—residency

Examples of excluded programs
- Clinical/medical laboratory technician [*see* 51.1004 Clinical/Medical Laboratory Technician]
- Clinical laboratory science/medical technology/technologist [*see* 51.1005 Clinical Laboratory Science/Medical Technology/Technologist]

60.0230 Musculoskeletal Oncology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the diagnosis and treatment of musculoskeletal neoplasm, and the application of cancer therapy regimes.

Example of included programs
- Musculoskeletal oncology—residency

Example of excluded programs
- Oncology—residency [*see* 60.0240 Oncology Residency Programs]

60.0231 Neonatal-Perinatal Medicine Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the physiology of the normal neonate, the pathophysiology of the sick infant and the diagnosis and management of problems of the newborn infant. Requires prior completion of a program in pediatrics and obstetrics.

Example of included programs
- Neonatal-perinatal medicine—residency

60.0232 Nephrology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the pathogenesis, natural history and management of congenital and acquired diseases of the kidney and urinary tract and renal diseases associated with systemic disorders. These programs include courses in organ transplantation and dialysis therapy. Requires prior completion of a program in internal medicine.

Example of included programs
- Nephrology—residency

Example of excluded programs
- Pediatric nephrology—residency [*see* 60.0248 Pediatric Nephrology Residency Programs]

60.0233 Neurological Surgery/Neurosurgery Residency Programs

This instructional program class comprises any residency training program that prepare physicians in the diagnosis, evaluation and treatment of disorders of the central, peripheral and autonomic nervous systems, including their supporting systems and vascular supply; and the evaluation and treatment of pathological processes which modify function or activity of the nervous system, including the hypophysis. These programs include courses in critical care management and rehabilitation. Requires prior partial completion of a program in general surgery and another surgical specialty.

Example of included programs
- Neurological surgery/neurosurgery—residency

60.0234 Neurology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the diagnosis and non-surgical treatment of diseases and abnormalities affecting the nervous system and nerve tissue in adults. Requires prior partial completion of a program in internal medicine.

Example of included programs
- Neurology—residency

Example of excluded programs
- Child/pediatric neurology—residency [*see* 60.0207 Child/Pediatric Neurology Residency Programs]

60.0235 Neuropathology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the laboratory analysis of nerve tissues and the clinical diagnosis of neurological and neuromuscular diseases. These programs include courses in nerve biopsies and necropsies. Requires prior completion of a program in pathology.

Example of included programs
- Neuropathology—residency

Example of excluded programs
- Pathology—residency [*see* 60.0244 Pathology Residency Programs]

60.0236 Nuclear Medicine Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the diagnostic, therapeutic and investigational use of radionuclides. These programs include courses in imaging and non-imaging technologies and the design and development instrumentation, procedures and pharmaceutical. Requires prior partial completion of a program in radiology, pathology or internal medicine.

Example of included programs
- Nuclear medicine—residency

Example of excluded programs
- Nuclear medicine technology [*see* 51.0905 Nuclear Medical Technology/Technologist]

60.0237 Nuclear Radiology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the imaging by external detection of radionuclides and/or biodistribution by external detection of radionuclides for diagnosis of disease. Requires prior partial completion of a program in diagnostic radiology.

Example of included programs
- Nuclear radiology—residency

Example of excluded programs
- Nuclear medicine technology [*see* 51.0905 Nuclear Medical Technology/Technologist]

60.0238 Obstetrics and Gynecology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the diagnosis, prevention and treatment of diseases of women, especially those affecting the reproductive system, and the comprehensive care and treatment of women before, during and after childbirth.

Example of included programs
- Obstetrics and gynecology—residency

60.0239 Occupational Medicine Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the maintenance of the health of workers, the ability to perform work, the arrangements of work, and the physical and chemical environments of the workplace. These programs include courses in data collection and management and the administration and regulation of occupational medical services.

Example of included programs
- Occupational medicine—residency

60.0240 Oncology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the etiology, epidemiology, diagnosis, treatment and therapeutic management of cancers and related clinical neoplastic diseases. These programs include courses in rehabilitation, supportive care and the administration of tumour boards. Requires prior completion of a program in internal medicine.

Example of included programs
- Oncology—residency

Examples of excluded programs
- Oncology [*see* 26.0911 Oncology and Cancer Biology]
- Musculoskeletal oncology—residency [*see* 60.0230 Musculoskeletal Oncology Residency Programs]
- Pediatric hemato-oncology—residency [*see* 60.0247 Pediatric Hemato-Oncology Residency Programs]
- Radiation oncology—residency [*see* 60.0258 Radiation Oncology Residency Programs]

60.0241 Ophthalmology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the diagnosis, prevention treatment of ophthalmic diseases and disorders, and ocular pathology procedures. These programs include courses in eye surgery.

Example of included programs
- Ophthalmology—residency

Examples of excluded programs
- Optometry [*see* 51.1701 Optometry (OD)]
- Ophthalmic dispensing [*see* 51.1801 Opticianry/Ophthalmic Dispensing Optician]

60.0242 Orthopedics/Orthopedic Surgery Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the investigation, preservation, and restoration of the form and function of the extremities, spine and associated structures by medical, surgical and physical methods. Requires prior partial completion of a program in general surgery, internal medicine or pediatrics.

Example of included programs
- Orthopedics/orthopedic surgery—residency

Example of excluded programs
- Pediatric orthopedics—residency [*see* 60.0249 Pediatric Orthopedics Residency Programs]

60.0243 Otolaryngology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the recognition and medical management of diseases, congenital anomalies, disorders and traumas of the head and neck, the air and food passages, and the organs of hearing and speech. These programs include courses in regional surgery. Requires prior partial completion of a program in general surgery.

Example of included programs
- Otolaryngology—residency

60.0244 Pathology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the clinical laboratory analysis and diagnosis of disease and anatomic abnormalities. These programs include courses in performing general autopsies, forensic medicine, laboratory management and quality control.

Example of included programs
- Pathology—residency

Examples of excluded programs
- Pathology [*see* 26.0910 Pathology/Experimental Pathology]
- Pathology technician [*see* 51.0811 Pathology/Pathologist Assistant]
- Dermatopathology—residency [*see* 60.0214 Dermatopathology Residency Programs]
- Forensic pathology—residency [*see* 60.0219 Forensic Pathology Residency Programs]
- Hematological pathology—residency [*see* 60.0225 Hematological Pathology Residency Programs]
- Neuropathology—residency [*see* 60.0235 Neuropathology Residency Programs]
- Radioisotopic pathology—residency [*see* 60.0259 Radioisotopic Pathology Residency Programs]

60.0245 Pediatric Cardiology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the diagnosis and management of diseases and disorders of the cardiovascular and cardiopulmonary systems of infants, children and adolescents. These programs include courses in related public health and community medicine issues. Requires prior completion of a program in pediatrics.

Example of included programs
- Pediatric cardiology—residency

Examples of excluded programs
- Cardiology—residency [*see* 60.0205 Cardiology Residency Programs]
- Pediatrics—residency [*see* 60.0251 Pediatrics Residency Programs]

60.0246 Pediatric Endocrinology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the diagnosis and management of endocrine diseases and the regulation of hormone balance in childhood and adolescence. Requires prior completion of a program in pediatrics.

Example of included programs
- Pediatric endocrinology—residency

Examples of excluded programs
- Endocrinology [*see* 26.0904 Endocrinology]
- Endocrinology and metabolism—residency [*see* 60.0217 Endocrinology and Metabolism Residency Programs]
- Pediatrics—residency [*see* 60.0251 Pediatrics Residency Programs]

60.0247 Pediatric Hemato-Oncology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the diagnosis and management of hematologic disorders and malignant diseases, including blood and bone marrow function, in infancy, childhood and adolescence. Requires prior completion of a program in pediatrics.

Example of included programs
- Pediatric hemato-oncology—residency

Examples of excluded programs
- Oncology—residency [*see* 60.0240 Oncology Residency Programs]
- Pediatrics—residency [*see* 60.0251 Pediatrics Residency Programs]

60.0248 Pediatric Nephrology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the diagnosis and management of infants, children and adolescents with renal and genito-urinary problems, hypertension and disorders of body fluid physiology. Requires prior completion of a program in pediatrics.

Example of included programs
- Pediatric nephrology—residency

Examples of excluded programs
- Nephrology—residency [*see* 60.0232 Nephrology Residency Programs]
- Pediatrics—residency [*see* 60.0251 Pediatrics Residency Programs]

60.0249 Pediatric Orthopedics Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the diagnosis, surgical and non-surgical treatment, and management of musculoskeletal diseases, abnormalities and trauma in infants, children and adolescents. Requires prior completion of a program in orthopedic surgery.

Example of included programs
- Pediatric orthopedics—residency

Examples of excluded programs
- Orthopedics/orthopedic surgery—residency [*see* 60.0242 Orthopedics/Orthopedic Surgery Residency Programs]
- Pediatrics—residency [*see* 60.0251 Pediatrics Residency Programs]

60.0250 Pediatric Surgery Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the diagnosis, evaluation and surgical treatment of diseases, disorders and trauma in infants and children. Requires prior completion of a program in general surgery.

Example of included programs
- Pediatric surgery—residency

Examples of excluded programs
- General surgery—residency [*see* 60.0221 General Surgery Residency Programs]
- Pediatrics—residency [*see* 60.0251 Pediatrics Residency Programs]

60.0251 Pediatrics Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the comprehensive care and treatment of all aspects of human growth and development from conception through fetal life, infancy, childhood and adolescence, including preventive and therapeutic regimes. These programs include courses in behavioural aspects of illness, related family and community medicine issues, and emergency and critical care procedures.

Example of included programs
- Pediatrics—residency

Examples of excluded programs
- Pediatric nursing [*see* 51.1609 Pediatric Nurse/Nursing]
- Podiatric medicine [*see* 51.2101 Podiatric Medicine/Podiatry (DPM)]
- Pediatric cardiology—residency [*see* 60.0245 Pediatric Cardiology Residency Programs]
- Pediatric endocrinology—residency [*see* 60.0246 Pediatric Endocrinology Residency Programs]
- Pediatric hemato-oncology—residency [*see* 60.0247 Pediatric Hemato-Oncology Residency Programs]
- Pediatric nephrology—residency [*see* 60.0248 Pediatric Nephrology Residency Programs]
- Pediatric orthopedics—residency [*see* 60.0249 Pediatric Orthopedics Residency Programs]
- Pediatric surgery—residency [*see* 60.0250 Pediatric Surgery Residency Programs]

60.0252 Physical and Rehabilitation Medicine Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the diagnosis, etiology, treatment, prevention and rehabilitation of neuromusculo-skeletal, cardiovascular, pulmonary and other system disorders common to patients of both sexes and all ages. These programs include courses in physical examinations, design and prescription of rehabilitation strategies and the supervision of rehabilitation teams.

Example of included programs
- Physical and rehabilitation medicine—residency

Example of excluded programs
- Physical therapy [*see* 51.2308 Physical Therapy/Therapist]

60.0253 Plastic Surgery Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the repair, replacement and reconstruction of defects of form and function of the integument and its underlying musculoskeletal system, with emphasis on the craniofacial structures, the oropharynx, the hand, the breast and the external genitalia. These programs include courses in aesthetic as well as reconstructive surgery. Requires prior completion of a program in general surgery.

Example of included programs
- Plastic surgery—residency

60.0254 Preventive Medicine Residency Programs

This instructional program class comprises any residency training program that prepares individuals to manage the study and prevention of disease processes occurring in communities and defined population groups and the promotion of health-enhancing environments and behaviours. These programs include courses in biostatistics; epidemiology; health program planning; evaluation of behavioural outcomes and medical care; recognition, assessment, and control of environmental hazards, occupational health and safety; socio-cultural behavioural factors in medicine; prevention application, and assessment of population and individual health needs.

Example of included programs
- Preventive medicine—residency

60.0255 Psychiatry Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the diagnosis, treatment, and prevention of mental, emotional, behavioural and neurological disorders. These programs include courses in psychotherapy, family counselling, referral, clinical diagnosis, and practice management. Requires prior partial completion of a program in neurology and internal medicine, family medicine or pediatrics.

Example of included programs
- Psychiatry—residency

Examples of excluded programs
- Mental health care [*see* 51.1502 Psychiatric/Mental Health Services Technician]
- Psychotherapy [*see* 51.1507 Psychoanalysis and Psychotherapy]
- Psychiatric nursing [*see* 51.1610 Psychiatric/Mental Health Nurse/Nursing]

60.0256 Public Health Medicine Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the prevention, control and treatment of communicable and chronic diseases in communities and defined population groups, with emphasis on the administrative management of health care, sanitation and applied research services.

Example of included programs
- Public health medicine—residency

Examples of excluded programs
- Epidemiology [*see* 26.1309 Epidemiology]
- Public health nursing [*see* 51.1611 Public Health/Community Nurse/Nursing]
- Public health (MPH, DPH) [*see* 51.2201 Public Health, General (MPH, DPH)]

60.0257 Pulmonary Disease Residency Programs

This instructional program class comprises any residency training program that prepares physicians in pulmonary physiology and the treatment of lung diseases, pulmonary malignancies, related vascular diseases, respiratory disorders, diagnostic and therapeutic procedures, and pulmonary pathology. Requires prior completion of a program in internal medicine.

Example of included programs
- Pulmonary disease—residency

60.0258 Radiation Oncology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the use of ionizing radiation to treat patients with cancer and other diseases. These programs include courses in treatment planning, instrument design and operation, radiation physics and radiobiology.

Example of included programs
- Radiation oncology—residency

Examples of excluded programs
- Diagnostic radiology—residency [*see* 60.0215 Diagnostic Radiology Residency Programs]
- Oncology—residency [*see* 60.0240 Oncology Residency Programs]

60.0259 Radioisotopic Pathology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the use of radionuclides in the study of body fluids, excreta, or tissues quantified outside the body. These programs include courses in laboratory management and safety, quality control, instrumentation, isotope storage and in vitro analyses. Require prior completion of a program in pathology.

Example of included programs
- Radioisotopic pathology—residency

Examples of excluded programs
- Diagnostic radiology—residency [*see* 60.0215 Diagnostic Radiology Residency Programs]
- Pathology—residency [*see* 60.0244 Pathology Residency Programs]

60.0260 Rheumatology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the diagnosis and treatment of patients with acute and chronic rheumatic diseases, diffuse connective tissue diseases, systemic and metabolic diseases and infections and complications following surgery. Requires prior completion of a program in internal medicine.

Example of included programs
- Rheumatology—residency

60.0261 Sports Medicine Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the pathology and biomechanics of athletic injuries and the effects of injury on the athlete, including both physical and psychological manifestations. These programs include courses in acute and chronic patient supervision, therapy and rehabilitation, and diagnostic procedures. Requires prior completion of a program in orthopedic surgery.

Example of included programs
- Sports medicine—residency

Example of excluded programs
- Exercise and sports science [*see* 31.0501 Health and Physical Education, General]

60.0262 Thoracic Surgery Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the evaluation and surgical treatment of pulmonary, esophageal, mediastinal, chest wall, diaphragmatic and cardiovascular disorders. These programs include courses in bronchoscopy and esophagoscope. Requires prior completion of a program in general surgery.

Example of included programs
- Thoracic surgery—residency

60.0263 Urology Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the diagnosis and treatment of diseases of the genitourinary tract in men and women. These programs include courses in renal transplantation, renal-vascular disease, oncology, infertility and endocrinology, stone disease and aerodynamics. Requires prior partial completion of a program in general surgery.

Example of included programs
- Urology—residency

60.0264 Vascular Surgery Residency Programs

This instructional program class comprises any residency training program that prepares physicians in the surgical treatment of diseases and disorders of the arterial, venous and lymphatic circulatory systems and of the heart and thoracic aorta. Requires prior completion of all or a portion of a program in general surgery.

Example of included programs
- Vascular surgery—residency

60.0265 Adult Reconstructive Orthopedics (Orthopedic Surgery) Residency Programs

This instructional program class comprises any residency training program that prepares individuals to undertake the study, prevention, and reconstructive treatment of musculoskeletal diseases, disorders, and sequelae of injuries by medical, physical, and surgical methods. These programs include courses in arthritis and related disorders of the hip, knee, shoulder, elbow, ankle, and foot.

Example of included programs
- Adult reconstructive orthopedics (orthopedic surgery)—residency

60.0266 Child Neurology Residency Programs

This instructional program class comprises any residency training program that prepares individuals to study, prevent, and manage neurological disorders of children including disorders requiring surgical, medical, and psychiatric management. These programs include courses in neurophysiology; neuropathology; neuroradiology; neuro-ophthalmology; psychiatry; rehabilitation; neurological surgery; pediatric neurodevelopment; and psycho-social support and counselling.

Example of included programs
- Child neurology—residency

60.0267 Cytopathology Residency Programs

This instructional program class comprises any residency training program that prepares individuals to study, prevent, and manage human diseases manifested in cells. These programs include courses in laboratory procedures; laboratory management; quality assurance; screening; specimen collection; cytopreparation; cytometric and image analysis; and related immunological and molecular techniques.

Example of included programs
- Cytopathology—residency

Example of excluded programs
- Cytotechnology [*see* 51.1002 Cytotechnology/Cytotechnologist]

60.0268 Geriatric Medicine (Internal Medicine) Residency Programs

This instructional program class comprises any residency training program that prepares individuals to manage the health care of elderly patients with a variety of medical problems on an inpatient and outpatient basis. These programs include courses in the physiology of aging; geriatric pathophysiology; atypical presentation of illness; functional assessment; cognitive and affective assessment; and concepts of patient treatment and management in different settings.

Example of included programs
- Geriatric medicine (internal medicine)—residency

Examples of excluded programs
- Gerontology [*see* 30.1101 Gerontology]
- Geriatric medicine—residency [*see* 60.0222 Geriatric Medicine Residency Programs]

60.0269 Pediatric Urology Residency Programs

This instructional program class comprises any residency training program that prepares individuals in the study, prevention, and management of congenital, childhood-acquired, and overlapping adolescent anomalies; problems, diseases, tumours, and traumas of the urologic system. These programs include courses in diagnostic and therapeutic procedures; urologic surgery; pediatric urologic disease; urodynamic analysis; nephrologic disease; neonatal and intensive care; neuropathic bladder entities; neurological tumours and trauma; renal genital anomalies; sexual development; and patient counselling and management.

Example of included programs
- Pediatric urology—residency

60.0270 Physical Medicine and Rehabilitation/Psychiatry Residency Programs

This instructional program class comprises any residency training program that prepares individuals to diagnose, evaluate, and treat patients with limited physical, psychological, social, and vocational functions as a consequence of diseases, injuries, impairments, and/or disabilities. These programs include courses in pathogenesis of systems disorders; psychiatric examination; therapeutic exercises and physical modalities; prosthetics, orthotics and other durable rehabilitative equipment; gait analysis; diagnostic and therapeutic injections; electrodiagnostic analysis; and rehabilitation management.

Example of included programs
- Physical medicine and rehabilitation/psychiatry—residency

60.0271 Orthopedic Surgery of the Spine Residency Programs

This instructional program class comprises any residency training program that prepares individuals for the study, prevention and treatment of spinal column disease, disorders, and injuries by medical, physical and surgical methods. These programs include courses in pathogenesis and diagnosis of clinical disorders of the spine; non-operative treatment modalities; invasive modalities; basic sciences related to the musculoskeletal system; spinal degeneration; spinal neurologic function; pre-operative and postoperative management; and patient evaluation.

Example of included programs
- Orthopedic surgery of the spine—residency

60.0299 Medical Residency Programs, Other

This instructional program class comprises any program not listed above that relates to Medical Residency Programs.

60.03 Veterinary Residency Programs

This subseries comprises instructional program classes 60.0301 to 60.0399.

60.0301 Veterinary Anesthesiology Residency Programs

This instructional program class comprises any residency training program that prepares veterinarians in the application of anesthesia for general and specialized surgery and obstetrics, critical animal care and the care of pain problems. These programs include courses in surgical procedures, current monitoring procedures, fluid therapy, pain management, diagnostic and therapeutic procedures outside the operating room, and operating room safety.

Example of included programs
- Veterinary anesthesiology—residency

60.0302 Veterinary Dentistry Residency Programs

This instructional program class comprises any residency training program that prepares veterinarians in the application of dental care procedures to the teeth, eating surfaces, and oral cavities of animals. These programs include courses in the prevention, diagnosis, and treatment of diseases and abnormalities of animal teeth and gums and related parts of the oral cavity; and related anatomical and physiological principles.

Example of included programs
- Veterinary dentistry—residency

60.0303 Veterinary Dermatology Residency Programs

This instructional program class comprises any residency training program that prepares veterinarians in the delivery of specialized care to animals with diseases of the skin, scales, feathers, hair, nails and mucous membranes. These programs include courses in dermatologic surgical procedures, cutaneous allergies, and diagnostic and therapeutic techniques.

Example of included programs
- Veterinary dermatology—residency

60.0304 Veterinary Emergency and Critical Care Medicine Residency Programs

This instructional program class comprises any residency training program that prepares veterinarians in the emergency treatment and management of care for animals with acutely life-threatening conditions which may include multiple organ failure. These programs include courses in the management of critical care units, emergency procedures, and long-term care of critically diseased animals.

Example of included programs
- Veterinary emergency and critical care medicine—residency

60.0305 Veterinary Internal Medicine Residency Programs

This instructional program class comprises any residency training program that prepares veterinarians in the provision of general medical services to animals with a wide range of non-surgical clinical problems. These programs include courses in behavioural aspects of diseases, animal diagnosis, animal aging, and referral procedures.

Example of included programs
- Veterinary internal medicine—residency

60.0306 Laboratory Animal Medicine Residency Programs

This instructional program class comprises any residency training program that prepares veterinarians in the principles and practices of applied veterinary research and related techniques, equipment, data systems and research design. These programs include courses in the management of veterinary and other animal research laboratories and health care facilities.

Example of included programs
- Laboratory animal medicine—residency

Example of excluded programs
- Comparative and laboratory animal medicine (Cert., MSc, PhD) [*see* 51.2509 Comparative and Laboratory Animal Medicine (Cert., MSc, PhD)]

60.0307 Veterinary Microbiology Residency Programs

This instructional program class comprises any residency training program that prepares veterinarians in clinical applications of research on harmful microorganisms, including viruses, and of the disease processes they induce in animals.

Example of included programs
- Veterinary microbiology—residency

Example of excluded programs
- Veterinary microbiology and immunobiology (Cert., MSc, PhD) [*see* 51.2504 Veterinary Microbiology and Immunobiology (Cert., MSc, PhD)]

60.0308 Veterinary Nutrition Residency Programs

This instructional program class comprises any residency training program that prepares veterinarians to apply research on the chemical nature of food substances; the processes by which animals ingest, digest, absorb, transport, utilize and excrete food and nutrients; and their relation to animal behaviour and health.

Example of included programs
- Veterinary nutrition—residency

Example of excluded programs
- Animal nutrition [*see* 01.0904 Animal Nutrition]

60.0309 Veterinary Ophthalmology Residency Programs

This instructional program class comprises any residency training program that prepares veterinarians in the diagnosis, prevention, and treatment of ophthalmic diseases and disorders in animals, and related ocular pathology procedures. These programs include courses in animal eye surgery.

Example of included programs
- Veterinary ophthalmology—residency

60.0310 Veterinary Pathology Residency Programs

This instructional program class comprises any residency training program that prepares veterinarians in the clinical laboratory analysis and diagnosis of diseased animal tissues and anatomic abnormalities. These programs include courses in performing general autopsies, forensic medicine, laboratory management and quality control.

Example of included programs
- Veterinary pathology—residency

Example of excluded programs
- Veterinary pathology and pathobiology (Cert., MSc, PhD) [*see* 51.2505 Veterinary Pathology and Pathobiology (Cert., MSc, PhD)]

60.0311 Veterinary Practice Residency Programs

This instructional program class comprises any residency training program that prepares veterinarians in the provision of regular and long-term care to animals, health services to owners, and the management of independent veterinary practices. These programs include courses in comprehensive care and specialist referral, basic surgery, emergency medical procedures, and diagnostic imaging.

Example of included programs
- Veterinary practice—residency

Examples of excluded programs
- Veterinary medicine [*see* 51.2401 Veterinary Medicine (DVM)]
- Veterinary sciences (Cert., MSc, PhD) [*see* 51.2501 Veterinary Sciences/Veterinary Clinical Sciences, General (Cert., MSc, PhD)]

60.0312 Veterinary Preventive Medicine Residency Programs

This instructional program class comprises any residency training program that prepares veterinarians in the investigation of and intervention in health and disease problems of animal and related human communities; comparative medicine; and animal public health. These programs include courses in biostatistics, epidemiology, environmental control, toxicology and the planning and administration of animal health programs and services.

Example of included programs
- Veterinary preventive medicine—residency

Example of excluded programs
- Veterinary epidemiology [*see* 51.2510 Veterinary Preventive Medicine, Epidemiology and Public Health (Cert., MSc, PhD)]

60.0313 Veterinary Radiology Residency Programs

This instructional program class comprises any residency training program that prepares veterinarians in the use of radiologic imaging and therapies to diagnose and treat animal diseases and health problems. These programs include courses in the use and handling of equipment for radionuclides detection and application.

Example of included programs
- Veterinary radiology—residency

60.0314 Veterinary Surgery Residency Programs

This instructional program class comprises any residency training program that prepares veterinarians in the care and treatment of animal diseases and disorders via invasive procedures and the etiology, pathogenesis, diagnosis and management of physical disorders. These programs include courses in clinical and operative skills, pre-operative and postoperative care, trauma management, endoscopic techniques, and applications to large and small animal medicine.

Example of included programs
- Veterinary surgery—residency

Examples of excluded programs
- Herd medicine and theriogenology (Cert., MSc, PhD) [*see* 51.2507 Large Animal/Food Animal and Equine Surgery and Medicine (Cert., MSc, PhD)]
- Small/companion animal surgery and medicine (Cert., MSc, PhD) [*see* 51.2508 Small/Companion Animal Surgery and Medicine (Cert., MSc, PhD)]

60.0315 Theriogenology Residency Programs

This instructional program class comprises any residency training program that prepares veterinarians in the diagnosis, prevention and treatment of diseases and health problems affecting the reproductive systems of animals, and the comprehensive care and treatment of parent animals, animal fetuses and newborn or newly hatched animals throughout the gestation period.

Example of included programs
- Theriogenology—residency

60.0316 Veterinary Toxicology Residency Programs

This instructional program class comprises any residency training program that prepares veterinarians in the clinical application of research on the nature and extent of adverse effects of synthetic and naturally occurring chemical substances on animals. These programs include courses in chemical mechanisms and the specialties of reproductive, developmental, genetic, forensic, inhalation and neurobehavioural toxicology.

Example of included programs
- Veterinary toxicology—residency

Example of excluded programs
- Veterinary toxicology and pharmacology (Cert., MSc, PhD) [*see* 51.2506 Veterinary Toxicology and Pharmacology (Cert., MSc, PhD)]

60.0317 Zoological Medicine Residency Programs

This instructional program class comprises any residency training program that prepares veterinarians in the specialized treatment and care of zoo animals, performing animals, and animals living in the wild. These programs include courses in the principles and procedures used in the observation, diagnosis, care and treatment of illness, disease, injury, deformity, or other anomalies in non-domesticated animals.

Example of included programs
- Zoological medicine—residency

60.0399 Veterinary Residency Programs, Other

This instructional program class comprises any program not listed above that relates to Veterinary Residency Programs.

Chapter III: Technology Education/Industrial Arts Programs

This chapter comprises technology education and industrial arts programs that are taught at high schools and other non-postsecondary levels.

21. Technology Education/Industrial Arts Programs

This series comprises instructional programs that provide individuals with knowledge, learning experiences and competencies pertaining to aspects of industry and technology. The programs are also designed to assist individuals in making informed occupational choices and provide preparation for entry into occupational training or education programs.

21.01 Technology Education/Industrial Arts Programs

This subseries comprises instructional program class 21.0101.

21.0101 Technology Education/Industrial Arts Programs

This instructional program class comprises any program that focuses on the technological concepts, processes and systems, such as: the evolution, utilization and significance of technology as related to industry; and its organization, personnel, systems, techniques, resources and products. These programs include courses in technological literacy, basic applied science, specific technologies and their applications, and related methods of research and experimentation.

Example of excluded programs
- Industrial design [*see* 50.0404 Industrial Design]

Chapter IV: Reserve Entry Scheme for Officers in the Armed Forces

This chapter comprises reserve officer training programs that are offered for limited regular credit and that lead to professionally recognized completions, but that do not lead to academic awards or completions.

28. Reserve Entry Scheme for Officers in the Armed Forces

This series comprises instructional programs that prepare secondary students to become officer cadets, and postsecondary students to become commissioned officers in the armed forces.

28.05 Reserve Entry Scheme for Officers in the Armed Forces[CAN]

This subseries comprises instructional program class 28.0501.

28.0501 Reserve Entry Scheme for Officers in the Armed Forces[CAN]

This instructional program class comprises any program that introduces students to the theory and practice of air science, military science, naval science, or communications, life in the Canadian Forces, and prepares them for officer cadet status or for service as commissioned reserve officers. Programs are offered as adjuncts to regular high school, community college or university instructional programs. This instructional program class also includes reserve training received through the armed forces of other countries.

Examples of included programs
- Reserve Cooperative Education Program
- Reserve Entry Scheme for Officers (RESO)

Examples of excluded programs
- Defence management and policy [*see* 29.0101 Military Technologies]
- Military psychology and leadership [*see* 29.0101 Military Technologies]
- Military science [*see* 29.0101 Military Technologies]
- Military studies [*see* 29.0101 Military Technologies]

Chapter V: Personal Improvement and Leisure Programs

This chapter comprises personal improvement and leisure-time programs that are not typically offered for academic credit, but that may receive some form of recognition and may lead to a completion award.

32. Basic Skills

This series comprises instructional programs that focus on the fundamental knowledge and skills that individuals need to function productively in society.

32.01 Basic Skills

This subseries comprises instructional program classes 32.0101 to 32.0199.

32.0101 Basic Skills, General

This instructional program class comprises any general program that focuses on the fundamental knowledge and skills that individuals need to function productively in society.

32.0104 Numeracy and Computational Skills

This instructional program class comprises any program that focuses on the development of computing and other mathematical reasoning abilities and skills.

Example of included programs
- Numeracy and computational skills

Example of excluded programs
- Mathematics [*see* 27.0101 Mathematics, General]

32.0105 Job-seeking/Changing Skills

This instructional program class comprises any program that focuses on the development of skills related to job searches and self-marketing. These programs include courses in assessing one's own capabilities and skills; filling out an application; and handling an interview.

32.0107 Career Exploration/Awareness Skills

This instructional program class comprises any program that focuses on the linkage between individual capabilities and needs and the job market. These programs include courses in the variety and scope of available employment, how to access job information, and techniques of self-analysis.

32.0108 Literacy and Communication Skills

This instructional program class comprises any program that focuses on the fundamental knowledge and skills in reading, writing and speaking that individuals need to function productively in society.

Example of included programs
- Literacy and communication skills

Examples of excluded programs
- Communications [*see* 09.0101 Communication Studies/Speech Communication and Rhetoric]
- Literacy instruction [*see* 13.1502 Adult Literacy Tutor/Instructor]

32.0109 Second Language Learning (not for credit)

This instructional program class comprises any program that focuses on the development of proficiency in reading, writing, and speaking a language or languages other than the mother tongue, that are needed to perform day-to-day tasks. These programs include courses in the use of basic communication skills to develop and transmit ideas and thoughts.

Example of included programs
- Second language learning (not for credit)

Examples of excluded programs
- English as a second language (ESL) teaching [*see* 16.1701 English as a Second Language]
- French as a second language [*see* 16.1702 French as a Second Language]
- Native as a second language [*see* 16.1799 Second Language Learning, Other]
- Second language learning [*see* 16.1799 Second Language Learning, Other]
- Spanish as a second language [*see* 16.1799 Second Language Learning, Other]

32.0199 Basic Skills, Other

This instructional program class comprises any program not listed above that relates to Basic Skills.

33. Citizenship Activities

This series comprises instructional programs that prepare individuals for citizenship, and provide instruction in how citizens may engage in civic activities.

33.01 Citizenship Activities

This subseries comprises instructional program classes 33.0101 to 33.0199.

33.0101 Citizenship Activities, General

This instructional program class comprises any program that generally prepares individuals for citizenship, and focuses on how citizens may engage in civic activities.

33.0102 American Citizenship Education

This instructional program class comprises any program that prepares individuals to take the oath of United States citizenship and to exercise the attendant rights and responsibilities of citizenship.

33.0103 Community Awareness

This instructional program class comprises any program that focuses on local government and history, current issues, and on how individuals can keep abreast of important issues that may affect them.

Example of included programs
- Community awareness

Examples of excluded programs
- Family and community studies [*see* 19.0707 Family and Community Services]
- Community advocacy [*see* 44.0201 Community Organization and Advocacy]

33.0104 Community Involvement

This instructional program class comprises any program that focuses on how individuals may become actively involved in the social, economic and political issues and events affecting them; and the roles and methods that are available to influence community life and public policy.

Example of included programs
- Community involvement

Examples of excluded programs
- Community wellness [*see* 19.0707 Family and Community Services]
- Community advocacy [*see* 44.0201 Community Organization and Advocacy]

33.0105 Canadian Citizenship Education

This instructional program class comprises any program that prepares individuals to take the oath of Canadian citizenship and to exercise the attendant rights and responsibilities of citizenship.

33.0199 Citizenship Activities, Other

This instructional program class comprises any program not listed above that relates to Citizenship Activities.

34. Health-related Knowledge and Skills

This series comprises instructional programs that focus on the promotion of personal and family health.

34.01 Health-related Knowledge and Skills

This subseries comprises instructional program classes 34.0102 to 34.0199.

34.0102 Birthing and Parenting Knowledge and Skills

This instructional program class comprises any program that focuses on all facets of the mother's and father's roles in family planning, prenatal preparation and care, the birthing experience, post-natal care and the raising of children.

Example of included programs
- Birthing and parenting knowledge and skills

Examples of excluded programs
- Child growth, care and development studies [*see* 19.0706 Child Development]
- Maternity nursing [*see* 51.1606 Maternal/Child Health and Neonatal Nurse/Nursing]
- Nursing and midwifery [*see* 51.1607 Nurse Midwife/Nursing Midwifery]
- Midwifery [*see* 51.3401 Direct Entry Midwifery (LM, CPM)]

34.0103 Personal Health Improvement and Maintenance

This instructional program class comprises any program that focuses on the principles, techniques, and methods by which individuals can maintain or improve their overall physical and emotional well-being, as well as work on specific areas of personal health.

34.0104 Addiction Prevention and Treatment

This instructional program class comprises any program that focuses on how individuals can avoid addictive substances and behaviours; the methods by which individuals can be treated for various addictions and related behaviour problems; and the knowledge and coping skills needed by relatives and associates of addicted individuals.

34.0199 Health-related Knowledge and Skills, Other

This instructional program class comprises any program not listed above that relates to Health-related Knowledge and Skills.

35. Interpersonal and Social Skills

This series comprises instructional programs that focus on the development of methods and skills for effective interactions with others in a variety of settings (private, social, and business settings).

35.01 Interpersonal and Social Skills

This subseries comprises instructional program classes 35.0101 to 35.0199.

35.0101 Interpersonal and Social Skills, General

This instructional program class comprises any general program that focuses on how to effectively interact with others in private, social and business settings.

35.0102 Interpersonal Relationships Skills

This instructional program class comprises any program that focuses on how to increase one's ability to establish and maintain mutually satisfactory ties with other human beings.

35.0103 Business and Social Skills

This instructional program class comprises any program that focuses on how to increase one's ability to function effectively in social and business settings where interpersonal communication is required.

35.0199 Interpersonal and Social Skills, Other

This instructional program class comprises any program not listed above that relates to Interpersonal and Social Skills.

36. Leisure and Recreational Activities

This series comprises instructional programs that focus on the development of an appreciation for and competency in recreational and leisure-related activities.

36.01 Leisure and Recreational Activities

This subseries comprises instructional program classes 36.0101 to 36.0199.

36.0101 Leisure and Recreational Activities, General

This instructional program class comprises any general program that focuses on the development of an appreciation for and competency in recreational and leisure-related activities.

36.0102 Handicrafts and Model-making

This instructional program class comprises any program that focuses on the fashioning of objects of decoration, utility or representation from various materials, including related matters of research, tool use and appreciation.

Example of included programs
- Handicrafts and model-making

Example of excluded programs
- Arts and crafts [*see* 50.0201 Crafts/Craft Design, Folk Art and Artisanry]

36.0103 Board, Card and Role-playing Games

This instructional program class comprises any program that focuses on the rules and techniques of participation and skill-building in competitive activities of skill or chance, such as board games, card games or role-playing activities.

36.0105 Home Maintenance and Improvement

This instructional program class comprises any program that focuses on the knowledge and skills associated with maintaining living space and related equipment and furnishings, as well as do-it-yourself repairs and improvement projects of varying complexity.

36.0106 Nature Appreciation

This instructional program class comprises any program that focuses on how to increase one's understanding and knowledge of the natural environment in which we live, as well as techniques of wildlife observation and management.

36.0107 Pet Ownership and Care

This instructional program class comprises any program that focuses on how to increase one's ability to care for domesticated animals kept for pleasure or work.

36.0108 Sports and Exercise

This instructional program class comprises any program that focuses on the rules and techniques of participation and skill building in competitive physical activities, as well as non-competitive physical fitness programs.

Example of included programs
- Sports and exercise

Example of excluded programs
- Sport and exercise studies [*see* 31.0501 Health and Physical Education, General]

36.0109 Travel and Exploration

This instructional program class comprises any program that focuses on particular geographic areas or phenomena, and provides opportunities for organized trips or tours, including related knowledge and skills.

Example of included programs
- Travel and exploration

Examples of excluded programs
- Tourism and travel management [*see* 52.0903 Tourism and Travel Services Management]
- Tourism and travel [*see* 52.1905 Tourism and Travel Services Marketing Operations]
- Development and promotion of travel products [*see* 52.1906 Tourism Promotion Operations]

36.0110 Art (not for credit)

This instructional program class comprises any program that focuses on the techniques and methods of creative self-expression in visual or plastic media, such as painting or sculpture.

Example of included programs
- Art (not for credit)

Examples of excluded programs
- Arts and crafts [*see* 50.0201 Crafts/Craft Design, Folk Art and Artisanry]
- Art studies [*see* 50.0701 Art/Art Studies, General]
- Fine arts [*see* 50.0702 Fine/Studio Arts, General]
- Painting [*see* 50.0708 Painting]
- Sculpture [*see* 50.0709 Sculpture]

36.0111 Collecting

This instructional program class comprises any program that focuses on the knowledge and techniques necessary for acquiring and maintaining personal collections of objects, such as autographs, stamps, models, specimens, vehicles and antiques.

36.0112 Cooking and Other Domestic Skills

This instructional program class comprises any program that focuses on the knowledge and skills related to food buying and preparation, home decoration, sewing and other domestic activities, either as hobbies or as routine tasks.

Example of included programs
- Cooking and other domestic skills

Examples of excluded programs
- Cooking [*see* 12.0500 Cooking and Related Culinary Arts, General]
- Food preparation [*see* 12.0505 Food Preparation/Professional Cooking/Kitchen Assistant]

36.0113 Computer Games and Programming Skills

This instructional program class comprises any program that focuses on the knowledge and skills associated with creating, acquiring, maintaining and using computer hardware and software, as well as the playing of computer-based games.

36.0114 Dancing (not for credit)

This instructional program class comprises any program that focuses on the knowledge and skills related to recreational dance, such as square dancing, ballroom dancing, classical or modern dance.

Example of included programs
- Dancing (not for credit)

Examples of excluded programs
- Dance [*see* 50.0301 Dance, General]
- Ballet [*see* 50.0302 Ballet]

36.0115 Music (not for credit)

This instructional program class comprises any program that focuses on the knowledge and skills associated with personal music appreciation, the playing of a musical instrument, singing or recreational composition.

Example of included programs
- Music (not for credit)

Examples of excluded programs
- Music [*see* 50.0901 Music, General]
- Music performance [*see* 50.0903 Music Performance, General]

36.0116 Reading

This instructional program class comprises any program that focuses on the activity of reading for pleasures, either alone or as part of a group experience.

Example of included programs
- Reading

36.0117 Theatre (not for credit)

This instructional program class comprises any program that focuses on the knowledge and skills associated with participation in amateur theatrical productions, drama appreciation, and writing amateur plays.

Example of included programs
- Theatre (not for credit)

Examples of excluded programs
- Drama and theatre [*see* 50.0501 Drama and Dramatics/Theatre Arts, General]
- Theatre technical production [*see* 50.0502 Technical Theatre/Theatre Design and Technology]

36.0118 Writing

This instructional program class comprises any program that focuses on the knowledge and skills related to creative writing and poetry composition for pleasure or profit, including methods of publication.

Example of included programs
- Writing

Examples of excluded programs
- English composition [*see* 23.0401 English Composition]
- Creative writing [*see* 23.0501 English Creative Writing]
- Technical writing [*see* 23.1101 English Technical and Business Writing]
- French composition [*see* 55.0301 French Composition]
- French creative writing [*see* 55.0401 French Creative Writing]
- French technical writing [*see* 55.0801 French Technical and Business Writing]

36.0119 Aircraft Pilot (Private)

This instructional program class comprises any program that prepares individuals to fly aircraft for personal use, and qualifies individuals to sit for the pilot's license examination. These programs include courses in principles of aircraft design and performance; aircraft flight systems and controls; flight crew operations and procedures; radio communications and navigation procedures and systems; airways safety and traffic regulations; and governmental rules and regulations pertaining to piloting aircraft.

Example of included programs
- Aircraft pilot (private)

Example of excluded programs
- Airline pilot [*see* 49.0102 Airline/Commercial/Professional Pilot and Flight Crew]

36.0199 Leisure and Recreational Activities, Other

This instructional program class comprises any program not listed above that relates to Leisure and Recreational Activities.

37. Personal Awareness and Self-improvement

This series comprises instructional programs that focus on the development of improved self-awareness, avoidance of stressful behaviour, and improved decision-making skills.

37.01 Personal Awareness and Self-improvement

This subseries comprises instructional program classes 37.0101 to 37.0199.

37.0101 Self-awareness and Personal Assessment

This instructional program class comprises any program that focuses on the knowledge and skills useful in becoming aware of one's feelings, using methods of assessing one's personal attributes, and being aware of how one is perceived by others.

37.0102 Stress Management and Coping Skills

This instructional program class comprises any program that focuses on the knowledge and skills useful in avoiding stressful situations and managing them when they occur, including dealing with complex and long-term stressful relationships.

37.0103 Personal Decision-making Skills

This instructional program class comprises any program that focuses on how to develop individuals' abilities to assess decisions affecting their lives and to make life choices consistent with needs and beliefs.

37.0104 Self-esteem and Values Clarification

This instructional program class comprises any program that focuses on the development of personal philosophies and ideas of positive self-concept and self-worth, and applying these knowledge and skills in everyday circumstances.

37.0199 Personal Awareness and Self-improvement, Other

This instructional program class comprises any program not listed above that relates to Personal Awareness and Self-improvement.

Chapter VI: High School/Secondary Diploma and Certificate Programs

This chapter comprises instructional programs that lead to general diplomas and certificates awarded at the secondary education level only.

53. High School/Secondary Diploma and Certificate Programs

This series comprises instructional programs that define the prescribed requirements for high school/secondary school graduation.

53.01 High School/Secondary Diploma Programs

This subseries comprises instructional program classes 53.0101 to 53.0199.

53.0101 Regular/General High School/Secondary Diploma Programs

This instructional program class comprises any program that defines the prescribed minimum requirements, specified by the appropriate jurisdiction, for completion of and graduation from an undifferentiated regular secondary school program representing 12 academic years of schooling intended for school-age students.

53.0102 College/University Preparatory and Advanced High School/Secondary Diploma Programs

This instructional program class comprises any program that defines the prescribed requirements, specified by the appropriate jurisdiction, for completion of and graduation from a secondary school program of academic subject matter designed to meet typical college and university entrance requirements.

53.0103 Vocational High School and Secondary Business/Vocational-Industrial/Occupational Diploma Programs

This instructional program class comprises any program that defines the prescribed requirements, specified by the appropriate jurisdiction, for high school/secondary school graduation in a vocational program – together with other required subject matter, and that prepares individuals for specific occupations or direct labour market entry.

53.0104 Honours/Regents High School/Secondary Diploma Programs

This instructional program class comprises any program that defines the prescribed requirements, specified by the appropriate jurisdiction, for high school/secondary school graduation in an academic or vocational program at a prescribed level of outstanding scholastic performance, or via meeting special requirements beyond the minimum.

53.0105 Adult High School/Secondary Diploma Programs

This instructional program class comprises any program that defines the prescribed requirements, specified by the appropriate jurisdiction, for the completion of and graduation from a secondary school program of academic subject matter offered for adult learners outside of the regular secondary school program. This does not include adult compensatory education programs resulting in completion of a high school equivalency certificate or diploma.

53.0199 High School/Secondary Diploma Programs, Other

This instructional program class comprises any program not listed above that relates to High School/Secondary Diploma Programs.

53.02 High School/Secondary Certificate Programs

This subseries comprises instructional program classes 53.0201 to 53.0299.

53.0201 High School Equivalence Certificate Programs

This instructional program class comprises any program that defines the requirements for meeting the minimum high school/secondary completion requirements, specified by the appropriate jurisdiction, for adult learners who did not complete secondary school. Includes undertaking a specified program of studies and obtaining a prescribed passing score on the General Educational Development Test (GED) or provincial examinations. These awards represent the legally recognized equivalent of secondary school graduation.

53.0202 High School Certificate of Competence Programs

This instructional program class comprises any program that defines the content requirements for meeting specified performance standards in various secondary school studies that does not represent completion of and graduation from secondary school, as prescribed by the appropriate jurisdiction. Includes such requirements as passing a mandated academic achievement test and completing other specified requirements for subject-matter competence. These awards may be given for partial completion of secondary school or for achieving a specified high level of concentration and/or performance in certain subjects, and may be awarded independently or in conjunction with a high school/secondary diploma.

53.0203 Certificate of IEP Completion Programs

This instructional program class comprises any program that defines the requirements for meeting specified goals pertaining to an Individual Educational Program established by a local school system under the authority of the appropriate jurisdiction. These programs include courses for which the specific content varies by student and may or may not equal a regular high school/secondary school program.

53.0299 High School/Secondary Certificate Programs, Other

This instructional program class comprises any program not listed above that relates to High School/Secondary Certificate Programs.

Examples of Included Programs

10.0304	3D animation
10.0304	3D animation and management
10.0304	3D for production—broadcast design and animation
10.0304	3D for production—games and interactive entertainment
11.0803	3D graphics technology
42.9999	Abnormal psychology
16.1001	Aboriginal language
05.0202	Aboriginal studies
52.0301	Accountancy
52.0301	Accounting
52.0305	Accounting and administration
52.0305	Accounting and business
52.0305	Accounting and business administration
52.0305	Accounting and business management
30.1601	Accounting and computer programming
30.1601	Accounting and computer science
30.1601	Accounting and computer studies
52.0304	Accounting and finance
52.0302	Accounting assistant
52.0302	Accounting clerk
13.1303	Accounting teaching
52.0302	Accounting technician
16.1499	Achinese
14.9999	Acoustic engineering
40.0809	Acoustical physics
40.0809	Acoustics physics
50.0506	Acting
30.1101	Activation coordinator/gerontology
52.1304	Actuarial mathematics
51.3502	Acupressure
51.3502	Acupressurist
51.3301	Acupuncture
51.3301	Acupuncturist
51.1501	Addiction counselling
52.0201	Administration
13.0402	Administration of special education
13.1303	Administration teaching
52.0401	Administrative assistant
52.0408	Administrative clerk
22.0299	Administrative law (graduate level)
52.0201	Administrative studies
13.0403	Adult and continuing education administration
13.1201	Adult and vocational education
42.0201	Adult clinical psychology
43.0102	Adult correctional officer
19.0702	Adult development
13.1201	Adult education
51.1603	Adult health nursing
13.1502	Adult literacy instructor
42.9999	Adult psychology

60.0265	Adult reconstructive orthopedics (orthopedic surgery)—residency
13.1201	Adult teacher education
13.1201	Adult training and development
13.1201	Adult, community and higher education
51.0502	Advanced education in general dentistry program (AEGD)
22.0201	Advanced legal studies, general (graduate level)
12.0599	Advanced wines and beverage management
09.0903	Advertising
50.0402	Advertising art
50.0402	Advertising design
47.0608	Aero engine technician
31.0501	Aerobics instructor
14.0201	Aeronautical engineering
15.0801	Aeronautical engineering technology
49.0101	Aeronautical science
14.0201	Aerospace engineering
15.0801	Aerospace engineering technology
15.0801	Aerospace manufacturing
60.0201	Aerospace medicine—residency
15.0801	Aerospace technician
15.0801	Aerospace technology
38.0199	Aesthetic philosophy
12.0409	Aesthetics
05.0201	African American studies
16.0201	African languages
16.0201	African languages and literature
05.0101	African studies
16.0599	Afrikaans
01.0102	Agribusiness operations
01.9999	Agricultural biology
01.0101	Agricultural business
01.0101	Agricultural business management
01.0106	Agricultural business technician
01.0106	Agricultural business technology
01.9999	Agricultural chemistry
01.0103	Agricultural economics
14.0301	Agricultural engineering
15.9999	Agricultural engineering technology
01.0801	Agricultural extension
01.0199	Agricultural finance
01.0802	Agricultural journalism
01.0205	Agricultural machinery technician
01.0101	Agricultural management
01.0205	Agricultural mechanics
01.0201	Agricultural mechanization
01.1104	Agricultural plant breeding
01.0204	Agricultural power machinery operation
01.0301	Agricultural production

01.0301	Agricultural production management	**22.0203**	American justice studies
01.0000	Agricultural science	**23.0701**	American literature
01.1201	Agricultural soils	**45.1002**	American politics
01.0105	Agricultural supplies retailing and wholesaling	**16.1601**	American Sign Language (ASL)
13.1301	Agricultural teacher education	**16.1603**	American Sign Language (ASL) interpreting
01.0000	Agricultural technology	**05.0102**	American studies
13.1301	Agriculture education	**27.0103**	Analysis
01.1105	Agriculture plant protection	**40.0502**	Analytical chemistry
01.1201	Agriculture soil science	**26.0403**	Anatomy
01.9999	Agroecology	**30.1301**	Ancient and medieval philosophy
01.1201	Agrology	**16.1202**	Ancient Greek
01.1102	Agronomy and crop science	**30.2202**	Ancient Greek and Roman studies
01.0199	Agrosystem management	**54.0199**	Ancient history
16.0399	Ainu	**30.2201**	Ancient studies
22.0299	Air and space law (graduate level)	**51.0809**	Anesthesiologist assistant
15.0501	Air conditioning and refrigeration engineering technician	**60.0203**	Anesthesiology—residency
49.0106	Air hostess	**38.0203**	Anglican studies
49.0105	Air traffic control	**26.0708**	Animal behaviour
49.0105	Air traffic controller	**26.0701**	Animal biology
14.0201	Aircraft design engineering	**01.0902**	Animal breeding
47.0609	Aircraft electronics	**51.0808**	Animal care technology
47.0609	Aircraft electronics service technician	**26.1301**	Animal ecology
47.0608	Aircraft engine mechanic	**26.0804**	Animal genetics
47.0608	Aircraft engine technician	**01.0504**	Animal grooming
14.0201	Aircraft engineering	**01.0903**	Animal health
47.0607	Aircraft mechanic	**51.0808**	Animal health technician
36.0119	Aircraft pilot (private)	**51.0808**	Animal health technology
47.0609	Aircraft radar technician	**01.0302**	Animal husbandry
47.0607	Aircraft structural repair technician	**01.0904**	Animal nutrition
47.0607	Airframe mechanic	**26.0707**	Animal physiology
49.0104	Airline and flight operations	**01.0302**	Animal production
49.0102	Airline pilot	**01.0901**	Animal sciences
49.0199	Airline ticket agent	**01.0505**	Animal training
49.0102	Airplane pilot	**45.0202**	Anthropological sciences
49.0104	Airport management	**45.0201**	Anthropology
49.0104	Airport operations	**13.1317**	Anthropology education
47.0110	Alarm installation	**01.0399**	Apiculture
16.0404	Albanian	**50.0407**	Apparel design
16.0404	Albanian language and literature	**19.0905**	Apparel marketing management
27.0102	Algebra	**19.0902**	Apparel production management
27.0102	Algebra and number theory	**47.0106**	Appliance repair
47.0604	Alignment and brakes technician	**47.0106**	Appliance service technician
47.0604	Alignment mechanic	**47.0106**	Appliance technician
60.0202	Allergies and immunology—residency	**27.0303**	Applied and computational mathematics
16.1599	Altaic	**50.0401**	Applied arts
47.0614	Alternative fuel powered vehicle technician	**30.1701**	Applied behavioural sciences
51.3399	Alternative health	**26.0101**	Applied biology
51.3399	Alternative medicine	**52.0407**	Applied business technology
51.0810	Ambulance attendant	**19.0706**	Applied child studies
54.0102	American history	**09.0999**	Applied communication
		15.1202	Applied computer technology
		45.0401	Applied criminology
		45.0602	Applied economics
		45.0701	Applied geography

54.0105	Applied history		51.2301	Art psychotherapy
01.0601	Applied horticulture		50.0701	Art studies
19.0504	Applied human nutrition		13.1302	Art teacher
19.0101	Applied human sciences		13.1302	Art teaching
16.0102	Applied linguistics		51.2301	Art therapy
27.0301	Applied mathematics		11.0102	Artificial intelligence
30.1401	Applied museum studies		50.9999	Artist management
50.0406	Applied photography		12.0406	Artistic makeup
42.1601	Applied social psychology		50.0704	Arts administration
31.0599	Applied sport science and coaching		50.0201	Arts and crafts
27.0501	Applied statistics		24.0102	Arts and science
01.0303	Aquaculture		05.0109	Asia Pacific studies
01.0303	Aquaculture technician		05.0206	Asian American studies
01.0303	Aquaculture technology		05.0103	Asian area studies
26.1304	Aquatic biology		54.0106	Asian history
16.1101	Arabic		38.0299	Asian religions
16.1101	Arabic language		05.0103	Asian studies
16.1101	Arabic language, literature and linguistics		16.1603	ASL interpreting
			16.0799	Assamese
16.1101	Arabic literature		52.0807	Asset and wealth management
01.0699	Arboriculture		12.0505	Assistant cook
01.0699	Arborist		41.0399	Assistant lab technician
48.0508	Arc welding		51.2312	Assistive/augmentative technology and rehabilitation engineering
45.0301	Archeology			
15.0101	Architectural and building technology		14.0201	Astronautical engineering
			40.0201	Astronomy
15.1399	Architectural and civil drafting		40.0201	Astronomy and physics
15.1303	Architectural CAD technology		40.0202	Astrophysics
04.0901	Architectural design		51.0913	Athletic therapy
04.0901	Architectural design technology		51.0913	Athletic training/trainer
15.1303	Architectural drafting		31.0501	Athletic/sport coach
14.0401	Architectural engineering		05.0122	Atlantic Canada studies
15.0101	Architectural engineering technician		40.0403	Atmospheric physics
15.0101	Architectural engineering technology		40.0401	Atmospheric sciences
			40.0802	Atomic physics
04.0801	Architectural history		52.1901	Auctioneering
04.0801	Architectural history and theory		10.0203	Audio engineering
04.0201	Architectural science		10.0203	Audio recording technology
04.0901	Architectural technology		51.0202	Audiologist
04.0301	Architecture and urban planning		51.0202	Audiology
04.0301	Architecture city planning		10.0299	Audiovisual communications
04.0301	Architecture planning		10.0299	Audiovisual technician
04.0301	Architecture town planning		52.0303	Auditing
54.0105	Archival administration		16.1401	Australian languages
54.0105	Archival studies		47.0603	Auto body
54.0105	Archival technician		47.0603	Auto body collision repair
31.0504	Arena management		47.0603	Auto body mechanic
16.1599	Armenian		47.0603	Auto body painting
51.3701	Aromatherapist		47.0603	Auto body refinisher
51.3701	Aromatherapy		47.0603	Auto body repair
36.0110	Art (not for credit)		47.0603	Auto body technician
50.0703	Art conservation		47.0603	Auto body work
13.1302	Art education		46.0406	Auto glass technician
50.0703	Art history		47.0604	Auto mechanic
50.0703	Art history and criticism		13.1320	Auto mechanic teacher
13.1302	Art history education		52.1907	Auto parts sales

47.0604	Auto repair		**12.0502**	Bar management
47.0604	Auto service technician		**12.0402**	Barber
48.0303	Auto upholstery		**12.0402**	Barber hairstylist
15.1302	AutoCAD		**12.0402**	Barber stylist
15.1302	AutoCAD drafting		**12.0402**	Barbering
52.0302	Automated accounting		**12.0502**	Barman/woman
14.2701	Automation engineering		**12.0502**	Bartender
14.9999	Automobile engineering		**12.0502**	Bartending
47.0604	Automobile mechanic		**16.1599**	Bashkir
47.0605	Automotive diesel mechanics		**30.1701**	Basic behavioural science
47.0604	Automotive electrical repair		**16.9999**	Basque
47.0604	Automotive electronics		**16.1499**	Batak
14.9999	Automotive engineering		**12.0412**	Beauty parlour management
15.0803	Automotive engineering technician		**01.0906**	Beef management
15.0803	Automotive engineering technology		**01.0302**	Beef production
52.1907	Automotive marketing		**01.0906**	Beef production management
47.0604	Automotive mechanic		**01.0399**	Beekeeping
47.0409	Automotive parts and light warehousing		**30.2401**	Behavioural neuroscience
			30.1701	Behavioural science
47.0409	Automotive partsman/woman		**30.1701**	Behavioural science technology
47.0604	Automotive repair		**30.1701**	Behavioural sciences
52.1907	Automotive sales		**16.0499**	Belarussian
47.0604	Automotive service technician		**48.0701**	Benchwork and joinery
47.0603	Automotive spray painting		**16.0704**	Bengali
47.0604	Automotive transmission repair		**16.0704**	Bengali literature
16.1599	Avaric		**16.1199**	Berber languages
47.0609	Aviation electronics		**39.0201**	Bible studies
14.0201	Aviation engineering		**39.0201**	Bible study
49.0104	Aviation flight management		**39.0799**	Biblical counselling
49.0104	Aviation management		**16.1103**	Biblical languages
49.0101	Aviation sciences		**16.1103**	Biblical literature
14.0201	Avionics engineering		**39.0201**	Biblical studies
47.0609	Avionics maintenance technician		**47.0610**	Bicycle mechanics
47.0609	Avionics technician		**47.0610**	Bicycle repair
47.0609	Avionics technology		**16.0799**	Bihari
51.3305	Ayurvedic medicine/Ayurveda		**13.0201**	Bilingual and multilingual education
16.1599	Azeri			
22.0101	Bachelor of Civil Law (BCL)		**52.0401**	Bilingual secretary
22.0101	Bachelor of Laws (LLB)		**01.1002**	Bio-food technology
26.0503	Bacteriology		**14.0301**	Bio-resource engineering
16.1402	Bahasa Indonesian		**14.9999**	Biochemical engineering
12.0501	Baker		**26.0202**	Biochemistry
12.0501	Bakery		**13.1322**	Biochemistry education
12.0501	Baking		**26.0210**	Biochemistry, biophysics and molecular biology
12.0501	Baking and pastry arts			
05.0116	Balkan studies		**14.0301**	Bioengineering
50.0302	Ballet		**51.3201**	Bioethics
50.0302	Ballet dancer		**26.1103**	Bioinformatics
50.0302	Ballet dancing		**30.0101**	Biological and physical sciences
13.1324	Ballet teacher		**26.0202**	Biological chemistry
16.0401	Baltic languages		**14.0301**	Biological engineering
05.0117	Baltic studies		**26.1302**	Biological oceanography
43.0107	Band constable		**26.0101**	Biological sciences
52.0803	Bank teller		**41.0101**	Biological technology
52.0803	Banking and financial services		**26.0101**	Biology
22.0101	Bar admission course		**13.1322**	Biology education

41.0101	Biology lab technology	15.1303	Building design and architecture CAD
13.1322	Biology teacher		
13.1322	Biology teaching	15.1303	Building design CAD technology
41.0101	Biology technician	15.1001	Building engineering technology
31.0505	Biomechanics	46.0403	Building inspection
51.2703	Biomedical animation	46.0401	Building maintenance
09.0905	Biomedical communications	46.0401	Building management
15.0401	Biomedical electronics	46.9999	Building renovation technician
14.0501	Biomedical engineering	46.9999	Building restoration technician
15.0401	Biomedical engineering technology	46.0401	Building service technician
15.0401	Biomedical technician	16.0405	Bulgarian
15.0401	Biomedical technology	16.0405	Bulgarian literature
26.1004	Biomedical toxicology	16.1403	Burmese language
26.1101	Biometrics	49.0205	Bus driving
26.1101	Biometry	49.0102	Bush pilot
26.0203	Biophysics	52.0101	Business
14.0301	Bioprocess engineering	52.0201	Business administration
30.1001	Biopsychology	49.0104	Business administration in aviation
26.0101	Bioscience	52.1401	Business administration—marketing option
26.1102	Biostatistics		
14.0301	Biosystems engineering	13.1303	Business and industrial trainer development
26.1201	Biotechnology		
34.0102	Birthing and parenting knowledge and skills	52.0501	Business communications
		11.0202	Business computer programming
16.1499	Bisayan	52.0601	Business economics
05.0201	Black Canadian studies	13.1303	Business education
05.0201	Black studies	52.0701	Business entrepreneurship
48.0599	Blacksmith	47.0102	Business equipment repair
46.0505	Blasting	38.0103	Business ethics
46.0505	Blasting technician	52.0801	Business finance
51.1001	Blood bank technology specialist	11.0103	Business information management
60.0204	Blood banking—residency	11.0103	Business information processing
16.1499	Bodo	11.0103	Business information systems
48.0801	Boilermaker	11.0103	Business information technology
48.0801	Boilermaking	52.1701	Business insurance
09.1001	Book and magazine publishing	22.0101	Business law (except graduate level)
10.0399	Bookbinding	22.0205	Business law (graduate level)
52.0302	Bookkeeper	47.0102	Business machine repair
52.0302	Bookkeeping	47.0102	Business machine technician
26.0301	Botany	52.0201	Business management
01.1002	Brewing	52.0408	Business office skills
46.0101	Brick masonry	52.1302	Business statistics
46.0101	Bricklaying	52.0101	Business studies
14.0803	Bridge engineering	23.1101	Business writing
54.0103	British history	12.0506	Butcher
23.0801	British literature	12.0506	Butchering
10.0202	Broadcast engineering technology	12.0506	Butchery
09.0402	Broadcast journalism	01.0306	Butter making
10.0202	Broadcast technology	52.1802	Buyer
10.0202	Broadcasting—television and communications media	43.0199	Bylaw enforcement
		30.2202	Byzantine civilization
38.0202	Buddhism	48.0703	Cabinet making
38.0202	Buddhist studies	48.0703	Cabinetry
15.1001	Building construction engineering technology	47.0103	Cable installation
		46.0303	Cable splicer
15.1001	Building construction technology	47.0103	Cable technician

15.1302	CAD drafting		14.0601	Ceramic engineering
15.1302	CAD programming		14.0601	Ceramic sciences
15.1302	CAD technology		13.1302	Ceramic teacher
15.1302	CAD/CAM		46.0499	Ceramic tile installation
52.0207	Call centre administration		46.0499	Ceramic tile setting
52.0207	Call centre management		50.0711	Ceramics
52.0411	Call centre service representative		13.0203	Certificate in Aboriginal education for certified teachers
16.1405	Cambodian			
52.1701	Canadian Accredited Insurance Broker (CAIB)		13.0203	Certificate in education for First Nations and Inuit
45.1003	Canadian government and politics		52.0301	Certified accountant
54.0107	Canadian history		01.0699	Certified arborist
22.0204	Canadian legal studies (graduate level)		51.0601	Certified dental assistant (CDA)
			13.1501	Certified education assistant
23.0702	Canadian literature		15.0000	Certified engineer technologist
45.1003	Canadian political science		15.0000	Certified engineering technology
45.1003	Canadian political studies		52.0804	Certified financial planner
45.1003	Canadian politics		52.0301	Certified general accountant (CGA)
52.0807	Canadian securities		52.0301	Certified management accountant (CMA)
05.0115	Canadian studies			
26.0911	Cancer biology		01.0699	Certified utility arborist
39.9999	Canon law		03.0511	Chain saw operator
47.0604	Car mechanic		51.0601	Chairside dental assistant
47.0604	Car repair		50.0903	Chamber music
52.1907	Car sales		52.0301	Chartered accountancy
51.0901	Cardiology technician		52.0301	Chartered accountant (CA)
51.0901	Cardiology technologist		16.1599	Chechen-Ingushetian
51.0901	Cardiology technology		01.0306	Cheese making
60.0205	Cardiology—residency		12.0503	Chef
51.0915	Cardiopulmonary technology/technologist		12.0503	Chef training
			40.0502	Chemical analysis
26.0907	Cardiovascular science		14.1801	Chemical and materials engineering
51.0901	Cardiovascular technician		14.3101	Chemical and materials science
05.0119	Caribbean studies		14.2501	Chemical and petroleum engineering
46.0201	Carpentry			
13.1320	Carpentry teaching		14.0701	Chemical engineering
46.0499	Carpet installation		15.9999	Chemical engineering technology
46.0499	Carpet laying		41.0301	Chemical lab technician
45.0702	Cartography		41.0301	Chemical laboratory technology
50.0709	Carving		40.0607	Chemical oceanography
31.9999	Casino dealer		60.0206	Chemical pathology—residency
16.0907	Catalan		40.0508	Chemical physics
16.0907	Catalan language and literature		41.0301	Chemical technician
39.0401	Catechism		41.0301	Chemical technology
12.0504	Catering management		40.0501	Chemist
26.0406	Cell and molecular biology		40.0501	Chemistry
26.0401	Cell biology		13.1323	Chemistry education
26.0407	Cell biology and anatomy		40.0508	Chemistry physics
26.0903	Cell physiology		40.0507	Chemistry plastics
50.0911	Cello		13.1323	Chemistry teaching
26.0406	Cellular and molecular biology		05.0203	Chicano studies
26.0401	Cellular biology		44.0702	Child and youth care
16.1301	Celtic languages		44.0702	Child and youth care counsellor
46.0402	Cement finishing		19.0706	Child and youth studies
05.0120	Central Asian studies		44.0702	Child and youth worker
50.0711	Ceramic art		19.0709	Child care

19.0708	Child care administration
19.0709	Child care assistant
19.0708	Child care centre administration
19.0708	Child care management
19.0709	Child care services
19.0709	Child care worker
19.0708	Child day care management
19.0706	Child development
19.0706	Child growth, care and development studies
60.0266	Child neurology—residency
60.0208	Child psychiatry—residency
42.0701	Child psychology
19.0706	Child studies
60.0207	Child/pediatric neurology—residency
19.0706	Childhood development
39.0702	Children's ministries
51.1609	Children's nurse
16.0301	Chinese
51.3302	Chinese herbal medicine
54.0106	Chinese history
16.0301	Chinese language
16.0301	Chinese language and literature
16.0301	Chinese literature
05.0123	Chinese studies
13.1306	Chinese teacher
51.3302	Chinese traditional medicine
51.2101	Chiropodist
51.2101	Chiropody
51.0101	Chiropractic
51.0813	Chiropractic assistant
51.0101	Chiropractor
50.0906	Choral conducting
50.0301	Choreography
39.0401	Christian education
38.0103	Christian ethics
39.0701	Christian leadership
39.0602	Christian ministry
38.0203	Christian origins
38.0203	Christian studies
39.0601	Christian theology
38.0203	Christianity and culture
38.0299	Church history
39.9999	Church law
39.0602	Church ministry
39.0501	Church music
50.0601	Cinema studies
50.0602	Cinematography
04.0301	City and regional planning
04.0301	City planning
14.0803	Civil and structural engineering
15.0201	Civil and structural engineering technology
15.1304	Civil drafting
14.0801	Civil engineering

15.1304	Civil engineering drafting
15.0201	Civil engineering technology
22.0101	Civil law (except graduate level)
22.0299	Civil law (graduate level)
15.0201	Civil technology
49.0205	Class 1 truck driver
47.0604	Class A mechanic
10.0304	Classical animation
45.0301	Classical archeology
50.0302	Classical ballet
30.2202	Classical civilization
50.0301	Classical dance
16.1202	Classical Greek
16.1200	Classical languages
50.0901	Classical music
30.2202	Classical studies
16.1200	Classics
13.1399	Classics education
39.0602	Clergy
52.0408	Clerk typist
40.0402	Climatology
51.0710	Clinic office assistant
51.2006	Clinical and industrial drug development (MSc, PhD)
51.0801	Clinical assistant
42.2001	Clinical child psychology
51.3603	Clinical hypnosis
51.3603	Clinical hypnotherapy
51.1005	Clinical laboratory science/medical technology/technologist
42.0201	Clinical neuropsychology
51.1616	Clinical nursing
51.3102	Clinical nutrition
51.1506	Clinical pastoral counselling
51.2008	Clinical pharmacy
42.0201	Clinical psychology
51.1503	Clinical social work
51.1004	Clinical/medical laboratory technician
47.0408	Clock repair
47.0408	Clockmaking
19.0901	Clothing and textiles
50.0407	Clothing design
31.0501	Coaching
15.0901	Coal mining
48.0304	Cobbler
42.0301	Cognitive and motivational psychology
42.0301	Cognitive psychology
30.2501	Cognitive science
13.1102	College student counselling and personnel services
60.0209	Colon and rectal surgery—residency
27.0399	Combinatorics and optimization
52.0101	Commerce
13.1303	Commerce education

22.0205	Commerce law (graduate level)	13.0407	Community college and general and vocational college (CEGEP) administration
50.0402	Commercial art		
50.0402	Commercial artist	19.0707	Community development
49.0104	Commercial aviation management	45.0604	Community economic development
12.0501	Commercial baking	51.2208	Community health and epidemiology
12.0500	Commercial cooking		
12.0505	Commercial cooking aide	51.1504	Community health care
49.0304	Commercial diving	51.2208	Community health management
49.0205	Commercial driver	51.1611	Community health nursing
49.0205	Commercial driver education	51.1504	Community health representative
49.0303	Commercial fishing	51.2208	Community health science
01.0608	Commercial floriculture	51.1504	Community health service
01.0608	Commercial floristry	33.0104	Community involvement
22.0205	Commercial law (graduate level)	51.2208	Community medicine
46.0408	Commercial painting	04.0301	Community planning
50.0406	Commercial photography	42.0401	Community psychology
49.0102	Commercial pilot	31.0101	Community recreation
46.0410	Commercial roofing	19.0707	Community service worker
47.0613	Commercial transport mechanic	19.0707	Community services
47.0613	Commercial transport vehicle mechanic	19.0707	Community support worker
		19.0707	Community wellness
22.0101	Common law (except graduate level)	19.0707	Community worker
		51.2509	Comparative and laboratory animal medicine (Cert., MSc, PhD)
22.0299	Common law (graduate level)		
23.0801	Commonwealth literature	16.0104	Comparative Canadian literature
05.0121	Commonwealth studies	45.1001	Comparative government and politics
09.0199	Communication and social justice		
09.1001	Communication arts—book and magazine publishing	22.0206	Comparative law (graduate level)
		16.0104	Comparative literature
09.0402	Communication arts—broadcast journalism	45.1001	Comparative politics
		42.0501	Comparative psychology
09.0903	Communication arts—creative advertising	38.0201	Comparative religion
		52.0499	Comptometer operator
09.0401	Communication arts—journalism	26.1103	Computational biology
09.0401	Communication arts—print journalism	40.0506	Computational chemistry
		40.0603	Computational geophysics
09.0402	Communication arts—radio journalism	27.0303	Computational mathematics
		40.0810	Computational physics
50.0401	Communication design	11.0501	Computer analyst
51.0299	Communication disorders assistant	11.1001	Computer and network support technician
13.1399	Communication education		
15.0303	Communication engineering technology	10.0304	Computer animation
		11.0201	Computer applications development
51.0201	Communication sciences and disorders		
		15.1302	Computer drafting
09.0101	Communication studies	13.1321	Computer education
09.0101	Communications	14.0902	Computer electronics engineering
51.0201	Communications disorders	15.1201	Computer electronics technician
14.1001	Communications engineering	14.0901	Computer engineering
10.0105	Communications technician	15.1201	Computer engineering technology
10.0105	Communications technology	11.0803	Computer graphics
44.0201	Community advocacy	14.0902	Computer hardware engineering
04.0301	Community and regional planning	15.1203	Computer hardware technician
33.0103	Community awareness	15.1203	Computer hardware technology
		11.0103	Computer information systems

14.0999	Computer network engineering
11.1001	Computer networking and technical support
11.0901	Computer networking technology
48.0501	Computer numerical control (CNC) machining
11.0201	Computer programmer
11.0501	Computer programmer-analyst
11.0201	Computer programming
11.0201	Computer programming technology
11.0701	Computer science
11.0701	Computer science technology
11.1003	Computer security and investigations
47.0104	Computer service technician
14.0903	Computer software engineering
15.1204	Computer software technician
15.1204	Computer software technology
11.1001	Computer support specialist
14.0901	Computer systems engineering
47.0104	Computer systems service technician
11.1001	Computer systems technician—networking
15.1202	Computer systems technology
15.1202	Computer systems—client server
15.1202	Computer systems—computer systems foundations
15.1202	Computer systems—digital processing
15.1202	Computer systems—small systems architecture
15.1202	Computer technologies
15.1202	Computer technology
15.1202	Computer technology—process control
15.1302	Computer-aided design
15.1302	Computer-aided design and drafting technology
15.1302	Computer-aided drafting
15.0613	Computer-aided manufacturing technology
15.1302	Computer-assisted drafting
52.0302	Computerized accounting
52.0302	Computerized bookkeeping
48.0501	Computerized numerically controlled manufacturing
11.0101	Computing and information science
11.0101	Computing and information systems
11.0701	Computing science
46.0101	Concrete block laying
46.0402	Concrete finishing
40.0808	Condensed-matter physics
50.0906	Conducting

30.0501	Conflict resolution studies
26.1307	Conservation biology
03.0299	Conservation law enforcement
03.0201	Conservation management
03.0299	Conservation officer
22.0204	Constitutional law (graduate level)
46.0000	Construction
48.0801	Construction boilermaker
46.0201	Construction carpentry
15.1303	Construction drafting
46.0302	Construction electrician
14.3301	Construction engineering
15.1001	Construction engineering technician
15.1001	Construction engineering technology
46.0412	Construction foreman/woman
52.2001	Construction management
52.2001	Construction project management
46.0412	Construction supervision
15.1102	Construction surveying
15.1001	Construction technology
46.0000	Construction trades
19.0201	Consumer behaviour
19.0402	Consumer economics
19.0402	Consumer economics and science
19.0403	Consumer education and advocacy
19.0403	Consumer services
19.0201	Consumer studies
50.0301	Contemporary dance
13.1201	Continuing education
14.2701	Control engineering
52.0903	Conventions and meetings management
12.0500	Cook
12.0500	Cooking
36.0112	Cooking and other domestic skills
12.0503	Cooking chef
09.1001	Copywriting
51.1699	Coronary care nursing
52.0501	Corporate communications
22.0205	Corporate law (graduate level)
22.0205	Corporation law (graduate level)
43.0102	Correction services worker
43.0102	Correctional officer
43.0102	Correctional services
43.0102	Correctional techniques
43.0102	Correctional worker
43.0102	Corrections
43.0113	Corrections administration
12.0412	Cosmetic techniques and management
12.0401	Cosmetician
12.0401	Cosmetologist
12.0401	Cosmetology
12.0413	Cosmetology instructor
40.0202	Cosmology

50.0502	Costume design	**30.1202**	Cultural resource management
42.0601	Counselling psychology	**30.1202**	Cultural resource management and
13.0501	Courseware authoring		policy analysis
13.0501	Courseware development	**13.0901**	Culture and values in education
22.0399	Court and administrative tribunal	**13.0301**	Curriculum
	agent	**13.0404**	Curriculum and administration
22.0399	Court and tribunal agent	**13.0301**	Curriculum and instruction
22.0303	Court reporter	**13.0301**	Curriculum development
22.0303	Court reporting	**13.0301**	Curriculum studies
22.0303	Court stenographer	**13.0301**	Curriculum theory
22.0303	Court stenography	**13.0301**	Curriculum, teaching and learning
22.0399	Court worker	**16.1199**	Cushitic languages
50.0201	Crafts	**52.0411**	Customer service
49.0206	Crane operating	**52.0411**	Customer service by telephone
49.0206	Crane operator	**52.0207**	Customer service management
09.0903	Creative advertising	**52.0411**	Customer service representative
50.0402	Creative advertising design	**43.0103**	Customs administration
50.0401	Creative design	**03.0599**	Cutter and skidder
50.0407	Creative fashion design	**11.1003**	Cyberspace security
50.0409	Creative graphics	**51.1010**	Cytogenetics
23.0501	Creative non-fiction	**26.0401**	Cytology
50.0605	Creative photography	**60.0267**	Cytopathology—residency
23.0501	Creative writing	**51.1002**	Cytotechnologist
52.0809	Credit management	**51.1002**	Cytotechnology
16.1001	Cree language	**16.0406**	Czech
16.1001	Cree language studies	**16.0406**	Czech language and literature
16.1001	Cree linguistics	**01.0306**	Dairy farming
45.0401	Criminal deviance	**01.0306**	Dairy herd management
43.0103	Criminal justice administration	**01.0306**	Dairy herdsman/woman
43.0104	Criminal justice studies	**01.0306**	Dairy husbandry
43.0107	Criminal justice—policing	**01.0306**	Dairy management
43.0109	Criminal justice—security	**01.0306**	Dairy production
22.0101	Criminal law (except graduate level)	**01.0905**	Dairy science
22.0299	Criminal law (graduate level)	**01.0306**	Dairy technology
42.2601	Criminal psychology	**01.0306**	Dairying
43.0104	Criminal safety studies	**16.1001**	Dakota language studies
43.0111	Criminal science	**50.0301**	Dance
43.0104	Criminal studies	**13.1324**	Dance instructor
43.0111	Criminalistics	**51.2302**	Dance therapy
45.0401	Criminology	**50.0301**	Dancing
60.0210	Critical care	**36.0114**	Dancing (not for credit)
	anesthesiology—residency	**16.0503**	Danish
60.0211	Critical care medicine—residency	**16.0503**	Danish language and literature
51.1617	Critical care nursing	**11.0601**	Data entry
60.0212	Critical care surgery—residency	**11.0601**	Data entry clerk
16.0408	Croatian	**11.0601**	Data entry operator
01.1199	Crop and horticultural science	**11.0301**	Data processing
01.0304	Crop production	**11.0301**	Data processing technology
01.1105	Crop protection	**11.0301**	Data processor
01.1102	Crop science	**11.0802**	Data warehousing
01.0304	Crop technology	**11.0802**	Database administration
05.0203	Cuban American studies	**11.0802**	Database developer
12.0504	Culinary administration	**11.0802**	Database management
12.0503	Culinary arts	**52.1909**	Database marketing
12.0504	Culinary management	**19.0709**	Day care
45.0701	Cultural geography	**19.0709**	Day care worker

16.1499	Dayak	**48.0507**	Die making
19.0709	Daycare assistant	**47.0605**	Diesel engine mechanic
19.0708	Daycare management	**47.0605**	Diesel mechanic
19.0709	Daycare provider	**47.0605**	Diesel service technician
13.1003	Deaf education	**47.0605**	Diesel technician
49.0309	Deck officer	**51.3104**	Dietary aide
49.0304	Deep-sea diving	**19.0505**	Dietary and food service management
29.0101	Defence management and policy		
29.0101	Defence studies	**51.3104**	Dietary assistant
45.0501	Demography	**51.3103**	Dietetic technician
51.0601	Dental assistant	**51.3101**	Dietetics
51.0601	Dental assisting	**13.1327**	Dietetics education
51.0602	Dental hygiene	**13.1327**	Dietetics teaching
13.1327	Dental hygiene education	**51.3101**	Dietitian
51.0602	Dental hygienist	**10.0304**	Digital animation
51.0603	Dental laboratory technician	**09.0702**	Digital communications
51.0603	Dental laboratory technology	**10.0303**	Digital imaging
51.0505	Dental materials	**45.0702**	Digital mapping
51.0601	Dental nursing	**09.0702**	Digital media
51.0705	Dental office administration	**11.0801**	Digital media technology
51.0504	Dental public health and education	**10.0304**	Digital production and animation
60.0102	Dental public health specialty—residency	**12.0507**	Dining room services
		50.0507	Direction of plays
51.0712	Dental reception	**43.9999**	Disaster and emergency management
51.0712	Dental reception coordinator		
51.0712	Dental receptionist	**43.9999**	Disaster and emergency studies
51.0501	Dental sciences (MSc, PhD)	**49.0304**	Diving instructor
51.0716	Dental secretary	**39.0602**	Divinity
51.0603	Dental technician	**51.1201**	Doctor
51.0603	Dental technology	**51.0401**	Doctor of dental medicine
51.0699	Dental therapy	**51.1201**	Doctor of medicine
60.0101	Dental/oral surgery specialty—residency	**51.0710**	Doctor's office assistant
		01.0504	Dog grooming
51.0401	Dentist	**01.0505**	Dog training
51.0401	Dentistry	**19.0101**	Domestic science
51.0603	Denturist	**15.1301**	Drafting
60.0213	Dermatology—residency	**15.1302**	Drafting CAD
60.0214	Dermatopathology—residency	**15.1301**	Drafting industrial
15.1301	Design and drafting technology	**15.1304**	Drafting surveying
50.0401	Design arts	**15.1301**	Drafting technician
15.1301	Design drafting technician	**15.1301**	Drafting technology
14.9999	Design engineering	**15.1399**	Drafting—architectural/electrical
50.0502	Design, scenery, costume and lighting	**15.1399**	Drafting—architectural/industrial
		15.1304	Drafting—civil and municipal
10.0303	Desktop publishing	**50.0501**	Drama
52.1906	Development and promotion of travel products	**50.0501**	Drama and theatre
		13.1324	Drama education
45.0604	Development economics	**50.0506**	Dramatic art—acting
26.0404	Developmental biology	**50.0501**	Dramatic arts
42.0701	Developmental psychology	**50.0505**	Dramatic literature
39.0602	Diaconal ministry	**50.0705**	Drawing
51.0910	Diagnostic medical sonography	**50.0407**	Dress design
60.0215	Diagnostic radiology—residency	**19.0999**	Dress maker
51.1011	Dialysis technologist	**19.0999**	Dress making
15.0901	Diamond drilling	**46.0505**	Drilling and blasting
52.0408	Dicta-typing	**13.1304**	Driver instructor

13.1304	Driving instructor	**13.1014**	Education of individuals who are developmentally delayed
51.1501	Drug and alcohol counselling	**13.1013**	Education of individuals with autism
19.0999	Dry cleaning		
46.0404	Drywall finishing	**13.1007**	Education of individuals with multiple disabilities
46.0404	Drywall installation		
46.0404	Drywall taping	**13.1008**	Education of individuals with orthopedic and other physical health impairments
46.0404	Drywalling		
16.0504	Dutch		
16.0504	Dutch language and literature	**13.1011**	Education of individuals with specific learning disabilities
52.0208	E-business		
52.0208	E-commerce	**13.1012**	Education of individuals with speech or language impairments
52.1499	E-marketing		
11.0801	E-media development technology	**13.1016**	Education of individuals with traumatic brain injuries
19.0706	Early child development		
19.0708	Early childhood administration	**13.1009**	Education of individuals with vision impairments
19.0706	Early childhood development		
19.0709	Early childhood education	**13.1003**	Education of the deaf
19.0709	Early childhood education (ECE) teaching	**13.1327**	Education pharmacy
		13.1315	Education reading specialist
19.0709	Early childhood education assistant	**13.1399**	Education recreation
13.1015	Early childhood education special needs	**13.1005**	Education/teaching of individuals with emotional disturbances
13.1210	Early childhood education teaching	**13.1006**	Education/teaching of intellectually-impaired individuals
19.0708	Early childhood program management	**13.0401**	Educational administration
		13.0401	Educational administration and foundations
13.1015	Early childhood special education		
50.0903	Early music performance	**13.1501**	Educational assistant
40.0601	Earth sciences	**13.0901**	Educational contexts
16.0300	East Asian languages	**13.0901**	Educational foundations
05.0104	East Asian studies	**13.0401**	Educational leadership
05.0105	East European studies	**13.0401**	Educational leadership and policy
38.0299	Eastern and Native American religious traditions	**13.0401**	Educational leadership studies
		13.0501	Educational media
38.0203	Eastern Christian studies	**42.1801**	Educational psychology
38.0199	Eastern philosophy	**13.0601**	Educational research
51.0902	ECG technician	**13.0603**	Educational statistics and research methods
26.1301	Ecology		
45.0603	Econometrics	**13.0901**	Educational studies
45.0604	Economic development	**13.0501**	Educational technology
45.0601	Economic sciences	**13.0901**	Educational theory
45.0601	Economic studies	**51.0903**	EEG technician
45.0601	Economics	**51.0902**	EKG technician
13.1317	Economics education	**47.0614**	Electric vehicle service technician
26.1006	Ecotoxicology	**14.1001**	Electrical and electronic engineering
13.0101	Education		
13.0401	Education administration	**15.1305**	Electrical CAD
13.1501	Education assistant	**15.0303**	Electrical control engineering technology
13.1321	Education computer science		
13.1101	Education counselling	**15.1305**	Electrical drafting
13.0301	Education curriculum	**14.1001**	Electrical engineering
13.1101	Education guidance	**15.0303**	Electrical engineering technology
13.1327	Education health care	**15.0404**	Electrical instrumentation
13.1399	Education law	**47.0101**	Electrical maintenance
13.1399	Education library science	**47.0101**	Electrical motor systems technician
13.1004	Education of exceptional children		

14.1001	Electrical power engineering
46.0303	Electrical power lineman/woman
47.0101	Electrical repair
46.0301	Electrical systems installation
15.0303	Electrical technician
46.0302	Electrician
15.0303	Electrician/electronic technician
14.9999	Electro-mechanical engineering
50.0904	Electroacoustic studies
12.0404	Electrologist
12.0404	Electrology
12.0404	Electrolysis
15.0403	Electromechanical engineering technology
15.0403	Electromechanical technician
15.0403	Electromechanical technology
15.0399	Electronic and network technician
52.0208	Electronic commerce
11.0301	Electronic data processing
14.1001	Electronic engineering
15.0303	Electronic engineering technology
15.0303	Electronic engineering technology—communication
15.1202	Electronic information systems technology—computer systems option
10.0303	Electronic prepress
10.0303	Electronic publishing
15.0303	Electronic systems technician
14.1001	Electronics and communications engineering
15.1305	Electronics CAD
15.1305	Electronics drafting
13.1320	Electronics education
47.0101	Electronics repair
13.1320	Electronics teaching
13.1202	Elementary education
40.0804	Elementary particle physics
13.0408	Elementary principal
13.0408	Elementary school principal
13.1202	Elementary school teacher
13.1202	Elementary teacher training
46.9999	Elevator installation
46.9999	Elevator mechanic
46.9999	Elevator technology
12.0303	Embalmer
12.0303	Embalming
26.0404	Embryology
51.0904	Emergency medical care attendant
51.0810	Emergency medical responder (EMR)
51.0904	Emergency medical technician (EMT)
51.0904	Emergency medical technician paramedic

51.0810	Emergency medical technician—ambulance (EMT-A)
60.0216	Emergency medicine—residency
51.1699	Emergency nursing
26.0904	Endocrinology
60.0217	Endocrinology and metabolism—residency
51.0506	Endodontics (MSc, PhD)
60.0103	Endodontics specialty—residency
51.0506	Endodontist (MSc, PhD)
22.0207	Energy law (graduate level)
15.0503	Energy management
15.0503	Energy systems
15.0503	Energy systems technology
47.0615	Engine machinist
47.0615	Engine rebuilding
14.0101	Engineering
14.9999	Engineering design
15.1399	Engineering design and drafting technology
15.1399	Engineering design technologist
15.1399	Engineering drafting technology
13.1399	Engineering education
15.1501	Engineering management
14.1101	Engineering mechanics
14.1201	Engineering physics
14.1301	Engineering science
13.1399	Engineering teaching
15.0000	Engineering technician
15.0000	Engineering technology
23.0101	English
16.1701	English as a second language (ESL) teaching
05.0122	English Canadian studies
23.0401	English composition
13.1305	English education
23.0101	English language
23.0101	English language and literature
13.1305	English language arts education
16.0102	English linguistics
23.0101	English literature
13.1305	English literature education
23.0101	English studies
13.1305	English teacher
13.1305	English teaching
11.0802	Enterprise database management
26.0702	Entomology
52.0701	Entrepreneurial studies
52.0701	Entrepreneurship
03.0101	Environmental and conservation science
26.1305	Environmental biology
40.0599	Environmental chemistry
03.0101	Environmental conservation
04.0401	Environmental design
04.0401	Environmental design studies

03.0204	Environmental economics	45.0201	Ethnology
13.1399	Environmental education	50.0905	Ethnomusicology
14.1401	Environmental engineering	26.0708	Ethology
15.0507	Environmental engineering technology	16.1299	Etruscan
51.2202	Environmental health	05.0105	European and Russian studies
14.1401	Environmental health engineering	54.0103	European cultural history
01.0601	Environmental horticulture technology	54.0103	European history
		05.0106	European integration studies
01.0605	Environmental landscape management	38.0199	European philosophy
		54.0103	European social history
22.0101	Environmental law (except graduate level)	05.0106	European studies
		52.0903	Events and convention management
22.0207	Environmental law (graduate level)	26.1303	Evolutionary biology
03.0299	Environmental law enforcement	52.0402	Executive assistant
03.0201	Environmental management	52.0402	Executive secretary
03.0299	Environmental monitoring and enforcement	31.0501	Exercise and sports science
		26.0908	Exercise physiology
42.2101	Environmental psychology	31.0505	Exercise sciences
03.0103	Environmental resource studies	38.0199	Existentialism
03.0104	Environmental science	26.0910	Experimental pathology
15.0507	Environmental science technology	40.0801	Experimental physics
01.1299	Environmental soil science	42.0801	Experimental psychology
03.0103	Environmental studies	46.0505	Explosives technician
03.0101	Environmental systems	52.0903	Exposition, convention and trade show management
15.0501	Environmental systems engineering technology	13.1201	Extension education
		19.0906	Fabric consultant
15.0503	Environmental systems engineering technology—energy management	50.0712	Fabric design
		12.0408	Facial therapy
15.0507	Environmental technology	19.0604	Facilities management
26.1006	Environmental toxicology	19.0604	Facility planning
26.1309	Epidemiology	16.0599	Faeroese
38.0199	Epistemology	19.0701	Family and child studies
01.0507	Equestrian coaching	19.0707	Family and community studies
01.0507	Equestrian instructor	19.0202	Family and consumer sciences/human sciences
01.0507	Equestrian management		
01.0507	Equestrian sports	19.0201	Family and consumer studies
01.0507	Equestrian studies	13.1308	Family and consumer studies teaching
01.0507	Equestrian training		
01.0307	Equine care	19.0704	Family and social relations
01.0507	Equine coaching	51.1505	Family counselling
01.0307	Equine management	22.0299	Family law (graduate level)
01.0307	Equine massage therapy	13.1308	Family life education
01.0307	Equine science	60.0218	Family medicine—residency
01.0507	Equine studies	42.2501	Family psychology
01.0307	Equine technology	19.0704	Family relations
47.0000	Equipment mechanic	19.0401	Family resource management
47.0000	Equipment repair	19.0101	Family science
14.3501	Ergonomics engineering	19.0101	Family social sciences
12.0409	Esthetician	19.0000	Family studies
12.0409	Esthetics	13.1308	Family studies education
12.0409	Esthetics—skin and beauty care	19.0704	Family systems
12.0409	Esthetics—skin care	51.1505	Family therapy
16.1502	Estonian	01.0104	Farm business
38.0103	Ethics	01.0104	Farm business management
38.0103	Ethics studies	01.1299	Farm drainage

01.0205	Farm equipment mechanic		13.1302	Fine arts education
01.0204	Farm equipment operator		13.1302	Fine arts teaching
01.0205	Farm equipment technician		46.0201	Finishing carpentry
01.0205	Farm machinery mechanic		16.1502	Finnish
01.0205	Farm machinery repair		47.0110	Fire alarm and protection system
01.0205	Farm machinery technician		47.0110	Fire alarm technician
01.0104	Farm management		43.0201	Fire inspection
01.0104	Farm management and technology		43.0201	Fire prevention
01.0105	Farm supplies retailing and wholesaling		43.0201	Fire protection
			15.9999	Fire protection engineering technician
01.0307	Farrier		15.9999	Fire protection engineering technologist
01.0307	Farrier science			
19.0906	Fashion consultant		43.0201	Fire protection inspection and testing
50.0407	Fashion design			
19.0905	Fashion management		43.0201	Fire protection technology
52.1902	Fashion marketing		14.9999	Fire safety engineering
52.1902	Fashion merchandising		43.0201	Fire safety techniques
52.1903	Fashion modelling		43.0203	Fire science
50.0407	Fashion production		43.0203	Fire science technology
52.1904	Fashion retail		43.0202	Fire service administration
50.0407	Fashion techniques and design		43.0202	Fire service management
19.0905	Fashion techniques and management		47.0402	Firearms repair
			43.0203	Firefighting
52.1701	Fellow of the Insurance Institute of Canada (FIIC)		43.0203	Firefighting technology
			43.0107	First Nations constable
38.0199	Feminist philosophy		13.0203	First Nations education
52.0903	Festivals/community events management		16.1001	First Nations language
			44.0401	First Nations public administration
50.0712	Fibre arts		05.0202	First Nations studies
47.0616	Fibreglass boat repair		26.0709	Fish and wildlife biology
01.0304	Field crop production		03.0299	Fish and wildlife law enforcement
31.0501	Figure skating		01.0303	Fish culture
31.0501	Figure skating coaching		01.0303	Fish farming
16.1404	Filipino		26.1304	Fisheries biology
50.0602	Film and video production		03.0301	Fisheries development
50.0601	Film and video studies		03.0301	Fisheries management
50.0602	Film directing		03.0301	Fisheries science
50.0601	Film history		49.0303	Fisherman/woman
50.0601	Film history, theory, and criticism		49.0303	Fishing
22.0299	Film law (graduate level)		49.0303	Fishing captain
50.0602	Film making		49.0303	Fishing master
50.0602	Film production		31.0501	Fitness and exercise leadership
50.0601	Film studies		31.0501	Fitness and health
50.0601	Film theory		31.0501	Fitness and health promotion
52.0801	Finance		31.0501	Fitness and lifestyle management
52.0304	Financial accounting		31.0501	Fitness instructor
52.0601	Financial economics		31.0501	Fitness leadership
52.0807	Financial investments		31.0501	Fitness training
52.0801	Financial management		16.0504	Flemish
52.0804	Financial planning		49.0106	Flight attendant
52.0807	Financial securities		49.0102	Flight engineer
52.0804	Financial services		49.0108	Flight instructor
52.0804	Financial services management		49.0106	Flight steward
52.1908	Financial services marketing		46.0499	Floor covering installation
50.0703	Fine art history		46.0499	Floor laying
50.0702	Fine arts			

01.0608	Floral arrangement	03.0510	Forest resources production and
01.0608	Floral arts		management
01.0608	Floral design	03.0502	Forest science
01.0608	Floral industry	03.0511	Forest technician
01.0608	Floriculture	03.0511	Forest technology
01.0608	Florist	03.0501	Forester
01.0608	Florist designer	03.0501	Forestry
01.0608	Floristry	03.0511	Forestry crew person
01.0608	Floristry operations and	13.1399	Forestry education
	management	03.0299	Forestry law enforcement
01.0401	Flour milling	03.0511	Forestry technician
47.0302	Fluid power and control mechanic	03.0511	Forestry technology
15.1103	Fluid power technician	16.0399	Formosan
49.0108	Flying instructor	52.0702	Franchise operations
12.0507	Food and beverage service	52.0702	Franchising
19.0504	Food and human nutrition	49.9999	Freight forwarding
19.0501	Food and nutrition	55.0101	French
19.0505	Food and nutrition management	16.1702	French as a second language
01.1001	Food chemistry	55.0801	French business writing
14.0301	Food engineering	55.0501	French Canadian literature
01.0401	Food inspection	55.0301	French composition
12.0505	Food preparation	55.0401	French creative writing
01.1002	Food processing	13.1325	French education
14.0301	Food processing engineering	54.0103	French history
01.1001	Food science	55.0101	French language
12.0508	Food service worker	55.0101	French language and literature
01.1002	Food technology	16.0102	French linguistics
19.0501	Food, nutrition and health	55.0701	French speech and rhetoric studies
16.0101	Foreign languages	05.0124	French studies
16.0101	Foreign languages and literature	13.1325	French teacher
22.0202	Foreign lawyer trainee program	13.1325	French teaching
52.1101	Foreign trade	55.0801	French technical and business
52.0303	Forensic accounting		writing
45.0202	Forensic anthropology	55.0801	French technical writing
43.0106	Forensic investigation—forensic	16.0599	Frisian
	science	16.0999	Friulian
60.0219	Forensic pathology—residency	47.0699	Fuel and lube technician
42.2601	Forensic psychology	27.0103	Functional analysis
43.0106	Forensic science	52.0206	Fundraising
43.0106	Forensic science and technology	52.0206	Fundraising management
43.0106	Forensic science technology	12.0301	Funeral and allied health services
43.0106	Forensic studies	12.0302	Funeral directing
03.0502	Forest biology	12.0301	Funeral directing and embalming
03.0502	Forest ecology	12.0302	Funeral director
03.0204	Forest economics	12.0301	Funeral industry
14.3401	Forest engineering	12.0302	Funeral services director
03.0502	Forest entomology	03.9999	Fur trade
03.0511	Forest firefighting	48.0702	Furniture design
03.0502	Forest genetics	48.0702	Furniture making
03.0511	Forest harvesting technology	48.0303	Furniture upholstery
03.0506	Forest management	19.0999	Furrier
03.0502	Forest pathology	16.0999	Galician
03.0511	Forest products technology	03.0299	Game warden
03.0299	Forest ranger	31.9999	Gaming attendant
31.0101	Forest recreation technician	01.0605	Garden design
03.0506	Forest resource management	50.0407	Garment design

47.0201	Gas and oil burner technician
46.0502	Gas fitting
15.0903	Gas processing
60.0220	Gastroenterology—residency
05.0208	Gay and lesbian studies
50.0713	Gemology
05.0299	Gender studies
51.0914	Gene therapy
24.0102	General arts
24.0102	General arts and science
52.0101	General business
52.0101	General business studies
46.0000	General construction
52.2001	General construction estimating
15.1301	General drafting
14.0101	General engineering
54.0101	General history
24.0103	General humanities
48.0501	General machinist
47.0000	General mechanic
51.1201	General medicine
51.1201	General physician
42.0101	General psychology
24.0102	General science
52.0401	General secretariat
24.0102	General studies
24.0102	General study
60.0221	General surgery—residency
51.1509	Genetic counselling
14.9999	Genetic engineering
26.0801	Genetics
01.1104	Genetics and plant breeding
26.0802	Genomics
40.0602	Geochemistry
40.0699	Geodesy (university level)
14.3801	Geodesy and geomatics engineering
14.3801	Geodetic engineering
14.3801	Geodetic sciences
45.0702	Geographic information systems (GIS)
45.0701	Geographic sciences
45.0701	Geography
13.1332	Geography education
13.1332	Geography teacher
14.3901	Geological engineering
15.9999	Geological engineering technology
40.0601	Geological sciences
40.0601	Geologist
40.0601	Geology
40.0603	Geology and physics
13.1316	Geology education
45.0702	Geomatics
14.3801	Geomatics engineering
45.0702	Geomatics technician
45.0702	Geomatics technology
27.0104	Geometric analysis

27.0104	Geometry
14.3901	Geophysical engineering
40.0603	Geophysics
16.1599	Georgian
40.0601	Geoscience
14.0802	Geotechnical engineering
60.0268	Geriatric medicine (internal medicine)—residency
60.0222	Geriatric medicine—residency
51.1699	Geriatric nursing
16.0501	German
54.0103	German history
16.0501	German language
16.0501	German language and literature
16.0501	German linguistics
16.0501	German literature
16.0501	German philology
38.0199	German philosophy
05.0125	German studies
13.1326	German teacher
13.1326	German teaching
16.0500	Germanic languages
16.0500	Germanic philology
05.0125	Germanic studies
19.0702	Gerontological services
30.1101	Gerontology
30.1101	Gerontology—recreation and leisure
30.1101	Gerontology—studies in aging
42.2201	Geropsychology
13.1004	Gifted education
50.0799	Glass blowing
46.0406	Glass working
46.0406	Glazier
46.0406	Glazier—auto glass technician
46.0406	Glazing
45.0605	Global economics
30.2001	Global studies
52.1905	Global tourism and marketing—tourism option
50.0713	Goldsmithing
31.0504	Golf club management
31.0504	Golf club management and operations
01.0607	Golf course maintenance
31.0504	Golf course management
31.0504	Golf course superintendent
01.0607	Golf course technology
31.0504	Golf management
31.0501	Golf professional
16.0599	Gothic
44.0401	Government administration
49.0202	Grader operator
01.0401	Grain inspection
10.0303	Graphic arts and prepress technology
10.0303	Graphic arts electronic prepress

10.0301	Graphic arts production	51.2207	Health education
10.0303	Graphic arts/printing (prepress)	51.2706	Health informatics
10.0301	Graphic communications	51.0706	Health information management
10.0399	Graphic communications and production technology	11.0401	Health information science
		51.0707	Health information technology
10.0302	Graphic communications management	22.0208	Health law (graduate level)
		51.0701	Health management
50.0409	Graphic design	51.0705	Health office administration
10.0303	Graphic design for print and web	51.2205	Health physics
50.0410	Graphic illustration	51.2207	Health promotion
10.0301	Graphic production and printing	42.2301	Health psychology
16.0601	Greek	51.0706	Health record administration
30.2202	Greek and Roman studies	51.0707	Health record technician
38.0199	Greek philosophy	51.0707	Health record technology
01.0604	Greenhouse management	51.0706	Health records administration
01.0604	Greenhouse operations and management	51.0000	Health sciences
		51.0000	Health services
01.0607	Greenskeeping	51.2211	Health services administration
01.0605	Greenspace management	51.2211	Health services management
01.0605	Groundskeeping	51.0000	Health studies
13.1101	Guidance and counselling	13.1307	Health teacher education
13.1101	Guidance counselling	51.0703	Health unit clerk
50.0911	Guitar	51.0703	Health unit coordinator
16.0799	Gujarati	51.0704	Health unit manager
47.0402	Gunsmith	51.0715	Health/medical claims examiner
47.0402	Gunsmithing	47.0201	Heating and air conditioning (HAC) technician
31.0501	Gymnastics		
31.0501	Gymnastics coaching	47.0201	Heating, air conditioning and refrigeration (HACR) technician
12.0407	Hairdresser		
12.0413	Hairdresser instructor	14.9999	Heating, ventilation and air conditioning (HVAC) engineering (university level)
12.0407	Hairdressing		
12.0413	Hairdressing teacher		
12.0407	Hairstyling	47.0201	Heating, ventilation and air conditioning (HVAC) mechanics
12.0407	Hairstylist		
60.0223	Hand surgery—residency	15.0501	Heating, ventilation and air conditioning (HVAC) technology
50.0201	Handicrafts		
36.0102	Handicrafts and model-making	47.0201	Heating, ventilation, air conditioning and refrigeration (HVACR) technician
15.0901	Hard rock mining		
14.0902	Hardware engineering		
50.0911	Harp	49.0202	Heavy construction equipment operator
50.0907	Harpsichord		
15.0704	Hazardous materials information systems technology	47.0605	Heavy duty diesel mechanic
		47.0302	Heavy duty equipment mechanic
		49.0202	Heavy duty equipment operator
15.0508	Hazardous materials management	47.0613	Heavy duty/commercial transport repair mechanic
15.0508	Hazardous waste technology		
51.0000	Health	47.0302	Heavy equipment maintenance
51.0701	Health administration	47.0302	Heavy equipment mechanic
51.2601	Health aide	49.0202	Heavy equipment operator
31.0501	Health and fitness studies	47.0302	Heavy equipment repair
19.0501	Health and nutrition	47.0302	Heavy equipment service technician
51.0701	Health care administration	47.0302	Heavy equipment technician
51.2601	Health care aide	47.0302	Heavy equipment techniques
51.2601	Health care attendant	49.0202	Heavy machinery operator
51.0701	Health care management	49.0205	Heavy truck driving
51.2601	Health care worker	16.1102	Hebrew
09.0905	Health communication		

39.0201	Hebrew Bible	54.0104	History of science
16.1102	Hebrew language	13.1328	History teacher
13.1306	Hebrew teacher	49.0206	Hoisting engineer
49.0102	Helicopter pilot	49.0206	Hoistman/woman
60.0225	Hematological pathology—residency	51.3399	Holistic health
		51.3399	Holistic medicine
51.1003	Hematology technology/technician	51.3199	Holistic nutrition
60.0224	Hematology—residency	30.2101	Holocaust and genocide studies
51.3702	Herbal medicine	30.2101	Holocaust studies
51.3702	Herbalism	39.9999	Holy scripture
51.3702	Herbalist	46.0000	Home building
51.3702	Herbology	51.2602	Home care aide
51.2507	Herd medicine and theriogenology (Cert., MSc, PhD)	51.2602	Home care attendant
		19.0605	Home decorating
48.0508	High pressure welding	19.0101	Home economics
13.0409	High school principal	13.1308	Home economics education
13.1205	High school teacher	13.1308	Home economics teacher
46.0303	High voltage lineman	13.1308	Home economics teaching
40.0805	High-temperature physics	51.2602	Home health aide
13.0406	Higher education	46.0403	Home inspection
13.0406	Higher education administration	19.0101	Home science
14.0804	Highway engineering	51.2602	Home support aide
31.0101	Hiking guide	51.2602	Home support attendant
16.0701	Hindi	51.3304	Homeopathic medicine
16.0701	Hindi language	51.3304	Homeopathy
16.0701	Hindi literature	39.0602	Homiletics
38.0204	Hindu religion	01.0307	Horse breeding
38.0204	Hinduism	01.0307	Horse grooming
05.0203	Hispanic American studies	01.0307	Horse husbandry
05.0130	Hispanic studies	01.0507	Horse training
51.1008	Histologic technician	01.0307	Horseshoeing
51.1007	Histologic technologist	01.0601	Horticultural apprenticeship
26.0401	Histology	01.0605	Horticultural landscaping
30.1201	Historic preservation	01.1104	Horticultural plant breeding
30.1201	Historic preservation and conservation	01.1103	Horticultural science
		01.0601	Horticultural technology
45.0301	Historical archeology	01.0601	Horticulture
45.0799	Historical geography	01.0601	Horticulture operations
54.0101	Historical research	01.0601	Horticulture services
54.0101	Historical studies	01.0601	Horticulturist
39.9999	Historical theology	51.0702	Hospital administration
54.0101	History	51.0702	Hospital management
50.0703	History and philosophy of art	51.2008	Hospital pharmacy
13.0901	History and philosophy of education	51.0703	Hospital unit clerk
		52.0901	Hospitality administration
38.9999	History and philosophy of religion	52.0901	Hospitality and tourism administration
54.0104	History and philosophy of science		
39.9999	History and theology	52.0901	Hospitality and tourism management
04.0801	History and theory of architecture		
45.0699	History of economics	52.0901	Hospitality industry management
13.0901	History of education	52.0901	Hospitality management
38.0199	History of philosophy	52.1910	Hospitality marketing
54.0107	History of Quebec and Canada	52.0904	Hotel administration
38.0299	History of religion	52.0904	Hotel management
38.0299	History of religious movements and institutions	46.0408	House painting
		19.0101	Household science

19.0601	Housing
47.0616	Hull technician
26.9999	Human biology
51.0201	Human communication disorders
19.0701	Human development
19.0701	Human development studies
19.0601	Human environments
14.3501	Human factors engineering
26.0806	Human genetics
45.0701	Human geography
31.0505	Human kinetics
19.0504	Human nutrition
30.1901	Human nutritional sciences
45.0201	Human paleontology
31.0505	Human performance
26.0901	Human physiology
42.9999	Human psychology
52.1001	Human resources administration
52.1005	Human resources development
52.1001	Human resources management
44.0000	Human service worker
44.0000	Human services
44.0000	Human services counsellor
24.0103	Humanistic studies
24.0103	Humanities
16.1503	Hungarian
16.1503	Hungarian literature
03.9999	Hunting
31.0101	Hunting and fishing guide
47.0614	Hybrid powered automobile service technician
47.0302	Hydraulic mechanic
15.1103	Hydraulic technician
40.0699	Hydrogeology
15.1102	Hydrographic survey
40.0605	Hydrology
51.3603	Hypnotherapy
16.0599	Icelandic
50.0410	Illustration
16.1499	Ilokano
26.0507	Immunology
60.0226	Immunopathology—residency
24.0101	Independent studies
13.0203	Indian and northern education
50.0201	Indian art
13.0203	Indian education
24.0101	Individualized liberal studies
24.0101	Individualized studies
16.1401	Indo-Pacific languages
13.1309	Industrial arts education
13.1309	Industrial arts teacher
15.0404	Industrial control technician
50.0404	Industrial design
15.1301	Industrial drafting
45.0602	Industrial economics
13.1320	Industrial education

46.0302	Industrial electrician
47.0105	Industrial electronics technician
47.0105	Industrial electronics technology
14.3501	Industrial engineering
15.0612	Industrial engineering technology
15.0703	Industrial hygiene technology
15.0404	Industrial instrumentation
15.0404	Industrial instrumentation technology
48.0501	Industrial machinist
47.0303	Industrial maintenance mechanic
47.0303	Industrial maintenance technician
52.0205	Industrial management
47.0303	Industrial mechanic
47.0303	Industrial mechanic millwright
47.0303	Industrial mechanics
47.0303	Industrial millwright
46.0408	Industrial painting
51.2009	Industrial pharmacy
46.0502	Industrial pipefitting
42.0901	Industrial psychology
41.0204	Industrial radiographer
41.0204	Industrial radiography
41.0204	Industrial radiological technician
41.0204	Industrial radiological technology
52.1002	Industrial relations
46.0410	Industrial roofing
15.0703	Industrial safety technology
52.0205	Industrial supervision
14.3501	Industrial systems engineering
15.0612	Industrial technician
15.0612	Industrial technology
47.0409	Industrial warehousing
48.0508	Industrial welding
48.0701	Industrial woodworking
19.0709	Infant and toddler care
60.0227	Infectious disease—residency
25.9999	Information and library technologies
22.0101	Information and technology law (except graduate level)
22.0299	Information and technology law (graduate level)
25.9999	Information management and library technology
52.1206	Information resources management
11.0401	Information science
11.0401	Information studies
11.0103	Information systems
11.1003	Information systems security
11.0103	Information technology
51.0908	Inhalation therapy
22.0299	Innovation law (graduate level)
40.0503	Inorganic chemistry
52.0299	Institutional administration
12.0500	Institutional cook

12.0500	Institutional cooking		54.0199	International history
52.0299	Institutional management		52.0901	International hospitality management
12.0506	Institutional meat cutting			
13.0501	Instructional media		22.0209	International human rights law (graduate level)
13.0501	Instructional technology			
15.0404	Instrument mechanic		22.0101	International law (except graduate level)
15.0404	Instrument technology			
50.0903	Instrumental performance		22.0209	International law (graduate level)
15.0404	Instrumentation		22.0209	International legal studies (graduate level)
15.0404	Instrumentation and control engineering technician			
14.9999	Instrumentation engineering		52.1101	International management
15.0404	Instrumentation engineering technology		52.1403	International marketing
			45.0901	International politics
			51.2210	International public health/international health
15.0404	Instrumentation mechanic			
15.0404	Instrumentation technician		45.0901	International relations
15.0404	Instrumentation technology		30.2001	International studies
46.0499	Insulation		22.0210	International tax law (graduate level)
52.1701	Insurance			
52.1701	Insurance adjuster		52.1101	International trade
52.1701	Insurance agent		22.0210	International trade law (graduate level)
52.1701	Insurance broker			
52.1701	Insurance underwriting		11.0801	Internet website development
14.0101	Integrated engineering		38.0299	Interpretations of religion
03.0206	Integrated land management		16.0103	Interpreter translator
01.1105	Integrated pest management		54.0107	Inuit history
03.0201	Integrated resource management		05.0202	Inuit studies
51.3799	Integrative energy healing		52.0409	Inventory control
51.1617	Intensive care nursing		52.0409	Inventory management
11.0801	Interactive multimedia and design		52.0303	Investigative and forensic accounting
30.2301	Intercultural studies			
30.9999	Interdisciplinary studies		52.0807	Investment advisor
04.0501	Interior architecture		52.0807	Investment management
19.0605	Interior decorating		52.0807	Investments
19.0605	Interior decoration		52.0807	Investments and securities
50.0408	Interior design		54.0103	Irish history
19.0601	Interior environments		48.0509	Ironwork
50.0706	Intermedia		48.0509	Ironworker
13.1206	Intermediate and senior education		48.0509	Ironworking
13.1203	Intermediate education		01.1299	Irrigation
52.0303	Internal audit		01.1299	Irrigation technology
60.0228	Internal medicine—residency		38.0205	Islamic philosophy and thought
45.0901	International affairs		38.0205	Islamic religion and thought
01.0701	International agriculture		38.0205	Islamic studies
13.0701	International and comparative education		16.0902	Italian
			16.0902	Italian language
52.1101	International business		16.0902	Italian literature
22.0210	International business law (graduate level)		05.0126	Italian studies
			16.0302	Japanese
52.1101	International business management		16.0302	Japanese language
52.1101	International commerce		16.0302	Japanese literature
45.0604	International development		05.0127	Japanese studies
45.0604	International development studies		50.0910	Jazz
45.0605	International economics		50.0910	Jazz music
19.0905	International fashion management		50.0910	Jazz performance
52.0806	International finance		50.0910	Jazz studies

50.0713	Jewellery
50.0713	Jewellery arts
50.0713	Jewellery design
47.0408	Jewellery making
47.0408	Jewellery repair
39.0606	Jewish law
38.0206	Jewish studies
48.0701	Joinery
09.0401	Journalism
09.0499	Journalism and communication
09.0402	Journalism and communications media
38.0206	Judaic studies
13.1203	Junior and intermediate education
22.0101	Juris Doctor (JD)
43.0103	Justice administration
43.0107	Justice and law enforcement
43.0110	Juvenile corrections
16.1499	Kachin
16.0799	Kannanda
16.1499	Karen
16.0499	Kashubian
16.1599	Kazakh
11.0601	Keypunch
11.0601	Keypunch operator
16.1405	Khmer
31.0505	Kinanthropology
13.1206	Kindergarten and elementary education
13.1209	Kindergarten teacher
13.1209	Kindergarten teaching
31.0505	Kinesiology
31.0505	Kinesiology and health science
31.0505	Kinesiology and sport studies
13.1399	Kinesiology teaching
51.2311	Kinesiotherapy
16.1599	Kirghiz
12.0505	Kitchen help
52.1207	Knowledge management
50.0912	Kodaly concept of music education
50.0912	Kodaly methodology
16.0303	Korean
54.0106	Korean history
16.0303	Korean language
16.0303	Korean literature
39.0602	Korean ministry
05.0128	Korean studies
60.0306	Laboratory animal medicine—residency
60.0229	Laboratory medicine—residency
52.1004	Labour and workplace studies
22.0299	Labour law (graduate level)
52.1002	Labour relations
52.1002	Labour relations administration
52.1004	Labour studies
52.1002	Labour-management relations
29.0101	Land force technical staff programme
03.0206	Land management
15.1102	Land surveying
03.0206	Land use planning
01.0605	Landscape and gardening
04.0601	Landscape architectural technology
01.0605	Landscape construction
01.0605	Landscape design
01.0605	Landscape gardening
01.0605	Landscape horticulture
01.0605	Landscape technology
01.0605	Landscaping
04.0601	Landscaping architecture
01.0605	Landscaping construction
01.0605	Landscaping horticulture
16.1601	Langage des signes québécois (LSQ)
16.1406	Lao
16.1406	Laotian language
15.0304	Laser and optical technician
15.0304	Laser and optical technology
48.9999	Lathe operator
46.0404	Lather
16.1203	Latin
05.0107	Latin American studies
16.1203	Latin studies
13.1333	Latin teacher education
16.0401	Latvian
22.0101	Law (except graduate level)
22.9999	Law and philosophy
22.9999	Law clerk
43.0107	Law enforcement
43.0103	Law enforcement administration
22.0101	Law school (except graduate level)
22.0101	Lawyer
39.0701	Lay leadership
48.0304	Leather goods repair
22.0301	Legal administration
22.0301	Legal administrative assistant
22.0301	Legal administrative secretary
22.0302	Legal assistant
22.0301	Legal office administration
22.0301	Legal office procedures
22.9999	Legal philosophy
22.0302	Legal research
22.0301	Legal secretarial
22.0301	Legal secretary
22.0301	Legal stenography
22.0000	Legal studies, Bachelor of Arts
22.0000	Legal studies, Master of Arts
22.0000	Legal studies, social sciences
15.1102	Legal surveying
22.0302	Legal technician
22.0301	Legal word processing
31.0301	Leisure and recreation services management

31.0504	Leisure and sport management	03.0511	Lumber jack
31.0101	Leisure sciences	16.0499	Lusatian (Sorbian/Wendish)
31.0301	Leisure service administration	16.0599	Luxembourgetsch
31.0101	Leisure studies	16.0499	Macedonian
24.0101	Liberal arts	48.0501	Machine building
24.0101	Liberal arts and sciences	47.0000	Machine mechanic
24.0101	Liberal science	47.0000	Machine repair
24.0101	Liberal studies	48.0503	Machine shop
25.0101	Librarianship	48.0503	Machine shop technology
25.0301	Library aide	48.0501	Machine tool fitter
25.0101	Library and information studies	48.0501	Machine tool operator
25.0301	Library and information technician	48.0501	Machining
25.0301	Library and information technology	48.0501	Machinist
25.0301	Library assistant	16.1499	Madurese
25.0301	Library clerk	47.0000	Maintenance mechanic
25.0101	Library science	16.1499	Makassarese
25.0101	Library studies	12.0406	Makeup
25.0301	Library technician	12.0406	Makeup artist
25.0301	Library techniques	12.0406	Makeup artistry
25.0301	Library technology	16.1499	Malagasy
46.0302	Licensed electrician	16.0799	Malayalam
51.1613	Licensed practical nurse	16.1199	Maltese
52.1701	Life insurance	52.0201	Management
26.0101	Life sciences	52.0601	Management economics
49.0399	Lighthouse keeper	52.1201	Management information systems
26.1304	Limnology	22.0299	Management law (graduate level)
16.0102	Linguistics	01.0303	Management of aquaculture systems
16.1602	Linguistics of signed languages		
13.1399	Linguistics teaching	51.0702	Management of health care organizations
32.0108	Literacy and communication skills		
13.1502	Literacy education	52.1301	Management science
13.1502	Literacy instruction	52.0201	Management studies
13.1502	Literacy tutor	01.0303	Management training for aquaculture
55.0601	Literature of France		
50.0710	Lithography	16.0399	Manchu
16.0401	Lithuanian	16.0301	Mandarin
01.0906	Livestock management	12.0410	Manicure
01.0302	Livestock production	12.0410	Manicurist
49.0202	Loader operator	15.1302	Manufacturing design CAD technology
11.1001	Local area network (LAN)		
47.0403	Locksmith	14.3601	Manufacturing engineering
47.0403	Locksmithing	15.0613	Manufacturing engineering technician
47.0605	Locomotive diesel mechanics		
49.0299	Locomotive engineer	15.0613	Manufacturing engineering technology
03.0509	Log scaling		
03.0511	Logging	52.0205	Manufacturing management
38.0102	Logic	15.0613	Manufacturing technician
52.0203	Logistics administration	15.0613	Manufacturing technology
52.0203	Logistics and materials management	45.0702	Map design
52.0203	Logistics and supply management	45.0702	Map making
52.0203	Logistics planning	15.1102	Mapping, charting and geodesy
16.1499	Lolo-Moso	16.0799	Marathi
49.0399	Longshoreman/woman	26.1302	Marine biology
40.0808	Low-temperature physics	49.0309	Marine captain
03.0509	Lumber grading	47.0605	Marine diesel mechanic
03.0509	Lumber inspection	14.2201	Marine engineering

15.0899	Marine engineering technology
03.0205	Marine environment technology
40.0699	Marine geology
15.1102	Marine geomatics
49.0309	Marine navigation
03.0205	Marine resources management
47.0616	Marine service technician
22.0299	Maritime law (graduate level)
52.1401	Marketing
09.0903	Marketing communication
13.1310	Marketing education
52.1401	Marketing management
52.1402	Marketing research
52.1401	Marketing studies
51.1505	Marriage and family counselling
51.1505	Marriage and family therapy
31.0501	Martial arts
46.0101	Masonry
09.0102	Mass communication
09.0102	Mass media
51.3501	Massage therapist
51.3501	Massage therapy
12.0503	Master chef
46.0302	Master electrician
49.0309	Master mariner
46.0503	Master plumber
14.1801	Materials engineering
15.0699	Materials engineering technology
52.0203	Materials management
14.3101	Materials science
14.3101	Materials science and engineering
51.2209	Maternal and child health
51.1606	Maternity nursing
45.0603	Mathematical economics
40.0810	Mathematical physics
27.0301	Mathematical sciences
27.0502	Mathematical statistics
27.0101	Mathematics
30.0801	Mathematics and computer science
13.1311	Mathematics education
27.0301	Mathematics science
13.0604	Measurement, evaluation and research methodology in education
12.0506	Meat cutter
12.0506	Meat cutting
15.1306	Mechanical CAD/CAM
15.1306	Mechanical drafting
14.1901	Mechanical engineering
15.1306	Mechanical engineering drafting technician
15.0805	Mechanical engineering technician
15.1103	Mechanical engineering technician—fluid power automation
15.0805	Mechanical engineering technology

15.0803	Mechanical engineering technology—automotive manufacturing
15.1306	Mechanical engineering technology—automotive product design
15.0613	Mechanical manufacturing
47.0303	Mechanical millwright
15.0805	Mechanical systems
15.0805	Mechanical technician
15.0805	Mechanical technology
14.9999	Mechatronics engineering
09.0102	Media communication
52.1909	Media marketing and sales
09.0102	Media studies
51.0705	Medical administration
51.0716	Medical administrative assistant
51.0801	Medical assistant
26.0102	Medical biology
51.0710	Medical clerk
51.0801	Medical clinical assistant
51.0708	Medical dictatypist
51.1201	Medical doctor (MD)
14.0501	Medical engineering
26.0806	Medical genetics
51.2703	Medical illustration
51.2703	Medical illustrator
51.2706	Medical informatics
51.0714	Medical insurance billing
51.0713	Medical insurance coding
51.0802	Medical laboratory assistant
26.0503	Medical microbiology
51.0705	Medical office administration
51.0710	Medical office assistant
51.0709	Medical office computer specialist/assistant
51.0705	Medical office manager
51.0712	Medical office receptionist
51.2205	Medical physics
42.2301	Medical psychology
51.0907	Medical radiation technology
51.0712	Medical reception
51.0712	Medical receptionist
51.0706	Medical records administration
51.0706	Medical records management
51.0707	Medical records technician
51.0707	Medical records technology
51.1401	Medical research
51.1401	Medical science
51.0716	Medical secretarial
51.0716	Medical secretary
51.1503	Medical social work
51.0910	Medical sonography
51.0717	Medical staff services technology/technician
51.0708	Medical stenographer

51.0708	Medical terminology	48.0703	Millwork
51.0708	Medical transcription	47.0303	Millwright
51.0708	Medical transcriptionist	03.0204	Mineral economics
51.0910	Medical ultrasound technology	14.2101	Mineral engineering
51.0703	Medical unit clerk	40.0606	Mineralogy
51.0711	Medical/health management and clinical assistant/specialist	15.0901	Mining
		14.9999	Mining and materials engineering
51.2603	Medication aide	14.2101	Mining and mineral engineering
51.2004	Medicinal chemistry	14.2101	Mining and mineral process engineering
51.1201	Medicine		
54.0199	Medieval history	15.0901	Mining and mineral processing
30.1301	Medieval studies	14.2101	Mining engineering
51.1502	Mental health care	15.0901	Mining engineering technician
51.1610	Mental health nursing	15.0901	Mining engineering technology
49.0309	Merchant marine	15.0901	Mining technology
49.0309	Merchant marine officer	39.0602	Minister of religion
46.0411	Metal building assembly	39.0602	Ministerial studies
14.2001	Metal engineering	39.0602	Ministry
48.0507	Metal pattern maker	39.0301	Missiology
14.2001	Metallurgical engineering	39.0301	Mission studies
14.9999	Metallurgical engineering and materials science	39.0301	Mission studies and interreligious dialogue
40.9999	Metallurgy	39.0301	Missionary
14.2001	Metallurgy engineering	39.0301	Missionary studies
15.0611	Metallurgy technology	39.0301	Missions
14.1801	Metals and materials engineering	12.0502	Mixology
38.0199	Metaphysics	49.0206	Mobile crane operator
40.0499	Meteorological technician	16.1199	Modern Assyrian
40.0404	Meteorologist	50.0301	Modern dance
40.0404	Meteorology	05.0106	Modern European studies
05.0203	Mexican American studies	16.0601	Modern Greek
16.0399	Miao	38.0204	Modern Hinduism
26.0803	Microbial and eukaryotic genetics	54.0101	Modern history
26.0502	Microbiology	16.0101	Modern languages
26.0507	Microbiology and immunology	26.0205	Molecular biochemistry
47.0104	Microcomputer maintenance and support	26.0204	Molecular biology
		26.0206	Molecular biophysics
15.1202	Microcomputer technician	26.0802	Molecular genetics
11.0203	Microsoft certification (programming)	26.1002	Molecular pharmacology
		40.0802	Molecular physics
11.0203	Microsoft certified systems engineer (MCSE)	26.0902	Molecular physiology
		26.1005	Molecular toxicology
54.0199	Middle East history	16.1504	Mongolian
05.0108	Middle Eastern studies	16.1504	Mongolian literature
51.3401	Midwife	13.1207	Montessori preschool teacher
51.3401	Midwifery	13.1207	Montessori teacher
29.0101	Military and strategic studies	13.1207	Montessori teaching
29.0101	Military arts and science	12.0301	Mortician
14.9999	Military engineering	12.0301	Mortuary science
29.0101	Military history	52.0904	Motel management
29.0101	Military psychology and leadership	50.0602	Motion picture production
29.0101	Military science	50.0601	Motion picture studies
29.0101	Military studies	47.0302	Motive power techniques—heavy equipment
01.0306	Milk grading		
01.0306	Milker training	47.0199	Motor rewinding
03.0509	Milling	47.0603	Motor vehicle body repair

14.9999	Motor vehicle engineering
47.0199	Motor winding
47.0611	Motorcycle mechanic
47.0611	Motorcycle repair
47.0611	Motorcycle service technician
47.0611	Motorcycle technician
48.0507	Mould making
51.3601	Movement therapy
47.0699	Muffler installer
13.0202	Multicultural education
13.0202	Multicultural pedagogy
50.0706	Multimedia art
44.0401	Municipal administration
43.0199	Municipal by-law certificate
22.0299	Municipal law (graduate level)
04.0301	Municipal planning
04.0301	Municipal planning and development
60.0230	Musculoskeletal oncology—residency
30.1401	Museology
30.1401	Museum curator
30.1401	Museum management
30.1401	Museum studies
30.1401	Museum technology
50.0901	Music
36.0115	Music (not for credit)
50.0909	Music administrative studies
50.0909	Music business
50.0904	Music composition
50.0904	Music composition and literature
50.0904	Music composition/arranging
50.0906	Music conductor
50.0902	Music criticism
13.1312	Music education
50.0901	Music foundation
50.0902	Music history
50.0909	Music industry management
50.0902	Music literature
50.0909	Music management
50.0909	Music merchandising
50.0912	Music pedagogy
50.0903	Music performance
50.0903	Music performance studies
50.0907	Music performance—piano
50.0999	Music production
10.0203	Music recording
10.0203	Music recording engineering
13.1312	Music teacher
13.1312	Music teaching
50.9999	Music theatre
50.0904	Music theory and composition
51.2305	Music therapist
51.2305	Music therapy
50.0903	Music—acoustic
50.0911	Music—bass

50.0911	Music—guitar
50.0904	Music—interactive digital design
50.0907	Music—keyboard
50.0903	Music—percussion
50.0903	Music—trombone
50.0903	Music—trumpet
50.0908	Music—vocal
50.0903	Music—woodwind
50.0901	Musical arts
50.0904	Musical composition and orchestration
47.0404	Musical instrument repair
50.9999	Musical theatre
50.9999	Musical theatre performance
50.0905	Musicology
26.0506	Mycology
16.1499	Naga
12.0410	Nail application specialist
12.0410	Nail technician
12.0410	Nail technology
14.9999	Nanoengineering
38.0299	Native American religious traditions
05.0202	Native American studies
50.0201	Native art
16.1799	Native as a second language
19.0701	Native child and family development
13.1501	Native classroom assistant
13.0203	Native education
16.1001	Native language
16.1001	Native language studies
13.1399	Native language teacher
39.0602	Native ministry
05.0202	Native studies
46.0504	Natural gas drilling
47.0614	Natural gas powered vehicle service technician
51.2005	Natural products chemistry and pharmacognosy (MSc, PhD)
03.0204	Natural resource economics
03.0201	Natural resource management
03.0101	Natural resource science
03.0101	Natural resources
03.0101	Natural resources conservation
22.0207	Natural resources law (graduate level)
03.0299	Natural resources law enforcement
03.0201	Natural resources management technology
03.0101	Natural resources technology
30.1801	Natural sciences
38.0299	Nature of religion
51.3303	Naturopathic medicine
51.3303	Naturopathy
14.2201	Nautical engineering

49.0309	Nautical science		48.0501	Numerical control machine tool operation
14.2201	Naval architecture		48.0501	Numerical control operator
14.2201	Naval engineering		51.1604	Nurse anesthetist
05.0108	Near and Middle Eastern civilizations		51.1602	Nurse management
05.0108	Near Eastern studies		51.1605	Nurse practitioner
60.0231	Neonatal-perinatal medicine—residency		01.0606	Nursery technology
			51.1614	Nurses aide
16.0799	Nepalese		51.1601	Nursing
51.1699	Nephrology nursing		51.1602	Nursing administration
60.0232	Nephrology—residency		51.1614	Nursing aide
15.0399	Network and electronics technician		51.1607	Nursing and midwifery
11.1001	Network design and administrative technician		51.1614	Nursing assistant
			13.1327	Nursing education
14.0999	Network engineering		51.1602	Nursing management
11.1002	Network management		51.1607	Nursing midwifery
11.1003	Network security and connectivity		51.1608	Nursing sciences (MSc, PhD)
11.1001	Network support technician		13.1327	Nursing teaching
11.0901	Network technology		51.0703	Nursing unit clerk
15.0305	Network telecommunications engineering technology		19.0501	Nutrition
			19.0505	Nutrition and food service management
15.1299	Networking engineering technology			
26.0405	Neuroanatomy		30.1901	Nutrition and nutraceutical sciences
26.0906	Neurobiology		30.1901	Nutrition science
60.0233	Neurological surgery/neurosurgery—residency		30.1901	Nutritional science
			51.3102	Nutritionist
60.0234	Neurology—residency		51.1612	O.R. nurse
60.0235	Neuropathology—residency		60.0238	Obstetrics and gynecology—residency
26.1003	Neuropharmacology			
26.0906	Neurophysiology		51.2206	Occupational health and industrial hygiene
42.1101	Neuropsychology			
30.2401	Neuroscience		51.1618	Occupational health and safety nursing
51.1699	Neuroscience nursing			
30.2401	Neurosciences		51.1618	Occupational health nursing
39.0201	New Testament		60.0239	Occupational medicine—residency
39.0201	New Testament studies		15.0701	Occupational safety and health
15.0799	Non-destructive testing technology		15.0701	Occupational safety and health technology
52.0206	Non-profit management			
52.0206	Non-profit sector management		51.2306	Occupational therapist
16.0505	Norwegian		51.0803	Occupational therapist assistant
16.0505	Norwegian language		51.2306	Occupational therapy
16.0505	Norwegian language and literature		14.2401	Ocean engineering
22.0101	Notarial law (Quebec)		16.1401	Oceanic languages
22.9999	Notary public/commissioner of oaths		16.1401	Oceanic languages and literature
			22.0301	Office administration legal
40.0506	Nuclear chemistry		52.0407	Office automation
14.2301	Nuclear engineering		52.0408	Office clerk
15.1401	Nuclear engineering technology		13.1303	Office education
51.0905	Nuclear medicine technologist		47.0102	Office machine technician
51.0905	Nuclear medicine technology		52.0204	Office management
60.0236	Nuclear medicine—residency		52.0408	Office skills
40.0806	Nuclear physics		10.0307	Offset press operator
41.0205	Nuclear power technology		10.0307	Offset printing
60.0237	Nuclear radiology—residency		49.0304	Offshore diver
41.0205	Nuclear technician		46.0504	Oil and gas drilling
32.0104	Numeracy and computational skills		14.2501	Oil and gas engineering

15.0903	Oil and gas field operations
47.0201	Oil burner mechanics
46.0504	Oil drilling
46.0504	Oil field drilling
15.0903	Oil field safety
15.0903	Oil field technology
15.0903	Oil refining
46.0504	Oil well drilling
16.0499	Old Church Slavonic
16.0599	Old Norse
16.0599	Old Saxon
39.0201	Old Testament studies
26.0911	Oncology
51.1699	Oncology nursing
60.0240	Oncology—residency
50.0908	Opera
50.0908	Opera performance
50.0908	Opera singing
50.0908	Operatic performance
51.1612	Operating room nurse
51.1612	Operating room nursing
14.3701	Operational research
52.0205	Operations management
14.3701	Operations research
51.1803	Ophthalmic assistant
51.1801	Ophthalmic dispenser
51.1801	Ophthalmic dispensing
51.1006	Ophthalmic laboratory technician
51.1803	Ophthalmic technician
60.0241	Ophthalmology—residency
14.1201	Optical engineering
40.0807	Optical science
51.1801	Opticianry
40.0807	Optics physics
51.1802	Optometric assistant
51.1701	Optometrist
51.1701	Optometry
51.0507	Oral and maxillofacial surgery (MSc, PhD)
51.0503	Oral biology
51.0503	Oral pathology
60.0104	Oral pathology specialty—residency
51.0507	Oral surgery (MSc, PhD)
50.0903	Orchestral instruments
50.0903	Orchestral training
39.0602	Ordained clergy
39.0602	Ordained minister
51.2601	Orderly
50.0907	Organ
40.0504	Organic chemistry
01.0399	Organic farming
01.0199	Organic farming inspection
13.0401	Organizational and administrative studies in education
52.1003	Organizational behaviour
52.1003	Organizational behaviour studies

09.0901	Organizational communication
42.0901	Organizational psychology
16.0300	Oriental languages
51.3302	Oriental medicine
16.0799	Oriya
01.0603	Ornamental horticulture
01.0603	Ornamental horticulture production
51.0699	Orthodontic assistant
51.0508	Orthodontics (MSc, PhD)
60.0105	Orthodontics specialty—residency
51.0508	Orthodontist (MSc, PhD)
51.0508	Orthodontology (MSc, PhD)
60.0271	Orthopedic surgery of the spine—residency
60.0242	Orthopedics/orthopedic surgery—residency
51.1804	Orthoptics
51.1804	Orthoptist
51.2307	Orthotics
16.1299	Oscan
51.1901	Osteopathic medicine
51.1901	Osteopathy
60.0243	Otolaryngology—residency
47.0616	Outboard mechanics
47.0606	Outdoor power equipment technician
31.0101	Outdoor recreation leadership
31.0301	Outdoor recreation management
31.0101	Outdoor recreation technician
05.0109	Pacific and Asian studies
05.0109	Pacific Rim studies
50.0708	Painting
50.0708	Painting arts
40.0604	Palaeontology
40.0604	Paleontology
03.0509	Paper making
22.0302	Paralegal
22.0302	Paralegal assistant
22.0302	Paralegal services
22.0302	Paralegal studies
22.0302	Paralegal technology
51.0904	Paramedic
26.0505	Parasitology
31.0301	Parks management
40.0804	Particle physics
52.0409	Parts management
47.0409	Parts technician
47.0409	Partsman/woman
39.0602	Pastor
39.0701	Pastoral
39.0602	Pastoral and Chinese ministry
39.0701	Pastoral counselling
39.0602	Pastoral ministry
39.0701	Pastoral studies
39.0601	Pastoral theology
12.0501	Pastry chef

22.0299	Patent law (graduate level)	51.2007	Pharmacoeconomics/pharmaceutical economics (MSc, PhD)
26.0910	Pathology	26.1001	Pharmacology
51.0811	Pathology technician	26.1007	Pharmacology and toxicology
60.0244	Pathology—residency	51.2001	Pharmacy
52.1099	Payroll administration	51.2002	Pharmacy administration
52.1099	Payroll clerk	51.0805	Pharmacy assistant
52.1099	Payroll management	51.0805	Pharmacy technician
30.0501	Peace and conflict studies	51.0805	Pharmacy technology
43.0107	Peace officer	38.0199	Phenomenology
30.0501	Peace studies	16.0102	Philology
13.0101	Pedagogy	38.0101	Philosophy
60.0245	Pediatric cardiology—residency	38.9999	Philosophy and theology
51.0509	Pediatric dentistry (MSc, PhD)	38.0199	Philosophy in interdisciplinary leadership studies
60.0246	Pediatric endocrinology—residency	13.0901	Philosophy of education
60.0247	Pediatric hemato-oncology—residency	38.0199	Philosophy of language
60.0248	Pediatric nephrology—residency	38.0199	Philosophy of mind
51.1609	Pediatric nursing	38.0299	Philosophy of religion
60.0249	Pediatric orthopedics—residency	38.0199	Philosophy of science
60.0250	Pediatric surgery—residency	54.0104	Philosophy of science and technology
60.0269	Pediatric urology—residency		
60.0251	Pediatrics—residency	51.1009	Phlebotomy
12.0410	Pedicure	10.0306	Photo engraving
51.0509	Pedodonctics (MSc, PhD)	10.0201	Photo lab technician
60.0106	Pedodontics specialty—residency	26.0208	Photobiology
50.0101	Performing arts	47.0102	Photocopier technician
51.0906	Perfusionist	10.0201	Photofinishing
51.0510	Periodontics (MSc, PhD)	45.0702	Photogrammetry
60.0107	Periodontics specialty—residency	50.0605	Photographic arts
51.0510	Periodontist (MSc, PhD)	50.0605	Photography
12.0411	Permanent makeup	09.0404	Photojournalism
16.0801	Persian	50.0710	Photolythography
16.0801	Persian literature	15.0304	Photonics engineering technology
52.0804	Personal financial planner	26.0301	Phycology
31.0501	Personal fitness trainer	31.0501	Physical activity and sport studies
51.2601	Personal support worker	31.0501	Physical activity studies
31.0501	Personal training	31.0501	Physical and health education
42.1001	Personality psychology	60.0252	Physical and rehabilitation medicine—residency
52.1001	Personnel administration		
52.1001	Personnel management	45.0202	Physical anthropology
01.0504	Pet grooming	40.0506	Physical chemistry
01.0504	Pet stylist	31.0501	Physical education
14.2501	Petrochemical engineering	31.0501	Physical education and health
15.0903	Petroleum and natural gas	31.0501	Physical education and recreation
14.2501	Petroleum engineering	13.1314	Physical education teacher
15.0903	Petroleum engineering technology	13.1314	Physical education teaching
15.0903	Petroleum technician	31.0501	Physical education—outdoor pursuits stream
15.0903	Petroleum technology		
40.0606	Petrology	31.0501	Physical fitness and leisure management
51.2004	Pharmaceutical chemistry		
51.2099	Pharmaceutical engineering	45.0701	Physical geography
51.1099	Pharmaceutical technician	60.0270	Physical medicine and rehabilitation/psychiatry—residency
51.1099	Pharmaceutical technology		
51.2003	Pharmaceutics	40.0607	Physical oceanography
51.2001	Pharmacist	41.0399	Physical science technician

40.0101	Physical sciences	46.0503	Plumbing
51.2308	Physical therapy	51.2101	Podiatric medicine
51.0806	Physical therapy assistant	51.2101	Podiatrist
51.1201	Physician	51.2101	Podiatry
51.0912	Physician assistant	51.3703	Polarity therapy
40.0801	Physicist	43.0107	Police constable
40.0801	Physics	43.0107	Police foundations
13.1329	Physics education	43.0103	Police management
14.1201	Physics engineering	43.0107	Police recruit education and preparation
13.1329	Physics teacher		
13.1329	Physics teaching	43.0107	Police science
26.0909	Physiological optics	43.0107	Police studies
42.1101	Physiological psychology	43.0107	Police technology
26.0901	Physiology	16.0407	Polish
51.0806	Physiotherapist assistant	16.0407	Polish language
51.2308	Physiotherapy	16.0407	Polish literature
51.0806	Physiotherapy assistant	16.0407	Polish philology
26.0301	Phytochemistry	05.0129	Polish studies
26.0305	Phytopathology	09.0904	Political communication
50.0907	Piano	54.0199	Political history
50.0907	Piano performance	45.1001	Political philosophy
47.0404	Piano technician	45.1001	Political science
47.0404	Piano technology	45.1001	Political science and government
47.0404	Piano tuning	13.1317	Political science teaching education
50.0799	Picture framing		
49.0202	Pile driving	45.1001	Political studies
49.0108	Pilot instructor	40.0507	Polymer chemistry
46.0502	Pipefitting	14.3201	Polymer engineering
01.0303	Pisciculture	15.0607	Polymer engineering technology
40.0203	Planetary astronomy	15.0607	Polymer processing technology
04.0301	Planning and community development	26.1306	Population biology
		45.0501	Population studies
26.0301	Plant biology	16.0904	Portuguese
26.1201	Plant biotechnology	16.0904	Portuguese language and literature
01.1104	Plant breeding	13.1299	Postsecondary education
01.1104	Plant breeding genetics	13.0406	Postsecondary institutional research
26.1301	Plant ecology	50.0711	Pottery
26.0805	Plant genetics	01.0302	Poultry husbandry
26.0308	Plant molecular biology	01.0907	Poultry science
01.0606	Plant nursery management	47.0501	Power engineering (1st to 5th class)
01.0606	Plant nursery operations	14.9999	Power engineering (university level)
26.0305	Plant pathology	47.0501	Power engineering technician
26.0307	Plant physiology	47.0501	Power engineering technology
01.1199	Plant science technology	46.0303	Power line installation
01.1101	Plant sciences	46.0303	Power line maintenance
40.0805	Plasma physics	46.0303	Power line repair
46.0404	Plastering	46.0303	Power line technician
60.0253	Plastic surgery—residency	46.0303	Power lineman/woman
14.3201	Plastics engineering	14.9999	Power plant engineering (university level)
15.0607	Plastics engineering technician		
15.0607	Plastics engineering technology	47.0501	Power plant engineering technology
15.0607	Plastics technician	03.0511	Power saw operator
15.0607	Plastics technology	47.0501	Power system electrician
10.0306	Platemaking	47.0501	Power system operation
50.0504	Playwriting	51.1613	Practical nursing
46.0503	Plumber	51.1614	Practical nursing assistant
		39.0601	Practical theology

48.0506	Precision sheet metal		10.0299	Projectionist
51.1101	Predentistry		22.0299	Property law (graduate level)
51.1199	Prehealth science		46.0401	Property maintenance
22.0001	Prelaw programme		51.2307	Prosthetics
22.0001	Prelaw studies		51.0511	Prosthodontics (MSc, PhD)
51.1102	Premed		60.0108	Prosthodontics specialty—residency
51.1102	Premedical science		51.0511	Prosthodontology (MSc, PhD)
51.1102	Premedicine		43.0109	Protective security
39.0604	Preministerial studies		16.0999	Provencal/langue d'Oc
51.1105	Prenursing		51.1610	Psychiatric nurse
51.1103	Prepharmacy		51.1610	Psychiatric nursing
10.0303	Prepress		60.0255	Psychiatry—residency
13.1209	Preschool education		51.1507	Psychoanalysis
13.1209	Preschool teacher		42.1101	Psychobiology
43.0203	Preservice firefighter		42.1801	Psychoeducation
10.0307	Press operator		42.0301	Psycholinguistics
48.0508	Pressure welding		42.0601	Psychological counselling
39.0604	Pretheology studies		42.0101	Psychologist
60.0254	Preventive medicine—residency		42.0101	Psychology
51.1104	Preveterinary medicine		13.1335	Psychology teacher
39.0602	Priest		13.1335	Psychology teaching
39.0602	Priesthood		42.1901	Psychometrics
13.1206	Primary and junior education		42.1901	Psychometry
13.1202	Primary education		42.1801	Psychopedagogy
45.0201	Primatology		42.2401	Psychopharmacology
09.0401	Print journalism		42.1601	Psychosociology
01.0802	Print journalism—agricultural option		51.1507	Psychotherapy
			52.0301	Public accounting
10.0305	Printing		44.0401	Public administration
10.0308	Printing compositor		43.9999	Public and private investigations
10.0302	Printing management		09.0199	Public communications
10.0302	Printing management technology		52.0808	Public finance
10.0307	Printing press operator		51.2201	Public health (MPH, DPH)
10.0307	Printing pressman/woman		51.2201	Public health administration
10.0305	Printing production		51.2207	Public health education
10.0305	Printing technology		60.0256	Public health medicine—residency
50.0710	Printmaking		51.1611	Public health nursing
39.0602	Prison ministry		54.0105	Public history
43.9999	Private investigation		44.0401	Public management
43.0109	Private policing and asset protection		44.0501	Public policy
27.0502	Probability and statistics		44.0501	Public policy analysis
52.0202	Procurement		09.0902	Public relations
52.0202	Procurement management		09.0902	Public relations and communication management
52.0205	Production management			
52.0205	Production supervision		09.0902	Public relations management
52.0301	Professional accounting		44.0401	Public sector management
52.1802	Professional buyer		09.1001	Publishing
49.0304	Professional diving		09.1001	Publishing—techniques and technologies
52.0804	Professional financial planner			
31.0504	Professional golf management		05.0203	Puerto Rican studies
31.0501	Professional hockey		60.0257	Pulmonary disease—residency
49.0205	Professional truck driver		14.9999	Pulp and paper engineering
11.0501	Programmer analyst—business		03.0509	Pulp and paper technology
11.0501	Programmer-analyst		03.0509	Pulp and papermaking operations
11.0201	Programming		16.0705	Punjabi
52.0299	Project management		16.0705	Punjabi language

52.0202	Purchasing
52.0202	Purchasing administration
52.0202	Purchasing management
40.0101	Pure and applied sciences
27.0101	Pure mathematics
15.0702	Quality assurance
15.0702	Quality assurance technician
15.0702	Quality control technician
15.0702	Quality control technology
15.0702	Quality inspector training
15.0702	Quality technician
45.0603	Quantitative economics
42.1901	Quantitative psychology
40.0810	Quantum mechanics
40.0604	Quaternary geology
39.0605	Rabbi
39.0605	Rabbinical studies
26.0209	Radiation biology
60.0258	Radiation oncology—residency
51.0916	Radiation protection/health physics technician
51.0907	Radiation technology
51.0907	Radiation therapy
09.0701	Radio and television
09.0701	Radio and television arts
47.0101	Radio and TV repair
40.0201	Radio astronomy
09.0402	Radio journalism
10.0202	Radio technology
26.0209	Radiobiology
60.0259	Radioisotopic pathology—residency
51.0911	Radiological technologist
51.0911	Radiology technologist
51.0907	Radiotherapy
49.0299	Rail traffic controller
49.0299	Railroad conductor
47.0699	Railway car service and repair
49.0299	Railway conductor
16.0799	Rajasthani
01.0104	Ranch management
01.1106	Range and pasture management
01.1106	Range management
01.1106	Range science
36.0116	Reading
13.1315	Reading education
52.1501	Real estate
52.1501	Real estate agent
52.1501	Real estate analysis
52.1501	Real estate appraisal
52.1501	Real estate broker
22.0299	Real estate law (graduate level)
52.1501	Real estate sales
52.1501	Real estate studies
52.1501	Real property assessment
52.1501	Real property development
52.1501	Realtor

52.0406	Receptionist
10.0203	Recording arts
10.0203	Recording engineering
25.9999	Records and information management
25.9999	Records and information technology management
54.0105	Records management
31.0301	Recreation administration
31.0101	Recreation and community leadership
31.0101	Recreation and leisure
31.0301	Recreation and leisure management
31.0504	Recreation and sport management
31.0504	Recreation and sports administration
31.0301	Recreation club management
31.0301	Recreation entrepreneur
31.0301	Recreation facilities management
31.0101	Recreation leadership
31.0301	Recreation management
31.0101	Recreation service delivery
31.0101	Recreation studies
31.0101	Recreation technology
51.2309	Recreational therapy
47.0699	Recreational vehicle (RV) mechanic
47.0699	Recreational vehicle service technician
31.0101	Recreology
51.3501	Reflexology
47.0201	Refrigeration mechanic
04.0301	Regional and urban development
51.0601	Registered dental assistant (RDA)
51.0602	Registered dental hygienist (RDH)
51.1601	Registered nurse
51.1607	Registered nurse midwife
51.1601	Registered nursing
51.1614	Registered nursing assistant
51.1613	Registered practical nurse
51.1610	Registered psychiatric nurse
22.0205	Regulatory law (graduate level)
51.3704	Reiki
38.0201	Religion
38.0299	Religion and culture
38.9999	Religion, culture and ethics
39.0401	Religious education
38.0103	Religious ethics
39.0501	Religious music
38.0201	Religious studies
39.9999	Religious texts and commentaries
30.1301	Renaissance studies
03.0201	Renewable resource management
03.0199	Renewable resources
03.0199	Renewable resources technology
26.0905	Reproductive biology
26.0905	Reproductive physiology

28.0501	Reserve Cooperative Education Program
28.0501	Reserve Entry Scheme for Officers (RESO)
51.2602	Resident care aide
51.2602	Resident care attendant
46.0000	Residential construction
15.1001	Residential construction technician
15.1303	Residential drafting and design
52.0906	Resort management
03.0201	Resource management
03.0101	Resource technology
15.9999	Resources engineering technology
51.0812	Respiratory technology
51.0908	Respiratory therapist
51.0908	Respiratory therapy
52.0905	Restaurant manager
12.0504	Restaurant/catering management
46.0101	Restoration masonry
52.1802	Retail buyer
52.1804	Retail clerk
01.0608	Retail floriculture
01.0608	Retail florist
01.0608	Retail floristry
52.1801	Retail marketing
12.0506	Retail meat cutting
52.1802	Retail merchandising
52.1803	Retail operations
52.1801	Retail sales and marketing
52.1803	Retailing
52.1803	Retailing and consumer services
16.0999	Rhaeto-Romansch
23.1001	Rhetorical studies
60.0260	Rheumatology—residency
01.0507	Riding instruction
14.9999	Robotic engineering
15.0405	Robotics and automation technology
11.0102	Robotics programming
15.0405	Robotics technician
15.0405	Robotics technology
16.0900	Romance languages
16.0900	Romance languages, literatures and linguistics
16.0900	Romance linguistics
16.0906	Romanian
16.0906	Romanian language and literature
16.0799	Romany
46.0410	Roofer
46.0410	Roofing
43.0107	Royal Canadian Mounted Police (RCMP)
01.0103	Rural economy
01.0801	Rural extension
01.0801	Rural extension studies
16.0402	Russian

54.0103	Russian history
16.0402	Russian language
16.0402	Russian language and literature
16.0402	Russian literature
16.0402	Russian philology
05.0110	Russian studies
39.0501	Sacred music
39.9999	Sacred scripture
39.0601	Sacred theology
39.0601	Sacred theology in religious studies
15.0703	Safety engineering technology
52.1801	Sales and marketing
52.1804	Sales clerk
52.1804	Sales management
52.1804	Sales representative
52.1804	Sales techniques
52.1804	Salesperson
01.0303	Salmon enhancement
01.0303	Salmon farm technician
01.0303	Salmon farming
12.0412	Salon management
16.1299	Samnian
14.9999	Sanitary engineering (university level)
16.0702	Sanskrit
16.0999	Sardinian
16.1001	Saulteaux language studies
48.0507	Saw filing
16.0502	Scandinavian
16.0502	Scandinavian languages, literatures and linguistics
05.0111	Scandinavian studies
13.0401	School administration
49.0205	School bus driver
13.1101	School counselling
13.0401	School leadership
13.1334	School librarian
13.0401	School management
42.1701	School psychology
13.0101	School teacher
13.1316	Science education
41.0399	Science lab technology
51.1102	Science premed
13.1316	Science teacher
13.1316	Science teaching
30.1501	Science, technology and society
10.0305	Screen printing
50.0504	Screenwriting
50.0504	Scriptwriting
49.0304	Scuba diving
49.0304	Scuba diving instructor
50.0709	Sculpture
49.0309	Sea captain
19.0999	Seamstress
43.9999	Search and rescue
16.1799	Second language

16.1799	Second language learning	16.1603	Sign language communicator
32.0109	Second language learning (not for credit)	16.1603	Sign language interpretation
		50.0402	Sign painting
13.1499	Second language teaching	50.0713	Silversmithing
13.1205	Secondary education	03.0506	Silviculture
13.1311	Secondary mathematics education	16.0799	Sindhi
13.0409	Secondary school administration	16.0799	Sinhalese
13.1205	Secondary school teacher	46.0412	Site management
13.1205	Secondary school teacher training	31.0501	Ski instructor
52.0401	Secretarial arts	52.0906	Ski resort management
52.0401	Secretarial science	52.0906	Ski resort operations and management
52.0401	Secretarial studies		
52.0401	Secretary	03.0511	Skidder operator
52.0401	Secretary-receptionist	12.0409	Skin care
52.0807	Securities	05.0105	Slavic and East European studies
22.0205	Securities law (graduate level)	16.0400	Slavic languages
43.0112	Securities services administration	16.0400	Slavic languages and literature
43.0109	Security	16.0400	Slavic linguistics
47.0110	Security alarm installation	16.0400	Slavic literature
47.0110	Security alarm service technician	16.0400	Slavic philology
47.0110	Security alarm technician	05.0118	Slavic studies
47.0110	Security and alarm systems technician	16.0409	Slovak
		16.0409	Slovak language and literature
43.0109	Security and loss prevention services	16.0499	Slovenian
		52.0703	Small and medium enterprise management
43.0109	Security guard		
43.0112	Security management	52.0703	Small business administration
43.0109	Security officer	52.0703	Small business management
40.0603	Seismology	52.0703	Small business management and ownership
39.0604	Seminary		
16.0102	Semiology	47.0606	Small engine mechanic
16.0102	Semiotics	47.0606	Small engine repair
16.1100	Semitic languages and literatures	47.0606	Small engine technician
13.1205	Senior secondary school education	47.0606	Small gas engine repair
16.0408	Serbian	47.0606	Small motor mechanic
16.0408	Serbo-Croatian	51.2508	Small/companion animal surgery and medicine (Cert., MSc, PhD)
50.0710	Serigraphy		
19.0999	Sewing	47.0606	Snowmobile mechanics
47.9999	Sewing machine mechanic	31.0501	Soccer
51.1599	Sexology	42.1601	Social and developmental psychology
16.1499	Shan		
48.0506	Sheet metal	31.0504	Social and managerial studies in leisure and sport
48.0506	Sheet metal fabrication		
48.0506	Sheet metal technician	09.0199	Social communication
48.0506	Sheet metal work	45.0501	Social demography
43.0107	Sheriff	45.0699	Social economics
51.3502	Shiatsu	38.0103	Social ethics
49.0309	Ship pilot	42.1601	Social psychology
14.2201	Shipbuilding engineering	45.0101	Social sciences
49.0309	Shipmaster	13.1317	Social sciences education
47.0616	Shipwright	13.1317	Social sciences teacher training
48.0304	Shoe making	45.0101	Social studies
48.0304	Shoe repair	13.1318	Social studies education
12.0500	Short order cooking	13.1318	Social studies teaching
52.0408	Shorthand typing	44.0701	Social work
16.1601	Sign language	45.1101	Sociology

13.1317	Sociology education	39.9999	Spiritual formation
13.0901	Sociology in education	39.9999	Spirituality
13.0901	Sociology of education	52.1910	Sport and event marketing
13.1317	Sociology teaching	31.0501	Sport and exercise studies
13.0901	Sociology/anthropology of education	42.9999	Sport psychology
		31.0504	Sports administration
14.0903	Software engineering	36.0108	Sports and exercise
15.1204	Software systems development	31.0599	Sports equipment specialist
01.1202	Soil chemistry	31.0504	Sports management
01.1299	Soil conservation	52.1910	Sports marketing
01.1203	Soil microbiology	60.0261	Sports medicine—residency
01.1202	Soil physics	46.0502	Sprinkler fitter
01.1201	Soil science	46.0502	Sprinkler installation
01.1201	Soil science and agronomy	46.0502	Sprinkler systems installer
01.1299	Soil technology	50.0507	Stage direction
15.0505	Solar energy technology	47.0605	Stationary diesel mechanics
40.0808	Solid state physics	47.0501	Stationary engineering
51.3503	Somatic bodywork	27.0501	Statistics
50.0904	Sonic design	27.0502	Statistics and applied probability
51.0910	Sonography	47.0501	Steam engineering
10.0203	Sound engineering	46.0502	Steamfitting
10.0203	Sound technology	48.0599	Steel fabrication
16.0700	South Asian languages	51.0909	Sterile processing
16.0700	South Asian languages and civilizations	51.0909	Sterile supply technician
		51.0909	Sterile technician
05.0112	South Asian studies	51.0909	Sterilization technician
16.1400	Southeast Asian languages	46.0101	Stone masonry
05.0113	Southeast Asian studies	26.0207	Structural biology
05.0105	Soviet and East European studies	15.1304	Structural CAD technology
05.0110	Soviet studies	15.1304	Structural drafting
16.0905	Spanish	14.0803	Structural engineering
16.1799	Spanish as a second language	15.0201	Structural engineering technology
13.1330	Spanish education	15.0201	Structural technology
16.0905	Spanish language	50.0702	Studio arts
16.0905	Spanish language and literature	51.1501	Substance abuse counselling
16.0905	Spanish literature	51.1508	Suicide prevention
05.0130	Spanish studies	11.0203	Sun certified Java programmer
13.1330	Spanish teacher	16.1499	Sundan
51.2601	Special care aide	12.0504	Supervisory development and applied culinary diploma
13.1001	Special education		
13.1501	Special education assistant	52.0203	Supply chain management
13.1001	Special education teaching	40.0808	Supra-conductivity physics
52.0903	Special event management	51.1612	Surgical nursing
13.1001	Special needs education	14.3801	Survey engineering
13.1501	Special needs teacher assistant	15.1102	Survey technician
12.0407	Specialized hairdressing	15.1102	Survey technology
40.9999	Spectroscopy	15.1102	Surveying
23.1001	Speech and rhetorical studies	15.1102	Surveying and mapping
09.0101	Speech communication	14.3801	Surveying engineering
51.0203	Speech pathologist	01.0399	Sustainable agricultural systems
51.0203	Speech pathology	31.0101	Sustainable outdoor recreation
51.0204	Speech pathology and audiology	50.0912	Suzuki piano pedagogy
13.1331	Speech teacher education	16.0506	Swedish
51.0203	Speech therapy	16.0506	Swedish language
51.0204	Speech therapy and audiology	01.0302	Swine technology
51.0203	Speech-language pathology	52.0406	Switchboard operator

50.0906	Symphonic band and wind conducting		13.1311	Teaching mathematics
26.1308	Systematic biology		13.1327	Teaching nursing
50.0905	Systematic musicology		13.1303	Teaching real estate
11.1001	Systems administration		13.1303	Teaching secretarial

50.0906   Symphonic band and wind
          conducting
26.1308   Systematic biology
50.0905   Systematic musicology
11.1001   Systems administration
11.0501   Systems analyst
14.2701   Systems design engineering
14.2701   Systems engineering
30.0601   Systems science
30.0601   Systems science and theory
16.1404   Tagalog
19.0999   Tailoring
39.0606   Talmud
39.0606   Talmudic law
39.0606   Talmudic studies
16.0706   Tamil
16.0706   Tamil language
38.0299   Taoism
38.0299   Taoist philosophy
16.1599   Tatar
12.0411   Tattooing
22.0101   Tax law (except graduate level)
22.0211   Tax law (graduate level)
52.1601   Taxation
49.0205   Taxi driver
01.0508   Taxidermist
01.0508   Taxidermy
13.0101   Teacher
13.1501   Teacher aide
13.0101   Teacher development
13.0101   Teacher education
13.1399   Teacher librarian
13.1003   Teacher of the deaf
13.0101   Teacher training
13.1401   Teachers of English as a Second
          Language (TESL)
13.1401   Teachers of English to Speakers of
          Other Languages (TESOL)
13.0101   Teaching
13.1303   Teaching accounting
13.1302   Teaching art
13.1501   Teaching assistant
13.1320   Teaching cooking
13.1202   Teaching elementary school
13.1305   Teaching English
13.1401   Teaching English as a second
          language
13.1401   Teaching ESL
13.1306   Teaching foreign languages
13.1325   Teaching French
13.1402   Teaching French as a second
          language
13.1332   Teaching geography
13.1328   Teaching history
13.1303   Teaching insurance
13.1310   Teaching marketing

13.1311   Teaching mathematics
13.1327   Teaching nursing
13.1303   Teaching real estate
13.1303   Teaching secretarial
13.1001   Teaching special education
23.1101   Technical and professional writing
15.1301   Technical drafting
15.1301   Technical drawing
13.1319   Technical education
50.0410   Technical illustration
50.0502   Technical scenography
13.1319   Technical teacher
50.0502   Technical theatre
23.1101   Technical writing
15.9999   Technician—agricultural
          engineering
15.9999   Technician—bio-resources
          engineering
13.1309   Technology education
11.0103   Technology information
22.0101   Technology law (except graduate
          level)
22.0299   Technology law (graduate level)
15.1501   Technology
          management—engineering
14.1001   Telecommunication engineering
15.0305   Telecommunications engineering
          technology
15.0305   Telecommunications technician
15.0305   Telecommunications technology
52.1804   Telemarketing
47.0103   Telephone installation
46.0303   Telephone line installation
46.0303   Telephone line repair
52.0406   Telephone operator
47.0103   Telephone repair
52.0411   Teleservice
52.0411   Teleservice customer representative
09.0701   Television and new media
          production
09.0701   Television producing and writing
16.0799   Telugu
50.0712   Textile arts
19.0904   Textile chemist
19.0904   Textile chemistry
50.0712   Textile design
14.2801   Textile engineering
19.0902   Textile manufacturing
19.0904   Textile science
50.0712   Textile studies
19.0904   Textile technology
16.1407   Thai
16.1407   Thai literature
50.0501   Theatre
36.0117   Theatre (not for credit)
50.0501   Theatre arts

50.0508	Theatre arts management
50.0507	Theatre directing
50.0505	Theatre history
50.0505	Theatre literature, history and criticism
50.0506	Theatre performance
50.0507	Theatre production
50.0501	Theatre studies
50.0502	Theatre technical production
50.0502	Theatre technician
50.0502	Theatrical design
50.0508	Theatrical management
39.0601	Theological studies
39.0601	Theology
39.0601	Theology and Jewish studies
39.0601	Theology in religious studies
40.0506	Theoretical chemistry
40.0810	Theoretical physics
38.0199	Theory and criticism
51.3501	Therapeutic massage
51.2309	Therapeutic recreation
60.0315	Theriogenology—residency
60.0262	Thoracic surgery—residency
38.0202	Tibetan Buddhism
16.0304	Tibetan language and literature
05.0131	Tibetan studies
48.0506	Tinsmith
47.0699	Tire repair
48.0507	Tool and die
48.0507	Tool and die technician
14.9999	Tool engineering
48.0507	Tool making
45.0702	Topography
27.0105	Topology
27.0105	Topology and foundations
52.1905	Tourism and travel
52.0903	Tourism and travel management
52.1906	Tourism development
52.1905	Tourism marketing
52.1905	Tourism marketing and operations
52.1905	Tourism marketing management
52.1906	Tourist product development
04.0301	Town planning
26.1004	Toxicology
49.0205	Tractor trailer driver
49.0205	Tractor trailer operation
51.3302	Traditional Chinese medicine
14.0804	Traffic engineering
52.0410	Traffic technician
49.0299	Train conductor
52.0410	Train dispatcher
39.0301	Trans-cultural mission
16.0103	Translation
47.0201	Transport refrigeration service technician
52.0410	Transportation clerk
14.0804	Transportation engineering
52.0209	Transportation logistics
52.0209	Transportation management
04.0301	Transportation planning
14.0804	Transportation systems, highways
03.9999	Trapping
51.1699	Trauma nursing
52.1905	Travel agent
36.0109	Travel and exploration
52.1905	Travel consultant
52.1905	Travel counsellor
52.0903	Travel industry management
52.1905	Travel marketing
52.1905	Travel merchandising
43.0107	Tribal police
01.0399	Tropical agriculture
47.0613	Truck and coach mechanic
47.0613	Truck and coach technician
47.0613	Truck and trailer mechanic
49.0205	Truck driving
47.0613	Truck mechanic
47.0613	Truck service technician
47.0613	Truck transport service technician
49.0205	Trucking
49.0309	Tugboat master
01.0607	Turf maintenance
01.0607	Turf management
01.0607	Turf science
01.0607	Turf technician
01.0607	Turfgrass
01.0607	Turfgrass management
01.0607	Turfgrass technology
16.1501	Turkish
16.1501	Turkish literature
16.1599	Turkmen
13.1599	Tutor
47.0101	TV and VCR repair
10.0303	Typesetting
52.0408	Typing
52.0408	Typist
10.0308	Typography
54.0102	U.S. history
16.1599	Uighur
16.0410	Ukrainian
16.0410	Ukrainian language and literature
05.0132	Ukrainian studies
51.0910	Ultrasonography
51.0910	Ultrasound
51.0910	Ultrasound technician
51.0910	Ultrasound technology
48.0508	Underwater welding
51.0703	Unit clerk
39.0602	United Church minister
48.0303	Upholstering
48.0303	Upholstery
45.1201	Urban affairs

04.0301	Urban and regional planning
04.0301	Urban and rural planning
01.0699	Urban arboriculture
04.0301	Urban design
04.0301	Urban development
13.0410	Urban education leadership
03.0508	Urban forestry
04.0301	Urban planning
45.1201	Urban studies
04.0301	Urbanology
16.0707	Urdu
16.0707	Urdu literature
60.0263	Urology—residency
01.0699	Utility arborist
16.1599	Uzbek
38.0103	Value theory and applied ethics
60.0264	Vascular surgery—residency
47.0612	Vehicle emissions technician
51.0808	Veterinarian technician
51.2502	Veterinary anatomy and public health
60.0301	Veterinary anesthesiology—residency
51.0808	Veterinary assistant
60.0302	Veterinary dentistry—residency
60.0303	Veterinary dermatology—residency
60.0304	Veterinary emergency and critical care medicine—residency
51.2510	Veterinary epidemiology
60.0305	Veterinary internal medicine—residency
51.2401	Veterinary medicine
51.2504	Veterinary microbiology and immunobiology (Cert., MSc, PhD)
60.0307	Veterinary microbiology—residency
60.0308	Veterinary nutrition—residency
60.0309	Veterinary ophthalmology—residency
51.2511	Veterinary parasitology (Cert., MSc, PhD)
51.2505	Veterinary pathology and pathobiology (Cert., MSc, PhD)
60.0310	Veterinary pathology—residency
51.2503	Veterinary physiological sciences (Cert., MSc, PhD)
60.0311	Veterinary practice—residency
60.0312	Veterinary preventive medicine—residency
60.0313	Veterinary radiology—residency
51.0712	Veterinary receptionist
51.2501	Veterinary sciences (Cert., MSc, PhD)
60.0314	Veterinary surgery—residency
51.0808	Veterinary technician
51.0808	Veterinary technology

51.2506	Veterinary toxicology and pharmacology (Cert., MSc, PhD)
60.0316	Veterinary toxicology—residency
16.1408	Vietnamese
16.1408	Vietnamese literature
50.0911	Viola
50.0911	Violin
47.0404	Violin making
50.0911	Violin performance
26.0504	Virology
26.0909	Vision science
50.0101	Visual and creative arts
50.0101	Visual and performing arts
50.0101	Visual arts
13.1302	Visual arts education
50.0401	Visual communications
01.0399	Viticulture
50.0908	Vocal performance
51.2310	Vocational rehabilitation counselling
13.1320	Vocational technical education
50.0908	Voice
52.0206	Voluntary sector management
52.0206	Volunteer management
12.0507	Waiter
12.0507	Waitress
12.0507	Waitressing
13.1208	Waldorf/Steiner teacher education
46.0404	Wall and ceiling installation
30.0501	War and peace studies
29.0101	War studies
51.0703	Ward clerk
51.0704	Ward supervisor
52.0409	Warehouse management
47.0409	Warehouse technician
15.0506	Waste water treatment
47.0408	Watch repair
49.0309	Watchkeeping mate
47.0408	Watchmaking
15.0506	Water and waste water treatment
15.0506	Water maintenance
15.0506	Water purification
15.0506	Water quality technology
14.0805	Water resources engineering
15.0599	Water resources engineering technology
40.0605	Water resources sciences
03.0205	Water resources technology
15.0506	Water technician
15.0506	Water treatment
46.0504	Water wells drilling
40.0499	Weather
40.0499	Weather observation
40.0499	Weather observer
11.0801	Web design
11.0801	Web design and development
11.0801	Web developer

11.0801	Web page design
11.1004	Web site administration
11.0801	Web site design
11.1004	Webmaster
48.0508	Welder
48.0508	Welding
14.9999	Welding engineering (university level)
15.0699	Welding engineering technology
13.1320	Welding instructor
48.0508	Welding technician
48.0508	Welding technology
46.0504	Well drilling
16.1301	Welsh
05.0114	West European studies
05.0114	Western European studies
01.0507	Western horsemanship
38.0299	Western religions
38.0299	Western religious traditions
11.0901	Wide area technology
31.0101	Wildland recreation
26.0709	Wildlife biology
26.1301	Wildlife ecology
03.0601	Wildlife management
03.0299	Wildlife officer
03.0601	Wildlife studies
03.0601	Wildlife technician
01.1002	Wine technology
15.0305	Wireless communications technology
38.0299	Women in religion

54.0199	Women's history
05.0207	Women's studies
05.0207	Women's/gender studies
03.0509	Wood products processing
03.0509	Wood science
03.0509	Wood science and technology
48.0701	Woodworking
48.0701	Woodworking technician
48.0701	Woodworking technology
11.0602	Word processing
54.0199	World history
39.0301	World missions
38.0201	World religions
39.0699	Worship and liturgy
39.0699	Worship studies
36.0118	Writing
51.0911	X-ray technician
51.0911	X-ray technology
16.0599	Yiddish
51.3602	Yoga instructor
51.3602	Yoga teacher
39.0702	Youth and family ministry
44.0702	Youth care worker
43.0110	Youth corrections
44.0702	Youth counsellor
43.0110	Youth justice
39.0702	Youth ministry
39.0702	Youth pastor
16.0399	Yuan
38.0202	Zen Buddhism
60.0317	Zoological medicine—residency
26.0701	Zoology