Canadian Research and Development Classification (CRDC) 2020 Version 2.0

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Canadian Research and Development Classification (CRDC) 2020 Version 2.0

Introduction

Status

This standard was approved as a recommended standard on May 26, 2020.

Overview

The Canadian Research and Development Classification (CRDC) was jointly developed by the federal research granting agencies, including the Canadian Foundation for Innovation (CFI), the Canadian Institutes of Health Research (CIHR), the Natural Sciences and Engineering Research Council of Canada (NSERC), the Social Sciences and Humanities Research Council (SSHRC), and Statistic Canada (STC).

The CRDC is the collective name for a set of three related classifications developed for use in the measurement and analysis of research and experimental development (R&D) undertaken in Canada. The three constituent classifications included in the CRDC are: Type of Activity (TOA), Fields of Research (FOR), and Socio-economic Objective (SEO).

Although research and development as an economic activity can be measured using classifications such as the North American Industry Classification (NAICS) and the North American Product Classification (NAPCS), the CRDC 2020 represents the first in its kind and introduces a new dedicated framework for measuring research and development activities in Canada. The first version was officially named **CRDC 2020 Version 1.0, and it is now replaced by CRDC 2020 Version 2.0**.

The use of the three constituent classifications in the CRDC ensures that R&D statistics collected are useful to governments, educational institutions, international organisations, scientific, professional or business organisations and enterprises, community groups and private individuals in Canada.

The development of the CRDC by the agencies was undertaken in co-operation or consultation with major academic and research organisations, experts of specific fields and users of research information in Canada, in particular during seminars, direct exchanges and other consultative methods such as a public consultation. This comprehensive consultative process aimed to ensure that the CRDC is widely accepted and used as the national standard classification in Canada, not only in the compilation of R&D statistics, but also in the study of research and development in Canada in general.

In this introduction, we provide a summarized background to the development of the classification; an explanation of the conceptual basis of the CRDC, including the composition, nature, purpose and structure of the CRDC; the use of the CRDC and guidelines for classifying with the CRDC; the definition and scope of R&D; an outline of what constitutes a unit of R&D for data and reporting purposes.

The CRDC largely follows the guidelines prescribed in the Organisation for Economic Co-operation and Development (OECD), "Frascati Manual 2015", *Guidelines for collecting and reporting data on research and experimental development*.

The CRDC is also very close to the *Australian and New Zealand Standard Research Classification (ANZSRC)* in terms of their underlying concepts and their usage, although some groupings might be different, therefore, large content of this introduction will be similar to that of the ANZSRC.

Background

Canada's research funding agencies were using a number of different research classifications across their programs. In most cases, these classifications only covered the mandate of a specific agency rather than all sectors of research, had not been updated in many years, were not aligned with international standards, no longer accurately represent today's research landscape, and only partially met the needs of different end-users.

In addition, a growing emphasis on interdisciplinary research, increased international collaboration, the rapid evolution of some research fields, and the increased desire for consistent inter-agency reporting are important additional drivers behind the development of the CRDC.

In 2017, the federal research granting agencies jointly started the development of the CRDC, with Statistics Canada serving as the custodian of the new standard and providing its expertise on statistical standards development and maintenance. To learn more about the development process, we refer the users to two document: 'what we learned' (from the consultation process) and a working paper on the CRDC published in June 2019. Additionally for this revision, a consultation process was launched, and a separate report was released on the Statistics Canada's Consulting Canadians website.

The CRDC provides a number of benefits such as the ability to produce an up-to-date, relevant and conceptually sound classification, a common approach to classifying research (including multi- or interdisciplinary research) across research organizations and governments, and will assist in communication, consistent reporting, identification of gaps and opportunities, stronger collaborations, and optimized support for new and innovative research.

In addition, the CRDC provides a framework which enables comparisons with other classifications used nationally and internationally.

To support international comparisons and rely on a sound conceptual base, the definition, scope and classification of R&D activities contained in CRDC largely follow the guidelines prescribed in the Organisation for Economic Co-operation and Development (OECD), "Frascati Manual 2015", *Guidelines for collecting and reporting data on research and experimental development*. For users with the intention of using this classification thoroughly, it is recommended to read that manual as well.

CRDC 2020 Version 1.0 was released on October 5, 2020. One of the commitments made by the Agencies after release was to review the CRDC every 2 years for a minor review and every 5 years for a major review. The scope of the review for CRDC 2020 Version 2.0 was designed with Fields of Research (FOR) as the only focus, which means Type of Activity (TOA) and Socio-economic objective (SEO) classifications remained untouched in this current version. More fundamental changes will be explored and applied as necessary within the larger scope of the next revision (in 2025 or later).

Composition, nature and purpose of the CRDC

The three classifications in the Canadian Research and Development Classification (CRDC) are:

- Type of Activity (TOA);
- Fields of Research (FOR); and
- Socio-economic Objective (SEO).

They can be used in official statistics to analyse the nature of R&D and in conjunction with industrial and institutional sector classifications to produce a set of official statistics that support a variety of user interests.

Type of Activity (TOA) Classification

This classification allows R&D activity to be categorized according to the type of research effort, namely basic or fundamental research (which groups pure basic research and strategic basic research other split in the Frascati Manual 2015), applied research and experimental development.

The types of activity are defined as follows:

Basic research: refers to experimental and theoretical work undertaken primarily to acquire new knowledge of the underlying foundation of phenomena and observable facts, without any particular application or use in view. It includes **pure basic research** (i.e., experimental and theoretical work undertaken to acquire new knowledge without looking for long term benefits other than the advancement of knowledge) and **strategic basic research** (experimental and theoretical work undertaken to acquire new knowledge directed into specified broad areas in the expectation of practical discoveries). It provides the broad base of knowledge necessary for the solution of recognized practical problems.

Applied research: refers to original investigation undertaken in order to acquire new knowledge. It is, however, directed primarily towards a specific, practical aim or objective. It is undertaken either to determine possible uses for the findings of basic research or to determine new ways of achieving some specific and predetermined objectives.

Experimental development: refers to systematic work, drawing on knowledge gained from research and practical experience and producing additional knowledge, which is directed to producing new products, materials, policies, behaviours or outlooks, or new processes, systems and services or to improving substantially those already produced or processed/installed.

Field of research (FOR) Classification

This piece of the CRDC allows R&D activity to be categorized or classified according to the field of research (FOR); it is the methodology used in the R&D that is being considered.

The categories within this classification include major fields of research based on the knowledge sources, the objects of interest, and the methods and techniques being used.

Only FOR classification has been modified in CRDC 2020 Version 2.0.

Socioeconomic objective (SEO) Classification

This classification allows the categorization of R&D according to the purpose or outcome of the R&D as perceived by the data provider (researcher). It consists of discrete economic, social, technological or scientific domains for identifying the principal purposes of the R&D. The attributes applied to the design of the SEO classification comprise a combination of industries, processes, products, health, education, culture, ethics and other social and environmental aspects of particular interest.

Structure of the CRDC

Type of Activity (TOA) structure

As noted in section 2, the TOA has 3 main categories with no hierarchy between them, although they can be considered a continuum in the R&D process; for basic research to experimental development.

CRDC 2020 Version 2.0 – Type of Activity (TOA)

Level	Level name	Number of digits (truncated – Full codes are alphanumerical and start with RDT)	Count
1	Division	2	3

Field of Research (FOR) structure

The FOR has four hierarchical levels, namely Divisions (at the broadest level), Groups, Classes and Subclasses or Fields (at the lowest level). The Division represents a broad subject area or research discipline and is closely aligned with the 'broad classification' levels (6 in total) as identified in the Frascati Manual 2015, with some adjustments made based on comments and feedback from consultations with experts and general public (See: Comparison between Frascati Manual 2015 – Broad Classification (FOR) and CRDC 2020 Version 2.0 – Division levels (FOR)). Groups are closely aligned with the 'Second-level classification' (42 in total) as also identified in the Frascati Manual 2015, also with few adjustments (See: Comparison between Frascati Manual 2015 – Second level classification (FOR) and CRDC 2020 Version 2.0 – Group levels (FOR)). While classes and fields were added in the CRDC to represent the increasingly detailed dissections of R&D activities in Canada. Divisions, Groups, Classes and Fields are assigned unique 2-digit truncated codes (full codes for all FOR are alphanumerical starting with RDF); 3-digit truncated codes; 5-digit truncated codes and 7-digit truncated codes respectively. The FOR classification in CRDC 2020 version 2.0 has 6 Divisions, 43 Groups, 168 Classes and 1,671 Subclasses or Fields.

Each Division is based on a broad discipline. Groups within each Division are those which share the same broad methodology, knowledge domain and/or perspective as others in the Division. Each Group is a collection of classes. Groups, Classes and Subclasses (Fields) of research are categorized to the Divisions sharing the same methodology rather than the Division they support.

CRDC 2020 Version 2.0 – Field of Research (FOR)

Level	Level name	Number of digits (truncated - Full codes are alphanumerical and start RDF)	Count CRDC 2020 Version 2.0
1	Division	2	6
2	Group	3	43
3	Class	5	168
4	Subclass (Field)	7	1,671
Total	n/a	n/a	1,888

Example of the hierarchical structure of the FOR

Level	Code	Title
Division	RDF20-21	Engineering and technology
Group	RDF203	Electrical engineering, computer engineering, and information engineering
Class	RDF20303	Data analytics and signal processing
Subclass (Field)	RDF2030302	Artificial intelligence engineering

Socio-Economic objective (SEO) structure

The SEO is a two-level hierarchical classification with Division at the broadest level and Group at the bottom. SEO categories allow the categorization of R&D based on the purpose or outcome of the R&D as perceived by the researchers. The Division in the SEO classification is identified by a 2-digit truncated code and all full codes start with RDS. This level of the SEO classification of the CRDC is closely aligned with the 'Chapters' found in the *Nomenclature for the Analysis and Comparison of Scientific Programmes and Budgets (NABS) 2007* (See: Comparison between NABS 2007 Chapters (SEO) and CRDC 2020 Version 2.0 – Division levels (SEO)) developed by Eurostat and it can also be linked to the Frascati Manual 2015 which specifically refers to the NABS when exposing on the socioeconomic objectives for R&D.

Groups form the lowest level of the SEO for CRDC 2020 Version 2.0. They were put together by the funding agencies following up the scope of the NABS 2007 and other considerations such as the experience and uses from funding agencies and Statistics Canada collecting that type of information or data. It is already anticipated that more levels might be added in future revisions of the CRDC's SEO, after more consultations and analysis. Groups are assigned a unique 5-digit truncated code and all full codes start with RDS.

The SEO classification has 12 Divisions and 85 Groups. The Groups are more specific in terms of SEO and they are supplemented with illustrative examples which can represent more specific types of objective within the group. These examples can later be used to create additional levels of SEO.

Each Division is based on a broad research objective. Groups within each Division are those which are aligned towards the same objective as the Division. Each Group is a collection of related research objectives. Groups are categorized to the Divisions with which they are most closely aligned.

CRDC 2020 Version 2.0 – Socio-Economic Objective (SEO)

Level	Level name	Number of digits (truncated - Full codes are alphanumerical and start with RDS)	Count
1	Division	3	12
2	Group	5	85

Example of the hierarchical structure of the SEO:

Level	Code	Title
Division	RDS111	Political and social systems, structures and processes
Group	RDS11110	Social justice

Summary of changes from CRDC 2020 Version 1.0 to CRDC 2020 Version 2.0

CRDC 2020 Version 2.0 includes changes for Field of Research (FOR) Classification only. Changes were maintained at the subclass (4 digit) level for this round, as a more widespread changes can be expected in the next revision. The essential of the scope changes were related to splitting off existing subclasses (fields) to accommodate new subclasses. 8 new subclasses or fields were added.

The Generic Statistical Information Model (GSIM) is used to identify the types of changes made to the classification: real changes and virtual changes. Real changes are those affecting the scope of the existing classification items or categories, whether or not accompanied by changes in the title, definition and/or the coding. Virtual changes are those made in coding, titles and/or definitions, while the meaning or scope of the classification item remains the same. Real changes are the most important ones for analysis and tracking changes over time.

Combination of classification items

No combination of classifications items occurs in this revision.

Decomposition of classification items

Among the type of decomposition classification items in the GSIM, only split offs were registered. A split occurs when a classification item continues to exist, while part of its denotation moves to another (emerging) classification item. The following emerging subclasses or fields of research were added in CRDC 2020 Version 2.0:

Level	Code	Parent	Title
Subclass (Field)	RDF1030309	RDF10303	Molecular biophysics
Subclass (Field)	RDF2049912	RDF20499	Mechanical engineering for energy systems (except renewal energy)
Subclass (Field)	RDF2049913	RDF20499	Mechanical engineering for renewable energy systems
Subclass (Field)	RDF3020234	RDF30202	Clinical chemistry
Subclass (Field)	RDF5099905	RDF50999	Black studies
Subclass (Field)	RDF5099906	RDF50999	Indigenous studies
Subclass (Field)	RDF6010115	RDF60101	Quebec history
Subclass (Field)	RDF6020211	RDF60202	Translation studies

Virtual Changes

These changes are made without changing the scope of the existing classification items, though they help clarify where a number of fields of research should be classified. In CRDC 2020 Version 2.0, they include:

- Identification of 'metaverse' in the title of subclass RDF1020509-Virtual and augmented reality, metaverse and related simulations;
- Identification of 'accessibility and critical disability studies' in the definition of subclass RDF5099902-Disability studies;
- Subclass RDF6040601-Indigenous performing arts was renamed to Indigenous arts.

CRDC 2020 Version 2.0 – Field of Research (FOR) - Level count after changes

Level	Level name	Number of digits (truncated - Full codes are alphanumerical and start RDF)	Count CRDC 2020 Version 1.0	Count CRDC 2020 Version 2.0
1	Division	2	6	6
2	Group	3	43	43
3	Class	5	168	168
4	Subclass (Field)	7	1,663	1,671
Total	n/a	n/a	1,880	1,888

Use of the CRDC

The CRDC provides a three-way matrix of classification. Each R&D activity can be classified by Type of Activity (TOA), Fields of Research (FOR) and Socio-economic Objective (SEO).

The CRDC provides a significant degree of flexibility in meeting the needs of a wide variety of users. The hierarchical structure of both the FOR and SEO classifications enables them to be applied to particular purposes at various levels. The CRDC also helps classify multi-disciplinary research, where several disparate areas of the FOR are usually brought together to address one area, or closely related areas of the SEO.

The complexity of issues addressed by R&D is such that questions of public policy often arise in a manner which cannot be readily seen in advance. The detail available in both the FOR and SEO classifications would be sufficient to facilitate the provision of statistics that can be used in a variety of contexts. For example, areas of key technological significance could generally be assessed using an aggregate of appropriate FOR classes and subclasses (fields). The use of the CRDC for R&D surveys minimises the need for separate one-off R&D surveys aimed at narrow areas.

Guidelines for classifying with the CRDC

Classifying by type of activity (TOA)

Where possible, a research project or research program should be allocated to a single type of activity (basic research, applied research or experimental development). If the project or program is large and involves multiple types of activity, then each relevant activity category should be attributed a proportion of resources relative to the project's or research program's total R&D expenditure.

Classifying by field of research (FOR)

The research should first be considered in its broadest sense and in terms of the discipline that the research relates. The research is to be allocated to a FOR in a hierarchical manner. This is achieved by:

- first determining the most relevant division in which the largest component of the R&D is being performed; then

- determining the most relevant group within that division; then

- determining the most relevant class within that group; and then

- determining the most relevant subclass or field within that class.

Many R&D projects will be a homogenous body of work in a specific field. These are more straightforward to categorize. However, the emergence of new interdisciplinary and multidisciplinary fields of research is a feature of the modern R&D environment. The categorization of such fields within a hierarchical and exclusive classification system can pose difficulties for users of the FOR. The use of multiple fields to classify a research project ensures that this research is accommodated within the classification structure.

For example, to classify multidisciplinary research, granting agencies in Canada will each identify how they will classify them during their implementation of the CRDC. One could for instance collect 3 to 5 fields of research (FOR) to describe a particular research project.

If the research is sufficiently large or complex then multiple fields should be selected and attributed with a proportion of resources relative to the total expenditure of the R&D. If the disaggregation is difficult, consideration of relative importance may indicate a primary objective only.

Where a defined field cannot be identified within a class, the 'not elsewhere classified (n.e.c.)' category at the field level is to be used.

Classifying by socioeconomic objective (SEO)

The research should first be considered in its broadest sense and in terms of the dominant beneficiary of the research output. The research is to be allocated to an SEO in a hierarchical manner. This is achieved by:

- first determining the most relevant division corresponding to the largest component of the R&D being performed and the socioeconomic objective which covers that research and experimental development (R&D) activity; then
- determining the most relevant group or objective within that division;
- illustrative examples can be used to determine the most relevant objective within the group.

The appropriate SEO should reflect the industry, process, product, health, education or other social and environmental aspect that R&D activity aims to impact, improve or measure. The appropriate SEO may reflect the aspirations of the researchers and it may help to understand the goals of the research.

Many R&D projects will be a homogenous body of work directed towards a specific objective. These are more straightforward to categorize. However, if the R&D is sufficiently large or complex then multiple fields should be selected and attributed with a proportion of resources relative to the total expenditure of the R&D. If the disaggregation is difficult, consideration of relative importance may indicate a primary objective only.

Where a defined objective cannot be identified within a group, the 'not elsewhere classified (n.e.c.)' or residual category at the objective level is to be used.

In terms of objectives leading towards 'expanding knowledge', for this first version of the CRDC, it was decided to include them in residual categories (n.e.c.). 'Expanding Knowledge' is for the categorization of R&D which does not have an identifiable socio-economic objective. This is usually the case for basic research (as defined in the Type of Activity classification). Applied research and experimental development, by definition, have an identified socio-economic objective and therefore should not be categorized as 'expanding knowledge'.

Definition of R&D

Research and Development (R&D) is defined according to the OECD standard (Frascati Manual 2015) as comprising creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of human, culture, society and environment, and the use of this stock of knowledge to devise new applications.

An R&D activity is characterized by originality. It has investigation as a primary objective, the outcome of which is new knowledge, with or without a specific practical application, or new or improved materials, products, devices, processes or services. R&D ends when work is no longer primarily investigative.

Scope of R&D

As indicated in the Frascati Manual 2015 and as experience has shown, there are difficulties in delineating the point which clearly separates the culmination of R&D investigative work and the beginning of the implementation phase of the innovations or recommendations resulting from R&D. Errors at this point are particularly significant because, although R&D programmes require large outlays of resources, the costs of implementing innovations or recommendations resulting from R&D may also be as high, or higher, in many instances.

There is also a wide range of scientific and related activities that are not R&D, but that are closely linked to R&D in terms of organisation, resource allocation, institutional affiliation and the use or flow of information. However, activities conducted solely or primarily for the purposes of R&D support are included in R&D.

The activities which do not have clear boundaries with R&D are listed below.

(i) Education and training of personnel and students

Postgraduate research, including supervision of the research, is considered to be R&D. The development of new teaching methods is also regarded as R&D. However, teaching and training students, using established methods and subject knowledge, is excluded.

(ii) Specialised scientific and technical information services

Specialised scientific and technical information services which are undertaken solely in support of R&D are regarded as R&D. Examples of these are scientific data collection, coding, recording, classification, dissemination, translation, analysis and bibliographic services.

These specialised services are excluded if they are undertaken independently and not solely in support of R&D.

(iii) General purpose or routine data collection

Collecting data in support of R&D work is included in R&D.

However, data collection of a general nature is excluded. This is normally carried out by government agencies to record natural, biological, economic, or social phenomena of general public or government interest. Examples are national population censuses, surveys of unemployment, topographical mapping and routine geographical or environmental surveys.

(iv) Maintenance of national and international standards

Routine testing and analysis of materials, components, products, processes, soils, atmospheres, etc. for standard compliance is excluded from R&D.

(v) Feasibility studies

Feasibility studies undertaken in support of R&D are included. However, a feasibility study that involves gathering information about existing conditions, for use in deciding whether or not to implement a project, is excluded, e.g., a study to determine the viability of a petrochemical complex in a particular location.

(vi) Specialized medical care

R&D includes the development of new treatments and procedures, including such developments in conjunction with advanced medical care and examinations usually carried out by university hospitals.

However, routine investigations or normal application of specialized medical knowledge, techniques or equipment are excluded from R&D. Examples of these are pathology, forensic and post-mortem procedures.

(vii) Clinical trials

Phase 1, 2 and 3 clinical trials are included in R&D. Phase 4 clinical trials are excluded from R&D, unless they bring about further scientific or technological advance.

(viii) Patent and licence work

Patent work connected directly with R&D projects is included in R&D. However, commercial, administrative, and legal work associated with patenting, copywriting and licensing, is excluded.

(ix) Policy or program related studies

The boundary between certain policy related studies as described in the [Frascati Manual 2015](#) and R&D is complex. In the Frascati Manual, policy related studies cover activities such as the 'analysis and assessment of existing programmes, continued analysis and monitoring of external phenomena (e.g., defence and security analysis), legislative inquiry concerned with general government departmental policy or operations'. Rigour is required to separate policy related studies that are not R&D from true R&D policy work.

Studies to determine the effects of a specific national policy or program to a particular economic or social condition or social group may have elements of R&D. Routine management studies or efficiency studies are excluded.

(x) Routine software development

Software development is an integral part of many projects which in themselves may have no element of R&D. The software development component of such projects, however, may be classified as R&D if it leads to an advance in the area of computer software.

For a software development to be considered as R&D, its completion must be dependent on a scientific or technological advance, and the aim of the project must be the systematic resolution of a scientific and/or technological uncertainty.

The following are examples of software development which are considered to be R&D:

- Development of internet technology
- Research into methods of designing, developing, deploying or maintaining software
- R&D on software tools or technologies in specialized areas of computing (e.g. image processing, artificial intelligence, character recognition)
- R&D producing new theorems and algorithms in the field of theoretical computer science

The following are examples of software development which are not considered to be R&D:

- Routine computer and software maintenance
- Business application software and information system development using known methods and existing software
- Adding user functionality to application languages
- Adaptation of or support for existing software

(xi) Marketing and market studies

Market research and opinion polls are excluded from R&D.

(xii) Mineral exploration

The development of new or vastly improved methods of data acquisition, processing and interpretation of data is included as R&D. Surveying undertaken as an integral part of an R&D project to observe geological phenomena is also regarded as R&D. However, the search for minerals using existing methods is excluded from R&D.

(xiii) Prototypes and pilot plants

The design, construction and testing of prototypes generally falls within the scope of R&D. However, trial production and copying of prototypes are excluded from R&D.

The construction and operation of pilot plants is part of R&D provided that these are used to obtain experience or new data for evaluating hypotheses.

Pilot plants are excluded from R&D as soon as the experimental phase is over or as soon as they are used as normal commercial production units, even if they continue to be described as 'pilot plants'.

If a pilot plant is used for combined operations, the component used for R&D is to be estimated.

(xiv) Other activities

All other activities that are ancillary or consequential to R&D are excluded. Examples of these are interpretative commentary using existing data, forecasting, operations research as contributing to decision making and the use of standard techniques in applied psychology to classify or diagnose human characteristics.

R&D unit or object to be classified

There are some inherent difficulties in formulating a definition of what constitutes a unit of R&D, due to the lack of uniformity in organizational structures and considerable variation in the way organizations allocate resources to R&D activities. From a statistical viewpoint it is desirable that R&D expenditure be reported in the smallest cluster that can be classified to a single TOA and FOR, which for the purposes of this classification is defined to be an R&D unit. The extent to which it is not practicable to provide this detail will reduce the validity and usefulness of the classification, and the resulting R&D statistics.

The most common real world references to R&D activities are *Research Program* and *Research Project*. These focal units seldom approximate the idealized R&D unit as outlined above, although they could be regarded as an aggregation of these units.

We refer to the Frascati Manual 2015 for more details about the best way to identify R&D units.

Relationship with other national statistical classifications

The CRDC is the first Canadian research classification designed to be dedicated to R&D and inclusive of all current sectors of research in Canada. While contributing to a greater alignment with international standards, it is comprehensive enough to support a wide range of needs within the Canadian research and development ecosystem.

It might be possible to combine the CRDC and the North American Industry Classification (NAICS) Canada when collecting, analyzing and disseminating R&D data. There are also some approximations to be made with the Classification of instructional programs (CIP) Canada and the North American Product Classification (NAPCS) Canada, although direct comparison should be made with care. In the case of NAPCS Canada for example, it is a transaction and output-based classification which may not be suited to all situations where R&D information needs to be collected and disseminated, for example '*intra-muros* R&D'.

Relationship with relevant international standard classifications

The CRDC aligns with international standards to collect and report on research and development, namely with the recommendations from the Organization for Economic Cooperation and Development's (OECD) Frascati Manual 2015, the *Nomenclature for the Analysis and Comparison of Scientific Programmes and Budgets (NABS) 2007* and was modeled on the Australian and New Zealand Standard Research Classification (ANZSRC) 2008. Since then the ANZSRC has been revised to Version 2020.

See the comparison tables for fields of research (FOR):

Comparison between Frascati Manual 2015 – Broad Classification (FOR) and CRDC 2020 Version 2.0 – Division levels (FOR)

Frascati Manual 2015 - Broad Classification (FOR) - Code	Frascati Manual 2015 - Broad Classification (FOR) - Title	CRDC 2020 Version 2.0 – Division levels (FOR) – Code	CRDC 2020 Version 2.0 – Division levels (FOR) - Title	Explanatory notes
1	Natural sciences	RDF10	Natural sciences	
2	Engineering and technology	RDF20-21	Engineering and technology	
3	Medical and health sciences	RDF30	Medical, health and life sciences	Difference in the title with addition of 'and life sciences' in the CRDC.
4	Agricultural and veterinary sciences	RDF40	Agricultural and veterinary sciences	
5	Social sciences	RDF50	Social sciences	
6	Humanities and the arts	RDF60	Humanities and the arts	

Comparison between Frascati Manual 2015 – Second level classification (FOR) and CRDC 2020 Version 2.0 – Group levels (FOR)

Frascati Manual 2015 – Second level classification (FOR) Code	Frascati Manual 2015 – Second level classification (FOR) Title	CRDC 2020 Version 2.0 – Group levels (FOR) - Code	CRDC 2020 Version 2.0 – Group levels (FOR) - Title	Explanatory notes
1.1	Mathematics	RDF101	Mathematics and statistics	Difference in the title with addition of 'statistics' in the CRDC.
1.2	Computer and information sciences	RDF102	Computer and information sciences	
1.3	Physical sciences	RDF103	Physical sciences	
1.4	Chemical sciences	RDF104	Chemical sciences	
1.5	Earth and related environmental sciences	RDF105	Earth and related environmental sciences	
1.6	Biological sciences	RDF106	Biological sciences	
1.7	Other natural sciences	RDF107	Other natural sciences	
2.1	Civil engineering	RDF201	Civil engineering, maritime engineering, transport engineering, and mining engineering	Difference in the title with addition of 'maritime engineering, transport engineering, and mining engineering' in the CRDC.
2.2	Electrical engineering, electronic engineering, information engineering	RDF203	Electrical engineering, computer engineering, and information engineering	
2.3	Mechanical engineering	RDF202	Industrial, systems and processes engineering	CRDC identifies this category as important for Canada and elevates it at the Frascati second level classification. Though, the category is part of Mechanical engineering in the Frascati Manual 2015.
2.3	Mechanical engineering	RDF204	Mechanical engineering	
2.4	Chemical engineering	RDF205	Chemical engineering	
2.5	Materials engineering	RDF206	Materials engineering and resources engineering	Difference in the title with addition of 'resources engineering' in the CRDC.
2.6	Medical engineering	RDF207	Medical and biomedical engineering	Difference in the title with addition of 'biomedical' in the CRDC.
2.7	Environmental engineering	RDF208	Environmental engineering and related engineering	Difference in the title with addition of 'and related engineering' in the CRDC.
2.8	Environmental biotechnology	RDF209	Environmental biotechnology	
2.9	Industrial biotechnology	RDF210	Industrial biotechnology	
2.10	Nano-technology	RDF211	Nano-technology	
2.11	Other engineering and technologies	RDF212	Other engineering and technologies	
3.1	Basic medicine	RDF301	Basic medicine and life sciences	Difference in the title with addition of 'and life sciences' in the CRDC.
3.2	Clinical medicine	RDF302	Clinical medicine	
3.3	Health sciences	RDF303	Health sciences	
3.4	Medical biotechnology	RDF304	Medical biotechnology	
3.5	Other medical science	RDF305	Other medical sciences	
4.1	Agriculture, forestry, and fisheries	RDF401	Agriculture, forestry, and fisheries	
4.2	Animal and dairy science	RDF402	Animal and dairy sciences	

Comparison between Frascati Manual 2015 – Second level classification (FOR) and CRDC 2020 Version 2.0 – Group levels (FOR)

Frascati Manual 2015 – Second level classification (FOR) Code	Frascati Manual 2015 – Second level classification (FOR) Title	CRDC 2020 Version 2.0 – Group levels (FOR) - Code	CRDC 2020 Version 2.0 – Group levels (FOR) - Title	Explanatory notes
4.3	Veterinary science	RDF403	Veterinary sciences	
4.4	Agricultural biotechnology	RDF404	Agricultural biotechnology and food sciences	Difference in the title with addition of 'and food sciences' in the CRDC.
4.5	Other agricultural sciences	RDF405	Other agricultural sciences	
5.1	Psychology and cognitive sciences	RDF501	Psychology and cognitive sciences	
5.2	Economics and business	RDF502	Economics and business administration	Difference in the title with addition of 'administration' in the CRDC.
5.3	Education	RDF503	Education	
5.4	Sociology	RDF504	Sociology and related studies	Difference in the title with addition of 'and related studies' in the CRDC.
5.5	Law	RDF505	Law and legal practice	
5.6	Political science	RDF506	Political science and policy administration	Difference in the title with addition of 'and policy administration' in the CRDC.
5.7	Social and economic geography	RDF507	Social and economic geography	
5.8	Media and communications	RDF508	Media and communications	
5.9	Other social sciences	RDF509	Other social sciences	
6.1	History and archaeology	RDF601	History, archaeology and related studies	Difference in the title with addition of 'and related studies' in the CRDC.
6.2	Languages and literature	RDF602	Languages and literature	
6.3	Philosophy, ethics and religion	RDF603	Philosophy	Difference in the title with the removal of 'ethics and religion' in the CRDC; these words were added in the definition of the category.
6.4	Arts (arts, history of arts, performing arts, music)	RDF604	Arts (arts, history of arts, performing arts, music), architecture and design	Difference in the title with addition of 'architecture and design' in the CRDC.
6.5	Other humanities	RDF605	Other humanities	

See the comparison table for socioeconomic objectives (SEO):

Comparison between NABS 2007 Chapters (SEO) and CRDC 2020 Version 2.0 – Division levels (SEO)

NABS 2007 Chapters (SEO) – Code	NABS 2007 Chapters (SEO) – Title	CRDC 2020 Version 2.0 – Division levels (SEO) – Code	CRDC 2020 Version 2.0 – Division levels (SEO) – Title	Explanatory notes
1	Exploration and exploitation of the Earth	RDS101	Exploration and exploitation of the earth	
2	Environment	RDS102	Environmental protection	Difference in the title with addition of 'protection' in the CRDC.
3	Exploration and exploitation of space	RDS103	Exploration and exploitation of space	
4	Transport, telecommunication and other infrastructures	RDS104	Transport, telecommunication and other infrastructures (including buildings)	Difference in the title with addition of 'including buildings' in the CRDC.
5	Energy	RDS105	Energy (except prospecting)	Difference in the title with addition of 'except prospection' in the CRDC.

Comparison between NABS 2007 Chapters (SEO) and CRDC 2020 Version 2.0 – Division levels (SEO)

NABS 2007 Chapters (SEO) – Code	NABS 2007 Chapters (SEO) – Title	CRDC 2020 Version 2.0 – Division levels (SEO) – Code	CRDC 2020 Version 2.0 – Division levels (SEO) – Title	Explanatory notes
6	Industrial production and technology	RDS106	Industrial production and technology	
7	Health	RDS107	Health	
8	Agriculture	RDS108	Agriculture (including fisheries and forestry)	
9	Education	RDS109	Education	
10	Culture, recreation, religion and mass media	RDS110	Culture, recreation, religion and media	Difference in the title with the removal of 'mass' for media in the CRDC.
11	Political and social systems, structures and processes	RDS111	Political and social systems, structures and processes	
12	General advancement of knowledge: R&D financed from General University Funds (GUF)			No direct equivalent. This category is spread across different residual categories in the CRDC.
13	General advancement of knowledge: R&D financed from other sources than GUF			This category is spread across different residual categories in the CRDC.
14	Defence	RDS112	Defence	

Updates or revisions to the CRDC

An important consideration when developing a statistical classification is the need to build in sufficient robustness to allow for long-term usage. This robustness facilitates meaningful time series analysis of data assigned to that classification. However, there is also a need for the classification to remain contemporary to capture changes happening in the R&D sector and to provide data relevant to users' needs.

In order to achieve a balance between these two competing objectives, Statistics Canada as the custodian of the CRDC, and its close partner funding agencies, intend to undertake minor revisions every year or two, and major revision every five years. In fact, all parties agreed that the first CRDC 2020 version 1.0 will be revised within 2 years of its first release date, and on a five-year cycle after that, with possibility of 'evergreening' for minor changes once a year to reflect the changes in the research fields. This is the first revision of the classification with CRDC 2020 Version 2.0. More revisions will continue in the future according to this approximatively 5-years revision cycle.

Although the CRDC is official once published by Statistics Canada, the dates of its implementation depend entirely on the entities, organizations or individuals who decide to use it. Statistics Canada has its own internal policies on statistical standards and informing users that may influence implementation dates by the Agency's statistical programs.

CRDC Products

Correspondences (or concordances) between newest versions and older versions of the CRDC will be provided along with the classification after it revised. This is the first official version of the CRDC, therefore no correspondence table will be released. Other correspondences will be considered for development in the future, including full correspondences between CRDC FOR and OECD's Fields of Science (See: Comparison between Frascati Manual 2015 – Broad Classification (FOR) and CRDC 2020 Version 2.0 – Division levels (FOR) and Comparison between Frascati Manual 2015 – Second level classification (FOR) and CRDC 2020 Version 2.0 – Group levels (FOR)), between CDRC's SEO and the Nomenclature for the Analysis and Comparison of Scientific Programmes and Budgets (NABS) 2007 (See: Comparison between NABS 2007 Chapters (SEO) and CRDC 2020 Version 2.0 – Division levels (SEO)), and potentially develop crosswalks between the CDRC's FOR and SEO, and the North American Industry Classification (NAICS), between the CRDC's FOR and SEO, and the North American Product Classification (NAPCS) Canada, and between the CRDC's FOR and SEO, and the Classification

of Instructional Programs (CIP). But these crosswalks might take time to develop and will depend on available resources, as the focus will be the deployment of the CRDC and experiment of its usage across the country for some years after the first release.

Further information

For more information about the CRDC contact Statistics Canada: Contact us

For more information on the Canadian Research and Development Classification (CRDC) 2020 Version 2.0, please visit: Canadian Research and Development Classification (CRDC) 2020 Version 2.0

For questions related to the Canadian Research and Development Classification (CRDC) 2020 Version 2.0, please send an email to: statcan.crdc-ccrd.statcan@statcan.gc.ca.

Type Of Activity (TOA) - CRDC 2020 Version 2.0

Classification structure of TOA

RDT1 - Basic research

RDT2 - Applied research

RDT3 - Experimental development

Classification description of TOA

RDT1 - Basic research

Basic research refers to experimental and theoretical work undertaken primarily to acquire new knowledge of the underlying foundation of phenomena and observable facts, without any particular application or use in view.

RDT2 - Applied research

Applied research refers to original investigation undertaken in order to acquire new knowledge. It is, however, directed primarily towards a specific, practical aim or objective.

RDT3 - Experimental development

Experimental development refers to systematic work, drawing on knowledge gained from research and practical experience and producing additional knowledge, which is directed to producing new products or processes or to improving existing products or processes.

Field of Research (FOR) - CRDC 2020 Version 2.0

Classification structure of FOR

RDF10 Natural sciences

RDF101 Mathematics and statistics

RDF10101 Pure mathematics

RDF1010101 Algebra

RDF1010102 Number theory

RDF1010103 Algebraic and differential geometry

RDF1010104 Metric and fractal geometry

RDF1010105 Category theory, K theory, homological algebra

RDF1010106 Combinatorics and discrete mathematics

RDF1010107 Group theory and generalisations

RDF1010108 Lie groups, harmonic and Fourier analysis

RDF1010109 Foundations, logic, and set theory of mathematics

RDF1010110 Modern analysis in mathematics

RDF1010111 Differential equations and integral equations in pure mathematics

RDF1010112 Classical analysis in pure mathematics

RDF1010113 Topology

RDF1010199 Pure mathematics, n.e.c.

RDF10102 Applied mathematics

RDF1010201 Approximation theory and asymptotic methods

RDF1010202 Integral equations in applied mathematics

RDF1010203 Partial and ordinary differential equations

RDF1010204 Mathematical modelling and simulation

RDF1010205 Computational fluid mechanics

RDF1010206 Mathematical biology

RDF1010207 Calculus of variations, systems theory and control theory

RDF1010208 Dynamical systems in applications

RDF1010209 Mathematical operations research

RDF1010210 Theoretical and applied mechanics

RDF1010211 Numerical analysis

RDF1010212 Mathematical optimization

RDF1010213 Mathematical physics

RDF1010299 Applied mathematics, n.e.c.

RDF10103 Statistics

RDF1010301 General statistical methods

RDF1010302 Biostatistical methods

RDF1010303 Statistical theory and modeling

RDF1010304 Statistical inference

RDF1010305 Statistical learning

RDF1010306 High dimensional data analysis

RDF1010307 Computational methods in statistics

RDF1010308 Actuarial science and mathematical finance

RDF1010309 Spatial statistics

RDF1010310 Survey methodology and analysis

RDF1010311 Statistical methods for high throughput data

RDF1010312 Probability theory

RDF1010399 Statistics, n.e.c.

RDF102 Computer and information sciences

RDF10201 Artificial intelligence (AI)

RDF1020101 Adaptive agents

RDF1020102 Intelligent robotics

RDF1020103 Artificial life

RDF1020104 Machine learning

RDF1020105 Natural language processing

RDF1020106 Knowledge representation

RDF1020107 Planning and scheduling in artificial intelligence

RDF1020108 Search methodologies in artificial intelligence

RDF1020109 Distributed artificial intelligence

RDF1020110 Data mining

RDF1020111 Pattern recognition and artificial vision

RDF1020112 Computer vision in artificial intelligence

RDF1020113 Cognitive computing

RDF1020114 Computer modelling on perception, memory and attention

RDF1020115 Logic programming in artificial intelligence

RDF1020116 Expert systems technologies in artificial intelligence

RDF1020199 Artificial intelligence, n.e.c.

RDF10202 Theoretical computer science and computational mathematics

RDF1020201 Analysis of algorithms and complexity

RDF1020202 Algorithms and data structures

RDF1020203 Applied discrete mathematics

RDF1020204 Coding and information theory

RDF1020205 Computational logic theory

RDF1020206 Artificial languages

RDF1020207 Mathematical software

RDF1020208 Numerical computation

RDF1020209 Encryption and cryptography

RDF1020210 Distributed programming languages

RDF1020299 Other theoretical computer science and computational mathematics, n.e.c.

RDF10203 Programming languages and software engineering

RDF1020301 Software architecture

RDF1020302 Computation models

RDF1020303 Software domains (including operating systems and software infrastructure)

RDF1020304 Programming languages

RDF1020305 Software system models

RDF1020306 Distributed systems organizing principles

RDF1020307 Real-time software and ultra-large systems

RDF1020308 Extra-functional properties

RDF1020309 Compilers

RDF1020310 Operating systems

RDF1020311 Software function properties

RDF1020312 Distributed algorithms

RDF1020313 Adaptive software engineering

RDF1020399 Programming language and software engineering, n.e.c.

RDF10204 Computing systems

RDF1020401 Distributed systems

RDF1020402 Networking and communications

RDF1020403 Parallel systems

RDF1020404 Quantum computing

RDF1020499 Computing systems, n.e.c.

RDF10205 Human-centered computing

RDF1020501 Human computer interaction

RDF1020502 Interaction design for human-centered computing

RDF1020503 User-adaptive and personalized systems

RDF1020504 Collaborative and social computing

RDF1020505 Ubiquitous and mobile computing

RDF1020506 Accessibility in human-centered computing

RDF1020507 Computer graphics

RDF1020508 Data visualization

RDF1020509 Virtual and augmented reality, metaverse and related simulations

RDF1020599 Human-centered computing, n.e.c.

RDF10206 Information Systems

RDF1020601 Information system security

RDF1020602 Modelling and simulation in information systems

RDF1020603 Web technologies (except Web search)

RDF1020604 Conceptual modelling in information systems

RDF1020605 Database management

RDF1020606 Decision support systems

RDF1020607 Spatial-temporal data systems

RDF1020608 Information systems development methodologies

RDF1020609 Information retrieval

RDF1020610 Information privacy

RDF1020611 Privacy-enhancing technologies

RDF1020612 Digital forensics

RDF1020699 Information systems, n.e.c.

RDF10207 Library science and information studies

RDF1020701 Library science (librarianship)

RDF1020702 Human information behaviour (including human information retrieval)

RDF1020703 Web search

RDF1020704 Scientometrics, bibliometrics, webometrics and other quantitative aspects of information Informetrics)

RDF1020705 Organization of information and knowledge resources

RDF1020706 Records and information management (except business records and information Management)

RDF1020707 Archival, repository and related studies

RDF1020708 Information literacy

RDF1020799 Information studies, n.e.c.

RDF10208 Bioinformatics

RDF1020801 Algorithms and computational genomics

RDF1020802 Computational biomodelling

RDF1020803 Computational neurosciences

RDF1020804 DNA computing

RDF1020805 Molecular and atomic computing

RDF1020806 Evolutionary computation

RDF1020807 Genetic algorithms

RDF1020808 Genetic programming

RDF1020899 Bioinformatics, n.e.c.

RDF10299 Other computer and information sciences

RDF1029999 Other computer and information sciences

RDF103 Physical sciences

RDF10301 Astronomical and space sciences

RDF1030101 Astrobiology

RDF1030102 Celestial mechanics

RDF1030103 Astronomical and space instrumentation (including atmospheric observation)

RDF1030104 Cosmology and extragalactic astronomy

RDF1030105 Galactic astronomy

RDF1030106 General relativity and gravitational waves in astronomical and space sciences

RDF1030107 Mesospheric, ionospheric and magnetospheric physics

RDF1030108 Planetary science (except planetary geology)

RDF1030109 Space and solar physics

RDF1030110 Stellar astronomy and planetary systems

RDF1030111 Astrochemistry

RDF1030112 Dark energy

RDF1030113 Theoretical and computational astrophysics

RDF1030199 Astronomical and space sciences, n.e.c.

RDF10302 Subatomic physics

RDF1030201 Nuclear physics, experimental

RDF1030202 Particle physics, experimental

RDF1030203 Astroparticle physics

RDF1030204 Subatomic physics instrumentation

RDF1030205 Accelerator for nuclear and particle physics (including synchrotons)

RDF1030206 Nuclear physics theory

RDF1030207 Particle physics theory (including aspects of field theory and string theory)

RDF1030208 High-energy astrophysics and cosmic rays

RDF1030209 Weak interactions of elementary particles

RDF1030210 Intermediate subatomic energy reactions

RDF1030299 Subatomic physics, n.e.c.

RDF10303 Atomic, molecular, and optical physics

RDF1030301 Atomic and molecular physics

RDF1030302 Classical and physical optics

RDF1030303 Lasers and quantum electronics

RDF1030304 Nonlinear optics and spectroscopy

RDF1030305 Atomic and molecular spectroscopy

RDF1030306 Photonics, optoelectronics and optical communications

RDF1030307 Plasma physics, fusion plasmas, and electrical discharges

RDF1030308 Quantum optics

RDF1030309 Molecular biophysics

RDF1030399 Atomic, molecular, and optical physics, n.e.c.

RDF10304 Classical physics

RDF1030401 Acoustics and acoustical devices and waves

RDF1030402 Electrostatics and electrodynamics

RDF1030403 Fluid physics

RDF1030404 Thermodynamics and statistical physics

RDF1030499 Classical physics, n.e.c.

RDF10305 Condensed matter physics

RDF1030501 Condensed matter characterization technique development

RDF1030502 Condensed matter experiments

RDF1030503 Condensed matter modelling and density functional theory

RDF1030504 Electronic and magnetic properties of condensed matter and supraconductivity

RDF1030505 Soft condensed matter

RDF1030506 Surfaces and structural properties of condensed matter

RDF1030507 Superconductivity

RDF1030508 Semiconductors

RDF1030509 Low-temperature physics

RDF1030510 Mesoscopic physics

RDF1030599 Condensed matter physics, n.e.c.

RDF10306 Quantum physics

RDF1030601 Degenerate quantum gases

RDF1030602 Matter waves

RDF1030603 General relativity and gravitational waves in quantum physics

RDF1030604 Quantum information, computation and communication

RDF1030605 Foundation of quantum physics

RDF1030606 Quantum technologies

RDF1030607 Statistical mechanics in quantum physics

RDF1030699 Quantum physics, n.e.c.

RDF10399 Other physical sciences

RDF1039901 Complex physical systems

RDF1039902 Medical physics

RDF1039903 Instrumentation in physics

RDF1039999 Other physical sciences, n.e.c.

RDF104 Chemical sciences

RDF10401 Analytical chemistry

RDF1040101 Analytical spectrometry

RDF1040102 Electroanalytical chemistry

RDF1040103 Flow analysis in chemistry

RDF1040104 Immunological and bioassay methods

RDF1040105 Instrumental methods (except immunological and bioassay methods)

RDF1040106 Sensor technology (chemical aspects)

RDF1040107 Separation science

RDF1040108 Environmental chemistry (except atmospheric chemistry)

RDF1040199 Analytical chemistry, n.e.c.

RDF10402 Inorganic chemistry

RDF1040201 Bioinorganic chemistry

RDF1040202 F-Block chemistry

RDF1040203 Inorganic green chemistry

RDF1040204 Main group metal chemistry

RDF1040205 Solid state chemistry

RDF1040206 Transition metal chemistry

RDF1040207 Organometallic chemistry

RDF1040208 Inorganic materials

RDF1040209 Coordination chemistry

RDF1040210 Supramolecular inorganic chemistry

RDF1040211 Physical inorganic chemistry

RDF1040212 Metal-mediated catalysis

RDF1040213 Inorganic catalysis and reaction mechanisms

RDF1040214 Inorganic photochemistry

RDF1040215 Medicinal inorganic chemistry

RDF1040299 Inorganic chemistry, n.e.c.

RDF10403 Organic chemistry

RDF1040301 Free radical chemistry

RDF1040302 Natural products chemistry

RDF1040303 Organic chemical synthesis

RDF1040304 Organic green chemistry

RDF1040305 Physical organic chemistry

RDF1040306 Combinatorial chemistry

RDF1040307 Organic catalysis and mechanisms of reactions

RDF1040308 Quality assurance, chemometrics, traceability and metrological chemistry

RDF1040309 Organic photochemistry

RDF1040310 Supramolecular organic chemistry

RDF1040399 Organic chemistry, n.e.c.

RDF10404 Macromolecular and materials chemistry

RDF1040401 Characterization of materials

RDF1040402 Nanochemistry

RDF1040403 Polymerization mechanisms

RDF1040404 Synthesis of materials

RDF1040405 Theory and design of materials

RDF1040406 Functional materials in materials chemistry sciences

RDF1040499 Macromolecular and materials chemistry, n.e.c.

RDF10405 Biomolecular and medicinal chemistry

RDF1040501 Biologically active molecules

RDF1040502 Molecular modelling and design

RDF1040503 Characterization of biological macromolecules and biological systems

RDF1040504 Cheminformatics and quantitative structure-activity relationships

RDF1040505 Medicinal chemistry

RDF1040506 Proteins and peptides

RDF1040507 Glycochemistry

RDF1040508 Chemical biology

RDF1040599 Biomolecular and medicinal chemistry, n.e.c.

RDF10406 Physical chemistry (including structural)

RDF1040601 Colloid and surface chemistry

RDF1040602 Electrochemistry

RDF1040603 Solution chemistry

RDF1040604 Nuclear chemistry

RDF1040605 Structural determination

RDF1040606 Optical properties of materials

RDF1040607 Physical chemistry of materials

RDF1040608 Development and applications of spectroscopic and structural techniques

RDF1040609 Physical chemistry applications of photonics

RDF1040610 Photochemical reactivity and dynamics

RDF1040611 Biophysical chemistry

RDF1040612 Chemical applications of crystallography

RDF1040699 Physical chemistry, n.e.c.

RDF10407 Computational and theoretical chemistry

RDF1040701 Computational chemistry

RDF1040702 Quantum chemistry

RDF1040703 Reaction kinetics and dynamics

RDF1040704 Statistical mechanics in chemistry

RDF1040705 Chemical thermodynamics and energetics

RDF1040706 Transport properties and non-equilibrium processes

RDF1040799 Theoretical chemistry, n.e.c.

RDF10499 Other chemical sciences

RDF1049901 Forensic chemistry

RDF1049902 Industrial chemistry

RDF1049903 Combustion and forest fuel chemistry

RDF1049999 Other chemical sciences, n.e.c.

RDF105 Earth and related environmental sciences

RDF10501 Atmospheric sciences

RDF1050101 Atmospheric chemistry

RDF1050102 Atmospheric dynamics and thermodynamics

RDF1050103 Atmospheric radiation and radiative transfer

RDF1050104 Cloud physics

RDF1050105 Meteorology and weather

RDF1050106 Tropospheric and stratospheric sciences

RDF1050107 Atmospheric measurement techniques

RDF1050108 Climate change impacts and adaptation

RDF1050109 Atmospheric pollution and air quality

RDF1050110 Boundary layer meteorology

RDF1050111 Stratosphere and upper atmosphere studies

RDF1050112 Climate modelling

RDF1050113 Planetary atmospheres studies

RDF1050114 Synoptic climatology

RDF1050115 Statistical climatology

RDF1050199 Atmospheric sciences, n.e.c.

RDF10502 Geochemistry

RDF1050201 Exploration geochemistry

RDF1050202 Inorganic geochemistry

RDF1050203 Isotope geochemistry

RDF1050204 Organic geochemistry

RDF1050205 Geochronology

RDF1050206 Hydrogeochemistry

RDF1050207 Biogeochemistry

RDF1050208 Environmental geochemistry

RDF1050299 Geochemistry, n.e.c.

RDF10503 Geology

RDF1050301 Basin analysis

RDF1050302 Planetary geology

RDF1050303 Igneous petrology

RDF1050304 Metamorphic petrology

RDF1050305 Ore deposit petrology

RDF1050306 Petroleum, gas and coal geology

RDF1050307 Mineralogy and crystallography (except soil mineralogy and chemicals aspects of crystallography)

RDF1050308 Sedimentology

RDF1050309 Stratigraphy (including biostratigraphy and sequence stratigraphy)

RDF1050310 Structural geology

RDF1050311 Tectonics

RDF1050312 Volcanology

RDF1050313 Economic geology

RDF1050314 Geomicrobiology

RDF1050315 Paleobiology

RDF1050316 Paleontology (including palynology)

RDF1050399 Geology, n.e.c.

RDF10504 Geophysics

RDF1050401 Geoelectrics and geoelectromagnetics

RDF1050402 Geodynamics

RDF1050403 Geophysical fluid dynamics

RDF1050404 Geothermics and radiometrics

RDF1050405 Gravimetry

RDF1050406 Magnetism and paleomagnetism

RDF1050407 Seismology

RDF1050408 Geodesy

RDF1050409 Rock and mineral physics

RDF1050499 Geophysics, n.e.c.

RDF10505 Oceanography

RDF1050501 Biological oceanography

RDF1050502 Chemical oceanography

RDF1050503 Physical oceanography

RDF1050504 Marine geology

RDF1050505 Ocean biogeochemistry

RDF1050506 Sea ice sciences

RDF1050507 Paleoceanography

RDF1050508 Estuarine oceanography

RDF1050509 Nearshore processes and coastal oceanography

RDF1050510 Large-scale ocean circulation

RDF1050511 Ocean-atmospheric interactions

RDF1050599 Oceanography, n.e.c.

RDF10506 Environmental geoscience

RDF1050601 Geomorphology

RDF1050602 Landscape evolution

RDF1050603 Natural hazards

RDF1050604 Paleo-environmental sciences

RDF1050605 Surface processes

RDF1050606 Environmental monitoring

RDF1050607 Geomatics sciences (except geomatic engineering)

RDF1050699 Environmental geoscience, n.e.c.

RDF10507 Hydrology

RDF1050701 Hydrometeorology

RDF1050702 Physical and catchment hydrology

RDF1050703 Surface water hydrology

RDF1050704 Soil hydrology

RDF1050705 Hydrogeology

RDF1050706 Water quality

RDF1050707 Limnology

RDF1050799 Hydrology, n.e.c.

RDF10508 Cryosphere processes

RDF1050801 Physics of snow and ice

RDF1050802 Glaciology

RDF1050803 Permafrost

RDF1050899 Cryosphere processes, n.e.c.

RDF10509 Geomatics and earth systems observations

RDF1050901 Geographic information system (GIS and GPS) applications

RDF1050902 Remote sensing applications (except remote sensing in geomatics and photogrammetry)

RDF1050999 Geomatics and earth systems observations, n.e.c.

RDF10510 Natural environment sciences

RDF1051001 Indigenous peoples environmental knowledge

RDF1051002 Biodiversity

RDF1051003 Environmental impact assessment

RDF1051004 Natural (biophysical) environment management

RDF1051005 Natural environment sustainability studies

RDF1051006 Ecological restoration (except bioremediation)

RDF1051007 Natural resource management

RDF1051008 Wildlife and habitat management

RDF1051009 Quantitative methods for environmental sciences

RDF1051010 Ecotoxicology

RDF1051099 Natural environment sciences, n.e.c.

RDF10511 Soil sciences

RDF1051101 Soil physics

RDF1051102 Soil chemistry (except carbon sequestration science)

RDF1051103 Soil biology

RDF1051104 Soil fertility

RDF1051105 Soil degradation

RDF1051106 Soil biogeochemistry and microbiology

RDF1051107 Soil-root interactions

RDF1051108 Carbon sequestration science

RDF1051109 Soil mineralogy and micromorphology

RDF1051199 Soil sciences, n.e.c.

RDF10599 Other earth and related environmental sciences

RDF1059901 Earth system sciences

RDF1059999 Other earth and related environmental sciences, n.e.c.

RDF106 Biological sciences

RDF10601 Biochemistry

RDF1060101 Analytical biochemistry

RDF1060102 Enzymes (including kinetics and mechanisms, and biocatalyst)

RDF1060103 Proteomics

RDF1060104 Intramolecular interactions

RDF1060105 Metabolomics

RDF1060106 Nucleic acids studies

RDF1060107 Lipid biology (including lipidomics)

RDF1060108 Glycomics and glycobiology

RDF1060109 Chemical genetics

RDF1060110 Protein and gene networks

RDF1060111 Synthetic biology

RDF1060112 Systems biology

RDF1060113 Forensic biology

RDF1060199 Biochemistry, n.e.c.

RDF10602 Cell biology

RDF1060201 Cell differentiation, proliferation and death

RDF1060202 Cell metabolism

RDF1060203 Cellular interactions (including adhesion, matrix and cell wall)

RDF1060204 Protein trafficking in cell biology

RDF1060205 Cell and nuclear division

RDF1060206 Intracellular signaling, signal transduction, receptor and membrane biology

RDF1060207 Structural biology (including macromolecular modelling)

RDF1060208 Computational cell biology

RDF1060209 Human biophysics

RDF1060210 Cytoskeleton studies

RDF1060211 Organelle function

RDF1060299 Cell biology, n.e.c.

RDF10603 Ecology (except applications)

RDF1060301 Behavioural ecology

RDF1060302 Community ecology (except invasive species ecology)

RDF1060303 Ecological physiology (except plant ecology)

RDF1060304 Estuarine and freshwater ecology

RDF1060305 Marine ecology (including marine ichthyology)

RDF1060306 Paleoecology

RDF1060307 Population ecology

RDF1060308 Terrestrial ecology

RDF1060309 Plant physiological ecology

RDF1060310 Evolutionary ecology

RDF1060311 Ecological mathematical and statistical models

RDF1060312 Environmental metagenomics

RDF1060313 Plant-animal interactions

RDF1060399 Ecology, n.e.c.

RDF10604 Ecological applications

RDF1060401 Ecological impacts of climate change

RDF1060402 Ecosystem function

RDF1060403 Invasive species ecology

RDF1060404 Landscape ecology

RDF1060405 Global change biology

RDF1060499 Ecological applications, n.e.c.

RDF10605 Biological evolution

RDF1060501 Systematics and taxonomy (except speciation)

RDF1060502 Biogeography and phylogeography

RDF1060503 Biological adaptation

RDF1060504 Ethology and sociobiology

RDF1060505 Evolution of developmental systems

RDF1060506 Evolutionary impacts of climate change

RDF1060507 Life histories

RDF1060508 Phylogeny and comparative analysis

RDF1060509 Speciation (evolutionary processes)

RDF1060510 Natural selection and sexual selection

RDF1060511 Evolutionary mathematical and statistical models

RDF1060512 Macroevolution

RDF1060599 Biological evolution, n.e.c.

RDF10606 Genetics

RDF1060601 Anthropological genetics

RDF1060602 Developmental genetics (including sex determination)

RDF1060603 Conservation genetics

RDF1060604 Molecular evolution

RDF1060605 Epigenetics and epigenomics

RDF1060606 Transcriptomics

RDF1060607 Gene regulation and expression

RDF1060608 Genome structure and stability

RDF1060609 Genomics

RDF1060610 Somatic mutations

RDF1060611 Population, ecological and evolutionary genetics

RDF1060612 Quantitative genetics (including disease and trait mapping genetics)

RDF1060613 Statistical genetics

RDF1060614 Molecular genetics

RDF1060615 Paleogenomics

RDF1060616 Genetics engineering

RDF1060699 Genetics, n.e.c.

RDF10607 Microbiology

RDF1060701 Parasitology

RDF1060702 Bacteriology

RDF1060703 Microbial genetics

RDF1060704 Microbial ecology and evolution

RDF1060705 Microbial physiology

RDF1060706 Mycology

RDF1060707 Virology

RDF1060708 Microbiome

RDF1060709 Environmental microbiology (including air microbiology)

RDF1060799 Microbiology, n.e.c.

RDF10608 Animal physiology

RDF1060801 Animal physiology, biophysics

RDF1060802 Animal physiology, endocrinology

RDF1060803 Animal physiology, metabolism

RDF1060804 Animal physiology, circulation

RDF1060805 Animal physiology, respiration

RDF1060806 Animal physiology, environmental stress

RDF1060807 Animal physiology, digestion

RDF1060808 Animal physiology, exercise

RDF1060809 Animal physiology, thermoregulation

RDF1060810 Animal physiology, osmoregulation

RDF1060811 Animal physiology, toxicology

RDF1060899 Animal physiology, n.e.c.

RDF10609 Plant biology

RDF1060901 Phycology (including marine grasses)

RDF1060902 Plant cell and molecular biology

RDF1060903 Plant developmental and reproductive biology

RDF1060904 Plant pathology

RDF1060905 Plant physiology

RDF1060906 Plant microbiota

RDF1060907 Molecular plant and microbe interactions (including host pathogen interactions)

RDF1060908 Plant stress biology

RDF1060909 Plant hormone biology

RDF1060910 Plant nutrition and metabolism

RDF1060911 Seed biology

RDF1060912 Plant genetics (phytogenetics)

RDF1060999 Plant biology, n.e.c.

RDF10610 Zoology

RDF1061001 Animal behaviour

RDF1061002 Animal cell and molecular biology

RDF1061003 Animal developmental and reproductive biology

RDF1061004 Animal immunology

RDF1061005 Animal physiological ecology

RDF1061006 Animal structures and functions

RDF1061007 Invertebrate biology (except insect biology)

RDF1061008 Insect biology

RDF1061009 Mammalogy

RDF1061010 Fish biology

RDF1061011 Bird biology

RDF1061012 Amphibian and reptile biology

RDF1061013 Comparative biomechanics

RDF1061099 Zoology, n.e.c.

RDF10611 Neurosciences, biological and chemical aspects

RDF1061101 Molecular neuroscience

RDF1061102 Cellular neuroscience

RDF1061103 Neurogenetics

RDF1061104 Animal neurobiology

RDF1061105 Behavioural neuroscience of learning and memory

RDF1061106 Behavioural neuroscience of reward and motivation

RDF1061107 Neurocognitive patterns and neural networks

RDF1061108 Neurophysiology

RDF1061199 Neurosciences, biological and chemical aspects, n.e.c.

RDF10699 Other biological sciences

RDF1069999 Other biological sciences

RDF107 Other natural sciences

RDF10799 Other natural sciences

RDF1079999 Other natural sciences, n.e.c.

RDF20-21 Engineering and technology

RDF201 Civil engineering, maritime engineering, transport engineering, and mining engineering

RDF20101 Civil engineering

RDF2010101 Geotechnical engineering

RDF2010102 Building construction engineering

RDF2010103 Concrete, cementitious materials and other architectural and construction materials

RDF2010104 Earthquake engineering

RDF2010105 Infrastructure engineering

RDF2010106 Structural engineering

RDF2010107 Water resources infrastructure engineering

RDF2010108 Hydraulic engineering

RDF2010109 Geomechanics

RDF2010199 Civil engineering, n.e.c.

RDF20102 Marine engineering

RDF2010201 Naval architecture

RDF2010202 Ocean engineering

RDF2010203 Ship hydrodynamics

RDF2010204 Marine platform hydrodynamics engineering

RDF2010205 Offshore engineering (including marine platform structures)

RDF2010206 Special marine vehicles engineering

RDF2010299 Marine engineering, n.e.c.

RDF20103 Land transportation systems engineering

RDF2010301 Traffic and highway engineering

RDF2010302 Railway and airport engineering

RDF2010303 Public transportation engineering

RDF2010304 Road safety engineering

RDF2010305 Transportation demand modelling

RDF2010306 Pavement materials and structure

RDF2010307 Transportation systems infrastructure engineering for autonomous vehicles

RDF2010399 Land transportation systems engineering, n.e.c.

RDF20104 Mining engineering

RDF2010499 Mining engineering

RDF202 Industrial, systems and processes engineering

RDF20201 Human factor engineering

RDF2020101 Brain-computer interface

RDF2020102 Physical, environmental and cognitive ergonomics

RDF2020103 Control design

RDF2020104 Human-computer systems and interface

RDF2020105 Assistive technologies

RDF2020199 Human factor engineering, n.e.c.

RDF20202 Systems engineering

RDF2020201 Design and analysis of systems

RDF2020202 Modelling and applications of systems

RDF2020203 Intelligent renewable energy systems

RDF2020204 Intelligent transport systems

RDF2020205 Production systems engineering

RDF2020299 Systems engineering, n.e.c.

RDF20203 Operational research

RDF2020301 Programming in operational research (including linear and nonlinear programming)

RDF2020302 Combinatorial and network optimization (including programming and metaheuristics)

RDF2020303 Optimization under uncertainty (including stochastic and robust optimization)

RDF2020304 Bilevel optimization and game theory

RDF2020305 Stochastic models (including queueing and simulation)

RDF2020306 Decisions and risk analysis

RDF2020307 Quality systems engineering

RDF2020399 Operational research, n.e.c.

RDF20204 Biosystems and agricultural engineering

RDF2020401 Irrigation

RDF2020402 Agricultural power machinery

RDF2020403 Crop management technologies

RDF2020404 Pesticides and pesticides applications

RDF2020499 Biosystems and agricultural engineering, n.e.c.

RDF20299 Other industrial, systems and processes engineering

RDF2029999 Other industrial, systems and processes engineering

RDF203 Electrical engineering, computer engineering, and information engineering

RDF20301 Computer engineering

RDF2030101 Systems software

RDF2030102 Computational languages (including domain-specific languages)

RDF2030103 Middleware systems

RDF2030104 Computer systems engineering

RDF2030105 Computer architecture

RDF2030106 Computer memory systems and storage

RDF2030107 Digital hardware and technologies

RDF2030108 Computer configurable hardware

RDF2030109 Computer-aided design

RDF2030110 Hardware and software for computer security

RDF2030111 Machine learning systems

RDF2030199 Computer engineering, n.e.c.

RDF20302 Communications and networks technologies

RDF2030201 Wireless communication systems

RDF2030202 Coding and information theory applied to communications and networks technologies

RDF2030203 Digital communications

RDF2030204 Internet of Things

RDF2030205 Software-defined network (SDN)

RDF2030206 Cloud computing systems

RDF2030207 Service network management systems

RDF2030208 Network protocols and architectures

RDF2030209 Network science and engineering

RDF2030210 Spectrum sharing and management

RDF2030211 Multimedia communication and networking

RDF2030212 Cyber-physical systems

RDF2030213 Cybersecurity and privacy technologies

RDF2030214 Fibre-optic communications technologies

RDF2030215 Optical networks

RDF2030216 Communications and network control systems

RDF2030217 Networked robotics and automation

RDF2030299 Communications and networks technologies, n.e.c.

RDF20303 Data analytics and signal processing

RDF2030301 Learning and adaptive systems

RDF2030302 Artificial intelligence engineering

RDF2030303 Optimization and data analytics algorithms and systems

RDF2030304 Distributed computation and signal processing

RDF2030305 Image and video processing and analysis

RDF2030306 Acoustic signal processing

RDF2030307 Computer vision in data analytics and signal processing

RDF2030308 Cognition and cognitive dynamic systems

RDF2030309 Bio-signal processing and analysis

RDF2030310 Signal processing for security and privacy

RDF2030311 Radar and sonar signal processing

RDF2030312 Remote sensing of signal processing

RDF2030313 Signal processing modelling and simulation systems

RDF2030314 Signal processing theory

RDF2030399 Data analytics and signal processing, n.e.c.

RDF20304 Electrical energy systems

RDF2030401 Power dynamics and control systems

RDF2030402 Power electronics

RDF2030403 Renewable energy systems (except smart systems engineering)

RDF2030404 Power quality

RDF2030405 Energy storage

RDF2030406 Smart power grids

RDF2030407 Power system operation

RDF2030408 Power system protection

RDF2030409 Electric machines and drive systems

RDF2030410 High-Voltage DC (HVDC) systems

RDF2030411 Power distribution systems

RDF2030499 Electrical energy systems, n.e.c.

RDF20305 Electromagnetics, photonics and optics

RDF2030501 Electricity and magnetism theory

RDF2030502 Applied electromagnetics

RDF2030503 Numerical methods in electromagnetics

RDF2030504 Microwave theory and techniques

RDF2030505 Instruments and circuits for RF microwave and millimeter wave

RDF2030506 Terahertz studies

RDF2030507 Antennas and propagation

RDF2030508 Radar theory and applications

RDF2030509 Metamaterials and metasurfaces sciences

RDF2030510 Photonics and electro-optical engineering

RDF2030511 Optoelectronics

RDF2030512 Integrated optics

RDF2030513 Applied optics

RDF2030514 Optical spectroscopy

RDF2030515 Semiconductor devices

RDF2030516 Optical instrumentation (including sensing and metrology)

RDF2030517 Optical signal processing

RDF2030518 Quantum photonics

RDF2030519 Optical and data communications

RDF2030520 Fiber optics

RDF2030521 Nonlinear optics

RDF2030522 Ultrafast optics

RDF2030599 Electromagnetics, photonics and optics, n.e.c.

RDF20306 Electronics

RDF2030601 Electrical circuits

RDF2030602 Microelectronic devices

RDF2030603 Circuits and systems

RDF2030604 Mixed-signal integrated circuits

RDF2030605 Very large-scale integrated circuits

RDF2030606 Modeling techniques in electronics

RDF2030607 Microelectronics and integrated circuits

RDF2030608 Industrial electronics

RDF2030609 Microfabrication techniques in electronics

RDF2030610 Thin films

RDF2030611 Lab-on-a-chip (LOC) technologies

RDF2030612 Microelectrical mechanical systems and microsystems design

RDF2030613 Quantum electronics

RDF2030614 Biomedical electronics

RDF2030615 Sensory electronics

RDF2030616 Power semiconductor devices and packaging

RDF2030617 Semiconductor and atomic-scale electronic devices

RDF2030618 Semiconductor and superconducting qubits

RDF2030619 Power management integrated circuits

RDF2030620 Analog and mixed-signal VLSI computing

RDF2030621 Machine learning accelerators

RDF2030622 Electro-optic integrated circuits

RDF2030623 Radio, radar, and mm-wave sensor integrated circuits

RDF2030624 Cryogenic control electronics for quantum processors

RDF2030699 Electronics, n.e.c.

RDF20307 Systems control and automation

RDF2030701 Nonlinear and hybrid control systems

RDF2030702 Game theory and optimal control

RDF2030703 Discrete-event systems

RDF2030704 Systems biology and control

RDF2030705 Control with complex specifications

RDF2030706 Motion control of robots

RDF2030707 Distributed control and estimation

RDF2030708 Networked control systems

RDF2030709 Data-driven estimation, optimization, and control

RDF2030710 Fault-tolerant control

RDF2030799 Systems controls and automation, n.e.c.

RDF204 Mechanical engineering

RDF20401 Aerospace engineering

RDF2040101 Aerodynamics (except hypersonic aerodynamics)

RDF2040102 Aerospace materials

RDF2040103 Aerospace structures

RDF2040104 Aircraft performance and flight control systems

RDF2040105 Avionics

RDF2040106 Flight dynamics

RDF2040107 Hypersonic propulsion and hypersonic aerodynamics

RDF2040108 Satellites, space vehicles and missiles design and testing

RDF2040109 Aerospace systems design

RDF2040199 Aerospace engineering, n.e.c.

RDF20402 Automotive engineering

RDF2040201 Automotive combustion and fuel engineering (including alternative and renewable fuels)

RDF2040202 Automotive engineering materials

RDF2040203 Automotive mechatronics

RDF2040204 Automotive safety engineering

RDF2040205 Hybrid vehicles and powertrains

RDF2040206 Autonomous vehicles (except systems infrastructures)

RDF2040299 Automotive engineering, n.e.c.

RDF20403 Manufacturing engineering

RDF2040301 Computer-aided design (CAD) and computer-aided manufacturing (CAM) systems

RDF2040302 Flexible manufacturing systems

RDF2040303 Machine tools

RDF2040304 Machining

RDF2040305 Manufacturing management

RDF2040306 Manufacturing processes and technologies (except textiles)

RDF2040307 Mechatronics (except automotive mechatronics)

RDF2040308 Manufacturing safety and quality

RDF2040309 Microtechnology

RDF2040310 Packaging, storage and transportation (except food and agricultural products)

RDF2040311 Precision engineering

RDF2040312 Textile manufacturing processes and technologies

RDF2040313 Industrial design in manufacturing engineering

RDF2040399 Manufacturing engineering, n.e.c.

RDF20499 Other mechanical engineering

RDF2049901 Acoustics and noise control (except architectural acoustics)

RDF2049902 Automation and control engineering

RDF2049903 Dynamics, vibration and vibration control

RDF2049904 Microelectromechanical systems (MEMS)

RDF2049905 Numerical modelling and mechanical characterisation

RDF2049906 Solid mechanics

RDF2049907 Tribology

RDF2049908 Fluidization and fluid mechanics

RDF2049909 Heat and mass transfer operations

RDF2049910 Fluid-structure interaction

RDF2049911 Mechanical characterization (including modeling, testing, and monitoring)

RDF2049912 Mechanical engineering for energy systems (except renewal energy)

RDF2049913 Mechanical engineering for renewable energy systems

RDF2049999 Other mechanical engineering, n.e.c.

RDF205 Chemical engineering

RDF20501 Chemical engineering

RDF2050101 Carbon capture engineering

RDF2050102 Catalytic process engineering

RDF2050103 Chemical engineering design

RDF2050104 Membrane and other separation technologies

RDF2050105 Non-automotive combustion engineering (including alternative and renewable fuels)

RDF2050106 Fuel engineering (including renewable)

RDF2050107 Powder and particle technology

RDF2050108 Process control and simulation in chemical engineering

RDF2050109 Rheology

RDF2050110 Petroleum and reservoir engineering

RDF2050111 Biochemical engineering

RDF2050112 Reaction fundamentals and reactor design

RDF2050199 Chemical engineering, n.e.c.

RDF206 Materials engineering and resources engineering

RDF20601 Materials engineering

RDF2060101 Ceramics engineering

RDF2060102 Composite and hybrid materials

RDF2060103 Compound semiconductors

RDF2060104 Elemental semiconductors

RDF2060105 Functional materials in materials engineering sciences

RDF2060106 Glass engineering

RDF2060107 Metals and alloy materials engineering

RDF2060108 Organic semiconductors

RDF2060109 Polymers and plastics engineering

RDF2060110 Timber, pulp and paper engineering

RDF2060111 Methods of synthesis and growth of materials

RDF2060112 Elaboration and characterizations of thin and ultrathin layers

RDF2060113 Relation micro-nanostructure and properties

RDF2060114 Structure property relationships modelling of thin layers

RDF2060115 Nanoparticle synthesis, properties and applications

RDF2060116 Electrical, optical, catalytic and magnetic properties of thin layers

RDF2060199 Materials engineering, n.e.c.

RDF20602 Resources engineering and extractive metallurgy

RDF2060201 Electrometallurgy

RDF2060202 Hydrometallurgy

RDF2060203 Mineral processing and beneficiation

RDF2060204 Pyrometallurgy

RDF2060299 Resources engineering and extractive metallurgy, n.e.c.

RDF207 Medical and biomedical engineering

RDF20701 Medical and biomedical engineering

RDF2070101 Biomedical materials

RDF2070102 Biomechanical engineering

RDF2070103 Biomedical instrumentation (including diagnostics)

RDF2070104 Medical devices

RDF2070105 Rehabilitation engineering (except assistive technologies)

RDF2070106 Artificial tissues engineering

RDF2070107 Biomedical signal processing

RDF2070108 Biomedical robotics

RDF2070109 Image guided surgery systems

RDF2070199 Medical and biomedical engineering, n.e.c.

RDF208 Environmental engineering and related engineering

RDF20801 Environmental engineering

RDF2080101 Residual materials management

RDF2080102 Product life cycle

RDF2080103 Environmental impacts

RDF2080104 Bioremediation and soil restoration

RDF2080105 Wastewater treatment (including water treatment processes)

RDF2080106 Water quality engineering

RDF2080107 Waste management (including agricultural waste)

RDF2080199 Environmental engineering, n.e.c.

RDF20802 Geomatics engineering

RDF2080201 Cartography

RDF2080202 Geospatial information systems

RDF2080203 Navigation and position fixing

RDF2080204 Remote sensing in geomatics and photogrammetry

RDF2080205 Geomatic surveying (including hydrographic surveying)

RDF2080299 Geomatics engineering, n.e.c.

RDF20899 Other environmental engineering and related engineering

RDF2089999 Other environmental engineering and related engineering

RDF209 Environmental biotechnology

RDF20901 Environmental biotechnology

RDF2090101 Biodiscovery

RDF2090102 Biological control

RDF2090103 Bioremediation

RDF2090104 Environmental biotechnology diagnostics (including biosensors)

RDF2090105 Environmental marine biotechnology

RDF2090106 Environmental molecular engineering of nucleic acids and proteins

RDF2090199 Environmental biotechnology, n.e.c.

RDF210 Industrial biotechnology

RDF21001 Industrial biotechnology

RDF2100101 Biocatalysis and enzyme technology

RDF2100102 Bioprocessing, bioproduction and bioproducts

RDF2100103 Fermentation biotechnology

RDF2100104 Industrial biotechnology diagnostics (including biosensors)

RDF2100105 Industrial microbiology (including biofeedstocks)

RDF2100106 Industrial molecular engineering of nucleic acids and proteins

RDF2100199 Industrial biotechnology, n.e.c.

RDF211 Nano-technology

RDF21101 Nano-technology

RDF2110101 Environmental nanotechnology

RDF2110102 Nanobiotechnology

RDF2110103 Nanoelectromechanical systems

RDF2110104 Nanoelectronics

RDF2110105 Nanofabrication, growth and self-assembly

RDF2110106 Nanomanufacturing

RDF2110107 Nanomaterials

RDF2110108 Nanomedicine

RDF2110109 Nanometrology

RDF2110110 Nanophotonics

RDF2110111 Nanoscale characterisation

RDF2110112 Nanotoxicology, health and safety

RDF2110113 Molecular and organic electronics

RDF2110199 Nanotechnology, n.e.c.

RDF212 Other engineering and technologies

RDF21201 Engineering design

RDF2120101 Engineering design empirical studies

RDF2120102 Engineering design knowledge

RDF2120103 Engineering design methods

RDF2120104 Engineering systems design

RDF2120105 Models of engineering design

RDF2120106 Engineering design, n.e.c.

RDF2120107 Nuclear engineering (including fuel enrichment and nuclear waste processing and storage)

RDF2120199 Other engineering and technologies, n.e.c.

RDF30 Medical, health and life sciences

RDF301 Basic medicine and life sciences

RDF30101 Immunology

RDF3010101 Allergy

RDF3010102 Applied immunology (including antibody engineering, xenotransplantation and t-cell therapies)

RDF3010103 Autoimmunity

RDF3010104 Cellular immunology

RDF3010105 Humoural immunology and immunochemistry

RDF3010106 Immunogenetics (including genetic immunology)

RDF3010107 Innate immunity

RDF3010108 Adaptive immunity

RDF3010109 Transplantation immunology

RDF3010110 Tumour immunology

RDF3010111 Immune tolerance

RDF3010112 Immune deficiency

RDF3010113 Immune diseases

RDF3010199 Immunology, n.e.c.

RDF30102 Cancer

RDF3010201 Cancer progression and metastasis

RDF3010202 Mechanisms of carcinogenesis

RDF3010203 Cancer drug development and therapeutics

RDF3010204 Cancer diagnosis

RDF3010205 Cancer genetics

RDF3010206 Hematological tumours

RDF3010207 Cancer molecular targets

RDF3010208 Solid cancer tumours

RDF3010209 Pediatric cancer

RDF3010210 Premalignant disease (precursors)

RDF3010299 Cancer, n.e.c.

RDF30103 Medical microbiology

RDF3010301 Medical bacteriology

RDF3010302 Medical infection agents (including prions)

RDF3010303 Medical parasitology

RDF3010304 Medical virology

RDF3010305 Antimicrobial resistance

RDF3010306 Antiviral resistance

RDF3010307 Vaccines

RDF3010308 Human microbiota

RDF3010309 Pathogenesis

RDF3010399 Medical microbiology, n.e.c.

RDF30104 Neurosciences, medical and physiological and health aspects

RDF3010401 Autonomic nervous system

RDF3010402 Central nervous system

RDF3010403 Motor systems

RDF3010404 Neuromuscular diseases

RDF3010405 Peripheral nervous system

RDF3010406 Sensory systems, visual

RDF3010407 Sensory systems, auditory

RDF3010408 Sensory systems, pain

RDF3010409 Sensory systems, vestibular

RDF3010410 Sensory systems, somatosensory

RDF3010411 Sensory systems, olfactory

RDF3010412 Sensorimotor neuroscience

RDF3010413 Neural excitability and synapses

RDF3010414 Neurodegeneration

RDF3010415 Neurodevelopment

RDF3010416 Neuroinflammation

RDF3010417 Neurogenesis and plasticity, medical and health aspects

RDF3010418 Glial cell studies

RDF3010419 Neurological disorders (except neuromuscular diseases)

RDF3010420 Neurorobotics

RDF3010421 Neuroethology

RDF3010422 Neuropsychology

RDF3010423 Applied behavioural neurology and neuropsychiatry

RDF3010424 Biology of addiction

RDF3010499 Neurosciences, medical and health and physiological aspects, n.e.c.

RDF30105 Pharmacology and pharmaceutical sciences (except clinical aspects)

RDF3010501 Basic pharmacology

RDF3010502 Pharmacogenomics

RDF3010503 Toxicology (except clinical toxicology)

RDF3010504 Drug discovery, design and delivery

RDF3010505 Psychopharmacology

RDF3010599 Pharmacology and pharmaceutical sciences, n.e.c.

RDF30106 Human physiology

RDF3010601 Systems physiology

RDF3010602 Sensorimotor physiology

RDF3010603 Computational physiology

RDF3010604 Sex differences in cells, tissues and animal

RDF3010605 Human development and organogenesis

RDF3010606 Electrophysiology

RDF3010699 Human physiology, n.e.c.

RDF30107 Musculoskeletal health and human movement

RDF3010701 Bone, skin and cartilage science

RDF3010702 Musculoskeletal biology and physiology

RDF3010703 Human biomechanics

RDF3010704 Exercise physiology

RDF3010705 Sensorimotor control

RDF3010706 Balance, gait, and locomotion

RDF3010799 Other musculoskeletal health and human movement, n.e.c.

RDF30199 Other basic medicine and life sciences

RDF3019999 Other basic medicine and life sciences

RDF302 Clinical medicine

RDF30201 Cardiorespiratory medicine and hematology

RDF3020101 Cardiology and circulatory sciences (including cardiovascular disease)

RDF3020102 Hematology

RDF3020103 Respiratory diseases

RDF3020104 Cerebrovascular sciences (including stroke)

RDF3020105 Respiratory sciences

RDF3020106 Respiratory system pathologies and clinical interventions

RDF3020107 Vascular and endothelial biology

RDF3020199 Cardiorespiratory medicine and hematology, n.e.c.

RDF30202 Clinical sciences

RDF3020201 Anesthesiology

RDF3020202 Clinical microbiology

RDF3020203 Dermatology

RDF3020204 Sexually transmitted diseases and infections

RDF3020205 Critical care medicine and emergency medicine

RDF3020206 Human endocrinology (except diabetes and obesity)

RDF3020207 Human metabolism and diseases (except diabetes and obesity)

RDF3020208 Clinical sciences on diabetes

RDF3020209 Clinical sciences on obesity

RDF3020210 Gastroenterology

RDF3020211 Hepatology

RDF3020212 Geriatrics and gerontology

RDF3020213 Infectious diseases

RDF3020214 Clinical genetics (except cancer genetics)

RDF3020215 Nephrology

RDF3020216 Urology

RDF3020217 Clinical and translational cardiovascular sciences

RDF3020218 Radiology, nuclear medicine and medical imaging

RDF3020219 Orthopedics

RDF3020220 Otorhinolaryngology

RDF3020221 Pathology (except oral pathology)

RDF3020222 Podiatry

    RDF3020223 Psychiatry (including psychotherapy)

    RDF3020224 Rheumatology

    RDF3020225 Surgery

    RDF3020226 Clinical oncology

    RDF3020227 Neurology

    RDF3020228 Ophthalmology

    RDF3020229 Rare diseases

    RDF3020230 Clinical sexology

    RDF3020231 Translational and clinical pharmacology, and therapeutics

    RDF3020232 Clinical pharmacy and pharmacy practice

    RDF3020233 Clinical toxicology

    RDF3020234 Clinical chemistry

    RDF3020299 Clinical sciences, n.e.c.

RDF30203 Complementary and alternative medicine

    RDF3020301 Chiropractic

    RDF3020302 Naturopathy

    RDF3020303 Traditional Indigenous medicine and treatments

    RDF3020304 Traditional Chinese medicine and treatments

    RDF3020399 Complementary and alternative medicine, n.e.c.

RDF30204 Dentistry and oral health

    RDF3020401 Dental materials and equipment

    RDF3020402 Dental therapeutics, pharmacology and toxicology

    RDF3020403 Endodontics

    RDF3020404 Oral and maxillofacial surgery

    RDF3020405 Oral medicine and pathology

    RDF3020406 Orthodontics and dentofacial orthopedics

    RDF3020407 Pedodontics

    RDF3020408 Periodontics

    RDF3020409 Special needs dentistry

    RDF3020499 Dentistry and oral health, n.e.c.

RDF30205 Pediatrics and reproductive medicine

    RDF3020501 Fetal development and medicine

    RDF3020502 Obstetrics and gynecology

    RDF3020503 Pediatrics

    RDF3020504 Human reproduction and development sciences

    RDF3020505 Neonatology

    RDF3020506 Embryology

    RDF3020507 Fertility and maternal health

    RDF3020508 Assisted reproductive technologies

    RDF3020599 Pediatrics and reproductive medicine, n.e.c.

RDF30299 Other clinical medicine

    RDF3029999 Other clinical medicine

RDF303 Health sciences

RDF30301 Human nutrition and dietetics

RDF3030101 Clinical nutrition

RDF3030102 Sports nutrition

RDF3030103 Dietetics and nutrigenomics

RDF3030104 Nutritional physiology

RDF3030105 Public health nutrition policy

RDF3030106 Human nutrition and metabolism

RDF3030199 Human nutrition and dietetics, n.e.c.

RDF30302 Public and population health

RDF3030201 Indigenous health

RDF3030202 Population health interventions

RDF3030203 Environmental, developmental and social factors of youth health

RDF3030204 Prevention, treatment and support of youth health

RDF3030205 Psychosocial, sociocultural and behavioural determinants of health

RDF3030206 Environmental determinants of health (including environment-gene interactions)

RDF3030207 Ethical, legal, and social issues in health, health systems and health research

RDF3030208 Aging process

RDF3030209 Social and biological determinants of aging

RDF3030210 Environmental and occupational health and safety

RDF3030211 Epidemiology (except nutritional and veterinary epidemiology)

RDF3030212 Health promotion and disease prevention

RDF3030213 Food security

RDF3030214 Health equity

RDF3030215 Sex and gender-based analysis

RDF3030216 Gender and health relationship

RDF3030217 Global health

RDF3030218 Health and gender based violence

RDF3030219 Military and veterans' health

RDF3030220 Etiology of disease and conditions

RDF3030221 Nutritional epidemiology

RDF3030222 One Health approach

RDF3030299 Public and population health, n.e.c.

RDF30303 Rehabilitation medicine

RDF3030301 Kinesiology

RDF3030302 Physical therapy

RDF3030303 Occupational therapy

RDF3030304 Speech pathology

RDF3030305 Mental health rehabilitation

RDF3030306 Addiction rehabilitation

RDF3030307 Sports medicine

RDF3030308 Audiology

RDF3030399 Rehabilitation medicine, n.e.c.

RDF30304 Health services and systems

RDF3030401 Health and community services

RDF3030402 Health care administration

RDF3030403 Health information systems (including surveillance)

RDF3030404 Health counselling

RDF3030405 Community child health

RDF3030406 Health care effectiveness and outcomes

RDF3030407 Health care safety and quality improvement

RDF3030408 Knowledge translation and implementation science in health

RDF3030409 Patient and citizen engagement research

RDF3030410 Electronic health (e-Health)

RDF3030411 Mobile health (mHealth)

RDF3030499 Health services and systems, n.e.c.

RDF30305 Care

RDF3030501 Family care

RDF3030502 Primary health care

RDF3030503 Residential client care

RDF3030504 Aged health care services (except nursing)

RDF3030505 Services for persons with disabilities

RDF3030506 Emergency care and critical care

RDF3030507 Personalized medicine

RDF3030508 Genetic medicine

RDF3030509 Coordinated and integrated care

RDF3030510 Hospital and specialist care

RDF3030511 Patient-centered care

RDF3030512 Palliation and end-of-life care

RDF3030513 Maternal and newborn care

RDF3030514 Health care access, privilege or marginalization

RDF3030515 Home health care

RDF3030516 Traumatology

RDF3030517 Internal medicine

RDF3030518 Midwifery

RDF3030599 Care, n.e.c.

RDF30306 Nursing

RDF3030601 Geriatric nursing

RDF3030602 Clinical nursing, primary (preventive care)

RDF3030603 Clinical nursing, secondary (acute care)

RDF3030604 Clinical nursing, tertiary (rehabilitative care)

RDF3030605 Mental health nursing

RDF3030699 Nursing, n.e.c.

RDF30399 Other health sciences

RDF3039999 Other health sciences, n.e.c.

RDF304 Medical biotechnology

RDF30401 Medical biotechnology

RDF3040101 Gene and molecular therapy

RDF3040102 Medical biotechnology diagnostics (including biosensors)

RDF3040103 Medical molecular engineering of nucleic acids and proteins

RDF3040104 Regenerative medicine (including stem cells and tissue engineering)

RDF3040199 Medical biotechnology, n.e.c.

RDF305 Other medical sciences

RDF30599 Other medical sciences

RDF3059999 Other medical sciences

RDF40 Agricultural and veterinary sciences

RDF401 Agriculture, forestry, and fisheries

RDF40101 Agriculture, land and farm management

RDF4010101 Agricultural land management

RDF4010102 Agricultural land planning

RDF4010103 Agricultural ecology

RDF4010104 Agricultural production systems simulation

RDF4010105 Agricultural spatial analysis and modelling

RDF4010106 Agricultural production systems analysis and modelling

RDF4010107 Farm management, rural management and agribusiness

RDF4010108 Farming systems research

RDF4010109 Indigenous food system

RDF4010110 Sustainable agricultural development

RDF4010199 Agriculture, land and farm management, n.e.c.

RDF40102 Crop and pasture production

RDF4010201 Agro-ecosystem function and prediction

RDF4010202 Agronomy

RDF4010203 Crop and pasture biochemistry and physiology

RDF4010204 Crop and pasture biomass and bioproducts

RDF4010205 Crop and pasture improvement (selection and breeding)

RDF4010206 Crop and pasture nutrition

RDF4010207 Crop and pasture post harvest technologies (including transportation and storage)

RDF4010208 Crop and pasture protection (pests, diseases and weeds)

RDF4010299 Crop and pasture production, n.e.c.

RDF40103 Horticultural production

RDF4010301 Horticultural crop growth and development

RDF4010302 Horticultural crop improvement (selection and breeding)

RDF4010303 Horticultural crop protection (pests, diseases and weeds)

RDF4010304 Enology and viticulture

RDF4010305 Post harvest horticultural technologies (including transportation and storage)

RDF4010399 Horticultural production, n.e.c.

RDF40104 Forestry sciences

RDF4010401 Agroforestry

RDF4010402 Forestry biomass and bioproducts

RDF4010403 Forestry fire management

RDF4010404 Forestry management and environment

RDF4010405 Forest ecology

RDF4010406 Forestry pests, health and diseases

RDF4010407 Forestry product quality assessment

RDF4010408 Tree improvement (selection and breeding)

RDF4010409 Tree nutrition and physiology

RDF4010410 Wood and wood fibre processing

RDF4010411 Forest dynamics (including stand dynamics)

RDF4010412 Forest operations

RDF4010413 Forest engineering

RDF4010414 Quantitative methods in forestry

RDF4010499 Forestry sciences, n.e.c.

RDF40105 Fisheries sciences

RDF4010501 Aquaculture

RDF4010502 Aquatic ecosystem studies and stock assessment

RDF4010503 Fisheries management

RDF4010504 Fish pests and diseases

RDF4010505 Fish physiology and genetics

RDF4010506 Post-harvest fisheries technologies (including transportation)

RDF4010599 Fisheries sciences, n.e.c.

RDF402 Animal and dairy sciences

RDF40201 Animal production

RDF4020101 Animal breeding

RDF4020102 Animal growth and development

RDF4020103 Animal management

RDF4020104 Animal nutrition and metabolism

RDF4020105 Animal protection (pests and pathogens)

RDF4020106 Animal reproduction

RDF4020107 Humane animal treatment

RDF4020199 Animal production, n.e.c.

RDF403 Veterinary sciences

RDF40301 Veterinary sciences

RDF4030101 Veterinary anesthesiology and intensive care

RDF4030102 Veterinary diagnosis and diagnostics

RDF4030103 Veterinary epidemiology

RDF4030104 Veterinary immunology

RDF4030105 Veterinary medicine

RDF4030106 Veterinary microbiology (except virology)

RDF4030107 Veterinary parasitology

RDF4030108 Veterinary pathology

RDF4030109 Veterinary pharmacology

RDF4030110 Veterinary surgery

RDF4030111 Veterinary virology

RDF4030112 Veterinary ophthalmology

RDF4030113 Veterinary dentistry

RDF4030199 Veterinary sciences, n.e.c.

RDF404 Agricultural biotechnology and food sciences

RDF40401 Agricultural biotechnology

RDF4040101 Agricultural marine biotechnology

RDF4040102 Agricultural biotechnology diagnostics (including biosensors)

RDF4040103 Genetically modified field crops and pastures

RDF4040104 Genetically modified horticulture plants

RDF4040105 Genetically modified trees

RDF4040106 Genetically modified animals

RDF4040107 Livestock cloning

RDF4040108 Biomass feedstock production technologies

RDF4040109 Biopharming

RDF4040110 Agricultural biotechnology ethics

RDF4040111 Agricultural hydrology

RDF4040112 Fertilizers and agrochemicals (including their application)

RDF4040113 Transgenesis

RDF4040199 Agricultural biotechnology, n.e.c.

RDF40402 Food sciences (including food engineering)

RDF4040201 Food chemistry (including fermentation)

RDF4040202 Food microbiology

RDF4040203 Food safety

RDF4040204 Food and beverage processing (including packaging, additives, transportation and preservation)

RDF4040205 Nutraceuticals, functional foods and bioactive

RDF4040206 Food rheology, food texture and sensory evaluation

RDF4040207 Food colloids, gels, foam and emulsions

RDF4040208 Food engineering

RDF4040299 Food sciences, n.e.c.

RDF405 Other agricultural sciences

RDF40599 Other agricultural sciences

RDF4059999 Other agricultural sciences

RDF50 Social sciences

RDF501 Psychology and cognitive sciences

RDF50101 Psychology, social and behavioural aspects

RDF5010101 Psychology of addiction

RDF5010102 Developmental psychology

RDF5010103 Educational psychology

RDF5010104 Evolutionary psychology

RDF5010105 Forensic psychology

RDF5010106 Gender psychology

RDF5010107 Sexual identity, sexual attraction and sexual behaviour

RDF5010108 Health psychology

RDF5010109 Clinical psychology

RDF5010110 Counselling psychology

RDF5010111 Psychological trauma and related clinical interventions

RDF5010112 Clinical child psychology

RDF5010113 Psychopathology

RDF5010114 Industrial and organizational psychology

RDF5010115 Cultural psychology

RDF5010116 Psychological methodology design and analysis, and psychometrics

RDF5010117 Social psychology

RDF5010118 Community psychology

RDF5010119 Sport and exercise psychology

RDF5010120 Positive psychology

RDF5010121 Mental health and wellbeing

RDF5010122 Ecopsychology

RDF5010123 Personality psychology

RDF5010124 Social cognition

RDF5010199 Psychology, social and behavioural aspects, n.e.c.

RDF50102 Cognitive sciences

RDF5010201 Sensory processes, perception and performance

RDF5010202 Judgement and decision making

RDF5010203 Speech production

RDF5010204 Speech comprehension

RDF5010205 Cognitive understanding

RDF5010206 Supplementary languages

RDF5010207 Cognitive development

RDF5010208 Cognitive behaviour

RDF5010209 Sleep (including sleep behaviour and development)

RDF5010210 Memory (including episodic and semantic memory, and working memory)

RDF5010299 Cognitive sciences, n.e.c.

RDF502 Economics and business administration

RDF50201 Economics

RDF5020101 Economic history and heterodox economics

RDF5020102 Macroeconomics (including monetary and fiscal theory)

RDF5020103 Microeconomics

RDF5020104 Comparative economic systems

RDF5020105 Econometrics

RDF5020106 Agricultural economics

RDF5020107 Economics of development and growth

RDF5020108 Economics of innovation and technical change

RDF5020109 Economics of education

RDF5020110 Economics of health care

RDF5020111 Environment and natural resources economics

RDF5020112 Financial economics

RDF5020113 Industry economics and industrial organization

RDF5020114 International economics and international finance

RDF5020115 Indigenous economics

RDF5020116 Labour and demographic economics

RDF5020117 Public economics

RDF5020118 Transport economics

RDF5020119 Urban, rural and regional economics

RDF5020120 Economics of international development

RDF5020121 Welfare economics

RDF5020122 Economic systems

RDF5020123 Circular economy

RDF5020124 Social and solidarity economics

RDF5020125 Collaborative economy and sharing economy

RDF5020126 Real estate economics

RDF5020127 Experimental economics

RDF5020199 Economics, n.e.c.

RDF50202 Industrial relations and work relations

RDF5020201 Labour laws, policies and standards applications in the workplace

RDF5020202 Unionism

RDF5020203 Occupational health, safety and wellness management

RDF5020204 Human resources management

RDF5020205 Interpersonal communication in the workplace studies

RDF5020299 Industrial relations and work relations, n.e.c.

RDF50203 Marketing

RDF5020301 Distribution and start-ups

RDF5020302 Market studies

RDF5020303 Advertising and promotion

RDF5020304 Sales and marketing

RDF5020399 Marketing, n.e.c.

RDF50204 Finance

RDF5020401 Accounting

RDF5020402 Financial management

RDF5020403 Insurances

RDF5020404 Financial systems and banking

RDF5020405 Monetary systems and policies

RDF5020406 Taxation and tax systems

RDF5020407 Stock markets

RDF5020499 Finance, n.e.c.

RDF50205 Management and trade

RDF5020501 Management information systems

RDF5020502 Entrepreneurship

RDF5020503 International trade

RDF5020504 Operations and supply chain management

RDF5020505 Facilities management

RDF5020506 Inventory and distribution logistics

RDF5020507 Business policy

RDF5020508 Organizational behaviour

RDF5020509 Management theory

RDF5020510 Public sector and government management

RDF5020511 Sustainability management

RDF5020512 Sustainable development and policy

RDF5020513 Competitiveness and innovation

RDF5020514 Crisis management

RDF5020515 Environmental management (except in natural environment)

RDF5020516 Assessment and optimization in management

RDF5020517 Change management

RDF5020518 Social innovation management

RDF5020599 Management and trade, n.e.c.

RDF503 Education

RDF50301 Education systems

RDF5030101 Early childhood education

RDF5030102 Primary education

RDF5030103 Secondary education

RDF5030104 Higher education

RDF5030105 Adult and continuing education, and community education

RDF5030106 Indigenous education system

RDF5030107 Technical, continuing and workplace education

RDF5030108 Open education

RDF5030109 Distance learning

RDF5030199 Education systems, n.e.c.

RDF50302 Curriculum, pedagogy and didactics

RDF5030201 Creative arts, media and communication curriculum, and pedagogy and didactics

RDF5030202 Curriculum and pedagogy theory and development

RDF5030203 Economics, business and management curriculum, pedagogy and didactics

RDF5030204 English language and literacy curriculum, pedagogy and didactics (except ESL, TESOL, LOTE and sign language)

RDF5030205 French language and literacy curriculum, pedagogy and didactics (except sign language)

RDF5030206 ESL, TESOL, LOTE and sign language curriculum, pedagogy and didactics

RDF5030207 Humanities and social sciences curriculum, pedagogy and didactics (except economics, business and management)

RDF5030208 Mathematics and numeracy curriculum, pedagogy and didactics

RDF5030209 Medicine, nursing and health curriculum, pedagogy and didactics

RDF5030210 Physical education and development curriculum, pedagogy and didactics

RDF5030211 Science, technology and engineering curriculum, pedagogy and didactics

RDF5030212 Vocational education and training curriculum, pedagogy and didactics

RDF5030213 Teaching approaches

RDF5030214 Open pedagogy

RDF5030299 Curriculum, pedagogy and didactics, n.e.c.

RDF50303 Specialized studies in education

RDF5030301 Specialized studies in Indigenous education

RDF5030302 Comparative and cross-cultural education

RDF5030303 Educational assessment and evaluation

RDF5030304 Educational administration, management and leadership

RDF5030305 Educational counselling

RDF5030306 Educational technology and computing

RDF5030307 Ethnic education (except Indigenous education)

RDF5030308 Gender, sexuality and education

RDF5030309 Learning sciences

RDF5030310 Special education and disability

RDF5030311 Teacher education and professional development of educators

RDF5030312 Inter-disciplinary, trans-disciplinary learning and education

RDF5030399 Specialist studies in education, n.e.c.

RDF50399 Other education

RDF5039901 Disciplinary education

RDF5039902 Environmental education and extension

RDF5039903 Orthopedagogy

RDF5039904 Psychopedagogy

RDF5039905 Psychoeducation

RDF5039999 Other education, n.e.c.

RDF504 Sociology and related studies

RDF50401 Sociology

RDF5040101 Applied sociology, program evaluation and social impact assessment

RDF5040102 Environmental sociology

RDF5040103 Race and ethnic relations

RDF5040104 Rural sociology

RDF5040105 Social change

RDF5040106 Social theory

RDF5040107 Sociological methodology and research methods

RDF5040108 Sociology and social studies of science and technology

RDF5040109 Sociology of education

RDF5040110 Sociology of work

RDF5040111 Urban sociology and community studies

RDF5040112 Sociology and social studies of health, health systems and health care

RDF5040113 Social impacts of artificial intelligence

RDF5040199 Sociology, n.e.c.

RDF50499 Other studies in human society

RDF5049901 Studies of Indigenous societies

RDF5049902 Studies of Canadian society

RDF5049903 Social relations

RDF5049904 Social institutions

RDF5049905 Social oppression and marginalization

RDF5049906 Social structures

RDF5049907 Postcolonial systems and colonialism studies

RDF5049999 Other studies in human society, n.e.c.

RDF505 Law and legal practice

RDF50501 Law (except legal practice and international law)

RDF5050101 Indigenous law

RDF5050102 Aboriginal law

RDF5050103 Private law

RDF5050104 Administrative law

RDF5050105 Civil law

RDF5050106 Common law

RDF5050107 Business, commercial and corporate law

RDF5050108 Comparative law

RDF5050109 Constitutional law

RDF5050110 Criminal law and procedure

RDF5050111 Environmental and natural resources law

RDF5050112 Equity and trusts law

RDF5050113 Family law, children's law and elder law

RDF5050114 Human rights

RDF5050115 Intellectual property law

RDF5050116 Tax law

RDF5050117 Torts, private obligations and product liability law

RDF5050118 Labour, employment, compensation and pension law

RDF5050119 Property law (except intellectual property law)

RDF5050120 Consumer law

RDF5050121 Health law

RDF5050122 Law and technology

RDF5050123 Law and society

RDF5050124 Cyberlaw and cyberjustice

RDF5050125 Outer space law and policy

RDF5050199 Law (except legal practice and international law), n.e.c.

RDF50502 Legal practice

RDF5050201 Legal institutions (including courts and justice systems)

RDF5050202 Lawyering and the legal profession

RDF5050203 Legal theory, jurisprudence and legal interpretation

RDF5050204 Litigation, adjudication and dispute resolution

RDF5050205 Access to justice

RDF5050299 Legal practice, n.e.c.

RDF50503 International law

RDF5050301 Public international law (except international trade law)

RDF5050302 International trade law

RDF5050303 Private international law

RDF5050399 International law, n.e.c.

RDF506 Political science and policy administration

RDF50601 Political science

RDF5060101 Canadian politics and government

RDF5060102 Indigenous politics

RDF5060103 Political theory

RDF5060104 Comparative politics

RDF5060105 International relations

RDF5060106 Political methodology

RDF5060107 Political areas studies

RDF5060108 Specialized politics

RDF5060109 Political behaviour and election studies

RDF5060110 Social movements and democracy

RDF5060111 Politics of outer space

RDF5060199 Political science, n.e.c.

RDF50602 Policy and policy administration

RDF5060201 Indigenous policy and policy administration

RDF5060202 Studies related to the Truth and Reconciliation Commission of Canada

RDF5060203 Arts and cultural policy

RDF5060204 Communication and media policy

RDF5060205 Crime policy

RDF5060206 Public security policy

RDF5060207 Cybersecurity policy

RDF5060208 Economic development policy

RDF5060209 International cooperation and development policies

RDF5060210 Ecological policy

RDF5060211 Educational policy

RDF5060212 Environmental policy

RDF5060213 Health policy

RDF5060214 Public administration

RDF5060215 Public policy

RDF5060216 Research, science and technology policy

RDF5060217 Social policy

RDF5060218 Tourism policy

RDF5060219 Urban policy

RDF5060220 Employment policy

RDF5060299 Policy and policy administration, n.e.c.

RDF507 Social and economic geography

RDF50701 Human geography

RDF5070101 Economic geography

RDF5070102 Development geography

RDF5070103 Recreation, leisure and tourism geography

RDF5070104 Social and cultural geography

RDF5070105 Population geography

RDF5070106 Health geography

RDF5070107 Political geography

RDF5070108 Transportation geography

RDF5070109 Regional geography

RDF5070110 Historical geography

RDF5070111 Environmental geography

RDF5070112 Behavioural geography

RDF5070199 Human geography, n.e.c.

RDF50702 Urban and regional planning

RDF5070201 Community planning

RDF5070202 History and theory of the built environment (except architecture)

RDF5070203 Housing market development and management

RDF5070204 Land use and environmental planning

RDF5070205 Regional analysis and development

RDF5070206 Transport planning

RDF5070207 Urban analysis and development

RDF5070208 Urban design and studies

RDF5070209 Landscape studies (except architecture)

RDF5070210 Smart city design and development and related analysis

RDF5070299 Urban and regional planning, n.e.c.

RDF50799 Other social and human geography

RDF5079999 Other social and human geography

RDF508 Media and communications

RDF50801 Communication and media studies

RDF5080101 General communication studies

RDF5080102 Communication technology and digital media studies

RDF5080103 International and development communication

RDF5080104 Media studies (except social media and digital media)

RDF5080105 Organizational, interpersonal and intercultural communication

RDF5080106 Social media studies

RDF5080107 Public relations studies

RDF5080108 Political communication studies

RDF5080199 Communication and media studies, n.e.c.

RDF50802 Film, television and digital media

RDF5080201 Cinema studies

RDF5080202 Television studies

RDF5080203 Interactive media studies

RDF5080204 Computer gaming and animation studies

RDF5080299 Film, television and digital media, n.e.c.

RDF50803 Journalism and professional writing

RDF5080301 Journalism studies

RDF5080302 Rhetoric and writing studies

RDF5080303 Professional writing

RDF5080304 Technical writing

RDF5080399 Journalism and professional writing, n.e.c.

RDF50899 Other media and communication

RDF5089999 Other media and communication

RDF509 Other social sciences

RDF50901 Anthropology

RDF5090101 Developmental anthropology

RDF5090102 Biological (physical) anthropology

RDF5090103 Linguistic anthropology

RDF5090104 Social and cultural anthropology

RDF5090105 Medical anthropology

RDF5090106 Anthropology of sex and gender

RDF5090199 Anthropology, n.e.c.

RDF50902 Criminology

RDF5090201 Causes and prevention of crime

RDF5090202 Correctional theory, offender treatment and rehabilitation

RDF5090203 Courts and sentencing

RDF5090204 Criminological theories

RDF5090205 Police administration, procedures and practice

RDF5090206 Private policing and security services

RDF5090207 Juvenile delinquency

RDF5090208 Cybercrime

RDF5090299 Criminology, n.e.c.

RDF50903 Demography

RDF5090301 Family and household demographic studies

RDF5090302 Fertility

RDF5090303 Migration

RDF5090304 Mortality

RDF5090305 Population trends and policies

RDF5090399 Demography, n.e.c.

RDF50904 Social work

RDF5090401 Clinical social work practice

RDF5090402 Counselling, welfare and community services

RDF5090499 Social work, n.e.c.

RDF50999 Other social sciences, n.e.c.

RDF5099901 Sexology

RDF5099902 Disability studies

RDF5099903 Gender studies

RDF5099904 Family social studies (except demographic aspects)

RDF5099905 Black studies

RDF5099906 Indigenous studies

RDF5099999 All other social sciences, n.e.c.

RDF60 Humanities and the arts

RDF601 History, archaeology and related studies

RDF60101 Historical studies

RDF6010101 Indigenous history

RDF6010102 Asian history

RDF6010103 Classical Greek and Ancient Rome history

RDF6010104 British history

RDF6010105 European history (except British, classical Greek and Roman)

RDF6010106 Latin American history

RDF6010107 Middle Eastern history

RDF6010108 African history

RDF6010109 American history

RDF6010110 Canadian history

RDF6010111 Medieval history

RDF6010112 History of medicine and health care

RDF6010113 History of sciences and technology (except medicine and health care)

RDF6010114 Book history (including print culture)

RDF6010115 Quebec history

RDF6010199 Historical studies, n.e.c.

RDF60102 Archaeology

RDF6010201 Archaeometry

RDF6010202 Historical archaeology (including industrial archaeology)

RDF6010203 Prehistoric archaeology

RDF6010204 Underwater archaeology

RDF6010205 Classical archaeology

RDF6010206 Ethno-archaeology

RDF6010207 Bioarchaeology

RDF6010208 Archaeology of pre-literate societies

RDF6010209 Archaeological theory

RDF6010210 Paleolithic archaeology

RDF6010211 Mortuary archaeology

RDF6010299 Archaeology, n.e.c.

RDF60103 Religion and religious studies

RDF6010301 Christianity studies (including biblical studies and church history)

RDF6010302 Comparative religious studies

RDF6010303 Religion and spirituality of Indigenous peoples

RDF6010304 Islamic studies

RDF6010305 Jewish studies

RDF6010306 Religion and society

RDF6010307 Eastern religions

RDF6010308 Classical religion

RDF6010399 Religion and religious studies, n.e.c.

RDF60199 Other studies related to history and archaeology

RDF6019999 Other studies related to history and archaeology

RDF602 Languages and literature

RDF60201 Languages

RDF6020101 English language

RDF6020102 French language

RDF6020103 Spanish language

RDF6020104 Chinese language

RDF6020105 Arabic language

RDF6020106 African languages

RDF6020107 Oceania and Pacific island languages

RDF6020108 North American Indigenous languages

RDF6020109 Asian languages (except chinese language)

RDF6020110 Other South and Central American languages

RDF6020111 Other European languages

RDF6020112 Comparative language studies

RDF6020113 Bilingualism and second language learning

RDF6020199 Languages, n.e.c.

RDF60202 Linguistics

RDF6020201 Classical linguistics

RDF6020202 Computational linguistics

RDF6020203 Discourse and pragmatics

RDF6020204 Phonetics and speech sciences

RDF6020205 Sociolinguistics

RDF6020206 Historical linguistics, diachronics, and dialectology

RDF6020207 Lexicography

RDF6020208 Linguistic structures (including grammar, phonology, lexicon and semantics)

RDF6020209 Lexicology (including onomastics)

RDF6020210 Comparative linguistics

RDF6020211 Translation studies

RDF6020299 Linguistics, n.e.c.

RDF60203 Literature and literary studies

RDF6020301 Canadian literatures in English

RDF6020302 Quebec literatures

RDF6020303 Indigenous literatures

RDF6020304 Literatures in French outside Quebec

RDF6020305 British literatures

RDF6020306 Greek and roman literatures

RDF6020307 Chinese literatures

RDF6020308 Arabic literatures

RDF6020309 African literatures

RDF6020310 Old English literatures

RDF6020311 Medieval Literatures

RDF6020312 Victorian literatures

RDF6020313 Twentieth-century British literatures

RDF6020314 Contemporary British literatures

RDF6020315 Irish literatures

RDF6020316 American literatures

RDF6020317 Latin American literatures

RDF6020318 Caribbean literatures

RDF6020319 South Asian literatures

RDF6020320 Australia, New Zealand, and New South Wales literatures

RDF6020321 Postcolonial literatures

RDF6020322 Renaissance literatures

RDF6020323 Classical literatures

RDF6020324 Contemporary literatures

RDF6020325 Science fiction and fantasy literatures

RDF6020326 Children's literatures

RDF6020327 Literature and critical theory

RDF6020328 Intellectual history in literary studies

RDF6020329 Comparative literatures

RDF6020330 Electronic literatures

RDF6020399 Literature and literary studies, n.e.c.

RDF60299 Other languages and literature

RDF6029999 Other languages and literature

RDF603 Philosophy

RDF60301 Philosophy (except philosophy of specific fields)

RDF6030101 Aesthetics

RDF6030102 Environmental philosophy

RDF6030103 Epistemology

RDF6030104 Feminist philosophy

RDF6030105 Philosophy of sexuality

RDF6030106 Logic

RDF6030107 Metaphysics

RDF6030108 Phenomenology

RDF6030109 Philosophical psychology (including moral psychology and philosophy of action)

RDF6030110 Philosophy of cognition

RDF6030111 Philosophy of language

RDF6030112 Philosophy of mind (except cognition)

RDF6030113 Philosophy of religion

RDF6030114 Philosophy of specific cultures (including comparative philosophy)

RDF6030115 Philosophy of law

RDF6030116 Social philosophy

RDF6030117 Postcolonial philosophy

RDF6030118 Political philosophy

RDF6030119 Critical theory in philosophy

RDF6030120 Contemporary philosophy

RDF6030121 Metaethics and ethical theory

RDF6030122 Classical philosophy (Greek, Latin, Medieval)

RDF6030123 History of philosophy

RDF6030124 Ontology

RDF6030125 Philosophy of sciences and technologies

RDF6030199 Philosophy, n.e.c.

RDF60302 Applied ethics

RDF6030201 Bioethics (humans and animals)

RDF6030202 Business ethics

RDF6030203 Ethics in technology (e.g., digital, artificial intelligence)

RDF6030204 Human rights, justice, and ethical issues

RDF6030205 Legal ethics

RDF6030206 Medical ethics

RDF6030207 Professional ethics

RDF6030208 Research ethics

RDF6030209 Animal ethics

RDF6030210 Reproductive health ethics

RDF6030211 Ethics and management of personal data

RDF6030299 Applied ethics, n.e.c.

RDF60303 History and philosophy of specific fields

RDF6030301 Business and labour history

RDF6030302 History and philosophy of education

RDF6030303 History and philosophy of economics

RDF6030304 History and philosophy of engineering and technology

RDF6030305 History and philosophy of law and justice

RDF6030306 History and philosophy of medicine

RDF6030307 History and philosophy of science (including non-historical philosophy of science)

RDF6030308 History and philosophy of the humanities

RDF6030309 History and philosophy of the social sciences

RDF6030310 Intellectual history (except in literary studies)

RDF6030311 History of ideas

RDF6030399 History and philosophy of specific fields, n.e.c.

RDF604 Arts (arts, history of arts, performing arts, music), architecture and design

RDF60401 Art history and theory

RDF6040101 History of art and architecture

RDF6040102 Art theory and analysis

RDF6040103 Visual theory, visual culture and visual literacy

RDF6040199 Art theory and criticism, n.e.c.

RDF60402 Architecture

RDF6040201 Architectural design

RDF6040202 Architectural history and theory

RDF6040203 Architectural science and technology (including architectural acoustics)

RDF6040204 Architecture management

RDF6040205 Interior design

RDF6040206 Landscape architecture

RDF6040299 Architecture, n.e.c.

RDF60403 Design practice and management

RDF6040301 Design history and theory

RDF6040302 Design innovation

RDF6040303 Digital and interaction design

RDF6040304 Textile and fashion design

RDF6040305 Visual communication design (except computer graphics)

RDF6040306 Industrial design

RDF6040399 Design practice and management, n.e.c.

RDF60404 Creative writing

RDF6040401 Novels, stories and news

RDF6040402 Script development

RDF6040403 Poetry, essays and songs

RDF6040499 Creative writing, n.e.c.

RDF60405 Music

RDF6040501 Opera

RDF6040502 Sound creation

RDF6040503 Organology

RDF6040504 Music composition

RDF6040505 Music interpretation

RDF6040599 Music, n.e.c.

RDF60406 Performing arts

RDF6040601 Indigenous arts

RDF6040602 Music therapy

RDF6040603 Musicology and ethnomusicology

RDF6040604 Interpretive dance

RDF6040605 Choreography

RDF6040606 Theater Interpretation

RDF6040607 Art therapy

RDF6040699 Performing arts, n.e.c.

RDF60407 Visual arts and media arts

RDF6040701 Sculpture and painting

RDF6040702 Crafts

RDF6040703 Photography

RDF6040704 Performance and installation art

RDF6040705 Media arts

RDF6040706 Digital arts

RDF6040799 Visual arts and media arts, n.e.c.

RDF60408 Curatorial and related studies

RDF6040801 Cultural property conservation

RDF6040802 Materials conservation

RDF6040803 Museum studies (Museology)

RDF6040804 Heritage management

RDF6040805 Architectural heritage conservation

RDF6040899 Curatorial artworks and related studies, n.e.c.

RDF60499 Other Arts

RDF6049999 Other Arts

RDF605 Other humanities

RDF60501 Cultural studies

RDF6050101 Critical identity, ethnic and race studies

RDF6050102 Environment, space and place

RDF6050103 Critical film studies

RDF6050104 Media, visual and digital culture

RDF6050105 Critical studies of technology

RDF6050106 Theories of cultural studies

RDF6050107 Globalization and culture

RDF6050108 Critical studies of literature

RDF6050199 Other cultural studies, n.e.c.

RDF60599 All other humanities, n.e.c.

RDF6059901 Digital humanities

RDF6059999 All other humanities, n.e.c.

Classification description of FOR

RDF10 Natural sciences

This division comprises research and experimental development in natural sciences. Natural sciences refer to scientific disciplines concerned with understanding, exploring or developing the natural world, in the field of natural sciences, which includes mathematics and statistics; computer and information sciences; physical sciences; chemical sciences; earth and related environmental sciences; biological sciences; and other natural sciences. Research consists of systematic investigation carried by means of experiment or analysis to achieve a scientific or technological advance such as acquiring new knowledge of the underlying foundation of phenomena and observable facts. Experimental development consists of new or substantially improved goods, services, systems, methods or processes.

RDF101 Mathematics and statistics

This group comprises research and experimental development in mathematics and statistics.

Exclusion(s)

- application of statistical and mathematical techniques to psychological testing (psychometrics) (See RDF5010116 Psychological methodology design and analysis, and psychometrics)
- applications of mathematics and statistics in bioinformatics (See RDF10208 Bioinformatics)
- applications of mathematics and statistics in biological evolution (See RDF10605 Biological evolution)
- applications of mathematics and statistics in classical physics (See RDF10304 Classical physics)
- applications of mathematics and statistics in computer and information sciences (See RDF102 Computer and information sciences)
- applications of mathematics and statistics in criminology (See RDF50902 Criminology)
- applications of mathematics and statistics in ecology (See RDF1060311 Ecological mathematical and statistical models)
- applications of mathematics and statistics in economics (See RDF50201 Economics)
- applications of mathematics and statistics in quantum communication (See RDF1030604 Quantum information, computation and communication)
- applications of statistical techniques associated with medical, health and life sciences (See RDF30 Medical, health and life sciences)
- computational mathematics (See RDF10202 Theoretical computer science and computational mathematics)
- geodesy (See RDF1050408 Geodesy)
- history and philosophy of mathematics and statistics (See RDF6030307 History and philosophy of science (including non-historical philosophy of science))
- mathematics and numeracy curriculum, pedagogy and didactics (See RDF5030208 Mathematics and numeracy curriculum, pedagogy and didactics)
- mathematics and statistics associated with physical sciences (See RDF103 Physical sciences)
- quantitative methods in forestry (See RDF4010414 Quantitative methods in forestry)
- statistical mechanics associated with chemical processes (See RDF1040704 Statistical mechanics in chemistry)
- statistical mechanics associated with chemistry (cheminformatics) (See RDF1040504 Cheminformatics and quantitative structure-activity relationships)
- statistical physics (See RDF1030404 Thermodynamics and statistical physics)

RDF10101 Pure mathematics

This class comprises research and experimental development in pure mathematics.

Exclusion(s)

- econometrics (See RDF5020105 Econometrics)
- physical combinatorics (See RDF103 Physical sciences)
- pure mathematics associated with computer and information sciences (See RDF102 Computer and information sciences)

RDF1010101 Algebra

This subclass comprises research and experimental development in algebra.

Exclusion(s)

- algebraic geometry (See RDF1010103 Algebraic and differential geometry)

RDF1010102 Number theory

This subclass comprises research and experimental development in number theory.

RDF1010103 Algebraic and differential geometry

This subclass comprises research and experimental development in algebraic and differential geometry.

RDF1010104 Metric and fractal geometry

This subclass comprises research and experimental development in metric and fractal geometry.

RDF1010105 Category theory, K theory, homological algebra

This subclass comprises research and experimental development in category theory, K theory, homological algebra.

RDF1010106 Combinatorics and discrete mathematics

This subclass comprises research and experimental development in combinatorics and discrete mathematics.

Exclusion(s)

- combinatorics associated with physical sciences (See RDF103 Physical sciences)

RDF1010107 Group theory and generalisations

This subclass comprises research and experimental development in lie groups, harmonic and Fourier analysis.

Exclusion(s)

- combinatorics associated with physical sciences (See RDF103 Physical sciences)

RDF1010108 Lie groups, harmonic and Fourier analysis

This subclass comprises research and experimental development in mathematical logic, set theory, lattices and universal algebra.

RDF1010109 Foundations, logic, and set theory of mathematics

This subclass comprises research and experimental development in foundations, logic, and set theory of mathematics.

RDF1010110 Modern analysis in mathematics

This subclass comprises research and experimental development in modern analysis in mathematics.

RDF1010111 Differential equations and integral equations in pure mathematics

This subclass comprises research and experimental development in differential equations and integral equations in pure mathematics.

RDF1010112 Classical analysis in pure mathematics

This subclass comprises research and experimental development in classical analysis in pure mathematics.

RDF1010113 Topology

This subclass comprises research and experimental development in topology.

RDF1010199 Pure mathematics, n.e.c.

This subclass comprises research and experimental development in pure mathematics, n.e.c.

RDF10102 Applied mathematics

This class comprises research and experimental development in applied mathematics.

Exclusion(s)

- application of mathematical techniques to psychological testing (psychometrics) (See RDF5010116 Psychological methodology design and analysis, and psychometrics)
- applied mathematics associated with bioinformatics (See RDF10208 Bioinformatics)
- applied mathematics associated with biological evolution (See RDF10605 Biological evolution)
- applied mathematics associated with computer and information sciences (See RDF102 Computer and information sciences)
- applied mathematics associated with criminology (See RDF50902 Criminology)
- applied mathematics associated with ecology (See RDF1060311 Ecological mathematical and statistical models)
- applied mathematics associated with economics (See RDF50201 Economics)
- applied mathematics associated with electrical and electronic engineering (See RDF203 Electrical engineering, computer engineering, and information engineering)
- applied mathematics associated with mechanical engineering (See RDF204 Mechanical engineering)
- applied mathematics associated with medical and health sciences (See RDF30 Medical, health and life sciences)
- applied mathematics associated with statistical physics (See RDF1030404 Thermodynamics and statistical physics)
- applied mathematics curriculum, pedagogy and didactics (See RDF5030208 Mathematics and numeracy curriculum, pedagogy and didactics)
- econometrics (See RDF5020105 Econometrics)
- geodesy (See RDF1050408 Geodesy)
- history and philosophy of mathematics (See RDF6030307 History and philosophy of science (including non-historical philosophy of science))
- statistical mechanics associated with chemical processes (See RDF1040704 Statistical mechanics in chemistry)

RDF1010201 Approximation theory and asymptotic methods

This subclass comprises research and experimental development in approximation theory and asymptotic methods.

RDF1010202 Integral equations in applied mathematics

This subclass comprises research and experimental development in integral equations in applied mathematics.

RDF1010203 Partial and ordinary differential equations

This subclass comprises research and experimental development in partial and ordinary differential equations.

RDF1010204 Mathematical modelling and simulation

This subclass comprises research and experimental development in mathematical modelling and simulation.

RDF1010205 Computational fluid mechanics

This subclass comprises research and experimental development in computational fluid mechanics.

Exclusion(s)

- hydraulic engineering (See RDF2010108 Hydraulic engineering)

RDF1010206 Mathematical biology

This subclass comprises research and experimental development in mathematical biology.

RDF1010207 Calculus of variations, systems theory and control theory

This subclass comprises research and experimental development in calculus of variations, systems theory and control theory.

Exclusion(s)

- control theory associated with electrical and electronic engineering (See RDF203 Electrical engineering, computer engineering, and information engineering)
- control theory associated with mechanical engineering (See RDF204 Mechanical engineering)

RDF1010208 Dynamical systems in applications

This subclass comprises research and experimental development in dynamical systems in applications.

RDF1010209 Mathematical operations research

This subclass comprises research and experimental development in mathematical operations research.

RDF1010210 Theoretical and applied mechanics

This subclass comprises research and experimental development in theoretical and applied mechanics.

RDF1010211 Numerical analysis

This subclass comprises research and experimental development in numerical analysis.

RDF1010212 Mathematical optimization

This subclass comprises research and experimental development in mathematical optimization.

RDF1010213 Mathematical physics

This subclass comprises research and experimental development in mathematical physics.

Exclusion(s)

- combinatorics other than physical combinatorics (See RDF1010106 Combinatorics and discrete mathematics)
- development of statistical techniques (See RDF10103 Statistics)
- statistical mechanics associated with chemical processes (See RDF1040704 Statistical mechanics in chemistry)
- statistical physics (See RDF1030404 Thermodynamics and statistical physics)

RDF1010299 Applied mathematics, n.e.c.

This subclass comprises research and experimental development in other applied mathematics, n.e.c.

RDF10103 Statistics

This class comprises research and experimental development in statistics.

Exclusion(s)

- application of statistical techniques to psychological testing (psychometrics) (See RDF5010116 Psychological methodology design and analysis, and psychometrics)
- applications of statistical techniques associated with medical, health and life sciences (See RDF30 Medical, health and life sciences)
- econometrics (See RDF5020105 Econometrics)
- econometrics, economic time series analysis and fields (See RDF5020105 Econometrics)
- quantitative methods in forestry (See RDF4010414 Quantitative methods in forestry)
- statistical climatology (See RDF1050115 Statistical climatology)
- statistical genetics (See RDF1060613 Statistical genetics)
- statistical mechanics associated with chemical processes (See RDF1040704 Statistical mechanics in chemistry)
- statistical mechanics associated with quantum physics (See RDF1030607 Statistical mechanics in quantum physics)
- statistical physics (See RDF1030404 Thermodynamics and statistical physics)
- statistics associated with bioinformatics (See RDF10208 Bioinformatics)
- statistics associated with criminology (See RDF50902 Criminology)

RDF1010301 General statistical methods

This class comprises research and experimental development in general statistical methods.

RDF1010302 Biostatistical methods

This subclass comprises research and experimental development in biostatistical methods.

RDF1010303 Statistical theory and modeling

This subclass comprises research and experimental development in statistical theory and modeling.

RDF1010304 Statistical inference

This subclass comprises research and experimental development in statistical inference.

RDF1010305 Statistical learning

This subclass comprises research and experimental development in statistical learning.

RDF1010306 High dimensional data analysis

This subclass comprises research and experimental development in high dimensional data analysis.

Exclusion(s)

- statistical methods for high throughput data (See RDF1010311 Statistical methods for high throughput data)

RDF1010307 Computational methods in statistics

This subclass comprises research and experimental development in computational methods in statistics.

Exclusion(s)

- statistical methods for high throughput data (See RDF1010311 Statistical methods for high throughput data)

RDF1010308 Actuarial science and mathematical finance

This subclass comprises research and experimental development in actuarial science and mathematical finance.

Exclusion(s)

- applications of actuarial science and mathematical finance in economics (See RDF5020112 Financial economics)

RDF1010309 Spatial statistics

This subclass comprises research and experimental development in spatial statistics.

Exclusion(s)

- statistical climatology (See RDF1050115 Statistical climatology)
- statistical physics (See RDF1030404 Thermodynamics and statistical physics)

RDF1010310 Survey methodology and analysis

This subclass comprises research and experimental development in survey methodology and analysis.

RDF1010311 Statistical methods for high throughput data

This subclass comprises research and experimental development in statistical methods for high throughput data.

Exclusion(s)

- probability theory (See RDF1010312 Probability theory)

RDF1010312 Probability theory

This subclass comprises research and experimental development in probability theory.

RDF1010399 Statistics, n.e.c.

This subclass comprises research and experimental development in statistics, n.e.c.

RDF102 Computer and information sciences

This group comprises research and experimental development in computer and information sciences.

Exclusion(s)

- artificial intelligence engineering (See RDF2030302 Artificial intelligence engineering)
- automotive mechatronics (See RDF2040203 Automotive mechatronics)
- business information management (including records, knowledge, information management and intelligence) (See RDF5020501 Management information systems)
- computer and information sciences associated with languages and literature (See RDF602 Languages and literature)
- computational physiology (See RDF3010603 Computational physiology)
- computer engineering (See RDF20301 Computer engineering)
- computer gaming and animation (See RDF5080204 Computer gaming and animation studies)
- computer hardware (See RDF20301 Computer engineering)
- computer-aided design and computer-aided manufacturing systems (See RDF2040301 Computer-aided design (CAD) and computer-aided manufacturing (CAM) systems)
- development of communication and network technologies (See RDF20302 Communications and networks technologies)
- digital humanities other than digital arts (See RDF6059901 Digital humanities)
- electronic engineering (See RDF20306 Electronics)
- health information systems (See RDF3030403 Health information systems (including surveillance))
- history and philosophy of computer and information sciences (See RDF6030307 History and philosophy of science (including non-historical philosophy of science))
- mechatronics other than for automotive applications (See RDF2040307 Mechatronics (except automotive mechatronics))
- neurorobotics (See RDF3010420 Neurorobotics)
- operational research (See RDF20203 Operational research)
- social impacts of artificial intelligence (AI) (See RDF5040113 Social impacts of artificial intelligence)
- statistical mechanics associated with chemistry (cheminformatics) (See RDF1040504 Cheminformatics and quantitative structure-activity relationships)

RDF10201 Artificial intelligence (AI)

This class comprises research and experimental development in artificial intelligence (AI).

Exclusion(s)

- artificial intelligence (AI) associated with algorithms and data structures (See RDF1020202 Algorithms and data structures)
- artificial intelligence engineering (See RDF2030302 Artificial intelligence engineering)
- computational neurosciences (See RDF1020803 Computational neurosciences)
- knowledge translation and implementation science in health (See RDF3030408 Knowledge translation and implementation science in health)
- neurorobotics (See RDF3010420 Neurorobotics)
- operational research (See RDF20203 Operational research)

RDF1020101 Adaptive agents

This subclass comprises research and experimental development in adaptive agents.

Exclusion(s)

- neurorobotics (See RDF3010420 Neurorobotics)

RDF1020102 Intelligent robotics

This subclass comprises research and experimental development in intelligent robotics.

Exclusion(s)

- robotics associated with automotive engineering (See RDF20402 Automotive engineering)
- robotics associated with biomedical engineering (See RDF2070108 Biomedical robotics)
- robotics associated with manufacturing engineering other than automotive (See RDF20403 Manufacturing engineering)

RDF1020103 Artificial life

This subclass comprises research and experimental development in artificial life.

RDF1020104 Machine learning

This subclass comprises research and experimental development in machine learning.

Exclusion(s)

- machine learning systems (See RDF2030111 Machine learning systems)

RDF1020105 Natural language processing

This subclass comprises research and experimental development in natural language processing.

RDF1020106 Knowledge representation

This subclass comprises research and experimental development in knowledge representation.

Exclusion(s)

- knowledge translation and implementation science in health (See RDF3030408 Knowledge translation and implementation science in health)

RDF1020107 Planning and scheduling in artificial intelligence

This subclass comprises research and experimental development in planning and scheduling in artificial intelligence.

RDF1020108 Search methodologies in artificial intelligence

This subclass comprises research and experimental development in search methodologies in artificial intelligence.

RDF1020109 Distributed artificial intelligence

This subclass comprises research and experimental development in distributed artificial intelligence.

RDF1020110 Data mining

This subclass comprises research and experimental development in data mining.

RDF1020111 Pattern recognition and artificial vision

This subclass comprises research and experimental development in pattern recognition and artificial vision.

RDF1020112 Computer vision in artificial intelligence

This subclass comprises research and experimental development in computer vision in artificial intelligence.

RDF1020113 Cognitive computing

This subclass comprises research and experimental development in cognitive computing.

RDF1020114 Computer modelling on perception, memory and attention

This subclass comprises research and experimental development in computer modelling on perception, memory and attention.

RDF1020115 Logic programming in artificial intelligence

This subclass comprises research and experimental development in logic programming in artificial intelligence.

Exclusion(s)

- genetic programming (See RDF1020808 Genetic programming)
- programming applied in operational research (See RDF2020301 Programming in operational research (including linear and nonlinear programming))

RDF1020116 Expert systems technologies in artificial intelligence

This subclass comprises research and experimental development in expert systems technologies in artificial intelligence.

RDF1020199 Artificial intelligence, n.e.c.

This subclass comprises research and experimental development in artificial intelligence, n.e.c.

RDF10202 Theoretical computer science and computational mathematics

This class comprises research and experimental development in theoretical computer science and computational mathematics.

Exclusion(s)

- operational research (See RDF20203 Operational research)

RDF1020201 Analysis of algorithms and complexity

This subclass comprises research and experimental development in analysis of algorithms and complexity.

RDF1020202 Algorithms and data structures

This subclass comprises research and experimental development in algorithms and data structures.

RDF1020203 Applied discrete mathematics

This subclass comprises research and experimental development in applied discrete mathematics.

RDF1020204 Coding and information theory

This subclass comprises research and experimental development in coding and information theory.

Exclusion(s)

- coding and information theory applied to communications and networks technologies (See RDF2030202 Coding and information theory applied to communications and networks technologies)

RDF1020205 Computational logic theory

This subclass comprises research and experimental development in computational logic theory.

Exclusion(s)

- distributed programming languages (See RDF1020210 Distributed programming languages)
- genetic programming (See RDF1020808 Genetic programming)
- logic programming in artificial intelligence (See RDF1020115 Logic programming in artificial intelligence)
- programming applied in operational research (See RDF2020301 Programming in operational research (including linear and nonlinear programming))

RDF1020206 Artificial languages

This subclass comprises research and experimental development in artificial languages.

RDF1020207 Mathematical software

This subclass comprises research and experimental development in mathematical software.

RDF1020208 Numerical computation

This subclass comprises research and experimental development in numerical computation.

Exclusion(s)

- computational linguistics (See RDF6020202 Computational linguistics)

RDF1020209 Encryption and cryptography

This subclass comprises research and experimental development in encryption and cryptography.

RDF1020210 Distributed programming languages

This subclass comprises research and experimental development in distributed programming languages.

Exclusion(s)

- distributed algorithms (See RDF1020312 Distributed algorithms)
- genetic programming (See RDF1020808 Genetic programming)
- programming applied in operational research (See RDF2020301 Programming in operational research (including linear and nonlinear programming))

RDF1020299 Other theoretical computer science and computational mathematics, n.e.c.

This subclass comprises research and experimental development in other theoretical computer science and computational mathematics, n.e.c.

RDF10203 Programming languages and software engineering

This class comprises research and experimental development in programming languages and software engineering.

Exclusion(s)

- distributed programming languages (See RDF1020210 Distributed programming languages)
- expert systems technologies in artificial intelligence (AI) (See RDF1020116 Expert systems technologies in artificial intelligence)
- genetic programming (See RDF1020808 Genetic programming)

- logic programming in artificial intelligence (AI) (See RDF1020115 Logic programming in artificial intelligence)
- mathematical software (See RDF1020207 Mathematical software)
- operational research (See RDF20203 Operational research)

RDF1020301 Software architecture

This subclass comprises research and experimental development in software architecture.

RDF1020302 Computation models

This subclass comprises research and experimental development in computation models.

RDF1020303 Software domains (including operating systems and software infrastructure)

This subclass comprises research and experimental development in software domains (including operating systems and software infrastructure).

RDF1020304 Programming languages

This subclass comprises research and experimental development in programming languages.

Exclusion(s)

- distributed programming languages (See RDF1020210 Distributed programming languages)
- genetic programming (See RDF1020808 Genetic programming)
- logic programming in artificial intelligence (See RDF1020115 Logic programming in artificial intelligence)
- programming applied in operational research (See RDF2020301 Programming in operational research (including linear and nonlinear programming))

RDF1020305 Software system models

This subclass comprises research and experimental development in software system models.

RDF1020306 Distributed systems organizing principles

This subclass comprises research and experimental development in distributed systems organizing principles.

RDF1020307 Real-time software and ultra-large systems

This subclass comprises research and experimental development in real-time software and ultra-large systems.

RDF1020308 Extra-functional properties

This subclass comprises research and experimental development in extra-functional properties.

RDF1020309 Compilers

This subclass comprises research and experimental development in compilers.

RDF1020310 Operating systems

This subclass comprises research and experimental development in operating systems.

RDF1020311 Software function properties

This subclass comprises research and experimental development in software function properties.

RDF1020312 Distributed algorithms

This subclass comprises research and experimental development in distributed algorithms.

RDF1020313 Adaptive software engineering

This subclass comprises research and experimental development in adaptive software engineering.

RDF1020399 Programming language and software engineering, n.e.c.

This subclass comprises research and experimental development in programming language and software engineering, n.e.c.

RDF10204 Computing systems

This class comprises research and experimental development in computing systems.

Exclusion(s)

- computer systems engineering (See RDF2030104 Computer systems engineering)

RDF1020401 Distributed systems

This subclass comprises research and experimental development in distributed systems.

Exclusion(s)

- distributed algorithms (See RDF1020312 Distributed algorithms)
- distributed systems organizing principles (See RDF1020306 Distributed systems organizing principles)

RDF1020402 Networking and communications

This subclass comprises research and experimental development in networking and communications.

RDF1020403 Parallel systems

This subclass comprises research and experimental development in parallel systems.

RDF1020404 Quantum computing

This subclass comprises research and experimental development in quantum computing.

Exclusion(s)

- cryogenic control electronics for quantum processors (See RDF2030624 Cryogenic control electronics for quantum processors)
- quantum electronics (See RDF2030613 Quantum electronics)
- quantum information, computation associated with communications (See RDF1030604 Quantum information, computation and communication)
- quantum physics (See RDF10306 Quantum physics)

RDF1020499 Computing systems, n.e.c.

This subclass comprises research and experimental development in computing systems, n.e.c.

RDF10205 Human-centered computing

This class comprises research and experimental development in human-centered computing.

Exclusion(s)

- digital humanities other than digital arts (See RDF6059901 Digital humanities)

RDF1020501 Human computer interaction

This subclass comprises research and experimental development in human computer interaction.

RDF1020502 Interaction design for human-centered computing

This subclass comprises research and experimental development in interaction design for human-centered computing.

RDF1020503 User-adaptive and personalized systems

This subclass comprises research and experimental development in user-adaptive and personalized systems.

RDF1020504 Collaborative and social computing

This subclass comprises research and experimental development in collaborative and social computing.

RDF1020505 Ubiquitous and mobile computing

This subclass comprises research and experimental development in ubiquitous and mobile computing.

RDF1020506 Accessibility in human-centered computing

This subclass comprises research and experimental development in accessibility in human-centered computing.

RDF1020507 Computer graphics

This subclass comprises research and experimental development in computer graphics.

RDF1020508 Data visualization

This subclass comprises research and experimental development in data visualization.

RDF1020509 Virtual and augmented reality, metaverse and related simulations

This subclass comprises research and experimental development in virtual and augmented reality, metaverse and other related simulations.

RDF1020599 Human-centered computing, n.e.c.

This subclass comprises research and experimental development in human-centered computing, n.e.c.

RDF10206 Information Systems

This class comprises research and experimental development in information systems.

Exclusion(s)

- health information systems (See RDF3030403 Health information systems (including surveillance))
- library science and information studies (See RDF10207 Library science and information studies)
- records and information management for businesses (See RDF5020501 Management information systems)

RDF1020601 Information system security

This subclass comprises research and experimental development in information system security.

RDF1020602 Modelling and simulation in information systems

This subclass comprises research and experimental development in modelling and simulation in information systems.

RDF1020603 Web technologies (except Web search)

This subclass comprises research and experimental development in web technologies (except Web search).

Exclusion(s)
- web (internet) search (See RDF1020703 Web search)

RDF1020604 Conceptual modelling in information systems

This subclass comprises research and experimental development in conceptual modelling in information systems.

RDF1020605 Database management

This subclass comprises research and experimental development in database management.

RDF1020606 Decision support systems

This subclass comprises research and experimental development in decision support systems.

RDF1020607 Spatial-temporal data systems

This subclass comprises research and experimental development in spatial-temporal data systems.

RDF1020608 Information systems development methodologies

This subclass comprises research and experimental development in Information systems development methodologies.

RDF1020609 Information retrieval

This subclass comprises research and experimental development in information retrieval.

RDF1020610 Information privacy

This subclass comprises research and experimental development in information privacy.

Exclusion(s)
- privacy-enhancing technologies (See RDF1020611 Privacy-enhancing technologies)

RDF1020611 Privacy-enhancing technologies

This subclass comprises research and experimental development in privacy-enhancing technologies.

RDF1020612 Digital forensics

This subclass comprises research and experimental development in digital forensics.

RDF1020699 Information systems, n.e.c.

This subclass comprises research and experimental development in information systems, n.e.c.

RDF10207 Library science and information studies

This class comprises research and experimental development library science and information studies.

Exclusion(s)

- digital humanities other than digital arts (See RDF6059901 Digital humanities)

RDF1020701 Library science (librarianship)

This subclass comprises research and experimental development in library science (librarianship).

RDF1020702 Human information behaviour (including human information retrieval)

This subclass comprises research and experimental development in human information behaviour (including human information retrieval).

RDF1020703 Web search

This subclass comprises research and experimental development in web search.

RDF1020704 Scientometrics, bibliometrics, webometrics and other quantitative aspects of information (Informetrics)

This subclass comprises research and experimental development in scientometrics, bibliometrics, webometrics and other quantitative aspects of information (Informetrics).

Exclusion(s)

- applications of informetrics to social aspects of artificial intelligence (See RDF5040113 Social impacts of artificial intelligence)

RDF1020705 Organization of information and knowledge resources

This subclass comprises research and experimental development in organization of information and knowledge resources.

RDF1020706 Records and information management (except business records and information management)

This subclass comprises research and experimental development in records and information management (except business records and information management).

Exclusion(s)

- information systems (See RDF10206 Information Systems)
- records and information management for businesses (See RDF5020501 Management information systems)

RDF1020707 Archival, repository and related studies

This subclass comprises research and experimental development in archival, repository and related studies.

RDF1020708 Information literacy

This subclass comprises research and experimental development in information literacy.

RDF1020799 Information studies, n.e.c.

This subclass comprises research and experimental development in information studies, n.e.c.

RDF10208 Bioinformatics

This class comprises research and experimental development in bioinformatics.

Exclusion(s)

- applications of computational biology (bioinformatics) in cell biology (See RDF1060208 Computational cell biology)
- operational research (See RDF20203 Operational research)

RDF1020801 Algorithms and computational genomics

This subclass comprises research and experimental development in algorithms and computational genomics.

RDF1020802 Computational biomodelling

This subclass comprises research and experimental development in computational biomodelling.

RDF1020803 Computational neurosciences

This subclass comprises research and experimental development in computational neurosciences.

RDF1020804 DNA computing

This subclass comprises research and experimental development in DNA computing.

RDF1020805 Molecular and atomic computing

This subclass comprises research and experimental development in molecular and atomic computing.

RDF1020806 Evolutionary computation

This subclass comprises research and experimental development in evolutionary computation.

RDF1020807 Genetic algorithms

This subclass comprises research and experimental development in genetic algorithms.

RDF1020808 Genetic programming

This subclass comprises research and experimental development in genetic programming.

Exclusion(s)

- programming applied in operational research (See RDF2020301 Programming in operational research (including linear and nonlinear programming))

RDF1020899 Bioinformatics, n.e.c.

This subclass comprises research and experimental development in bioinformatics, n.e.c.

RDF10299 Other computer and information sciences

This class comprises research and experimental development in other computer and information sciences, n.e.c.

Exclusion(s)

- digital humanities other than digital arts (See RDF6059901 Digital humanities)

RDF1029999 Other computer and information sciences

This subclass comprises research and experimental development in other computer and information sciences, n.e.c.

RDF103 Physical sciences

This group comprises research and experimental development in physical sciences.

Exclusion(s)

- applications of physical sciences in geophysics (See RDF10504 Geophysics)
- cloud physics (See RDF1050104 Cloud physics)
- cyber-physical systems (See RDF2030212 Cyber-physical systems)
- electrical engineering, electronic engineering, and computer and information engineering (See RDF203 Electrical engineering, computer engineering, and information engineering)
- engineering and technological aspects of physical sciences (See RDF20-21 Engineering and technology)
- geophysics or physical geography (See RDF10504 Geophysics)
- history and philosophy of physical sciences (See RDF6030307 History and philosophy of science (including non-historical philosophy of science))
- human biophysics (See RDF1060209 Human biophysics)
- mathematical aspects of physics (See RDF1010213 Mathematical physics)
- metaphysics (See RDF6030107 Metaphysics)
- photonics associated with electro-optical engineering (See RDF2030510 Photonics and electro-optical engineering)
- physical anthropology (See RDF5090102 Biological (physical) anthropology)
- physical chemistry (See RDF10406 Physical chemistry (including structural))
- physical ergonomics (See RDF2020102 Physical, environmental and cognitive ergonomics)
- physical sciences associated with atmospheric sciences (See RDF10501 Atmospheric sciences)
- physical sciences associated with soil sciences (See RDF10511 Soil sciences)
- physical therapy (See RDF3030302 Physical therapy)
- planetary geology (See RDF1050302 Planetary geology)

RDF10301 Astronomical and space sciences

This class comprises research and experimental development in astronomical and space sciences.

Exclusion(s)

- aerospace engineering (See RDF20401 Aerospace engineering)
- applications of astronomical and space sciences satellite in space vehicle design and testing (See RDF2040108 Satellites, space vehicles and missiles design and testing)
- astronomical and space sciences associated with atmospheric sciences (See RDF10501 Atmospheric sciences)
- communications and network technologies (See RDF20302 Communications and networks technologies)
- photogrammetry and remote sensing (See RDF2080204 Remote sensing in geomatics and photogrammetry)
- planetary geology (See RDF1050302 Planetary geology)
- quantum physics (See RDF10306 Quantum physics)
- string theory (See RDF1030207 Particle physics theory (including aspects of field theory and string theory))

RDF1030101 Astrobiology

This subclass comprises research and experimental development in astrobiology.

RDF1030102 Celestial mechanics

This subclass comprises research and experimental development in celestial mechanics.

RDF1030103 Astronomical and space instrumentation (including atmospheric observation)

This subclass comprises research and experimental development in astronomical and space instrumentation (including atmospheric observation).

RDF1030104 Cosmology and extragalactic astronomy

This subclass comprises research and experimental development in cosmology and extragalactic astronomy.

RDF1030105 Galactic astronomy

This subclass comprises research and experimental development in galactic astronomy.

RDF1030106 General relativity and gravitational waves in astronomical and space sciences

This subclass comprises research and experimental development in general relativity and gravitational waves in astronomical and space sciences.

RDF1030107 Mesospheric, ionospheric and magnetospheric physics

This subclass comprises research and experimental development in mesospheric, ionospheric and magnetospheric physics.

RDF1030108 Planetary science (except planetary geology)

This subclass comprises research and experimental development in planetary science (except planetary geology).

Exclusion(s)

- planetary geology (See RDF1050302 Planetary geology)

RDF1030109 Space and solar physics

This subclass comprises research and experimental development in space and solar physics.

RDF1030110 Stellar astronomy and planetary systems

This subclass comprises research and experimental development in stellar astronomy and planetary systems.

RDF1030111 Astrochemistry

This subclass comprises research and experimental development in astrochemistry.

RDF1030112 Dark energy

This subclass comprises research and experimental development in dark energy.

RDF1030113 Theoretical and computational astrophysics

This subclass comprises research and experimental development in theoretical and computational astrophysics.

RDF1030199 Astronomical and space sciences, n.e.c.

This subclass comprises research and experimental development in astronomical and space sciences, n.e.c.

RDF10302 Subatomic physics

This class comprises research and experimental development in subatomic physics.

RDF1030201 Nuclear physics, experimental

This subclass comprises research and experimental development in nuclear physics, experimental.

RDF1030202 Particle physics, experimental

This subclass comprises research and experimental development in particle physics, experimental.

RDF1030203 Astroparticle physics

This subclass comprises research and experimental development in astroparticle physics.

RDF1030204 Subatomic physics instrumentation

This subclass comprises research and experimental development in subatomic physics instrumentation.

RDF1030205 Accelerator for nuclear and particle physics (including synchrotons)

This subclass comprises research and experimental development in accelerator for nuclear and particle physics (including synchrotons).

RDF1030206 Nuclear physics theory

This subclass comprises research and experimental development in nuclear physics theory.

RDF1030207 Particle physics theory (including aspects of field theory and string theory)

This subclass comprises research and experimental development in particle physics theory (including aspects of field theory and string theory).

RDF1030208 High-energy astrophysics and cosmic rays

This subclass comprises research and experimental development in high-energy astrophysics and cosmic rays.

Exclusion(s)

- dark energy (See RDF1030112 Dark energy)
- theoretical and computational astrophysics (See RDF1030113 Theoretical and computational astrophysics)

RDF1030209 Weak interactions of elementary particles

This subclass comprises research and experimental development in weak interactions of elementary particles.

RDF1030210 Intermediate subatomic energy reactions

This subclass comprises research and experimental development in intermediate subatomic energy reactions.

RDF1030299 Subatomic physics, n.e.c

This subclass comprises research and experimental development in Subatomic physics, n.e.c.

RDF10303 Atomic, molecular, and optical physics

This class comprises research and experimental development in atomic, molecular, and optical physics.

Exclusion(s)

- applications of atomic, molecular and optical physics to quantum optics (including atom optics) (See RDF10306 Quantum physics)
- macromolecular and materials chemistry (See RDF10404 Macromolecular and materials chemistry)
- nanophotonics (See RDF2110110 Nanophotonics)

- optical communication networks and systems (See RDF2030215 Optical networks)
- photonics associated with electro-optical engineering (See RDF2030510 Photonics and electro-optical engineering)
- statistical mechanics associated with quantum physics (See RDF1030607 Statistical mechanics in quantum physics)
- subatomic physics (See RDF10302 Subatomic physics)

RDF1030301 Atomic and molecular physics

This subclass comprises research and experimental development in atomic and molecular physics.

RDF1030302 Classical and physical optics

This subclass comprises research and experimental development in classical and physical optics.

RDF1030303 Lasers and quantum electronics

This subclass comprises research and experimental development in lasers and quantum electronics.

RDF1030304 Nonlinear optics and spectroscopy

This subclass comprises research and experimental development in nonlinear optics and spectroscopy.

RDF1030305 Atomic and molecular spectroscopy

This subclass comprises research and experimental development in atomic and molecular spectroscopy.

RDF1030306 Photonics, optoelectronics and optical communications

This subclass comprises research and experimental development in photonics, optoelectronics and optical communications.

RDF1030307 Plasma physics, fusion plasmas, and electrical discharges

This subclass comprises research and experimental development in plasma physics, fusion plasmas, and electrical discharges.

RDF1030308 Quantum optics

This subclass comprises research and experimental development in quantum optics.

Exclusion(s)

- quantum physics (See RDF10306 Quantum physics)

RDF1030309 Molecular biophysics

This subclass comprises research and experimental development in molecular biophysics.

RDF1030399 Atomic, molecular, and optical physics, n.e.c.

This subclass comprises research and experimental development in atomic, molecular, and optical physics, n.e.c.

RDF10304 Classical physics

This class comprises research and experimental development in classical physics.

Exclusion(s)

- mathematical aspects of classical physics (See RDF1010213 Mathematical physics)

RDF1030401 Acoustics and acoustical devices and waves

This subclass comprises research and experimental development in acoustics and acoustical devices and waves.

RDF1030402 Electrostatics and electrodynamics

This subclass comprises research and experimental development in electrostatics and electrodynamics.

RDF1030403 Fluid physics

This subclass comprises research and experimental development in fluid physics.

RDF1030404 Thermodynamics and statistical physics

This subclass comprises research and experimental development in thermodynamics and statistical physics.

RDF1030499 Classical physics, n.e.c.

This subclass comprises research and experimental development in classical physics, n.e.c.

RDF10305 Condensed matter physics

This class comprises research and experimental development in condensed matter physics.

Exclusion(s)
- applications of condensed matter physics in biomedical engineering (See RDF20701 Medical and biomedical engineering)
- applications of condensed matter physics in materials engineering (See RDF20601 Materials engineering)
- condensed matter physics associated with inorganic chemistry (See RDF10402 Inorganic chemistry)
- nanotechnology (including nanoscale characterisation) (See RDF21101 Nano-technology)

RDF1030501 Condensed matter characterization technique development

This subclass comprises research and experimental development in condensed matter characterization technique development.

RDF1030502 Condensed matter experiments

This subclass comprises research and experimental development in condensed matter experiments.

RDF1030503 Condensed matter modelling and density functional theory

This subclass comprises research and experimental development in condensed matter modelling and density functional theory.

RDF1030504 Electronic and magnetic properties of condensed matter and supraconductivity

This subclass comprises research and experimental development in electronic and magnetic properties of condensed matter and supraconductivity.

RDF1030505 Soft condensed matter

This subclass comprises research and experimental development in soft condensed matter.

RDF1030506 Surfaces and structural properties of condensed matter

This subclass comprises research and experimental development in surfaces and structural properties of condensed matter.

RDF1030507 Superconductivity

This subclass comprises research and experimental development in superconductivity.

Exclusion(s)

- compound semiconductors (See RDF2060103 Compound semiconductors)
- electronic and magnetic properties of condensed matter associated with supraconductivity (See RDF1030504 Electronic and magnetic properties of condensed matter and supraconductivity)
- elemental semiconductors (See RDF2060104 Elemental semiconductors)
- organic semiconductors (See RDF2060108 Organic semiconductors)

RDF1030508 Semiconductors

This subclass comprises research and experimental development in semiconductors.

RDF1030509 Low-temperature physics

This subclass comprises research and experimental development in low-temperature physics.

RDF1030510 Mesoscopic physics

This subclass comprises research and experimental development in mesoscopic physics.

RDF1030599 Condensed matter physics, n.e.c.

This subclass comprises research and experimental development in condensed matter physics, n.e.c.

RDF10306 Quantum physics

This class comprises research and experimental development in quantum physics.

Exclusion(s)

- applications of quantum physics in communications technologies (See RDF20302 Communications and networks technologies)
- lasers associated with quantum electronics (See RDF1030303 Lasers and quantum electronics)
- mathematical aspects of quantum physics (See RDF1010213 Mathematical physics)
- quantum chemistry (See RDF1040702 Quantum chemistry)

RDF1030601 Degenerate quantum gases

This subclass comprises research and experimental development in degenerate quantum gases.

RDF1030602 Matter waves

This subclass comprises research and experimental development in matter waves.

RDF1030603 General relativity and gravitational waves in quantum physics

This subclass comprises research and experimental development in general relativity and gravitational waves in quantum physics.

Exclusion(s)

- general relativity and gravitational waves in astronomical and space sciences (See RDF1030106 General relativity and gravitational waves in astronomical and space sciences)

RDF1030604 Quantum information, computation and communication

This subclass comprises research and experimental development in quantum information, computation and communication.

RDF1030605 Foundation of quantum physics

This subclass comprises research and experimental development in foundation of quantum physics.

RDF1030606 Quantum technologies

This subclass comprises research and experimental development in quantum technologies.

RDF1030607 Statistical mechanics in quantum physics

This subclass comprises research and experimental development in statistical mechanics in quantum physics.

RDF1030699 Quantum physics, n.e.c.

This subclass comprises research and experimental development in quantum physics, n.e.c.

RDF10399 Other physical sciences

This class comprises research and experimental development in other physical sciences.

RDF1039901 Complex physical systems

This subclass comprises research and experimental development in complex physical systems.

RDF1039902 Medical physics

This subclass comprises research and experimental development in medical physics.

RDF1039903 Instrumentation in physics

This subclass comprises research and experimental development in instrumentation in physics.

RDF1039999 Other physical sciences, n.e.c.

This subclass comprises research and experimental development in other physical sciences, n.e.c.

RDF104 Chemical sciences

This group comprises research and experimental development in chemical sciences.

Exclusion(s)

- applications of chemical sciences in biochemistry (See RDF10601 Biochemistry)
- applications of chemical sciences in food chemistry (See RDF4040201 Food chemistry (including fermentation))
- applications of chemical sciences in mechanical engineering (See RDF204 Mechanical engineering)
- applications of chemical sciences in mineralogy and crystallography (See RDF1050307 Mineralogy and crystallography (except soil mineralogy and chemicals aspects of crystallography))
- applications of chemical sciences in soil chemistry (See RDF10511 Soil sciences)
- applications of chemical sciences in veterinary pharmacology (See RDF4030109 Veterinary pharmacology)
- astrochemistry (See RDF1030111 Astrochemistry)
- biochemistry other than biomolecular chemistry or medical biochemistry (See RDF10601 Biochemistry)

- biological and chemical aspects of neurosciences (See RDF10611 Neurosciences, biological and chemical aspects)
- chemical and biochemical engineering (See RDF205 Chemical engineering)
- chemical sciences associated with atmospheric sciences (See RDF10501 Atmospheric sciences)
- chemical sciences associated with criminology (See RDF50902 Criminology)
- chemical sciences associated with industrial biotechnology (See RDF210 Industrial biotechnology)
- chemical sciences associated with medical and biomedical engineering (See RDF207 Medical and biomedical engineering)
- chemical sciences associated with nanotechnology, except nanochemistry (See RDF21101 Nano-technology)
- crop and pasture biochemistry (See RDF4010203 Crop and pasture biochemistry and physiology)
- geochemistry (See RDF10502 Geochemistry)
- history and philosophy of chemical sciences (See RDF6030307 History and philosophy of science (including non-historical philosophy of science))
- immunochemistry (See RDF3010105 Humoural immunology and immunochemistry)
- mineralogy and crystallography (See RDF1050307 Mineralogy and crystallography (except soil mineralogy and chemicals aspects of crystallography))
- pharmacology and pharmaceutical sciences for human use (including toxicology) (See RDF30105 Pharmacology and pharmaceutical sciences (except clinical aspects))
- soil biogeochemistry and microbiology (See RDF1051106 Soil biogeochemistry and microbiology)

RDF10401 Analytical chemistry

This class comprises research and experimental development in analytical chemistry.

RDF1040101 Analytical spectrometry

This subclass comprises research and experimental development in analytical spectrometry.

RDF1040102 Electroanalytical chemistry

This subclass comprises research and experimental development in electroanalytical chemistry.

RDF1040103 Flow analysis in chemistry

This subclass comprises research and experimental development in flow analysis in chemistry.

RDF1040104 Immunological and bioassay methods

This subclass comprises research and experimental development in immunological and bioassay methods.

RDF1040105 Instrumental methods (except immunological and bioassay methods)

This subclass comprises research and experimental development in instrumental methods (except immunological and bioassay methods).

Exclusion(s)

- astrochemistry (See RDF1030111 Astrochemistry)
- atmospheric chemistry (See RDF1050101 Atmospheric chemistry)
- immunological and bioassay methods (See RDF1040104 Immunological and bioassay methods)
- instrumental methods in atmospheric sciences (See RDF1050107 Atmospheric measurement techniques)

RDF1040106 Sensor technology (chemical aspects)

This subclass comprises research and experimental development in sensor technology (chemical aspects).

RDF1040107 Separation science

This subclass comprises research and experimental development in separation science.

RDF1040108 Environmental chemistry (except atmospheric chemistry)

This subclass comprises research and experimental development in environmental chemistry (except atmospheric chemistry).

RDF1040199 Analytical chemistry, n.e.c.

This subclass comprises research and experimental development in analytical chemistry, n.e.c.

RDF10402 Inorganic chemistry

This class comprises research and experimental development in inorganic chemistry.

Exclusion(s)
- applications of inorganic chemistry in environmental chemistry other than atmospheric chemistry (See RDF1040108 Environmental chemistry (except atmospheric chemistry))
- applications of inorganic chemistry in industrial chemistry (See RDF1049902 Industrial chemistry)
- applications of inorganic chemistry in organometallic chemistry (See RDF1040207 Organometallic chemistry)
- mineralogy and crystallography (See RDF1050307 Mineralogy and crystallography (except soil mineralogy and chemicals aspects of crystallography))

RDF1040201 Bioinorganic chemistry

This subclass comprises research and experimental development in bioinorganic chemistry.

RDF1040202 F-Block chemistry

This subclass comprises research and experimental development in F-Block chemistry.

RDF1040203 Inorganic green chemistry

This subclass comprises research and experimental development in inorganic green chemistry.

RDF1040204 Main group metal chemistry

This subclass comprises research and experimental development in main group metal chemistry.

RDF1040205 Solid state chemistry

This subclass comprises research and experimental development in solid state chemistry.

RDF1040206 Transition metal chemistry

This subclass comprises research and experimental development in transition metal chemistry.

RDF1040207 Organometallic chemistry

This subclass comprises research and experimental development in organometallic chemistry.

RDF1040208 Inorganic materials

This subclass comprises research and experimental development in inorganic materials.

RDF1040209 Coordination chemistry

This subclass comprises research and experimental development in coordination chemistry.

RDF1040210 Supramolecular inorganic chemistry

This subclass comprises research and experimental development in supramolecular inorganic chemistry.

RDF1040211 Physical inorganic chemistry

This subclass comprises research and experimental development in physical inorganic chemistry.

RDF1040212 Metal-mediated catalysis

This subclass comprises research and experimental development in metal-mediated catalysis.

RDF1040213 Inorganic catalysis and reaction mechanisms

This subclass comprises research and experimental development in inorganic catalysis and reaction mechanisms.

RDF1040214 Inorganic photochemistry

This subclass comprises research and experimental development in inorganic photochemistry.

RDF1040215 Medicinal inorganic chemistry

This subclass comprises research and experimental development in medicinal inorganic chemistry.

RDF1040299 Inorganic chemistry, n.e.c.

This subclass comprises research and experimental development in inorganic chemistry, n.e.c.

RDF10403 Organic chemistry

This class comprises research and experimental development in organic chemistry.

Exclusion(s)

- applications of inorganic chemistry in environmental chemistry other than atmospheric chemistry (See RDF1040108 Environmental chemistry (except atmospheric chemistry))
- applications of macromolecular and materials chemistry in food chemistry (See RDF4040201 Food chemistry (including fermentation))
- applications of organic chemistry in industrial chemistry (See RDF1049902 Industrial chemistry)
- applications of organic chemistry in organometallic chemistry (See RDF1040207 Organometallic chemistry)
- immunological and bioassay methods (See RDF1040104 Immunological and bioassay methods)
- pharmacology and pharmaceutical sciences for human use (including toxicology) (See RDF30105 Pharmacology and pharmaceutical sciences (except clinical aspects))
- pharmacology for animal use (See RDF4030109 Veterinary pharmacology)

RDF1040301 Free radical chemistry

This subclass comprises research and experimental development in free radical chemistry.

RDF1040302 Natural products chemistry

This subclass comprises research and experimental development in natural products chemistry.

RDF1040303 Organic chemical synthesis

This subclass comprises research and experimental development in organic chemical synthesis.

RDF1040304 Organic green chemistry

This subclass comprises research and experimental development in organic green chemistry.

RDF1040305 Physical organic chemistry

This subclass comprises research and experimental development in physical organic chemistry.

RDF1040306 Combinatorial chemistry

This subclass comprises research and experimental development in combinatorial chemistry.

RDF1040307 Organic catalysis and mechanisms of reactions

This subclass comprises research and experimental development in organic catalysis and mechanisms of reactions.

RDF1040308 Quality assurance, chemometrics, traceability and metrological chemistry

This subclass comprises research and experimental development in quality assurance, chemometrics, traceability and metrological chemistry.

RDF1040309 Organic photochemistry

This subclass comprises research and experimental development in organic photochemistry.

RDF1040310 Supramolecular organic chemistry

This subclass comprises research and experimental development in supramolecular organic chemistry.

RDF1040399 Organic chemistry, n.e.c.

This subclass comprises research and experimental development in organic chemistry, n.e.c.

RDF10404 Macromolecular and materials chemistry

This class comprises research and experimental development in macromolecular and materials chemistry.

Exclusion(s)

- applications of macromolecular and materials chemistry in biochemistry (See RDF10601 Biochemistry)
- applications of macromolecular and materials chemistry in medicinal and biomolecular chemistry (See RDF10405 Biomolecular and medicinal chemistry)
- macromolecular and materials chemistry associated with clinical sciences (See RDF30202 Clinical sciences)
- macromolecular and materials chemistry associated with nanotechnology, except nanochemistry (See RDF21101 Nano-technology)

RDF1040401 Characterization of materials

This subclass comprises research and experimental development in characterization of materials.

Exclusion(s)
- materials engineering (See RDF20601 Materials engineering)

RDF1040402 Nanochemistry

This subclass comprises research and experimental development in nanochemistry.

RDF1040403 Polymerization mechanisms

This subclass comprises research and experimental development in polymerization mechanisms.

RDF1040404 Synthesis of materials

This subclass comprises research and experimental development in synthesis of materials.

RDF1040405 Theory and design of materials

This subclass comprises research and experimental development in theory and design of materials.

RDF1040406 Functional materials in materials chemistry sciences

This subclass comprises research and experimental development in functional materials in materials chemistry sciences.

RDF1040499 Macromolecular and materials chemistry, n.e.c.

This subclass comprises research and experimental development in macromolecular and materials chemistry, n.e.c.

RDF10405 Biomolecular and medicinal chemistry

This class comprises research and experimental development in biomolecular and medicinal chemistry.

Exclusion(s)
- applications of biomolecular and medical chemistry in veterinary pharmacology (See RDF4030109 Veterinary pharmacology)
- biochemistry other than medical biochemistry or biomolecular chemistry (See RDF10601 Biochemistry)
- biomolecular and medical chemistry associated with clinical sciences (See RDF30202 Clinical sciences)
- food chemistry (See RDF4040201 Food chemistry (including fermentation))
- pharmacology and pharmaceutical sciences for human use (including toxicology) (See RDF30105 Pharmacology and pharmaceutical sciences (except clinical aspects))

RDF1040501 Biologically active molecules

This subclass comprises research and experimental development in biologically active molecules.

RDF1040502 Molecular modelling and design

This subclass comprises research and experimental development in molecular modelling and design.

RDF1040503 Characterization of biological macromolecules and biological systems

This subclass comprises research and experimental development in characterization of biological macromolecules and biological systems.

RDF1040504 Cheminformatics and quantitative structure-activity relationships

This subclass comprises research and experimental development in cheminformatics and quantitative structure-activity relationships.

RDF1040505 Medicinal chemistry

This subclass comprises research and experimental development in medicinal chemistry.

RDF1040506 Proteins and peptides

This subclass comprises research and experimental development in proteins and peptides.

Exclusion(s)

- environmental molecular engineering of proteins (See RDF2090106 Environmental molecular engineering of nucleic acids and proteins)
- industrial molecular engineering of proteins (See RDF2100106 Industrial molecular engineering of nucleic acids and proteins)
- medical molecular engineering of proteins (See RDF3040103 Medical molecular engineering of nucleic acids and proteins)
- protein and gene networks (See RDF1060110 Protein and gene networks)

RDF1040507 Glycochemistry

This subclass comprises research and experimental development in glycochemistry.

RDF1040508 Chemical biology

This subclass comprises research and experimental development in chemical biology.

RDF1040599 Biomolecular and medicinal chemistry, n.e.c.

This subclass comprises research and experimental development in biomolecular and medicinal chemistry, n.e.c.

RDF10406 Physical chemistry (including structural)

This class comprises research and experimental development in physical chemistry (including structural).

Exclusion(s)

- applications of physical chemistry in biochemistry, other than medical biochemistry or biomolecular chemistry (See RDF10601 Biochemistry)
- physical organic chemistry (See RDF1040305 Physical organic chemistry)

RDF1040601 Colloid and surface chemistry

This subclass comprises research and experimental development in colloid and surface chemistry.

RDF1040602 Electrochemistry

This subclass comprises research and experimental development in electrochemistry.

RDF1040603 Solution chemistry

This subclass comprises research and experimental development in solution chemistry.

RDF1040604 Nuclear chemistry

This subclass comprises research and experimental development in nuclear chemistry.

RDF1040605 Structural determination

This subclass comprises research and experimental development in structural determination.

RDF1040606 Optical properties of materials

This subclass comprises research and experimental development in optical properties of materials.

RDF1040607 Physical chemistry of materials

This subclass comprises research and experimental development in physical chemistry of materials.

RDF1040608 Development and applications of spectroscopic and structural techniques

This subclass comprises research and experimental development in development and applications of spectroscopic and structural techniques.

RDF1040609 Physical chemistry applications of photonics

This subclass comprises research and experimental development in physical chemistry applications of photonics.

RDF1040610 Photochemical reactivity and dynamics

This subclass comprises research and experimental development in photochemical reactivity and dynamics.

RDF1040611 Biophysical chemistry

This subclass comprises research and experimental development in biophysical chemistry.

RDF1040612 Chemical applications of crystallography

This subclass comprises research and experimental development in chemical applications of crystallography.

RDF1040699 Physical chemistry, n.e.c.

This subclass comprises research and experimental development in physical chemistry, n.e.c.

RDF10407 Computational and theoretical chemistry

This class comprises research and experimental development in computational and theoretical chemistry.

Exclusion(s)

- catalytic process engineering (See RDF2050102 Catalytic process engineering)
- physical organic chemistry (See RDF1040305 Physical organic chemistry)
- theoretical and computational chemistry associated with biocatalysis and enzyme technology (See RDF2100101 Biocatalysis and enzyme technology)

RDF1040701 Computational chemistry

This subclass comprises research and experimental development in computational chemistry.

RDF1040702 Quantum chemistry

This subclass comprises research and experimental development in quantum chemistry.

RDF1040703 Reaction kinetics and dynamics

This subclass comprises research and experimental development in reaction kinetics and dynamics.

RDF1040704 Statistical mechanics in chemistry

This subclass comprises research and experimental development in statistical mechanics in chemistry.

RDF1040705 Chemical thermodynamics and energetics

This subclass comprises research and experimental development in chemical thermodynamics and energetics.

RDF1040706 Transport properties and non-equilibrium processes

This subclass comprises research and experimental development in transport properties and non-equilibrium processes.

RDF1040799 Theoretical chemistry, n.e.c.

This subclass comprises research and experimental development in theoretical chemistry, n.e.c.

RDF10499 Other chemical sciences

This class comprises research and experimental in other chemical sciences.

RDF1049901 Forensic chemistry

This subclass comprises research and experimental development in forensic chemistry.

RDF1049902 Industrial chemistry

This subclass comprises research and experimental development in industrial chemistry.

RDF1049903 Combustion and forest fuel chemistry

This subclass comprises research and experimental development in combustion and forest fuel chemistry.

RDF1049999 Other chemical sciences, n.e.c.

This subclass comprises research and experimental development in other chemical sciences, n.e.c.

RDF105 Earth and related environmental sciences

This group comprises research and experimental development in earth and related environmental sciences.

Exclusion(s)

- agricultural hydrology (See RDF4040111 Agricultural hydrology)
- basic ecological research (ecology) (See RDF10603 Ecology (except applications))
- carbon capture engineering (See RDF2050101 Carbon capture engineering)
- chemical aspects of crystallography (See RDF1040612 Chemical applications of crystallography)
- environment and natural resource economics (See RDF5020111 Environment and natural resources economics)
- environment policy (See RDF5060212 Environmental policy)
- environmental biotechnology (See RDF20901 Environmental biotechnology)
- environmental chemistry other than atmospheric chemistry (See RDF1040108 Environmental chemistry (except atmospheric chemistry))
- environmental engineering (See RDF20801 Environmental engineering)
- environmental nanotechnology (See RDF2110101 Environmental nanotechnology)
- environmental sociology (See RDF5040102 Environmental sociology)

- history and philosophy of earth and related environmental sciences (See RDF6030307 History and philosophy of science (including non-historical philosophy of science))
- materials engineering (See RDF20601 Materials engineering)
- mesospheric, ionospheric and magnetospheric physics (See RDF1030107 Mesospheric, ionospheric and magnetospheric physics)
- planetary science (except extraterrestrial geology) (See RDF1030108 Planetary science (except planetary geology))
- social and economic geography (See RDF507 Social and economic geography)
- solid state chemistry (See RDF1040205 Solid state chemistry)
- wastewater treatment (See RDF2080105 Wastewater treatment (including water treatment processes))
- water treatment (See RDF2080105 Wastewater treatment (including water treatment processes))

RDF10501 Atmospheric sciences

This class comprises research and experimental development in atmospheric sciences.

Exclusion(s)

- astronomical and space sciences (See RDF10301 Astronomical and space sciences)
- carbon sequestration science (See RDF1051108 Carbon sequestration science)
- environmental chemistry other than atmospheric chemistry (See RDF1040108 Environmental chemistry (except atmospheric chemistry))
- environmental monitoring (See RDF1050606 Environmental monitoring)
- palaeoclimatology (See RDF1050604 Paleo-environmental sciences)

RDF1050101 Atmospheric chemistry

This subclass comprises research and experimental development in atmospheric chemistry.

RDF1050102 Atmospheric dynamics and thermodynamics

This subclass comprises research and experimental development in atmospheric dynamics and thermodynamics.

RDF1050103 Atmospheric radiation and radiative transfer

This subclass comprises research and experimental development in atmospheric radiation and radiative transfer.

RDF1050104 Cloud physics

This subclass comprises research and experimental development in cloud physics.

RDF1050105 Meteorology and weather

This subclass comprises research and experimental development in meteorology and weather.

Exclusion(s)

- climate change processes and impacts other than ecological and evolutionary impacts (See RDF1050108 Climate change impacts and adaptation)

RDF1050106 Tropospheric and stratospheric sciences

This subclass comprises research and experimental development in tropospheric and stratospheric sciences.

RDF1050107 Atmospheric measurement techniques

This subclass comprises research and experimental development in atmospheric measurement techniques.

RDF1050108 Climate change impacts and adaptation

This subclass comprises research and experimental development in climate change impacts and adaptation.

Exclusion(s)

- ecological impacts of climate change (See RDF1060401 Ecological impacts of climate change)
- evolutionary impacts of climate change (See RDF1060506 Evolutionary impacts of climate change)

RDF1050109 Atmospheric pollution and air quality

This subclass comprises research and experimental development in atmospheric pollution and air quality.

Exclusion(s)

- environmental microbiology (See RDF1060709 Environmental microbiology (including air microbiology))

RDF1050110 Boundary layer meteorology

This subclass comprises research and experimental development in boundary layer meteorology.

RDF1050111 Stratosphere and upper atmosphere studies

This subclass comprises research and experimental development in stratosphere and upper atmosphere studies.

RDF1050112 Climate modelling

This subclass comprises research and experimental development in climate modelling.

RDF1050113 Planetary atmospheres studies

This subclass comprises research and experimental development in planetary atmospheres studies.

RDF1050114 Synoptic climatology

This subclass comprises research and experimental development in synoptic climatology.

RDF1050115 Statistical climatology

This subclass comprises research and experimental development in statistical climatology.

RDF1050199 Atmospheric sciences, n.e.c.

This subclass comprises research and experimental development in atmospheric sciences, n.e.c.

RDF10502 Geochemistry

This class comprises research and experimental development in geochemistry.

Exclusion(s)

- astrochemistry (See RDF1030111 Astrochemistry)

RDF1050201 Exploration geochemistry

This subclass comprises research and experimental development in exploration geochemistry.

RDF1050202 Inorganic geochemistry

This subclass comprises research and experimental development in inorganic geochemistry.

RDF1050203 Isotope geochemistry

This subclass comprises research and experimental development in isotope geochemistry.

RDF1050204 Organic geochemistry

This subclass comprises research and experimental development in organic geochemistry.

RDF1050205 Geochronology

This subclass comprises research and experimental development in geochronology.

RDF1050206 Hydrogeochemistry

This subclass comprises research and experimental development in hydrogeochemistry.

RDF1050207 Biogeochemistry

This subclass comprises research and experimental development in biogeochemistry.

RDF1050208 Environmental geochemistry

This subclass comprises research and experimental development in environmental geochemistry.

RDF1050299 Geochemistry, n.e.c.

This subclass comprises research and experimental development in geochemistry, n.e.c.

RDF10503 Geology

This class comprises research and experimental development in geology.

Exclusion(s)

- basic ecological research (ecology) (See RDF10603 Ecology (except applications))
- chemical aspects of crystallography (See RDF1040612 Chemical applications of crystallography)
- marine geology (See RDF1050504 Marine geology)
- materials engineering (See RDF20601 Materials engineering)
- mineral processing and metallurgy (See RDF20602 Resources engineering and extractive metallurgy)
- mining engineering (See RDF2010499 Mining engineering)
- oceanography (See RDF10505 Oceanography)
- palaeoclimatology (See RDF1050604 Paleo-environmental sciences)
- planetary science (except planetary geology) (See RDF1030107 Mesospheric, ionospheric and magnetospheric physics)
- solid state chemistry (See RDF1040205 Solid state chemistry)

RDF1050301 Basin analysis

This subclass comprises research and experimental development in basin analysis.

RDF1050302 Planetary geology

This subclass comprises research and experimental development in planetary geology.

RDF1050303 Igneous petrology

This subclass comprises research and experimental development in igneous petrology.

RDF1050304 Metamorphic petrology

This subclass comprises research and experimental development in metamorphic petrology.

Exclusion(s)

- chemicals aspects of crystallography (See RDF1040612 Chemical applications of crystallography)
- soil mineralogy (See RDF1051109 Soil mineralogy and micromorphology)

RDF1050305 Ore deposit petrology

This subclass comprises research and experimental development in ore deposit petrology.

RDF1050306 Petroleum, gas and coal geology

This subclass comprises research and experimental development in petroleum, gas and coal geology.

RDF1050307 Mineralogy and crystallography (except soil mineralogy and chemicals aspects of crystallography)

This subclass comprises research and experimental development in mineralogy and crystallography (except soil mineralogy and chemicals aspects of crystallography).

Exclusion(s)

- chemical aspects of crystallography (See RDF1040612 Chemical applications of crystallography)

RDF1050308 Sedimentology

This subclass comprises research and experimental development in sedimentology.

RDF1050309 Stratigraphy (including biostratigraphy and sequence stratigraphy)

This subclass comprises research and experimental development in stratigraphy (including biostratigraphy and sequence stratigraphy).

RDF1050310 Structural geology

This subclass comprises research and experimental development in structural geology.

RDF1050311 Tectonics

This subclass comprises research and experimental development in tectonics.

RDF1050312 Volcanology

This subclass comprises research and experimental development in volcanology.

RDF1050313 Economic geology

This subclass comprises research and experimental development in economic geology.

RDF1050314 Geomicrobiology

This subclass comprises research and experimental development in geomicrobiology.

RDF1050315 Paleobiology

This subclass comprises research and experimental development in paleobiology.

Exclusion(s)

- basic ecological research (ecology) (See RDF10603 Ecology (except applications))
- plant biology (See RDF10609 Plant biology)

RDF1050316 Paleontology (including palynology)

This subclass comprises research and experimental development in paleontology (including palynology).

RDF1050399 Geology, n.e.c.

This subclass comprises research and experimental development in geology, n.e.c.

RDF10504 Geophysics

This class comprises research and experimental development in geophysics.

Exclusion(s)

- mineral processing and metallurgy (See RDF20602 Resources engineering and extractive metallurgy)
- mining engineering (See RDF2010499 Mining engineering)

RDF1050401 Geoelectrics and geoelectromagnetics

This subclass comprises research and experimental development in geoelectrics and geoelectromagnetics.

RDF1050402 Geodynamics

This subclass comprises research and experimental development in geodynamics.

RDF1050403 Geophysical fluid dynamics

This subclass comprises research and experimental development in geophysical fluid dynamics.

RDF1050404 Geothermics and radiometrics

This subclass comprises research and experimental development in geothermics and radiometrics.

RDF1050405 Gravimetry

This subclass comprises research and experimental development in gravimetry.

RDF1050406 Magnetism and paleomagnetism

This subclass comprises research and experimental development in magnetism and paleomagnetism.

RDF1050407 Seismology

This subclass comprises research and experimental development in seismology.

RDF1050408 Geodesy

This subclass comprises research and experimental development in geodesy.

RDF1050409 Rock and mineral physics

This subclass comprises research and experimental development in rock and mineral physics.

RDF1050499 Geophysics, n.e.c.

This subclass comprises research and experimental development in geophysics, n.e.c.

RDF10505 Oceanography

This class comprises research and experimental development in oceanography.

Exclusion(s)

- estuarine and freshwater ecology (See RDF1060304 Estuarine and freshwater ecology)
- marine ecology (See RDF1060305 Marine ecology (including marine ichthyology))

RDF1050501 Biological oceanography

This subclass comprises research and experimental development in biological oceanography.

RDF1050502 Chemical oceanography

This subclass comprises research and experimental development in chemical oceanography.

RDF1050503 Physical oceanography

This subclass comprises research and experimental development in physical oceanography.

RDF1050504 Marine geology

This subclass comprises research and experimental development in marine geology.

RDF1050505 Ocean biogeochemistry

This subclass comprises research and experimental development in ocean biogeochemistry.

RDF1050506 Sea ice sciences

This subclass comprises research and experimental development in sea ice sciences.

RDF1050507 Paleoceanography

This subclass comprises research and experimental development in paleoceanography.

RDF1050508 Estuarine oceanography

This subclass comprises research and experimental development in estuarine oceanography.

RDF1050509 Nearshore processes and coastal oceanography

This subclass comprises research and experimental development in nearshore processes and coastal oceanography.

RDF1050510 Large-scale ocean circulation

This subclass comprises research and experimental development in large-scale ocean circulation.

RDF1050511 Ocean-atmospheric interactions

This subclass comprises research and experimental development in ocean-atmospheric interactions.

RDF1050599 Oceanography, n.e.c.

This subclass comprises research and experimental development in oceanography, n.e.c.

RDF10506 Environmental geoscience

This class comprises research and experimental development in environmental geoscience.

Exclusion(s)

- atmospheric sciences (See RDF10501 Atmospheric sciences)

RDF1050601 Geomorphology

This subclass comprises research and experimental development in geomorphology.

RDF1050602 Landscape evolution

This subclass comprises research and experimental development in landscape evolution.

RDF1050603 Natural hazards

This subclass comprises research and experimental development in natural hazards.

RDF1050604 Paleo-environmental sciences

This subclass comprises research and experimental development in paleo-environmental sciences.

Exclusion(s)

- magnetism and paleomagnetism (See RDF1050406 Magnetism and paleomagnetism)
- paleoceanography (See RDF1050507 Paleoceanography)
- paleoecology (See RDF1060306 Paleoecology)

RDF1050605 Surface processes

This subclass comprises research and experimental development in surface processes.

RDF1050606 Environmental monitoring

This subclass comprises research and experimental development in environmental monitoring.

RDF1050607 Geomatics sciences (except geomatic engineering)

This subclass comprises research and experimental development in geomatics sciences (except geomatic engineering).

Exclusion(s)

- geomatics associated with earth systems observations (See RDF10509 Geomatics and earth systems observations)
- geomatics engineering (See RDF20802 Geomatics engineering)

RDF1050699 Environmental geoscience, n.e.c.

This subclass comprises research and experimental development in environmental geoscience, n.e.c.

RDF10507 Hydrology

This class comprises research and experimental development in hydrology.

Exclusion(s)

- ecological applications of basic ecological research (See RDF10604 Ecological applications)

RDF1050701 Hydrometeorology

This subclass comprises research and experimental development in hydrometeorology.

RDF1050702 Physical and catchment hydrology

This subclass comprises research and experimental development in physical and catchment hydrology.

RDF1050703 Surface water hydrology

This subclass comprises research and experimental development in surface water hydrology.

RDF1050704 Soil hydrology

This subclass comprises research and experimental development in soil hydrology.

RDF1050705 Hydrogeology

This subclass comprises research and experimental development in hydrogeology.

RDF1050706 Water quality

This subclass comprises research and experimental development in water quality.

RDF1050707 Limnology

This subclass comprises research and experimental development in limnology.

RDF1050799 Hydrology, n.e.c.

This subclass comprises research and experimental development in hydrology, n.e.c.

RDF10508 Cryosphere processes

This class comprises research and experimental development in cryosphere processes.

Exclusion(s)

- environment policy (See RDF5060212 Environmental policy)
- environmental management sciences associated with ecological applications (See RDF10604 Ecological applications)
- management of forests for forestry production (See RDF40104 Forestry sciences)
- management of land for agricultural production, other than forestry production (See RDF40101 Agriculture, land and farm management)
- mining engineering (See RDF2010499 Mining engineering)

RDF1050801 Physics of snow and ice

This subclass comprises research and experimental development in physics of snow and ice.

RDF1050802 Glaciology

This subclass comprises research and experimental development in glaciology.

RDF1050803 Permafrost

This subclass comprises research and experimental development in permafrost.

RDF1050899 Cryosphere processes, n.e.c.

This subclass comprises research and experimental development in cryosphere processes, n.e.c.

RDF10509 Geomatics and earth systems observations

This class comprises research and experimental development in geomatics and earth systems observations.

Exclusion(s)

- carbon capture engineering (See RDF2050101 Carbon capture engineering)
- environmental chemistry other than atmospheric chemistry (See RDF1040108 Environmental chemistry (except atmospheric chemistry))
- geomechanics (See RDF2010109 Geomechanics)
- management of soil for agricultural production (See RDF4010101 Agricultural land management)

RDF1050901 Geographic information system (GIS and GPS) applications

This subclass comprises research and experimental development in geographic information system (GIS and GPS) applications.

RDF1050902 Remote sensing applications (except remote sensing in geomatics and photogrammetry)

This subclass comprises research and experimental development in remote sensing applications (except remote sensing in geomatics and photogrammetry).

Exclusion(s)

- remote sensing associated with geomatics and photogrammetry (See RDF2080204 Remote sensing in geomatics and photogrammetry)
- remote sensing in geomatics and photogrammetry (See RDF2080204 Remote sensing in geomatics and photogrammetry)
- remote sensing of signal processing (See RDF2030312 Remote sensing of signal processing)

RDF1050999 Geomatics and earth systems observations, n.e.c.

This subclass comprises research and experimental development in geomatics and earth systems observations, n.e.c.

RDF10510 Natural environment sciences

This class comprises research and experimental development in natural environment sciences.

Exclusion(s)

- environmental biotechnology (See RDF20901 Environmental biotechnology)

RDF1051001 Indigenous peoples environmental knowledge

This subclass comprises research and experimental development in indigenous peoples environmental knowledge.

RDF1051002 Biodiversity

This subclass comprises research and experimental development in biodiversity.

RDF1051003 Environmental impact assessment

This subclass comprises research and experimental development in environmental impact assessment.

RDF1051004 Natural (biophysical) environment management

This subclass comprises research and experimental development in natural (biophysical) environment management.

RDF1051005 Natural environment sustainability studies

This subclass comprises research and experimental development in natural environment sustainability studies.

RDF1051006 Ecological restoration (except bioremediation)

This subclass comprises research and experimental development in ecological restoration (except bioremediation).

Exclusion(s)

- bioremediation (See RDF2090103 Bioremediation)
- bioremediation associated with soil restoration (See RDF2080104 Bioremediation and soil restoration)

RDF1051007 Natural resource management

This subclass comprises research and experimental development in natural resource management.

RDF1051008 Wildlife and habitat management

This subclass comprises research and experimental development in wildlife and habitat management.

RDF1051009 Quantitative methods for environmental sciences

This subclass comprises research and experimental development in quantitative methods for environmental sciences.

RDF1051010 Ecotoxicology

This subclass comprises research and experimental development in ecotoxicology.

Exclusion(s)

- quantitative methods in forestry (See RDF4010414 Quantitative methods in forestry)

RDF1051099 Natural environment sciences, n.e.c.

This subclass comprises research and experimental development in natural environment sciences, n.e.c.

RDF10511 Soil sciences

This class comprises research and experimental development in soil sciences.

Exclusion(s)

- carbon capture engineering (See RDF2050101 Carbon capture engineering)

RDF1051101 Soil physics

This subclass comprises research and experimental development in soil physics.

RDF1051102 Soil chemistry (except carbon sequestration science)

This subclass comprises research and experimental development in soil chemistry (except carbon sequestration science).

Exclusion(s)
- carbon capture engineering (See RDF2050101 Carbon capture engineering)
- carbon sequestration science (See RDF1051108 Carbon sequestration science)

RDF1051103 Soil biology

This subclass comprises research and experimental development in soil biology.

RDF1051104 Soil fertility

This subclass comprises research and experimental development in soil fertility.

RDF1051105 Soil degradation

This subclass comprises research and experimental development in soil degradation.

RDF1051106 Soil biogeochemistry and microbiology

This subclass comprises research and experimental development in soil biogeochemistry and microbiology.

RDF1051107 Soil-root interactions

This subclass comprises research and experimental development in soil-root interactions.

RDF1051108 Carbon sequestration science

This subclass comprises research and experimental development in carbon sequestration science.

RDF1051109 Soil mineralogy and micromorphology

This subclass comprises research and experimental development in soil mineralogy and micromorphology.

RDF1051199 Soil sciences, n.e.c.

This subclass comprises research and experimental development in soil sciences, n.e.c.

RDF10599 Other earth and related environmental sciences

This class comprises research and experimental development in other earth and related environmental sciences.

RDF1059901 Earth system sciences

This subclass comprises research and experimental development in earth system sciences.

RDF1059999 Other earth and related environmental sciences, n.e.c.

This subclass comprises research and experimental development in other earth and related environmental sciences, n.e.c.

RDF106 Biological sciences

This group comprises research and experimental development in biological sciences.

Exclusion(s)

- applications of biological sciences in veterinary sciences (See RDF40301 Veterinary sciences)
- astrobiology (See RDF1030101 Astrobiology)
- biochemistry associated with clinical medicine (See RDF302 Clinical medicine)
- biochemistry of crop and pasture (See RDF4010203 Crop and pasture biochemistry and physiology)
- bioinformatics (See RDF10208 Bioinformatics)
- biological sciences associated with agricultural production or veterinary sciences (See RDF401 Agriculture, forestry, and fisheries)
- biological sciences associated with human health, medicine and life sciences (See RDF30 Medical, health and life sciences)
- biostatistics (See RDF1010302 Biostatistical methods)
- chemical sciences (including organic and biomolecular chemistry) (See RDF104 Chemical sciences)
- clinical microbiology (See RDF3020202 Clinical microbiology)
- cognitive sciences (See RDF50102 Cognitive sciences)
- ecological applications (including ecology of invasive species) (See RDF10604 Ecological applications)
- fisheries (including aquaculture), for primary production (See RDF40105 Fisheries sciences)
- food microbiology (See RDF4040202 Food microbiology)
- genetic engineering of agricultural crops (See RDF40401 Agricultural biotechnology)
- geomicrobiology (See RDF1050314 Geomicrobiology)
- history and philosophy of biological sciences (See RDF6030307 History and philosophy of science (including non-historical philosophy of science))
- mathematical biology (See RDF1010206 Mathematical biology)
- medical human physiology (See RDF30106 Human physiology)
- medical microbiology (See RDF30103 Medical microbiology)
- medical, health and physiological aspects of neurosciences (See RDF30104 Neurosciences, medical and physiological and health aspects)
- palaeobotany and palynology, other than that associated with ecological studies (See RDF1050316 Paleontology (including palynology))
- palaeontology other than that associated with paleoecological studies (See RDF1050316 Paleontology (including palynology))
- paleobiology (See RDF1050315 Paleobiology)
- technological applications of biology (See RDF20-21 Engineering and technology)
- vascular and endothelial biology (See RDF3020107 Vascular and endothelial biology)
- veterinary microbiology (See RDF4030107 Veterinary parasitology)

RDF10601 Biochemistry

This class comprises research and experimental development in biochemistry.

Exclusion(s)

- biochemistry and proteomics associated with medical, health and life sciences (See RDF30 Medical, health and life sciences)
- biochemistry of agricultural plants (See RDF40401 Agricultural biotechnology)
- biomolecular and medicinal chemistry (See RDF10405 Biomolecular and medicinal chemistry)
- chemistry (including organic and inorganic, and biomolecular chemistry) (See RDF104 Chemical sciences)

RDF1060101 Analytical biochemistry

This subclass comprises research and experimental development in analytical biochemistry.

RDF1060102 Enzymes (including kinetics and mechanisms, and biocatalyst)

This subclass comprises research and experimental development in enzymes (including kinetics and mechanisms, and biocatalyst).

RDF1060103 Proteomics

This subclass comprises research and experimental development in proteomics.

RDF1060104 Intramolecular interactions

This subclass comprises research and experimental development in intramolecular interactions.

RDF1060105 Metabolomics

This subclass comprises research and experimental development in metabolomics.

RDF1060106 Nucleic acids studies

This subclass comprises research and experimental development in nucleic acids studies.

Exclusion(s)

- environmental molecular engineering of nucleic acids (See RDF2090106 Environmental molecular engineering of nucleic acids and proteins)
- industrial molecular engineering of nucleic acids (See RDF2100106 Industrial molecular engineering of nucleic acids and proteins)
- medical molecular engineering of nucleic acids (See RDF3040103 Medical molecular engineering of nucleic acids and proteins)

RDF1060107 Lipid biology (including lipidomics)

This subclass comprises research and experimental development in lipid biology (including lipidomics).

RDF1060108 Glycomics and glycobiology

This subclass comprises research and experimental development in glycomics and glycobiology.

RDF1060109 Chemical genetics

This subclass comprises research and experimental development in chemical genetics.

Exclusion(s)

- neurogenetics (See RDF1061103 Neurogenetics)

RDF1060110 Protein and gene networks

This subclass comprises research and experimental development in protein and gene networks.

RDF1060111 Synthetic biology

This subclass comprises research and experimental development in synthetic biology.

RDF1060112 Systems biology

This subclass comprises research and experimental development in systems biology.

RDF1060113 Forensic biology

This subclass comprises research and experimental development in forensic biology.

RDF1060199 Biochemistry, n.e.c.

This subclass comprises research and experimental development in biochemistry, n.e.c.

RDF10602 Cell biology

This class comprises research and experimental development in cell biology.

Exclusion(s)

- cell and molecular biology specific to animals (See RDF1061002 Animal cell and molecular biology)
- cell and molecular biology specific to plants (See RDF1060902 Plant cell and molecular biology)

RDF1060201 Cell differentiation, proliferation and death

This subclass comprises research and experimental development in cell differentiation, proliferation and death.

RDF1060202 Cell metabolism

This subclass comprises research and experimental development in cell metabolism.

RDF1060203 Cellular interactions (including adhesion, matrix and cell wall)

This subclass comprises research and experimental development in cellular interactions (including adhesion, matrix and cell wall).

RDF1060204 Protein trafficking in cell biology

This subclass comprises research and experimental development in protein trafficking in cell biology.

RDF1060205 Cell and nuclear division

This subclass comprises research and experimental development in cell and nuclear division.

RDF1060206 Intracellular signaling, signal transduction, receptor and membrane biology

This subclass comprises research and experimental development in intracellular signaling, signal transduction, receptor and membrane biology.

RDF1060207 Structural biology (including macromolecular modelling)

This subclass comprises research and experimental development in structural biology (including macromolecular modelling).

RDF1060208 Computational cell biology

This subclass comprises research and experimental development in computational cell biology.

RDF1060209 Human biophysics

This subclass comprises research and experimental development in human biophysics.

RDF1060210 Cytoskeleton studies

This subclass comprises research and experimental development in cytoskeleton studies.

RDF1060211 Organelle function

This subclass comprises research and experimental development in organelle function.

RDF1060299 Cell biology, n.e.c.

This subclass comprises research and experimental development in cell biology, n.e.c.

RDF10603 Ecology (except applications)

This class comprises research and experimental development in ecology (except applications).

Exclusion(s)

- animal physiological ecology (See RDF1061005 Animal physiological ecology)
- ecological applications (including ecology of invasive species) (See RDF10604 Ecological applications)
- microbial ecology (See RDF1060704 Microbial ecology and evolution)
- palaeontology other than that associated with paleoecological studies (See RDF1050316 Paleontology (including palynology))
- population and ecological genetics (See RDF1060611 Population, ecological and evolutionary genetics)

RDF1060301 Behavioural ecology

This subclass comprises research and experimental development in behavioural ecology.

RDF1060302 Community ecology (except invasive species ecology)

This subclass comprises research and experimental development in community ecology (except invasive species ecology).

Exclusion(s)

- invasive species ecology (See RDF1060403 Invasive species ecology)

RDF1060303 Ecological physiology (except plant ecology)

This subclass comprises research and experimental development in ecological physiology (except plant ecology).

Exclusion(s)

- plant ecophysiology (See RDF1060309 Plant physiological ecology)

RDF1060304 Estuarine and freshwater ecology

This subclass comprises research and experimental development in estuarine and freshwater ecology.

RDF1060305 Marine ecology (including marine ichthyology)

This subclass comprises research and experimental development in marine ecology (including marine ichthyology).

RDF1060306 Paleoecology

This subclass comprises research and experimental development in paleoecology.

RDF1060307 Population ecology

This subclass comprises research and experimental development in population ecology.

RDF1060308 Terrestrial ecology

This subclass comprises research and experimental development in terrestrial ecology.

RDF1060309 Plant physiological ecology

This subclass comprises research and experimental development in plant physiological ecology.

RDF1060310 Evolutionary ecology

This subclass comprises research and experimental development in evolutionary ecology.

RDF1060311 Ecological mathematical and statistical models

This subclass comprises research and experimental development in ecological mathematical and statistical models.

RDF1060312 Environmental metagenomics

This subclass comprises research and experimental development in environmental metagenomics.

RDF1060313 Plant-animal interactions

This subclass comprises research and experimental development in plant-animal interactions.

RDF1060399 Ecology, n.e.c.

This subclass comprises research and experimental development in ecology, n.e.c.

RDF10604 Ecological applications

This class comprises research and experimental development in ecological applications.

Exclusion(s)

- ecological applications in biodiversity (See RDF1051002 Biodiversity)
- ecological applications in conservation genetics (See RDF1060603 Conservation genetics)
- evolutionary genetics and molecular evolution (See RDF1060611 Population, ecological and evolutionary genetics)
- population and ecological genetics (See RDF1060611 Population, ecological and evolutionary genetics)

RDF1060401 Ecological impacts of climate change

This subclass comprises research and experimental development in ecological impacts of climate change.

RDF1060402 Ecosystem function

This subclass comprises research and experimental development in ecosystem function.

RDF1060403 Invasive species ecology

This subclass comprises research and experimental development in invasive species ecology.

RDF1060404 Landscape ecology

This subclass comprises research and experimental development in landscape ecology.

RDF1060405 Global change biology

This subclass comprises research and experimental development in global change biology.

RDF1060499 Ecological applications, n.e.c.

This subclass comprises research and experimental development in ecological applications, n.e.c.

RDF10605 Biological evolution

This class comprises research and experimental development in biological evolution.

Exclusion(s)

- animal breeding (See RDF4020101 Animal breeding)
- cancer genetics (See RDF3010205 Cancer genetics)
- chemical genetics (See RDF1060109 Chemical genetics)
- clinical genetics, except for cancer (See RDF3020214 Clinical genetics (except cancer genetics))
- fish genetics (See RDF4010505 Fish physiology and genetics)
- genetically modified animals (See RDF4040106 Genetically modified animals)
- genetically modified field crops and pastures (See RDF4040103 Genetically modified field crops and pastures)
- genetically modified horticulture plants (See RDF4040104 Genetically modified horticulture plants)
- genetically modified trees (See RDF4040105 Genetically modified trees)
- genetics associated with agricultural biotechnology (See RDF40401 Agricultural biotechnology)
- genetics associated with clinical sciences (See RDF30202 Clinical sciences)
- immunogenetics (See RDF3010106 Immunogenetics (including genetic immunology))
- livestock cloning (See RDF4040107 Livestock cloning)

RDF1060501 Systematics and taxonomy (except speciation)

This subclass comprises research and experimental development in systematics and taxonomy (except speciation).

Exclusion(s)

- speciation (See RDF1060509 Speciation (evolutionary processes))

RDF1060502 Biogeography and phylogeography

This subclass comprises research and experimental development in biogeography and phylogeography.

RDF1060503 Biological adaptation

This subclass comprises research and experimental development in biological adaptation.

RDF1060504 Ethology and sociobiology

This subclass comprises research and experimental development in ethology and sociobiology.

RDF1060505 Evolution of developmental systems

This subclass comprises research and experimental development in evolution of developmental systems.

RDF1060506 Evolutionary impacts of climate change

This subclass comprises research and experimental development in evolutionary impacts of climate change.

RDF1060507 Life histories

This subclass comprises research and experimental development in life histories.

RDF1060508 Phylogeny and comparative analysis

This subclass comprises research and experimental development in phylogeny and comparative analysis.

RDF1060509 Speciation (evolutionary processes)

This subclass comprises research and experimental development in speciation (evolutionary processes).

RDF1060510 Natural selection and sexual selection

This subclass comprises research and experimental development in natural selection and sexual selection.

RDF1060511 Evolutionary mathematical and statistical models

This subclass comprises research and experimental development in evolutionary mathematical and statistical models.

RDF1060512 Macroevolution

This subclass comprises research and experimental development in macroevolution.

RDF1060599 Biological evolution, n.e.c.

This subclass comprises research and experimental development in biological evolution, n.e.c.

RDF10606 Genetics

This class comprises research and experimental development in genetics.

Exclusion(s)

- chemical genetics (See RDF1060109 Chemical genetics)
- genetic immunology (See RDF3010106 Immunogenetics (including genetic immunology))
- microbial genetics (See RDF1060703 Microbial genetics)
- neurogenetics (See RDF1061103 Neurogenetics)

RDF1060601 Anthropological genetics

This subclass comprises research and experimental development in anthropological genetics.

RDF1060602 Developmental genetics (including sex determination)

This subclass comprises research and experimental development in developmental genetics (including sex determination).

RDF1060603 Conservation genetics

This subclass comprises research and experimental development in conservation genetics.

RDF1060604 Molecular evolution

This subclass comprises research and experimental development in molecular evolution.

RDF1060605 Epigenetics and epigenomics

This subclass comprises research and experimental development in epigenetics and epigenomics.

RDF1060606 Transcriptomics

This subclass comprises research and experimental development in transcriptomics.

RDF1060607 Gene regulation and expression

This subclass comprises research and experimental development in gene regulation and expression.

RDF1060608 Genome structure and stability

This subclass comprises research and experimental development in genome structure and stability.

RDF1060609 Genomics

This subclass comprises research and experimental development in genomics.

Exclusion(s)

- algorithms and computational genomics (See RDF1020801 Algorithms and computational genomics)
- environmental metagenomics (See RDF1060312 Environmental metagenomics)
- epigenomics (See RDF1060605 Epigenetics and epigenomics)
- nutrigenomics (See RDF3030103 Dietetics and nutrigenomics)
- paleogenomics (See RDF1060615 Paleogenomics)
- pharmacogenomics (See RDF3010502 Pharmacogenomics)

RDF1060610 Somatic mutations

This subclass comprises research and experimental development in somatic mutations.

RDF1060611 Population, ecological and evolutionary genetics

This subclass comprises research and experimental development in population, ecological and evolutionary genetics.

Exclusion(s)

- neurogenetics (See RDF1061103 Neurogenetics)
- statistical genetics (See RDF1060613 Statistical genetics)

RDF1060612 Quantitative genetics (including disease and trait mapping genetics)

This subclass comprises research and experimental development in quantitative genetics (including disease and trait mapping genetics).

Exclusion(s)

- chemical genetics (See RDF1060109 Chemical genetics)
- neurogenetics (See RDF1061103 Neurogenetics)

RDF1060613 Statistical genetics

This subclass comprises research and experimental development in statistical genetics.

RDF1060614 Molecular genetics

This subclass comprises research and experimental development in molecular genetics.

RDF1060615 Paleogenomics

This subclass comprises research and experimental development in paleogenomics.

RDF1060616 Genetics engineering

This subclass comprises research and experimental development in genetics engineering.

RDF1060699 Genetics, n.e.c.

This subclass comprises research and experimental development in genetics, n.e.c.

RDF10607 Microbiology

This class comprises research and experimental development in microbiology.

RDF1060701 Parasitology

This subclass comprises research and experimental development in parasitology.

Exclusion(s)

- environmental microbiology (See RDF1060709 Environmental microbiology (including air microbiology))

RDF1060702 Bacteriology

This subclass comprises research and experimental development in bacteriology.

Exclusion(s)

- environmental microbiology (See RDF1060709 Environmental microbiology (including air microbiology))

RDF1060703 Microbial genetics

This subclass comprises research and experimental development in microbial genetics.

RDF1060704 Microbial ecology and evolution

This subclass comprises research and experimental development in microbial ecology and evolution.

RDF1060705 Microbial physiology

This subclass comprises research and experimental development in microbial physiology.

Exclusion(s)

- medical human physiology (See RDF30106 Human physiology)

RDF1060706 Mycology

This subclass comprises research and experimental development in mycology.

Exclusion(s)

- environmental microbiology (See RDF1060709 Environmental microbiology (including air microbiology))

RDF1060707 Virology

This subclass comprises research and experimental development in virology.

Exclusion(s)

- environmental microbiology (See RDF1060709 Environmental microbiology (including air microbiology))

RDF1060708 Microbiome

This subclass comprises research and experimental development in microbiome.

Exclusion(s)

- environmental microbiology (See RDF1060709 Environmental microbiology (including air microbiology))

RDF1060709 Environmental microbiology (including air microbiology)

This subclass comprises research and experimental development in environmental microbiology (including air microbiology).

RDF1060799 Microbiology, n.e.c.

This subclass comprises research and experimental development in microbiology, n.e.c.

RDF10608 Animal physiology

This class comprises research and experimental development in animal physiology.

Exclusion(s)

- animal physiological ecology (See RDF1061005 Animal physiological ecology)
- physiology related to specific aspects of animal production or veterinary practice (See RDF40 Agricultural and veterinary sciences)
- veterinary sciences (See RDF40301 Veterinary sciences)

RDF1060801 Animal physiology, biophysics

This subclass comprises research and experimental development in animal physiology, biophysics.

RDF1060802 Animal physiology, endocrinology

This subclass comprises research and experimental development in animal physiology, endocrinology.

RDF1060803 Animal physiology, metabolism

This subclass comprises research and experimental development in animal physiology, metabolism.

RDF1060804 Animal physiology, circulation

This subclass comprises research and experimental development in animal physiology, circulation.

RDF1060805 Animal physiology, respiration

This subclass comprises research and experimental development in animal physiology, respiration.

RDF1060806 Animal physiology, environmental stress

This subclass comprises research and experimental development in animal physiology, environmental stress.

RDF1060807 Animal physiology, digestion

This subclass comprises research and experimental development in animal physiology, digestion.

RDF1060808 Animal physiology, exercise

This subclass comprises research and experimental development in animal physiology, exercise.

RDF1060809 Animal physiology, thermoregulation

This subclass comprises research and experimental development in animal physiology, thermoregulation.

RDF1060810 Animal physiology, osmoregulation

This subclass comprises research and experimental development in animal physiology, osmoregulation.

RDF1060811 Animal physiology, toxicology

This subclass comprises research and experimental development in animal physiology, toxicology.

RDF1060899 Animal physiology, n.e.c.

This subclass comprises research and experimental development in animal physiology, n.e.c.

RDF10609 Plant biology

This class comprises research and experimental development in plant biology.

Exclusion(s)

- basic ecological research (ecology) (See RDF10603 Ecology (except applications))
- cell and molecular biology not specific to plants or animals (See RDF10602 Cell biology)
- ecological applications (including ecology of invasive species) (See RDF10604 Ecological applications)
- palaeobotany and palynology, other than that associated with ecological studies (See RDF1050316 Paleontology (including palynology))
- paleontology and palynology (See RDF1050315 Paleobiology)
- phylogeny (See RDF1060508 Phylogeny and comparative analysis)
- plant science or plant pathology associated with agriculture, forestry or primary production (See RDF401 Agriculture, forestry, and fisheries)
- plant systematics and taxonomy (See RDF1060501 Systematics and taxonomy (except speciation))

RDF1060901 Phycology (including marine grasses)

This subclass comprises research and experimental development in phycology (including marine grasses).

RDF1060902 Plant cell and molecular biology

This subclass comprises research and experimental development in plant cell and molecular biology.

RDF1060903 Plant developmental and reproductive biology

This subclass comprises research and experimental development in plant developmental and reproductive biology.

RDF1060904 Plant pathology

This subclass comprises research and experimental development in plant pathology.

RDF1060905 Plant physiology

This subclass comprises research and experimental development in plant physiology.

RDF1060906 Plant microbiota

This subclass comprises research and experimental development in plant microbiota.

RDF1060907 Molecular plant and microbe interactions (including host pathogen interactions)

This subclass comprises research and experimental development in molecular plant and microbe interactions (including host pathogen interactions).

RDF1060908 Plant stress biology

This subclass comprises research and experimental development in plant stress biology.

RDF1060909 Plant hormone biology

This subclass comprises research and experimental development in plant hormone biology.

RDF1060910 Plant nutrition and metabolism

This subclass comprises research and experimental development in plant nutrition and metabolism.

RDF1060911 Seed biology

This subclass comprises research and experimental development in seed biology.

RDF1060912 Plant genetics (phytogenetics)

This subclass comprises research and experimental development in plant genetics (phytogenetics).

RDF1060999 Plant biology, n.e.c.

This subclass comprises research and experimental development in plant biology, n.e.c.

RDF10610 Zoology

This class comprises research and experimental development in zoology.

Exclusion(s)

- animal bioethics (See RDF6030201 Bioethics (humans and animals))
- animal physiology (See RDF10608 Animal physiology)
- animal systematics and taxonomy (See RDF1060501 Systematics and taxonomy (except speciation))
- cell and molecular biology not specific to plants or animals (See RDF10602 Cell biology)
- computational neurosciences (See RDF1020803 Computational neurosciences)
- human immune system (See RDF30101 Immunology)
- marine ichthyology (See RDF1060305 Marine ecology (including marine ichthyology))
- medical, health and physiological aspects of neurosciences (See RDF30104 Neurosciences, medical and physiological and health aspects)
- neurology (See RDF3020227 Neurology)
- palaeontology other than that associated with paleoecological studies (See RDF1050316 Paleontology (including palynology))
- phylogeny (See RDF1060508 Phylogeny and comparative analysis)
- use of live animals for purposes of primary production (See RDF40201 Animal production)

RDF1061001 Animal behaviour

This subclass comprises research and experimental development in animal behaviour.

RDF1061002 Animal cell and molecular biology

This subclass comprises research and experimental development in animal cell and molecular biology.

RDF1061003 Animal developmental and reproductive biology

This subclass comprises research and experimental development in animal developmental and reproductive biology.

RDF1061004 Animal immunology

This subclass comprises research and experimental development in animal immunology.

RDF1061005 Animal physiological ecology

This subclass comprises research and experimental development in animal physiological ecology.

RDF1061006 Animal structures and functions

This subclass comprises research and experimental development in Animal structures and functions.

RDF1061007 Invertebrate biology (except insect biology)

This subclass comprises research and experimental development in invertebrate biology (except insect biology).

Exclusion(s)
- insect biology (See RDF1061008 Insect biology)

RDF1061008 Insect biology

This subclass comprises research and experimental development in insect biology.

RDF1061009 Mammalogy

This subclass comprises research and experimental development in mammalogy.

RDF1061010 Fish biology

This subclass comprises research and experimental development in fish biology.

RDF1061011 Bird biology

This subclass comprises research and experimental development in bird biology.

RDF1061012 Amphibian and reptile biology

This subclass comprises research and experimental development in amphibian and reptile biology.

RDF1061013 Comparative biomechanics

This subclass comprises research and experimental development in comparative biomechanics.

RDF1061099 Zoology, n.e.c.

This subclass comprises research and experimental development in zoology, n.e.c.

RDF10611 Neurosciences, biological and chemical aspects

This class comprises research and experimental development in neurosciences, biological and chemical aspects.

Exclusion(s)
- applied behavioral neurology and neuropsychiatry (See RDF3010423 Applied behavioural neurology and neuropsychiatry

RDF1061101 Molecular neuroscience

This subclass comprises research and experimental development in molecular neuroscience.

RDF1061102 Cellular neuroscience

This subclass comprises research and experimental development in cellular neuroscience.

RDF1061103 Neurogenetics

This subclass comprises research and experimental development in neurogenetics.

RDF1061104 Animal neurobiology

This subclass comprises research and experimental development in animal neurobiology.

RDF1061105 Behavioural neuroscience of learning and memory

This subclass comprises research and experimental development in behavioural neuroscience of learning and memory.

RDF1061106 Behavioural neuroscience of reward and motivation

This subclass comprises research and experimental development in behavioural neuroscience of reward and motivation.

RDF1061107 Neurocognitive patterns and neural networks

This subclass comprises research and experimental development in neurocognitive patterns and neural networks.

RDF1061108 Neurophysiology

This subclass comprises research and experimental development in neurophysiology.

RDF1061199 Neurosciences, biological and chemical aspects, n.e.c.

This subclass comprises research and experimental development in neurosciences, biological and chemical aspects, n.e.c.

RDF10699 Other biological sciences

This class comprises research and experimental development in other biological sciences.

RDF1069999 Other biological sciences

This subclass comprises research and experimental development in other biological sciences, n.e.c.

RDF107 Other natural sciences

This group comprises research and experimental development in other natural sciences.

RDF10799 Other natural sciences

This class comprises research and experimental development in other natural sciences.

RDF1079999 Other natural sciences, n.e.c.

This subclass comprises research and experimental development in other natural sciences, n.e.c.

RDF20-21 Engineering and technology

This division comprises research and experimental development in engineering and technology. Engineering and technology refer to scientific disciplines concerned with understanding, exploring or developing the natural world, in the fields of engineering and technology, which include civil engineering; maritime engineering; transport engineering; mining engineering; industrial, systems and processes engineering; electrical engineering, computing engineering, and information engineering; mechanical engineering; chemical engineering; materials engineering and resources engineering; medical and biomedical engineering; environmental and related engineering; environmental biotechnology; industrial biotechnology; nanotechnology; and other engineering and technologies. Research consists of systematic investigation carried by means of experiment or analysis to achieve a scientific or technological advance such as acquiring new knowledge of the underlying foundation of phenomena and observable facts. Experimental development consists of new or substantially improved goods, services, systems, methods or processes.

Exclusion(s)

- food engineering (See RDF4040208 Food engineering)
- forest engineering (See RDF4010413 Forest engineering)
- medical biotechnology (See RDF30401 Medical biotechnology)

RDF201 Civil engineering, maritime engineering, transport engineering, and mining engineering

This group comprises research and experimental development in civil engineering, maritime engineering, transport engineering, and mining engineering.

Exclusion(s)

- environmental engineering (See RDF20801 Environmental engineering)
- history and philosophy of engineering (See RDF6030304 History and philosophy of engineering and technology)

RDF20101 Civil engineering

This class comprises research and experimental development in civil engineering.

Exclusion(s)

- acoustics and noise control other than architectural acoustics (See RDF2049901 Acoustics and noise control (except architectural acoustics))
- aerospace engineering (See RDF20401 Aerospace engineering)
- agricultural hydrology (See RDF4040111 Agricultural hydrology)
- architectural acoustics (See RDF6040203 Architectural science and technology (including architectural acoustics))
- automotive engineering (See RDF20402 Automotive engineering)
- environmental engineering (See RDF20801 Environmental engineering)
- geomatic surveying (See RDF2080205 Geomatic surveying (including hydrographic surveying))
- marine engineering (See RDF20102 Marine engineering)
- materials engineering not associated with civil engineering applications (See RDF20601 Materials engineering)

- soil hydrology (See RDF1050704 Soil hydrology)
- surface water hydrology (See RDF1050703 Surface water hydrology)
- transport planning (See RDF5070206 Transport planning)
- wastewater treatment (See RDF2080105 Wastewater treatment (including water treatment processes))
- water treatment (See RDF2080105 Wastewater treatment (including water treatment processes))

RDF2010101 Geotechnical engineering

This subclass comprises research and experimental development in geotechnical engineering.

Exclusion(s)

- geotechnical engineering associated with petroleum engineering (See RDF2050110 Petroleum and reservoir engineering)
- geotechnical engineering associated with resources engineering (See RDF20602 Resources engineering and extractive metallurgy)

RDF2010102 Building construction engineering

This subclass comprises research and experimental development in building construction engineering.

Exclusion(s)

- infrastructure engineering (See RDF2010105 Infrastructure engineering)
- structural engineering (See RDF2010106 Structural engineering)

RDF2010103 Concrete, cementitious materials and other architectural and construction materials

This subclass comprises research and experimental development in concrete, cementitious materials and other architectural and construction materials.

Exclusion(s)

- materials engineering not associated with civil engineering applications (See RDF20601 Materials engineering)

RDF2010104 Earthquake engineering

This subclass comprises research and experimental development in earthquake engineering.

RDF2010105 Infrastructure engineering

This subclass comprises research and experimental development in infrastructure engineering.

Exclusion(s)

- transportation systems infrastructure engineering, for autonomous vehicles (See RDF2010307 Transportation systems infrastructure engineering for autonomous vehicles)
- water resources infrastructures engineering (See RDF2010107 Water resources infrastructure engineering)

RDF2010106 Structural engineering

This subclass comprises research and experimental development in structural engineering.

Exclusion(s)

- marine platform hydrodynamics engineering (See RDF2010204 Marine platform hydrodynamics engineering)
- marine platform structures engineering (See RDF2010205 Offshore engineering (including marine platform structures))

RDF2010107 Water resources infrastructure engineering

This subclass comprises research and experimental development in water resources infrastructure engineering.

Exclusion(s)

- hydraulic engineering (See RDF2010108 Hydraulic engineering)

RDF2010108 Hydraulic engineering

This subclass comprises research and experimental development in hydraulic engineering.

Exclusion(s)

- water resources infrastructures engineering (See RDF2010107 Water resources infrastructure engineering)

RDF2010109 Geomechanics

This subclass comprises research and experimental development in geomechanics.

Exclusion(s)

- geomechanics associated with petroleum engineering (See RDF2050110 Petroleum and reservoir engineering)
- geomechanics associated with resources engineering (See RDF20602 Resources engineering and extractive metallurgy)

RDF2010199 Civil engineering, n.e.c.

This subclass comprises research and experimental development in civil engineering, n.e.c.

RDF20102 Marine engineering

This class comprises research and experimental development in marine engineering.

Exclusion(s)

- fluidization and fluid mechanics and turbulent flows (See RDF2049908 Fluidization and fluid mechanics)
- geomatic surveying (See RDF2080205 Geomatic surveying (including hydrographic surveying))
- land transport systems engineering (See RDF20103 Land transportation systems engineering)

RDF2010201 Naval architecture

This subclass comprises research and experimental development in naval architecture.

Exclusion(s)

- ocean engineering (See RDF2010203 Ship hydrodynamics)

RDF2010202 Ocean engineering

This subclass comprises research and experimental development in ocean engineering.

RDF2010203 Ship hydrodynamics

This subclass comprises research and experimental development in ship hydrodynamics.

RDF2010204 Marine platform hydrodynamics engineering

This subclass comprises research and experimental development in marine platform hydrodynamics engineering.

Exclusion(s)

- ship hydrodynamics (See RDF2010203 Ship hydrodynamics)

RDF2010205 Offshore engineering (including marine platform structures)

This subclass comprises research and experimental development in offshore engineering (including marine platform structures).

Exclusion(s)

- marine platform hydrodynamics engineering (See RDF2010204 Marine platform hydrodynamics engineering)

RDF2010206 Special marine vehicles engineering

This subclass comprises research and experimental development in special marine vehicles engineering.

RDF2010299 Marine engineering, n.e.c.

This subclass comprises research and experimental development in marine engineering, n.e.c.

RDF20103 Land transportation systems engineering

This class comprises research and experimental development in land transportation systems engineering.

Exclusion(s)

- intelligent transport systems (See RDF2020204 Intelligent transport systems)

RDF2010301 Traffic and highway engineering

This subclass comprises research and experimental development in traffic and highway engineering.

Exclusion(s)

- road safety engineering (See RDF2010304 Road safety engineering)
- transportation systems infrastructure engineering, for autonomous vehicles (See RDF2010307 Transportation systems infrastructure engineering for autonomous vehicles)

RDF2010302 Railway and airport engineering

This subclass comprises research and experimental development in railway and airport engineering.

Exclusion(s)

- transportation systems infrastructure engineering, for autonomous vehicles (See RDF2010307 Transportation systems infrastructure engineering for autonomous vehicles)

RDF2010303 Public transportation engineering

This subclass comprises research and experimental development in public transportation engineering.

Exclusion(s)

- transportation systems infrastructure engineering, for autonomous vehicles (See RDF2010307 Transportation systems infrastructure engineering for autonomous vehicles)

RDF2010304 Road safety engineering

This subclass comprises research and experimental development in road safety engineering.

Exclusion(s)

- transportation systems infrastructure engineering, for autonomous vehicles (See RDF2010307 Transportation systems infrastructure engineering for autonomous vehicles)

RDF2010305 Transportation demand modelling

This subclass comprises research and experimental development in transportation demand modelling.

Exclusion(s)

- transportation systems infrastructure engineering, for autonomous vehicles (See RDF2010307 Transportation systems infrastructure engineering for autonomous vehicles)

RDF2010306 Pavement materials and structure

This subclass comprises research and experimental development in pavement materials and structure.

RDF2010307 Transportation systems infrastructure engineering for autonomous vehicles

This subclass comprises research and experimental development in transportation systems infrastructure engineering for autonomous vehicles.

Exclusion(s)

- intelligent transport systems (See RDF2020204 Intelligent transport systems)

RDF2010399 Land transportation systems engineering, n.e.c.

This subclass comprises research and experimental development in land transportation systems engineering, n.e.c.

RDF20104 Mining engineering

This class comprises research and experimental development in mining engineering.

Exclusion(s)

- mineral processing and metallurgy (See RDF20602 Resources engineering and extractive metallurgy)

RDF2010499 Mining engineering

This subclass comprises research and experimental development in mining engineering.

Exclusion(s)

- mineral processing and metallurgy (See RDF20602 Resources engineering and extractive metallurgy)

RDF202 Industrial, systems and processes engineering

This group comprises research and experimental development in industrial, systems and processes engineering.

RDF20201 Human factor engineering

This class comprises research and experimental development in industrial, systems and processes engineering.

RDF2020101 Brain-computer interface

This subclass comprises research and experimental development in brain-computer interface.

RDF2020102 Physical, environmental and cognitive ergonomics

This subclass comprises research and experimental development in physical, environmental and cognitive ergonomics.

RDF2020103 Control design

This subclass comprises research and experimental development in control design.

RDF2020104 Human-computer systems and interface

This subclass comprises research and experimental development in human-computer systems and interface.

RDF2020105 Assistive technologies

This subclass comprises research and experimental development in assistive technologies.

RDF2020199 Human factor engineering, n.e.c.

This subclass comprises research and experimental development in human factor engineering, n.e.c.

RDF20202 Systems engineering

This class comprises research and experimental development in systems engineering.

Exclusion(s)
- land transport systems engineering (See RDF20103 Land transportation systems engineering)
- quality systems engineering (See RDF2020307 Quality systems engineering)

RDF2020201 Design and analysis of systems

This subclass comprises research and experimental development in design and analysis of systems.

RDF2020202 Modelling and applications of systems

This subclass comprises research and experimental development in modelling and applications of systems.

RDF2020203 Intelligent renewable energy systems

This subclass comprises research and experimental development in intelligent renewable energy systems.

RDF2020204 Intelligent transport systems

This subclass comprises research and experimental development in intelligent transport systems.

RDF2020205 Production systems engineering

This subclass comprises research and experimental development in production systems engineering.

RDF2020299 Systems engineering, n.e.c.

This subclass comprises research and experimental development in systems engineering, n.e.c.

RDF20203 Operational research

This class comprises research and experimental development in operational research.

RDF2020301 Programming in operational research (including linear and nonlinear programming)

This subclass comprises research and experimental development in programming in operational research (including linear and nonlinear programming).

RDF2020302 Combinatorial and network optimization (including programming and metaheuristics)

This subclass comprises research and experimental development in combinatorial and network optimization (including programming and metaheuristics).

RDF2020303 Optimization under uncertainty (including stochastic and robust optimization)

This subclass comprises research and experimental development in optimization under uncertainty (including stochastic and robust optimization).

RDF2020304 Bilevel optimization and game theory

This subclass comprises research and experimental development in bilevel optimization and game theory.

RDF2020305 Stochastic models (including queueing and simulation)

This subclass comprises research and experimental development in stochastic models (including queueing and simulation).

RDF2020306 Decisions and risk analysis

This subclass comprises research and experimental development in decisions and risk analysis.

RDF2020307 Quality systems engineering

This subclass comprises research and experimental development in quality systems engineering.

RDF2020399 Operational research, n.e.c.

This subclass comprises research and experimental development in operational research, n.e.c.

RDF20204 Biosystems and agricultural engineering

This class comprises research and experimental development in biosystems and agricultural engineering.

Exclusion(s)
- food engineering (See RDF4040208 Food engineering)

RDF2020401 Irrigation

This subclass comprises research and experimental development in irrigation.

RDF2020402 Agricultural power machinery

This subclass comprises research and experimental development in agricultural power machinery.

RDF2020403 Crop management technologies

This subclass comprises research and experimental development in crop management technologies.

RDF2020404 Pesticides and pesticides applications

This subclass comprises research and experimental development in pesticides and pesticides applications.

RDF2020499 Biosystems and agricultural engineering, n.e.c.

This subclass comprises research and experimental development in biosystems and agricultural engineering, n.e.c.

RDF20299 Other industrial, systems and processes engineering

This class comprises research and experimental development in other industrial, systems. and processes engineering.

RDF2029999 Other industrial, systems and processes engineering

This subclass comprises research and experimental development in other industrial, systems and processes engineering, n.e.c.

RDF203 Electrical engineering, computer engineering, and information engineering

This group comprises research and experimental development in electrical engineering, computer engineering, and information engineering.

Exclusion(s)

- history and philosophy of engineering (See RDF6030304 History and philosophy of engineering and technology)
- lasers associated with quantum electronics (See RDF1030303 Lasers and quantum electronics)
- molecular and organic electronics (See RDF2110113 Molecular and organic electronics)
- nanoelectronics (See RDF2110104 Nanoelectronics)
- neurorobotics (See RDF3010420 Neurorobotics)
- optical communications (See RDF1030306 Photonics, optoelectronics and optical communications)
- optoelectronics associated with optical communications (See RDF1030306 Photonics, optoelectronics and optical communications)
- quantum computing (See RDF1020404 Quantum computing)
- quantum optics (See RDF1030308 Quantum optics)
- software engineering (See RDF10203 Programming languages and software engineering)

RDF20301 Computer engineering

This class comprises research and experimental development in computer engineering.

Exclusion(s)

- control theory (See RDF1010207 Calculus of variations, systems theory and control theory)
- electrical and electronic engineering associated with communications technologies (See RDF20302 Communications and networks technologies)
- electronics (See RDF20306 Electronics)
- lasers associated with quantum electronics (See RDF1030303 Lasers and quantum electronics)
- mathematical software (See RDF1020207 Mathematical software)
- mechanical engineering aspects of automation and control systems (See RDF204 Mechanical engineering)
- molecular and organic electronics (See RDF2110113 Molecular and organic electronics)

- nanoelectronics (See RDF2110104 Nanoelectronics)
- optoelectronics (See RDF2030511 Optoelectronics)
- quantum computing (See RDF1020404 Quantum computing)
- robotics associated with artificial intelligence (See RDF1020102 Intelligent robotics)
- robotics associated with automotive engineering (See RDF20402 Automotive engineering)
- robotics associated with manufacturing engineering other than automotive (See RDF20403 Manufacturing engineering)
- software engineering (See RDF10203 Programming languages and software engineering)

RDF2030101 Systems software

This subclass comprises research and experimental development in systems software.

Exclusion(s)

- software engineering (See RDF10203 Programming languages and software engineering)

RDF2030102 Computational languages (including domain-specific languages)

This subclass comprises research and experimental development in computational languages (including domain-specific languages).

RDF2030103 Middleware systems

This subclass comprises research and experimental development in middleware systems.

Exclusion(s)

- robotics associated with artificial intelligence (See RDF1020102 Intelligent robotics)
- robotics associated with biomedical engineering (See RDF2070108 Biomedical robotics)

RDF2030104 Computer systems engineering

This subclass comprises research and experimental development in computer systems engineering.

Exclusion(s)

- middleware systems (See RDF2030103 Middleware systems)
- systems software (See RDF2030101 Systems software)

RDF2030105 Computer architecture

This subclass comprises research and experimental development in computer architecture.

RDF2030106 Computer memory systems and storage

This subclass comprises research and experimental development in computer memory systems and storage.

RDF2030107 Digital hardware and technologies

This subclass comprises research and experimental development in digital hardware and technologies.

RDF2030108 Computer configurable hardware

This subclass comprises research and experimental development in computer configurable hardware.

RDF2030109 Computer-aided design

This subclass comprises research and experimental development in computer-aided design.

RDF2030110 Hardware and software for computer security

This subclass comprises research and experimental development in hardware and software for computer security.

Exclusion(s)

- biomedical instrumentation (See RDF2070103 Biomedical instrumentation (including diagnostics))
- software engineering (See RDF10203 Programming languages and software engineering)

RDF2030111 Machine learning systems

This subclass comprises research and experimental development in machine learning systems.

RDF2030199 Computer engineering, n.e.c.

This subclass comprises research and experimental development in computer engineering, n.e.c.

RDF20302 Communications and networks technologies

This class comprises research and experimental development in communications and networks technologies.

Exclusion(s)

- data encryption (See RDF1020209 Encryption and cryptography)
- photonics and optoelectronics associated with optical communications (See RDF1030306 Photonics, optoelectronics and optical communications)
- quantum information, computation associated with communications (See RDF1030604 Quantum information, computation and communication)
- remote sensing in geomatics and photogrammetry (See RDF2080204 Remote sensing in geomatics and photogrammetry)
- satellite and space vehicle design and testing (See RDF2040108 Satellites, space vehicles and missiles design and testing)

RDF2030201 Wireless communication systems

This subclass comprises research and experimental development in wireless communication systems.

RDF2030202 Coding and information theory applied to communications and networks technologies

This subclass comprises research and experimental development in coding and information theory applied to communications and networks technologies.

RDF2030203 Digital communications

This subclass comprises research and experimental development in digital communications.

RDF2030204 Internet of Things

This subclass comprises research and experimental development in internet of things.

RDF2030205 Software-defined network (SDN)

This subclass comprises research and experimental development in software-defined network (SDN).

RDF2030206 Cloud computing systems

This subclass comprises research and experimental development in cloud computing systems.

RDF2030207 Service network management systems

This subclass comprises research and experimental development in service network management systems.

RDF2030208 Network protocols and architectures

This subclass comprises research and experimental development in network protocols and architectures.

RDF2030209 Network science and engineering

This subclass comprises research and experimental development in network science and engineering.

Exclusion(s)

- communications and network control systems (See RDF2030216 Communications and network control systems)
- network protocols and architectures (See RDF2030208 Network protocols and architectures)
- optical networks (See RDF2030215 Optical networks)
- service network management systems (See RDF2030207 Service network management systems)
- software-defined networks (See RDF2030205 Software-defined network (SDN))

RDF2030210 Spectrum sharing and management

This subclass comprises research and experimental development in spectrum sharing and management.

RDF2030211 Multimedia communication and networking

This subclass comprises research and experimental development in multimedia communication and networking.

RDF2030212 Cyber-physical systems

This subclass comprises research and experimental development in cyber-physical systems.

RDF2030213 Cybersecurity and privacy technologies

This subclass comprises research and experimental development in cybersecurity and privacy technologies.

RDF2030214 Fibre-optic communications technologies

This subclass comprises research and experimental development in fibre-optic communications technologies.

RDF2030215 Optical networks

This subclass comprises research and experimental development in optical networks.

RDF2030216 Communications and network control systems

This subclass comprises research and experimental development in communications and network control systems.

RDF2030217 Networked robotics and automation

This subclass comprises research and experimental development in networked robotics and automation.

Exclusion(s)

- neurorobotics (See RDF3010420 Neurorobotics)
- robotics and automation associated with automotive engineering (See RDF20402 Automotive engineering)

- robotics and automation associated with manufacturing engineering other than automotive (See RDF20403 Manufacturing engineering)
- robotics associated with artificial intelligence (See RDF1020102 Intelligent robotics)
- robotics associated with biomedical engineering (See RDF2070108 Biomedical robotics)

RDF2030299 Communications and networks technologies, n.e.c.

This subclass comprises research and experimental development in communications and networks technologies, n.e.c.

RDF20303 Data analytics and signal processing

This class comprises research and experimental development in data analytics and signal processing.

Exclusion(s)

- biomedical signal processing (See RDF2070107 Biomedical signal processing)
- computer software development (See RDF10203 Programming languages and software engineering)
- integrated circuits (See RDF20306 Electronics)
- modems and computer communication networks (See RDF20302 Communications and networks technologies)
- optical signal processing (See RDF2030517 Optical signal processing)
- optoelectronics associated with optical communications (See RDF1030306 Photonics, optoelectronics and optical communications)

RDF2030301 Learning and adaptive systems

This subclass comprises research and experimental development in learning and adaptive systems.

RDF2030302 Artificial intelligence engineering

This subclass comprises research and experimental development in artificial intelligence engineering.

RDF2030303 Optimization and data analytics algorithms and systems

This subclass comprises research and experimental development in optimization and data analytics algorithms and systems.

RDF2030304 Distributed computation and signal processing

This subclass comprises research and experimental development in distributed computation and signal processing.

RDF2030305 Image and video processing and analysis

This subclass comprises research and experimental development in image and video processing and analysis.

RDF2030306 Acoustic signal processing

This subclass comprises research and experimental development in acoustic signal processing.

RDF2030307 Computer vision in data analytics and signal processing

This subclass comprises research and experimental development in computer vision in data analytics and signal processing.

Exclusion(s)

- computer vision in artificial intelligence (See RDF1020112 Computer vision in artificial intelligence)

RDF2030308 Cognition and cognitive dynamic systems

This subclass comprises research and experimental development in cognition and cognitive dynamic systems.

RDF2030309 Bio-signal processing and analysis

This subclass comprises research and experimental development in bio-signal processing and analysis.

Exclusion(s)

- biomedical signal processing (See RDF2070107 Biomedical signal processing)

RDF2030310 Signal processing for security and privacy

This subclass comprises research and experimental development in signal processing for security and privacy.

RDF2030311 Radar and sonar signal processing

This subclass comprises research and experimental development in radar and sonar signal processing.

RDF2030312 Remote sensing of signal processing

This subclass comprises research and experimental development in remote sensing of signal processing.

RDF2030313 Signal processing modelling and simulation systems

This subclass comprises research and experimental development in signal processing modelling and simulation systems.

RDF2030314 Signal processing theory

This subclass comprises research and experimental development signal processing theory.

RDF2030399 Data analytics and signal processing, n.e.c.

This subclass comprises research and experimental development in data analytics and signal processing, n.e.c.

RDF20304 Electrical energy systems

This class comprises research and experimental development in electrical energy systems.

RDF2030401 Power dynamics and control systems

This subclass comprises research and experimental development in power dynamics and control systems.

RDF2030402 Power electronics

This subclass comprises research and experimental development in power electronics.

RDF2030403 Renewable energy systems (except smart systems engineering)

This subclass comprises research and experimental development in renewable energy systems (except smart systems engineering).

Exclusion(s)

- smart renewal energy systems engineering (See RDF2020203 Intelligent renewable energy systems)

RDF2030404 Power quality

This subclass comprises research and experimental development in power quality.

RDF2030405 Energy storage

This subclass comprises research and experimental development in energy storage.

RDF2030406 Smart power grids

This subclass comprises research and experimental development in smart power grids.

RDF2030407 Power system operation

This subclass comprises research and experimental development in power system operation.

Exclusion(s)

- smart power grids (See RDF2030406 Smart power grids)

RDF2030408 Power system protection

This subclass comprises research and experimental development in power system protection.

RDF2030409 Electric machines and drive systems

This subclass comprises research and experimental development in electric machines and drive systems.

RDF2030410 High-Voltage DC (HVDC) systems

This subclass comprises research and experimental development in High-Voltage DC (HVDC) systems.

RDF2030411 Power distribution systems

This subclass comprises research and experimental development in power distribution systems.

RDF2030499 Electrical energy systems, n.e.c.

This subclass comprises research and experimental development in electrical energy systems, n.e.c.

RDF20305 Electromagnetics, photonics and optics

This subclass comprises research and experimental development in electromagnetics, photonics and optics.

Exclusion(s)

- classical and physical optics (See RDF1030302 Classical and physical optics)
- geoelectromagnetics (See RDF1050401 Geoelectrics and geoelectromagnetics)
- nonlinear optics associated with spectroscopy (See RDF1030304 Nonlinear optics and spectroscopy)
- optical properties of materials (See RDF1040606 Optical properties of materials)
- photonics and electro-optical engineering associated with optical communications (See RDF1030306 Photonics, optoelectronics and optical communications)
- quantum optics (See RDF1030308 Quantum optics)

RDF2030501 Electricity and magnetism theory

This subclass comprises research and experimental development in electricity and magnetism theory.

RDF2030502 Applied electromagnetics

This subclass comprises research and experimental development in applied electromagnetics.

RDF2030503 Numerical methods in electromagnetics

This subclass comprises research and experimental development in numerical methods in electromagnetics.

RDF2030504 Microwave theory and techniques

This subclass comprises research and experimental development in microwave theory and techniques.

RDF2030505 Instruments and circuits for RF microwave and millimeter wave

This subclass comprises research and experimental development in instruments and circuits for RF microwave and millimeter wave.

RDF2030506 Terahertz studies

This subclass comprises research and experimental development in terahertz studies.

RDF2030507 Antennas and propagation

This subclass comprises research and experimental development in antennas and propagation.

RDF2030508 Radar theory and applications

This subclass comprises research and experimental development in radar theory and applications.

RDF2030509 Metamaterials and metasurfaces sciences

This subclass comprises research and experimental development in metamaterials and metasurfaces sciences.

RDF2030510 Photonics and electro-optical engineering

This subclass comprises research and experimental development in photonics and electro-optical engineering.

Exclusion(s)

- photonics and electro-optical engineering associated with optical communications (See RDF1030306 Photonics, optoelectronics and optical communications)

RDF2030511 Optoelectronics

This subclass comprises research and experimental development in optoelectronics.

Exclusion(s)

- optoelectronics associated with optical communications (See RDF1030306 Photonics, optoelectronics and optical communications)

RDF2030512 Integrated optics

This subclass comprises research and experimental development in integrated optics.

RDF2030513 Applied optics

This subclass comprises research and experimental development in applied optics.

RDF2030514 Optical spectroscopy

This subclass comprises research and experimental development in optical spectroscopy.

RDF2030515 Semiconductor devices

This subclass comprises research and experimental development in semiconductor devices.

RDF2030516 Optical instrumentation (including sensing and metrology)

This subclass comprises research and experimental development in optical instrumentation (including sensing and metrology).

RDF2030517 Optical signal processing

This subclass comprises research and experimental development in optical signal processing.

RDF2030518 Quantum photonics

This subclass comprises research and experimental development in quantum photonics.

RDF2030519 Optical and data communications

This subclass comprises research and experimental development in optical and data communications.

RDF2030520 Fiber optics

This subclass comprises research and experimental development in fiber optics.

RDF2030521 Nonlinear optics

This subclass comprises research and experimental development in nonlinear optics.

Exclusion(s)

- nonlinear optics associated with spectroscopy (See RDF1030304 Nonlinear optics and spectroscopy)

RDF2030522 Ultrafast optics

This subclass comprises research and experimental development in ultrafast optics.

RDF2030599 Electromagnetics, photonics and optics, n.e.c.

This subclass comprises research and experimental development in electromagnetics, photonics and optics, n.e.c.

RDF20306 Electronics

This class comprises research and experimental development in electronics.

Exclusion(s)

- lasers associated with quantum electronics (See RDF1030303 Lasers and quantum electronics)
- molecular and organic electronics (See RDF2110113 Molecular and organic electronics)
- nanoelectronics (See RDF2110104 Nanoelectronics)
- optoelectronics (See RDF2030511 Optoelectronics)
- optoelectronics associated with optical communications (See RDF1030306 Photonics, optoelectronics and optical communications)
- power electronics (See RDF2030402 Power electronics)
- quantum computing (See RDF1020404 Quantum computing)

RDF2030601 Electrical circuits

This subclass comprises research and experimental development in electrical circuits.

RDF2030602 Microelectronic devices

This subclass comprises research and experimental development in microelectronic devices.

RDF2030603 Circuits and systems

This subclass comprises research and experimental development in circuits and systems.

RDF2030604 Mixed-signal integrated circuits

This subclass comprises research and experimental development in mixed-signal integrated circuits.

RDF2030605 Very large-scale integrated circuits

This subclass comprises research and experimental development in very large-scale integrated circuits.

RDF2030606 Modeling techniques in electronics

This subclass comprises research and experimental development in modeling techniques in electronics.

RDF2030607 Microelectronics and integrated circuits

This subclass comprises research and experimental development in microelectronics and integrated circuits.

RDF2030608 Industrial electronics

This subclass comprises research and experimental development in industrial electronics.

RDF2030609 Microfabrication techniques in electronics

This subclass comprises research and experimental development in microfabrication techniques in electronics.

RDF2030610 Thin films

This subclass comprises research and experimental development in thin films.

RDF2030611 Lab-on-a-chip (LOC) technologies

This subclass comprises research and experimental development in Lab-on-a-chip (LOC) technologies.

RDF2030612 Microelectrical mechanical systems and microsystems design

This subclass comprises research and experimental development in microelectrical mechanical systems and microsystems design.

RDF2030613 Quantum electronics

This subclass comprises research and experimental development in quantum electronics.

Exclusion(s)

- lasers associated with quantum electronics (See RDF1030303 Lasers and quantum electronics)
- quantum optics (See RDF1030308 Quantum optics)
- quantum photonics (See RDF2030518 Quantum photonics)

RDF2030614 Biomedical electronics

This subclass comprises research and experimental development in biomedical electronics.

RDF2030615 Sensory electronics

This subclass comprises research and experimental development in sensory electronics.

RDF2030616 Power semiconductor devices and packaging

This subclass comprises research and experimental development in power semiconductor devices and packaging.

RDF2030617 Semiconductor and atomic-scale electronic devices

This subclass comprises research and experimental development in semiconductor and atomic-scale electronic devices.

RDF2030618 Semiconductor and superconducting qubits

This subclass comprises research and experimental development in semiconductor and superconducting qubits.

RDF2030619 Power management integrated circuits

This subclass comprises research and experimental development in power management integrated circuits.

RDF2030620 Analog and mixed-signal VLSI computing

This subclass comprises research and experimental development in analog and mixed-signal VLSI computing.

RDF2030621 Machine learning accelerators

This subclass comprises research and experimental development in machine learning accelerators.

RDF2030622 Electro-optic integrated circuits

This subclass comprises research and experimental development in Electro-optic integrated circuits.

RDF2030623 Radio, radar, and mm-wave sensor integrated circuits

This subclass comprises research and experimental development in radio, radar, and mm-wave sensor integrated circuits.

RDF2030624 Cryogenic control electronics for quantum processors

This subclass comprises research and experimental development in cryogenic control electronics for quantum processors.

RDF2030699 Electronics, n.e.c.

This subclass comprises research and experimental development in electronics, n.e.c.

RDF20307 Systems control and automation

This class comprises research and experimental development in systems control and automation.

RDF2030701 Nonlinear and hybrid control systems

This subclass comprises research and experimental development in nonlinear and hybrid control systems.

RDF2030702 Game theory and optimal control

This subclass comprises research and experimental development in game theory and optimal control.

RDF2030703 Discrete-event systems

This subclass comprises research and experimental development in discrete-event systems.

RDF2030704 Systems biology and control

This subclass comprises research and experimental development in systems biology and control.

RDF2030705 Control with complex specifications

This subclass comprises research and experimental development in control with complex specifications.

RDF2030706 Motion control of robots

This subclass comprises research and experimental development in motion control of robots.

RDF2030707 Distributed control and estimation

This subclass comprises research and experimental development in distributed control and estimation.

RDF2030708 Networked control systems

This subclass comprises research and experimental development in networked control systems.

RDF2030709 Data-driven estimation, optimization, and control

This subclass comprises research and experimental development in data-driven estimation, optimization, and control.

RDF2030710 Fault-tolerant control

This subclass comprises research and experimental development in Fault-tolerant control.

RDF2030799 Systems controls and automation, n.e.c.

This subclass comprises research and experimental development in systems controls and automation, n.e.c.

RDF204 Mechanical engineering

This group comprises research and experimental development in mechanical engineering.

Exclusion(s)

- architectural science and technology (See RDF6040203 Architectural science and technology (including architectural acoustics))
- control theory (See RDF1010207 Calculus of variations, systems theory and control theory)
- electrical aspects of energy generation from solar cells (See RDF2030403 Renewable energy systems (except smart systems engineering))
- electrical energy systems (See RDF20304 Electrical energy systems)
- food chemistry (See RDF4040201 Food chemistry (including fermentation))
- history and philosophy of engineering (See RDF6030304 History and philosophy of engineering and technology)
- land transport systems engineering (See RDF20103 Land transportation systems engineering)

- nanoelectromechanical systems (nems) (See RDF2110103 Nanoelectromechanical systems)
- packaging, storage and transportation of food and agricultural products (See RDF4040204 Food and beverage processing (including packaging, additives, transportation and preservation))

RDF20401 Aerospace engineering

This class comprises research and experimental development in aerospace engineering.

Exclusion(s)

- fluidization and fluid mechanics and turbulent flows (See RDF2049908 Fluidization and fluid mechanics)
- food chemistry (See RDF4040201 Food chemistry (including fermentation))
- heat and mass transfer operations (See RDF2049909 Heat and mass transfer operations)
- land transport systems engineering (See RDF20103 Land transportation systems engineering)
- remote sensing in geomatics and photogrammetry (See RDF2080204 Remote sensing in geomatics and photogrammetry)
- space sciences (See RDF10301 Astronomical and space sciences)

RDF2040101 Aerodynamics (except hypersonic aerodynamics)

This subclass comprises research and experimental development in aerodynamics (except hypersonic aerodynamics).

Exclusion(s)

- hypersonic aerodynamics (See RDF2040107 Hypersonic propulsion and hypersonic aerodynamics)

RDF2040102 Aerospace materials

This subclass comprises research and experimental development in aerospace materials.

RDF2040103 Aerospace structures

This subclass comprises research and experimental development in aerospace structures.

RDF2040104 Aircraft performance and flight control systems

This subclass comprises research and experimental development in aircraft performance and flight control systems.

RDF2040105 Avionics

This subclass comprises research and experimental development in avionics.

RDF2040106 Flight dynamics

This subclass comprises research and experimental development in flight dynamics.

RDF2040107 Hypersonic propulsion and hypersonic aerodynamics

This subclass comprises research and experimental development in hypersonic propulsion and hypersonic aerodynamics.

RDF2040108 Satellites, space vehicles and missiles design and testing

This subclass comprises research and experimental development in satellites, space vehicles and missiles design and testing.

Exclusion(s)

- satellite communications and network technologies (See RDF20302 Communications and networks technologies)

RDF2040109 Aerospace systems design

This subclass comprises research and experimental development in aerospace systems design.

RDF2040199 Aerospace engineering, n.e.c.

This subclass comprises research and experimental development in aerospace engineering, n.e.c.

RDF20402 Automotive engineering

This class comprises research and experimental development in automotive engineering.

Exclusion(s)

- combustion and fuel engineering without automotive applications (See RDF2050105 Non-automotive combustion engineering (including alternative and renewable fuels))
- fluidization and fluid mechanics and turbulent flows (See RDF2049908 Fluidization and fluid mechanics)
- land transport systems engineering (See RDF20103 Land transportation systems engineering)
- materials engineering not associated with automotive engineering applications (See RDF20601 Materials engineering)
- mechatronics other than for automotive applications (See RDF2040307 Mechatronics (except automotive mechatronics))
- networked or connected robotics and automation (See RDF2030217 Networked robotics and automation)

RDF2040201 Automotive combustion and fuel engineering (including alternative and renewable fuels)

This subclass comprises research and experimental development in automotive combustion and fuel engineering (including alternative and renewable fuels).

RDF2040202 Automotive engineering materials

This subclass comprises research and experimental development in automotive engineering materials.

Exclusion(s)

- materials engineering not associated with automotive engineering applications (See RDF20601 Materials engineering)

RDF2040203 Automotive mechatronics

This subclass comprises research and experimental development in automotive mechatronics.

RDF2040204 Automotive safety engineering

This subclass comprises research and experimental development in automotive safety engineering.

RDF2040205 Hybrid vehicles and powertrains

This subclass comprises research and experimental development in hybrid vehicles and powertrains.

RDF2040206 Autonomous vehicles (except systems infrastructures)

This subclass comprises research and experimental development in autonomous vehicles (except systems infrastructures).

Exclusion(s)

- transportation systems infrastructure engineering, for autonomous vehicles (See RDF2010307 Transportation systems infrastructure engineering for autonomous vehicles)

RDF2040299 Automotive engineering, n.e.c.

This subclass comprises research and experimental development in automotive engineering, n.e.c.

RDF20403 Manufacturing engineering

This class comprises research and experimental development in manufacturing engineering.

Exclusion(s)

- automotive engineering (See RDF20402 Automotive engineering)
- fluidization and fluid mechanics and turbulent flows (See RDF2049908 Fluidization and fluid mechanics)
- food packaging, preservation and safety (See RDF4040204 Food and beverage processing (including packaging, additives, transportation and preservation))
- heat and mass transfer operations (See RDF2049909 Heat and mass transfer operations)
- industrial biotechnology (See RDF21001 Industrial biotechnology)
- membrane and separation technologies (See RDF2050104 Membrane and other separation technologies)
- networked or connected robotics and automation (See RDF2030217 Networked robotics and automation)

RDF2040301 Computer-aided design (CAD) and computer-aided manufacturing (CAM) systems

This subclass comprises research and experimental development in computer-aided design (CAD) and computer-aided manufacturing (CAM) systems.

RDF2040302 Flexible manufacturing systems

This subclass comprises research and experimental development in flexible manufacturing systems.

RDF2040303 Machine tools

This subclass comprises research and experimental development in machine tools.

RDF2040304 Machining

This subclass comprises research and experimental development in machining.

Exclusion(s)

- machine tools (See RDF2040303 Machine tools)

RDF2040305 Manufacturing management

This subclass comprises research and experimental development in manufacturing management.

RDF2040306 Manufacturing processes and technologies (except textiles)

This subclass comprises research and experimental development in manufacturing processes and technologies (except textiles).

Exclusion(s)

- textile manufacturing processes and technologies (See RDF2040312 Textile manufacturing processes and technologies)

RDF2040307 Mechatronics (except automotive mechatronics)

This subclass comprises research and experimental development in mechatronics (except automotive mechatronics).

Exclusion(s)

- automotive mechatronics (See RDF2040203 Automotive mechatronics)

RDF2040308 Manufacturing safety and quality

This subclass comprises research and experimental development in manufacturing safety and quality.

RDF2040309 Microtechnology

This subclass comprises research and experimental development in microtechnology.

RDF2040310 Packaging, storage and transportation (except food and agricultural products)

This subclass comprises research and experimental development in packaging, storage and transportation (except food and agricultural products).

Exclusion(s)

- food and beverage processing, packaging, additives and preservation (See RDF4040204 Food and beverage processing (including packaging, additives, transportation and preservation))

RDF2040311 Precision engineering

This subclass comprises research and experimental development in precision engineering.

RDF2040312 Textile manufacturing processes and technologies

This subclass comprises research and experimental development in textile manufacturing processes and technologies.

RDF2040313 Industrial design in manufacturing engineering

This subclass comprises research and experimental development in industrial design in manufacturing engineering.

RDF2040399 Manufacturing engineering, n.e.c.

This subclass comprises research and experimental development in manufacturing engineering, n.e.c.

RDF20499 Other mechanical engineering

This class comprises research and experimental development in other mechanical engineering.

RDF2049901 Acoustics and noise control (except architectural acoustics)

This subclass comprises research and experimental development in acoustics and noise control (except architectural acoustics).

Exclusion(s)

- architectural acoustics (See RDF6040203 Architectural science and technology (including architectural acoustics))

RDF2049902 Automation and control engineering

This subclass comprises research and experimental development in automation and control engineering.

RDF2049903 Dynamics, vibration and vibration control

This subclass comprises research and experimental development in dynamics, vibration and vibration control.

RDF2049904 Microelectromechanical systems (MEMS)

This subclass comprises research and experimental development in microelectromechanical systems (MEMS).

RDF2049905 Numerical modelling and mechanical characterisation

This subclass comprises research and experimental development in numerical modelling and mechanical characterisation.

RDF2049906 Solid mechanics

This subclass comprises research and experimental development in solid mechanics.

RDF2049907 Tribology

This subclass comprises research and experimental development in tribology.

RDF2049908 Fluidization and fluid mechanics

This subclass comprises research and experimental development in fluidization and fluid mechanics.

Exclusion(s)

- computational fluid mechanics (See RDF1010205 Computational fluid mechanics)
- hydraulic engineering (See RDF2010108 Hydraulic engineering)

RDF2049909 Heat and mass transfer operations

This subclass comprises research and experimental development in heat and mass transfer operations.

RDF2049910 Fluid-structure interaction

This subclass comprises research and experimental development in Fluid-structure interaction.

RDF2049911 Mechanical characterization (including modeling, testing, and monitoring)

This subclass comprises research and experimental development in mechanical characterization (including modeling, testing, and monitoring).

RDF2049912 Mechanical engineering for energy systems (except renewal energy)

This subclass comprises research and experimental development in mechanical engineering for energy systems, except renewal energy.

Exclusion(s)

- mechanical engineering for renewable energy systems (See RDF2049913 Mechanical engineering for renewable energy systems)

RDF2049913 Mechanical engineering for renewable energy systems

This subclass comprises research and experimental development in mechanical engineering for renewable energy systems.

RDF2049999 Other mechanical engineering, n.e.c.

This subclass comprises research and experimental development in other mechanical engineering, n.e.c.

RDF205 Chemical engineering

This group comprises research and experimental development in chemical engineering.

Exclusion(s)

- carbon sequestration science (See RDF1051108 Carbon sequestration science)
- combustion and fuel engineering for automotive applications (See RDF2040201 Automotive combustion and fuel engineering (including alternative and renewable fuels))
- fluidization associated with fluid mechanics and turbulent flows (See RDF2049908 Fluidization and fluid mechanics)
- heat and mass transfer operations (See RDF2049909 Heat and mass transfer operations)
- history and philosophy of engineering (See RDF6030304 History and philosophy of engineering and technology)
- hydraulic engineering (See RDF2010108 Hydraulic engineering)
- process control and simulations associated with control engineering (See RDF2049902 Automation and control engineering)
- water quality engineering (See RDF2080106 Water quality engineering)
- water resources infrastructures engineering (See RDF2010107 Water resources infrastructure engineering)

RDF20501 Chemical engineering

This class comprises research and experimental development in chemical engineering.

Exclusion(s)

- biocatalysis (See RDF2100101 Biocatalysis and enzyme technology)
- carbon sequestration science (See RDF1051108 Carbon sequestration science)
- chemical sciences (including organic and biomolecular chemistry) (See RDF104 Chemical sciences)
- combustion and fuel engineering for automotive applications (See RDF2040201 Automotive combustion and fuel engineering (including alternative and renewable fuels))
- fluidization and fluid mechanics and turbulent flows (See RDF2049908 Fluidization and fluid mechanics)
- heat and mass transfer operations (See RDF2049909 Heat and mass transfer operations)
- hydraulic engineering (See RDF2010108 Hydraulic engineering)
- process control and simulation associated with control engineering (See RDF2049902 Automation and control engineering)
- water quality engineering (See RDF2080106 Water quality engineering)
- water resources infrastructures engineering (See RDF2010107 Water resources infrastructure engineering)

RDF2050101 Carbon capture engineering

This subclass comprises research and experimental development in carbon capture engineering.

Exclusion(s)

- carbon sequestration (See RDF1051108 Carbon sequestration science)

RDF2050102 Catalytic process engineering

This subclass comprises research and experimental development in catalytic process engineering.

RDF2050103 Chemical engineering design

This subclass comprises research and experimental development in chemical engineering design.

RDF2050104 Membrane and other separation technologies

This subclass comprises research and experimental development in membrane and other separation technologies.

RDF2050105 Non-automotive combustion engineering (including alternative and renewable fuels)

This subclass comprises research and experimental development in non-automotive combustion engineering (including alternative and renewable fuels).

RDF2050106 Fuel engineering (including renewable)

This subclass comprises research and experimental development in fuel engineering (including renewable).

RDF2050107 Powder and particle technology

This subclass comprises research and experimental development in powder and particle technology.

RDF2050108 Process control and simulation in chemical engineering

This subclass comprises research and experimental development in process control and simulation in chemical engineering.

Exclusion(s)

- food rheology (See RDF4040206 Food rheology, food texture and sensory evaluation)

RDF2050109 Rheology

This subclass comprises research and experimental development in rheology.

RDF2050110 Petroleum and reservoir engineering

This subclass comprises research and experimental development in petroleum and reservoir engineering.

RDF2050111 Biochemical engineering

This subclass comprises research and experimental development in biochemical engineering.

RDF2050112 Reaction fundamentals and reactor design

This subclass comprises research and experimental development in reaction fundamentals and reactor design.

RDF2050199 Chemical engineering, n.e.c.

This subclass comprises research and experimental development in chemical engineering, n.e.c.

RDF206 Materials engineering and resources engineering

This group comprises research and experimental development in materials engineering and resources engineering.

Exclusion(s)

- history and philosophy of engineering (See RDF6030304 History and philosophy of engineering and technology)

- materials chemistry (including theory and design of materials) (See RDF10404 Macromolecular and materials chemistry)
- materials physics (physical sciences) (See RDF103 Physical sciences)
- medical biotechnology (See RDF30401 Medical biotechnology)

RDF20601 Materials engineering

This class comprises research and experimental development in materials engineering.

Exclusion(s)
- biomaterials not solely restricted to dentistry (See RDF2070101 Biomedical materials)
- condensed matter physics (See RDF10305 Condensed matter physics)
- construction materials (See RDF2010103 Concrete, cementitious materials and other architectural and construction materials)
- dental materials (See RDF3020401 Dental materials and equipment)
- engineering of materials for automotive applications (See RDF2040202 Automotive engineering materials)
- extractive metallurgy (See RDF20602 Resources engineering and extractive metallurgy)
- Food and beverage processing (See RDF4040204 Food and beverage processing (including packaging, additives, transportation and preservation))
- food engineering (See RDF4040208 Food engineering)
- materials chemistry (including theory and design of materials) (See RDF10404 Macromolecular and materials chemistry)
- materials engineering associated with automotive engineering applications (See RDF2040202 Automotive engineering materials)
- materials engineering associated with civil engineering applications (See RDF2010103 Concrete, cementitious materials and other architectural and construction materials)
- nanomaterials (See RDF2110107 Nanomaterials)
- physical chemistry of materials (See RDF1040607 Physical chemistry of materials)
- powder and particle technology (See RDF2050107 Powder and particle technology)

RDF2060101 Ceramics engineering

This subclass comprises research and experimental development in ceramics engineering.

RDF2060102 Composite and hybrid materials

This subclass comprises research and experimental development in composite and hybrid materials.

RDF2060103 Compound semiconductors

This subclass comprises research and experimental development in compound semiconductors.

RDF2060104 Elemental semiconductors

This subclass comprises research and experimental development in elemental semiconductors.

RDF2060105 Functional materials in materials engineering sciences

This subclass comprises research and experimental development in functional materials in materials engineering sciences.

RDF2060106 Glass engineering

This subclass comprises research and experimental development in glass engineering.

RDF2060107 Metals and alloy materials engineering

This subclass comprises research and experimental development in metals and alloy materials engineering.

RDF2060108 Organic semiconductors

This subclass comprises research and experimental development in organic semiconductors.

RDF2060109 Polymers and plastics engineering

This subclass comprises research and experimental development in polymers and plastics engineering.

RDF2060110 Timber, pulp and paper engineering

This subclass comprises research and experimental development in timber, pulp and paper engineering.

RDF2060111 Methods of synthesis and growth of materials

This subclass comprises research and experimental development in methods of synthesis and growth of materials.

RDF2060112 Elaboration and characterizations of thin and ultrathin layers

This subclass comprises research and experimental development in elaboration and characterizations of thin and ultrathin layers.

RDF2060113 Relation micro-nanostructure and properties

This subclass comprises research and experimental development in relation micro-nanostructure and properties.

RDF2060114 Structure property relationships modelling of thin layers

This subclass comprises research and experimental development in structure property relationships modelling of thin layers.

RDF2060115 Nanoparticle synthesis, properties and applications

This subclass comprises research and experimental development in nanoparticle synthesis, properties and applications.

RDF2060116 Electrical, optical, catalytic and magnetic properties of thin layers

This subclass comprises research and experimental development in electrical, optical, catalytic and magnetic properties of thin layers.

RDF2060199 Materials engineering, n.e.c.

This subclass comprises research and experimental development in materials engineering, n.e.c.

RDF20602 Resources engineering and extractive metallurgy

This class comprises research and experimental development in resources engineering and extractive metallurgy.

Exclusion(s)

- civil geotechnical engineering (See RDF2010101 Geotechnical engineering)
- earth sciences (See RDF105 Earth and related environmental sciences)

- materials engineering (See RDF20601 Materials engineering)
- uranium processing and enrichment (See RDF2120107 Nuclear engineering (including fuel enrichment and nuclear waste processing and storage))

RDF2060201 Electrometallurgy

This subclass comprises research and experimental development in electrometallurgy.

RDF2060202 Hydrometallurgy

This subclass comprises research and experimental development in hydrometallurgy.

RDF2060203 Mineral processing and beneficiation

This subclass comprises research and experimental development in mineral processing and beneficiation.

RDF2060204 Pyrometallurgy

This subclass comprises research and experimental development in pyrometallurgy.

RDF2060299 Resources engineering and extractive metallurgy, n.e.c.

This subclass comprises research and experimental development in resources engineering and extractive metallurgy, n.e.c.

RDF207 Medical and biomedical engineering

This group comprises research and experimental development in medical and biomedical engineering.

Exclusion(s)

- history and philosophy of engineering (See RDF6030304 History and philosophy of engineering and technology)

RDF20701 Medical and biomedical engineering

This class comprises research and experimental development in medical and biomedical engineering.

Exclusion(s)

- materials used in dentistry (See RDF3020401 Dental materials and equipment)
- medical biotechnology (See RDF30401 Medical biotechnology)

RDF2070101 Biomedical materials

This subclass comprises research and experimental development in biomedical materials.

Exclusion(s)

- dental materials (See RDF3020401 Dental materials and equipment)
- materials used in dentistry (See RDF3020401 Dental materials and equipment)

RDF2070102 Biomechanical engineering

This subclass comprises research and experimental development in biomechanical engineering.

RDF2070103 Biomedical instrumentation (including diagnostics)

This subclass comprises research and experimental development in biomedical instrumentation (including diagnostics).

RDF2070104 Medical devices

This subclass comprises research and experimental development in medical devices.

Exclusion(s)

- dental materials and equipment (including dental devices) (See RDF3020401 Dental materials and equipment)

RDF2070105 Rehabilitation engineering (except assistive technologies)

This subclass comprises research and experimental development in rehabilitation engineering (except assistive technologies).

Exclusion(s)

- assistive technologies (See RDF2020105 Assistive technologies)
- rehabilitation medicine (See RDF30303 Rehabilitation medicine)

RDF2070106 Artificial tissues engineering

This subclass comprises research and experimental development in artificial tissues engineering.

RDF2070107 Biomedical signal processing

This subclass comprises research and experimental development in biomedical signal processing.

Exclusion(s)

- biomedical instrumentation (See RDF2070103 Biomedical instrumentation (including diagnostics))
- bio-signal processing with no direct medical application (See RDF2030309 Bio-signal processing and analysis)

RDF2070108 Biomedical robotics

This subclass comprises research and experimental development in biomedical robotics.

Exclusion(s)

- robotics associated with artificial intelligence (See RDF1020102 Intelligent robotics)

RDF2070109 Image guided surgery systems

This subclass comprises research and experimental development in image guided surgery systems.

RDF2070199 Medical and biomedical engineering, n.e.c.

This subclass comprises research and experimental development in medical and biomedical engineering, n.e.c.

RDF208 Environmental engineering and related engineering

This group comprises research and experimental development in environmental engineering and related engineering.

Exclusion(s)

- history and philosophy of engineering (See RDF6030304 History and philosophy of engineering and technology)

RDF20801 Environmental engineering

This class comprises research and experimental development in environmental engineering.

Exclusion(s)

- agricultural hydrology (See RDF4040111 Agricultural hydrology)
- environmental biotechnology (See RDF20901 Environmental biotechnology)
- environmental sciences (See RDF105 Earth and related environmental sciences)
- surface water hydrology (See RDF1050703 Surface water hydrology)

RDF2080101 Residual materials management

This subclass comprises research and experimental development in residual materials management.

Exclusion(s)

- waste management (See RDF2080107 Waste management (including agricultural waste))

RDF2080102 Product life cycle

This subclass comprises research and experimental development in product life cycle.

RDF2080103 Environmental impacts

This subclass comprises research and experimental development in environmental impacts.

RDF2080104 Bioremediation and soil restoration

This subclass comprises research and experimental development in bioremediation and soil restoration.

RDF2080105 Wastewater treatment (including water treatment processes)

This subclass comprises research and experimental development in wastewater treatment (including water treatment processes).

RDF2080106 Water quality engineering

This subclass comprises research and experimental development in water quality engineering.

RDF2080107 Waste management (including agricultural waste)

This subclass comprises research and experimental development in waste management (including agricultural waste).

Exclusion(s)

- residual materials (recycling) management (See RDF2080101 Residual materials management)

RDF2080199 Environmental engineering, n.e.c.

This subclass comprises research and experimental development in environmental engineering, n.e.c.

RDF20802 Geomatics engineering

This class comprises research and experimental development in geomatics engineering.

Exclusion(s)

- geomatics associated with earth systems observations (See RDF10509 Geomatics and earth systems observations)
- geophysics (See RDF10504 Geophysics)

RDF2080201 Cartography

This subclass comprises research and experimental development in cartography.

RDF2080202 Geospatial information systems

This subclass comprises research and experimental development in geospatial information systems.

RDF2080203 Navigation and position fixing

This subclass comprises research and experimental development in navigation and position fixing.

RDF2080204 Remote sensing in geomatics and photogrammetry

This subclass comprises research and experimental development in remote sensing in geomatics and photogrammetry.

Exclusion(s)

- communication antennas for use in remote sensing (See RDF20302 Communications and networks technologies)

RDF2080205 Geomatic surveying (including hydrographic surveying)

This subclass comprises research and experimental development in geomatic surveying (including hydrographic surveying).

RDF2080299 Geomatics engineering, n.e.c.

This subclass comprises research and experimental development in geomatics engineering, n.e.c.

RDF20899 Other environmental engineering and related engineering

This class comprises research and experimental development in other environmental engineering and related engineering.

RDF2089999 Other environmental engineering and related engineering

This subclass comprises research and experimental development in other environmental engineering and related engineering.

RDF209 Environmental biotechnology

This group comprises research and experimental development in environmental biotechnology.

Exclusion(s)

- history and philosophy of technology (See RDF6030304 History and philosophy of engineering and technology)

RDF20901 Environmental biotechnology

This class comprises research and experimental development in environmental biotechnology.

Exclusion(s)

- agricultural biotechnology (See RDF40401 Agricultural biotechnology)
- environmental engineering (See RDF20801 Environmental engineering)
- environmental sciences (See RDF105 Earth and related environmental sciences)
- ethical use of biotechnology (See RDF6030203 Ethics in technology (e.g., digital, artificial intelligence))

- medical biotechnology (See RDF30401 Medical biotechnology)
- nanobiotechnology (See RDF2110102 Nanobiotechnology)

RDF2090101 Biodiscovery

This subclass comprises research and experimental development in biodiscovery.

RDF2090102 Biological control

This subclass comprises research and experimental development in biological control.

RDF2090103 Bioremediation

This subclass comprises research and experimental development in bioremediation.

Exclusion(s)

- bioremediation associated with soil restoration (See RDF2080104 Bioremediation and soil restoration)

RDF2090104 Environmental biotechnology diagnostics (including biosensors)

This subclass comprises research and experimental development in environmental biotechnology diagnostics (including biosensors).

RDF2090105 Environmental marine biotechnology

This subclass comprises research and experimental development in environmental marine biotechnology.

RDF2090106 Environmental molecular engineering of nucleic acids and proteins

This subclass comprises research and experimental development in environmental molecular engineering of nucleic acids and proteins.

RDF2090199 Environmental biotechnology, n.e.c.

This subclass comprises research and experimental development in environmental biotechnology, n.e.c.

RDF210 Industrial biotechnology

This group comprises research and experimental development in industrial biotechnology.

Exclusion(s)

- agricultural biotechnology (See RDF40401 Agricultural biotechnology)
- food engineering (See RDF4040208 Food engineering)
- history and philosophy of technology (See RDF6030304 History and philosophy of engineering and technology)

RDF21001 Industrial biotechnology

This class comprises research and experimental development in industrial biotechnology.

Exclusion(s)

- agricultural biotechnology (See RDF40401 Agricultural biotechnology)
- catalysis without a biological component (See RDF2050102 Catalytic process engineering)
- environmental biotechnology (See RDF20901 Environmental biotechnology)
- ethical use of biotechnology (See RDF6030203 Ethics in technology (e.g., digital, artificial intelligence))
- fermentation for the production of foodstuffs (See RDF4040201 Food chemistry (including fermentation))

- food engineering (See RDF4040208 Food engineering)
- medical biotechnology (See RDF30401 Medical biotechnology)
- nanobiotechnology (See RDF2110102 Nanobiotechnology)

RDF2100101 Biocatalysis and enzyme technology

This subclass comprises research and experimental development in biocatalysis and enzyme technology.

RDF2100102 Bioprocessing, bioproduction and bioproducts

This subclass comprises research and experimental development in bioprocessing, bioproduction and bioproducts.

RDF2100103 Fermentation biotechnology

This subclass comprises research and experimental development in fermentation biotechnology.

RDF2100104 Industrial biotechnology diagnostics (including biosensors)

This subclass comprises research and experimental development in industrial biotechnology diagnostics (including biosensors).

RDF2100105 Industrial microbiology (including biofeedstocks)

This subclass comprises research and experimental development in industrial microbiology (including biofeedstocks).

RDF2100106 Industrial molecular engineering of nucleic acids and proteins

This subclass comprises research and experimental development in industrial molecular engineering of nucleic acids and proteins.

RDF2100199 Industrial biotechnology, n.e.c.

This subclass comprises research and experimental development in industrial biotechnology, n.e.c.

RDF211 Nano-technology

This group comprises research and experimental development in nano-technology.

Exclusion(s)

- history and philosophy of technology (See RDF6030304 History and philosophy of engineering and technology)

RDF21101 Nano-technology

This class comprises research and experimental development in nano-technology.

Exclusion(s)

- environmental sciences (See RDF105 Earth and related environmental sciences)
- ethical use of nanotechnology (See RDF6030203 Ethics in technology (e.g., digital, artificial intelligence))
- materials engineering (See RDF20601 Materials engineering)
- microelectromechanical systems (mems) (See RDF2049904 Microelectromechanical systems (MEMS))
- nanochemistry (See RDF1040402 Nanochemistry)

RDF2110101 Environmental nanotechnology

This subclass comprises research and experimental development in environmental nanotechnology.

RDF2110102 Nanobiotechnology

This subclass comprises research and experimental development in nanobiotechnology.

RDF2110103 Nanoelectromechanical systems

This subclass comprises research and experimental development in nanoelectromechanical systems.

RDF2110104 Nanoelectronics

This subclass comprises research and experimental development in nanoelectronics.

Exclusion(s)

- molecular and organic electronics (See RDF2110113 Molecular and organic electronics)

RDF2110105 Nanofabrication, growth and self-assembly

This subclass comprises research and experimental development in nanofabrication, growth and self-assembly.

RDF2110106 Nanomanufacturing

This subclass comprises research and experimental development in nanomanufacturing.

RDF2110107 Nanomaterials

This subclass comprises research and experimental development in nanomaterials.

RDF2110108 Nanomedicine

This subclass comprises research and experimental development in nanomedicine.

RDF2110109 Nanometrology

This subclass comprises research and experimental development in nanometrology.

RDF2110110 Nanophotonics

This subclass comprises research and experimental development in nanophotonics.

RDF2110111 Nanoscale characterisation

This subclass comprises research and experimental development in nanoscale characterisation.

RDF2110112 Nanotoxicology, health and safety

This subclass comprises research and experimental development in nanotoxicology, health and safety.

RDF2110113 Molecular and organic electronics

This subclass comprises research and experimental development in molecular and organic electronics.

RDF2110199 Nanotechnology, n.e.c.

This subclass comprises research and experimental development in nanotechnology, n.e.c.

RDF212 Other engineering and technologies

This group comprises research and experimental development in other engineering and technologies.

Exclusion(s)

- food engineering (See RDF4040208 Food engineering)
- history and philosophy of technology (See RDF6030304 History and philosophy of engineering and technology)

RDF21201 Engineering design

This class comprises research and experimental development in engineering design.

Exclusion(s)

- chemical engineering design (See RDF2050103 Chemical engineering design)
- environmental engineering design (See RDF20801 Environmental engineering)
- industrial design (See RDF2040313 Industrial design in manufacturing engineering)
- satellite, space vehicle and missile design (See RDF2040108 Satellites, space vehicles and missiles design and testing)

RDF2120101 Engineering design empirical studies

This subclass comprises research and experimental development in engineering design empirical studies.

RDF2120102 Engineering design knowledge

This subclass comprises research and experimental development in engineering design knowledge.

RDF2120103 Engineering design methods

This subclass comprises research and experimental development in engineering design methods.

RDF2120104 Engineering systems design

This subclass comprises research and experimental development in engineering systems design.

RDF2120105 Models of engineering design

This subclass comprises research and experimental development in models of engineering design.

RDF2120106 Engineering design, n.e.c.

This subclass comprises research and experimental development in engineering design, n.e.c.

RDF2120107 Nuclear engineering (including fuel enrichment and nuclear waste processing and storage)

This subclass comprises research and experimental development in Nuclear engineering (including fuel enrichment and nuclear waste processing and storage).

RDF2120199 Other engineering and technologies, n.e.c.

This subclass comprises research and experimental development in other engineering and technologies, n.e.c.

RDF30 Medical, health and life sciences

This division comprises research and experimental development in medical, health and life sciences. Medical, health and life sciences refer to scientific disciplines concerned with understanding, exploring or developing the natural world, in the fields of medical, health and life sciences, which include basic medicine and life sciences; clinical medicine and other clinical sciences; health sciences; medical biotechnology; and other medical sciences. Research consists of systematic investigation carried by means of experiment or analysis to achieve a scientific

or technological advance such as acquiring new knowledge of the underlying foundation of phenomena and observable facts. Experimental development consists of new or substantially improved goods, services, systems, methods or processes.

RDF301 Basic medicine and life sciences

This group comprises research and experimental development in basic medicine and life sciences.

Exclusion(s)

- animal biophysics (See RDF1060801 Animal physiology, biophysics)
- animal immunology (See RDF1061004 Animal immunology)
- animal toxicology (See RDF1060811 Animal physiology, toxicology)
- behavioural neuroscience of learning and memory (See RDF1061105 Behavioural neuroscience of learning and memory)
- behavioural neuroscience of reward and motivation (See RDF1061106 Behavioural neuroscience of reward and motivation)
- biological and chemical aspects of neurosciences (See RDF10611 Neurosciences, biological and chemical aspects)
- clinical medicine (See RDF302 Clinical medicine)
- clinical microbiology (See RDF3020202 Clinical microbiology)
- dental therapeutics, pharmacology and toxicology (See RDF3020402 Dental therapeutics, pharmacology and toxicology)
- ecotoxicology (See RDF1051010 Ecotoxicology)
- genetics (See RDF10606 Genetics)
- health sciences (See RDF303 Health sciences)
- history and philosophy of basic medicine (See RDF6030306 History and philosophy of medicine)
- history and philosophy of medicine (See RDF6030306 History and philosophy of medicine)
- history of medicine and health care (See RDF6010112 History of medicine and health care)
- human microbiology not associated with basic medicine (See RDF10607 Microbiology)
- medical biotechnology (See RDF30401 Medical biotechnology)
- medical ethics (See RDF6030206 Medical ethics)
- medical physics (See RDF1039902 Medical physics)
- medicinal and biomolecular chemistry (See RDF10405 Biomolecular and medicinal chemistry)
- microbiology (except virology) related to veterinary practice (See RDF4030106 Veterinary microbiology (except virology))
- nanomedicine (See RDF2110108 Nanomedicine)
- nanotoxicology (See RDF2110112 Nanotoxicology, health and safety)
- neurocognitive patterns and neural networks (See RDF1061107 Neurocognitive patterns and neural networks)
- neurology (See RDF3020227 Neurology)
- nursing (See RDF30306 Nursing)
- pediatrics and reproductive medicine (See RDF30205 Pediatrics and reproductive medicine)
- reproductive health ethics (See RDF6030210 Reproductive health ethics)
- veterinary medicine (See RDF4030105 Veterinary medicine)

- veterinary sciences (See RDF40301 Veterinary sciences)
- veterinary virology (See RDF4030111 Veterinary virology)

RDF30101 Immunology

This class comprises research and experimental development in immunology.

Exclusion(s)

- immune diseases (See RDF3010113 Immune diseases)

RDF3010101 Allergy

This subclass comprises research and experimental development in allergy.

RDF3010102 Applied immunology (including antibody engineering, xenotransplantation and t-cell therapies)

This subclass comprises research and experimental development in applied immunology (including antibody engineering, xenotransplantation and t-cell therapies).

RDF3010103 Autoimmunity

This subclass comprises research and experimental development in autoimmunity.

RDF3010104 Cellular immunology

This subclass comprises research and experimental development in cellular immunology.

RDF3010105 Humoural immunology and immunochemistry

This subclass comprises research and experimental development in humoural immunology and immunochemistry.

RDF3010106 Immunogenetics (including genetic immunology)

This subclass comprises research and experimental development in immunogenetics (including genetic immunology).

RDF3010107 Innate immunity

This subclass comprises research and experimental development in innate immunity.

RDF3010108 Adaptive immunity

This subclass comprises research and experimental development in adaptive immunity.

RDF3010109 Transplantation immunology

This subclass comprises research and experimental development in transplantation immunology.

RDF3010110 Tumour immunology

This subclass comprises research and experimental development in tumour immunology.

RDF3010111 Immune tolerance

This subclass comprises research and experimental development in immune tolerance.

RDF3010112 Immune deficiency

This subclass comprises research and experimental development in immune deficiency.

RDF3010113 Immune diseases

This subclass comprises research and experimental development in immune diseases.

RDF3010199 Immunology, n.e.c.

This subclass comprises research and experimental development in immunology, n.e.c.

RDF30102 Cancer

This class comprises research and experimental development in cancer.

RDF3010201 Cancer progression and metastasis

This subclass comprises research and experimental development in cancer progression and metastasis.

RDF3010202 Mechanisms of carcinogenesis

This subclass comprises research and experimental development in mechanisms of carcinogenesis.

RDF3010203 Cancer drug development and therapeutics

This subclass comprises research and experimental development in cancer drug development and therapeutics.

RDF3010204 Cancer diagnosis

This subclass comprises research and experimental development in cancer diagnosis.

RDF3010205 Cancer genetics

This subclass comprises research and experimental development in cancer genetics.

RDF3010206 Hematological tumours

This subclass comprises research and experimental development in hematological tumours.

RDF3010207 Cancer molecular targets

This subclass comprises research and experimental development in cancer molecular targets.

RDF3010208 Solid cancer tumours

This subclass comprises research and experimental development in solid cancer tumours.

RDF3010209 Pediatric cancer

This subclass comprises research and experimental development in pediatric cancer.

RDF3010210 Premalignant disease (precursors)

This subclass comprises research and experimental development in premalignant disease (precursors).

RDF3010299 Cancer, n.e.c.

This subclass comprises research and experimental development in cancer, n.e.c.

RDF30103 Medical microbiology

This class comprises research and experimental development in medical microbiology.

Exclusion(s)

- clinical microbiology (See RDF3020202 Clinical microbiology)
- human microbiology not associated with basic medicine (See RDF10607 Microbiology)
- microbiology (except virology) related to veterinary practice (See RDF4030106 Veterinary microbiology (except virology))
- veterinary virology (See RDF4030111 Veterinary virology)

RDF3010301 Medical bacteriology

This subclass comprises research and experimental development in medical bacteriology.

RDF3010302 Medical infection agents (including prions)

This subclass comprises research and experimental development in medical infection agents (including prions).

RDF3010303 Medical parasitology

This subclass comprises research and experimental development in medical parasitology.

RDF3010304 Medical virology

This subclass comprises research and experimental development in medical virology.

RDF3010305 Antimicrobial resistance

This subclass comprises research and experimental development in antimicrobial resistance.

RDF3010306 Antiviral resistance

This subclass comprises research and experimental development in antiviral resistance.

RDF3010307 Vaccines

This subclass comprises research and experimental development in vaccines.

RDF3010308 Human microbiota

This subclass comprises research and experimental development in human microbiota.

RDF3010309 Pathogenesis

This subclass comprises research and experimental development in pathogenesis.

RDF3010399 Medical microbiology, n.e.c.

This subclass comprises research and experimental development in medical microbiology, n.e.c.

RDF30104 Neurosciences, medical and physiological and health aspects

This class comprises research and experimental development in neurosciences, medical and physiological and health aspects.

Exclusion(s)

- behavioural neuroscience of learning and memory (See RDF1061105 Behavioural neuroscience of learning and memory)
- behavioural neuroscience of reward and motivation (See RDF1061106 Behavioural neuroscience of reward and motivation)

- biological and chemical aspects of neurosciences (See RDF10611 Neurosciences, biological and chemical aspects)
- cognitive sciences (See RDF50102 Cognitive sciences)
- neurocognitive patterns and neural networks (See RDF1061107 Neurocognitive patterns and neural networks)
- neurology (See RDF3020227 Neurology)
- psychiatry and psychotherapy (See RDF3020223 Psychiatry (including psychotherapy))

RDF3010401 Autonomic nervous system

This subclass comprises research and experimental development in autonomic nervous system.

RDF3010402 Central nervous system

This subclass comprises research and experimental development in central nervous system.

RDF3010403 Motor systems

This subclass comprises research and experimental development in motor systems.

RDF3010404 Neuromuscular diseases

This subclass comprises research and experimental development in neuromuscular diseases.

RDF3010405 Peripheral nervous system

This subclass comprises research and experimental development in peripheral nervous system.

RDF3010406 Sensory systems, visual

This subclass comprises research and experimental development in sensory systems, visual.

RDF3010407 Sensory systems, auditory

This subclass comprises research and experimental development in sensory systems, auditory.

RDF3010408 Sensory systems, pain

This subclass comprises research and experimental development in sensory systems, pain.

RDF3010409 Sensory systems, vestibular

This subclass comprises research and experimental development in sensory systems, vestibular.

RDF3010410 Sensory systems, somatosensory

This subclass comprises research and experimental development in sensory systems, somatosensory.

RDF3010411 Sensory systems, olfactory

This subclass comprises research and experimental development in sensory systems, olfactory.

RDF3010412 Sensorimotor neuroscience

This subclass comprises research and experimental development in sensorimotor neuroscience.

RDF3010413 Neural excitability and synapses

This subclass comprises research and experimental development in neural excitability and synapses.

RDF3010414 Neurodegeneration

This subclass comprises research and experimental development in neurodegeneration.

RDF3010415 Neurodevelopment

This subclass comprises research and experimental development in neurodevelopment.

RDF3010416 Neuroinflammation

This subclass comprises research and experimental development in neuroinflammation.

RDF3010417 Neurogenesis and plasticity, medical and health aspects

This subclass comprises research and experimental development in neurogenesis and plasticity, medical and health aspects.

RDF3010418 Glial cell studies

This subclass comprises research and experimental development in glial cell studies.

RDF3010419 Neurological disorders (except neuromuscular diseases)

This subclass comprises research and experimental development in neurological disorders (except neuromuscular diseases).

Exclusion(s)
- neuromuscular diseases (See RDF3010404 Neuromuscular diseases)

RDF3010420 Neurorobotics

This subclass comprises research and experimental development in neurorobotics.

Exclusion(s)
- robotics associated with artificial intelligence (See RDF1020102 Intelligent robotics)
- robotics associated with biomedical engineering (See RDF2070108 Biomedical robotics)

RDF3010421 Neuroethology

This subclass comprises research and experimental development in neuroethology.

RDF3010422 Neuropsychology

This subclass comprises research and experimental development in neuropsychology.

RDF3010423 Applied behavioural neurology and neuropsychiatry

This subclass comprises research and experimental development in applied behavioural neurology and neuropsychiatry.

RDF3010424 Biology of addiction

This subclass comprises research and experimental development in biology of addiction.

RDF3010499 Neurosciences, medical and health and physiological aspects, n.e.c.

This subclass comprises research and experimental development in neurosciences, medical and health and physiological aspects, n.e.c.

RDF30105 Pharmacology and pharmaceutical sciences (except clinical aspects)

This class comprises research and experimental development in pharmacology and pharmaceutical sciences, except clinical aspects.

Exclusion(s)

- clinical pharmacy and pharmacy practice (See RDF3020232 Clinical pharmacy and pharmacy practice)
- clinical toxicology (See RDF3020233 Clinical toxicology)
- dental therapeutics, pharmacology and toxicology (See RDF3020402 Dental therapeutics, pharmacology and toxicology)
- medicinal and biomolecular chemistry (See RDF10405 Biomolecular and medicinal chemistry)
- pharmacology for veterinary use (See RDF4030109 Veterinary pharmacology)
- translational and clinical pharmacology, and therapeutics (See RDF3020231 Translational and clinical pharmacology, and therapeutics)

RDF3010501 Basic pharmacology

This subclass comprises research and experimental development in basic pharmacology.

RDF3010502 Pharmacogenomics

This subclass comprises research and experimental development in pharmacogenomics.

RDF3010503 Toxicology (except clinical toxicology)

This subclass comprises research and experimental development in toxicology, except clinical toxicology.

Exclusion(s)

- clinical toxicology (See RDF3020233 Clinical toxicology)

RDF3010504 Drug discovery, design and delivery

This subclass comprises research and experimental development in drug discovery, design and delivery.

RDF3010505 Psychopharmacology

This subclass comprises research and experimental development in psychopharmacology.

RDF3010599 Pharmacology and pharmaceutical sciences, n.e.c.

This subclass comprises research and experimental development in pharmacology and pharmaceutical sciences, n.e.c.

RDF30106 Human physiology

This class comprises research and experimental development in human physiology.

Exclusion(s)

- animal biophysics (See RDF1060801 Animal physiology, biophysics)
- animal physiology (See RDF10608 Animal physiology)
- exercise physiology (See RDF3010704 Exercise physiology)
- medical physics (See RDF1039902 Medical physics)
- neurophysiology (See RDF1061108 Neurophysiology)
- nutritional physiology (See RDF3030104 Nutritional physiology)

- physiology related to specific aspects of plant or animal production or veterinary (See RDF40 Agricultural and veterinary sciences)
- skeletal muscle physiology (See RDF3010702 Musculoskeletal biology and physiology)

RDF3010601 Systems physiology

This subclass comprises research and experimental development in systems physiology.

RDF3010602 Sensorimotor physiology

This subclass comprises research and experimental development in sensorimotor physiology.

RDF3010603 Computational physiology

This subclass comprises research and experimental development in computational physiology.

RDF3010604 Sex differences in cells, tissues and animal

This subclass comprises research and experimental development in sex differences in cells, tissues and animal.

RDF3010605 Human development and organogenesis

This subclass comprises research and experimental development in human development and organogenesis.

RDF3010606 Electrophysiology

This subclass comprises research and experimental development in electrophysiology.

RDF3010699 Human physiology, n.e.c.

This subclass comprises research and experimental development in human physiology, n.e.c.

RDF30107 Musculoskeletal health and human movement

This class comprises research and experimental development in musculoskeletal health and human movement.

Exclusion(s)

- sport and exercise psychology (See RDF5010119 Sport and exercise psychology)

RDF3010701 Bone, skin and cartilage science

This subclass comprises research and experimental development in bone, skin and cartilage science.

RDF3010702 Musculoskeletal biology and physiology

This subclass comprises research and experimental development in musculoskeletal biology and physiology.

RDF3010703 Human biomechanics

This subclass comprises research and experimental development in human biomechanics.

RDF3010704 Exercise physiology

This subclass comprises research and experimental development in exercise physiology.

Exclusion(s)

- comparative biomechanics (See RDF1061013 Comparative biomechanics)

RDF3010705 Sensorimotor control

This subclass comprises research and experimental development in sensorimotor control.

RDF3010706 Balance, gait, and locomotion

This subclass comprises research and experimental development in balance, gait, and locomotion.

RDF3010799 Other musculoskeletal health and human movement, n.e.c.

This subclass comprises research and experimental development in other musculoskeletal health and human movement, n.e.c.

RDF30199 Other basic medicine and life sciences

This class comprises research and experimental development in other basic medicine and life sciences.

RDF3019999 Other basic medicine and life sciences

This subclass comprises research and experimental development in other basic medicine and life sciences, n.e.c.

RDF302 Clinical medicine

This group comprises research and experimental development in clinical medicine and other clinical sciences.

Exclusion(s)

- acute care in clinical nursing (See RDF3030603 Clinical nursing, secondary (acute care))
- biochemistry of crop and pasture (See RDF4010203 Crop and pasture biochemistry and physiology)
- biomaterials not solely restricted to dentistry (See RDF2070101 Biomedical materials)
- cancer genetics (See RDF3010205 Cancer genetics)
- clinical nutrition (See RDF3030101 Clinical nutrition)
- health sciences (See RDF303 Health sciences)
- history and philosophy of clinical medicine (See RDF6030306 History and philosophy of medicine)
- history and philosophy of medicine (See RDF6030306 History and philosophy of medicine)
- history of medicine and health care (See RDF6010112 History of medicine and health care)
- immunogenetics (See RDF3010106 Immunogenetics (including genetic immunology))
- medical biotechnology (See RDF30401 Medical biotechnology)
- medical ethics (See RDF6030206 Medical ethics)
- medicinal and biomolecular chemistry (See RDF10405 Biomolecular and medicinal chemistry)
- nursing (See RDF30306 Nursing)
- pediatrics and reproductive medicine (See RDF30205 Pediatrics and reproductive medicine)
- plant pathology (See RDF1060904 Plant pathology)
- preventive care in clinical nursing (See RDF3030602 Clinical nursing, primary (preventive care))
- rehabilitative care in clinical nursing (See RDF3030604 Clinical nursing, tertiary (rehabilitative care))
- reproductive health ethics (See RDF6030210 Reproductive health ethics)
- veterinary medicine (See RDF4030105 Veterinary medicine)
- veterinary pathology (See RDF4030108 Veterinary pathology)

RDF30201 Cardiorespiratory medicine and hematology

This class comprises research and experimental development in cardiorespiratory medicine and hematology.

Exclusion(s)

- pathology, other than oral pathology (See RDF3020221 Pathology (except oral pathology))

RDF3020101 Cardiology and circulatory sciences (including cardiovascular disease)

This subclass comprises research and experimental development in cardiology and circulatory sciences (including cardiovascular disease).

RDF3020102 Hematology

This subclass comprises research and experimental development in hematology.

RDF3020103 Respiratory diseases

This subclass comprises research and experimental development in respiratory diseases.

RDF3020104 Cerebrovascular sciences (including stroke)

This subclass comprises research and experimental development in cerebrovascular sciences (including stroke).

RDF3020105 Respiratory sciences

This subclass comprises research and experimental development in respiratory sciences.

Exclusion(s)

- respiratory system pathologies (See RDF3020106 Respiratory system pathologies and clinical interventions)

RDF3020106 Respiratory system pathologies and clinical interventions

This subclass comprises research and experimental development in respiratory system pathologies and clinical interventions.

RDF3020107 Vascular and endothelial biology

This subclass comprises research and experimental development in vascular and endothelial biology.

RDF3020199 Cardiorespiratory medicine and hematology, n.e.c.

This subclass comprises research and experimental development in cardiorespiratory medicine and hematology, n.e.c.

RDF30202 Clinical sciences

This class comprises research and experimental development in clinical sciences.

Exclusion(s)

- accelerators and other equipment for the production of radioisotopes for nuclear medicine (See RDF1039903 Instrumentation in physics)
- anthropological genetics (See RDF1060601 Anthropological genetics)
- basic cancer research (See RDF30102 Cancer)
- cancer genetics (See RDF3010205 Cancer genetics)
- cardiorespiratory medicine and hematology (See RDF30201 Cardiorespiratory medicine and hematology)
- clinical nutrition (See RDF3030101 Clinical nutrition)
- clinical psychology (See RDF5010109 Clinical psychology)
- complementary and alternative medicine (See RDF30203 Complementary and alternative medicine)

- dentistry and oral health (See RDF30204 Dentistry and oral health)
- oral pathology (See RDF3020405 Oral medicine and pathology)
- pediatrics and reproductive medicine (See RDF30205 Pediatrics and reproductive medicine)
- psychology (See RDF50101 Psychology, social and behavioural aspects)

RDF3020201 Anesthesiology

This subclass comprises research and experimental development in anesthesiology.

RDF3020202 Clinical microbiology

This subclass comprises research and experimental development in clinical microbiology.

RDF3020203 Dermatology

This subclass comprises research and experimental development in dermatology.

RDF3020204 Sexually transmitted diseases and infections

This subclass comprises research and experimental development in sexually transmitted diseases and infections.

RDF3020205 Critical care medicine and emergency medicine

This subclass comprises research and experimental development in critical care medicine and emergency medicine.

RDF3020206 Human endocrinology (except diabetes and obesity)

This subclass comprises research and experimental development in human endocrinology (except diabetes and obesity).

Exclusion(s)

- clinical sciences on diabetes (See RDF3020208 Clinical sciences on diabetes)
- clinical sciences on obesity (See RDF3020209 Clinical sciences on obesity)

RDF3020207 Human metabolism and diseases (except diabetes and obesity)

This subclass comprises research and experimental development in human metabolism and diseases (except diabetes and obesity).

Exclusion(s)

- clinical sciences on diabetes (See RDF3020208 Clinical sciences on diabetes)
- clinical sciences on obesity (See RDF3020209 Clinical sciences on obesity)
- human metabolism associated with nutrition (See RDF3030106 Human nutrition and metabolism)

RDF3020208 Clinical sciences on diabetes

This subclass comprises research and experimental development in clinical sciences on diabetes.

RDF3020209 Clinical sciences on obesity

This subclass comprises research and experimental development in clinical sciences on obesity.

RDF3020210 Gastroenterology

This subclass comprises research and experimental development in gastroenterology.

RDF3020211 Hepatology

This subclass comprises research and experimental development in hepatology.

RDF3020212 Geriatrics and gerontology

This subclass comprises research and experimental development in geriatrics and gerontology.

Exclusion(s)

- aged health care services (See RDF3030504 Aged health care services (except nursing))
- geriatric nursing (See RDF3030601 Geriatric nursing)

RDF3020213 Infectious diseases

This subclass comprises research and experimental development in infectious diseases.

RDF3020214 Clinical genetics (except cancer genetics)

This subclass comprises research and experimental development in clinical genetics (except cancer genetics).

Exclusion(s)

- cancer genetics (See RDF3010205 Cancer genetics)
- neurogenetics (See RDF1061103 Neurogenetics)

RDF3020215 Nephrology

This subclass comprises research and experimental development in nephrology.

RDF3020216 Urology

This subclass comprises research and experimental development in urology.

RDF3020217 Clinical and translational cardiovascular sciences

This subclass comprises research and experimental development in clinical and translational cardiovascular sciences.

RDF3020218 Radiology, nuclear medicine and medical imaging

This subclass comprises research and experimental development in radiology, nuclear medicine and medical imaging.

Exclusion(s)

- accelerators and other equipment for the production of radioisotopes for nuclear medicine (See RDF1039903 Instrumentation in physics)

RDF3020219 Orthopedics

This subclass comprises research and experimental development in orthopedics.

RDF3020220 Otorhinolaryngology

This subclass comprises research and experimental development in otorhinolaryngology.

RDF3020221 Pathology (except oral pathology)

This subclass comprises research and experimental development in pathology (except oral pathology).

Exclusion(s)

- oral pathology (See RDF3020405 Oral medicine and pathology)

RDF3020222 Podiatry

This subclass comprises research and experimental development in podiatry.

RDF3020223 Psychiatry (including psychotherapy)

This subclass comprises research and experimental development in psychiatry (including psychotherapy).

RDF3020224 Rheumatology

This subclass comprises research and experimental development in rheumatology.

RDF3020225 Surgery

This subclass comprises research and experimental development in surgery.

RDF3020226 Clinical oncology

This subclass comprises research and experimental development in clinical oncology.

Exclusion(s)

- basic cancer research (See RDF30102 Cancer)

RDF3020227 Neurology

This subclass comprises research and experimental development in neurology.

RDF3020228 Ophthalmology

This subclass comprises research and experimental development in ophthalmology.

RDF3020229 Rare diseases

This subclass comprises research and experimental development in rare diseases.

RDF3020230 Clinical sexology

This subclass comprises research and experimental development in clinical sexology.

RDF3020231 Translational and clinical pharmacology, and therapeutics

This subclass comprises research and experimental development in translational and clinical pharmacology and therapeutics.

RDF3020232 Clinical pharmacy and pharmacy practice

This subclass comprises research and experimental development in clinical pharmacy and pharmacy practice.

RDF3020233 Clinical toxicology

This subclass comprises research and experimental development in clinical toxicology.

RDF3020234 Clinical chemistry

This subclass comprises research and experimental development in clinical chemistry.

RDF3020299 Clinical sciences, n.e.c.

This subclass comprises research and experimental development in clinical sciences, n.e.c.

RDF30203 Complementary and alternative medicine

This class comprises research and experimental development in complementary and alternative medicine.

RDF3020301 Chiropractic

This subclass comprises research and experimental development in chiropractic.

RDF3020302 Naturopathy

This subclass comprises research and experimental development in naturopathy.

RDF3020303 Traditional Indigenous medicine and treatments

This subclass comprises research and experimental development in traditional Indigenous medicine and treatments.

RDF3020304 Traditional Chinese medicine and treatments

This subclass comprises research and experimental development in traditional Chinese medicine and treatments.

RDF3020399 Complementary and alternative medicine, n.e.c.

This subclass comprises research and experimental development in complementary and alternative medicine, n.e.c.

RDF30204 Dentistry and oral health

This class comprises research and experimental development in dentistry and oral health.

Exclusion(s)

- biomaterials not solely restricted to dentistry (See RDF2070101 Biomedical materials)

RDF3020401 Dental materials and equipment

This subclass comprises research and experimental development in dental materials and equipment.

Exclusion(s)

- biomaterials not solely restricted to dentistry (See RDF2070101 Biomedical materials)
- nanomaterials (See RDF2110107 Nanomaterials)

RDF3020402 Dental therapeutics, pharmacology and toxicology

This subclass comprises research and experimental development in dental therapeutics, pharmacology and toxicology.

RDF3020403 Endodontics

This subclass comprises research and experimental development in endodontics.

RDF3020404 Oral and maxillofacial surgery

This subclass comprises research and experimental development in oral and maxillofacial surgery.

RDF3020405 Oral medicine and pathology

This subclass comprises research and experimental development in oral medicine and pathology.

RDF3020406 Orthodontics and dentofacial orthopedics

This subclass comprises research and experimental development in orthodontics and dentofacial orthopedics.

RDF3020407 Pedodontics

This subclass comprises research and experimental development in pedodontics.

RDF3020408 Periodontics

This subclass comprises research and experimental development in periodontics.

RDF3020409 Special needs dentistry

This subclass comprises research and experimental development in special needs dentistry.

RDF3020499 Dentistry and oral health, n.e.c.

This subclass comprises research and experimental development in dentistry and oral health, n.e.c.

RDF30205 Pediatrics and reproductive medicine

This class comprises research and experimental development in pediatrics and reproductive medicine.

Exclusion(s)

- maternal and newborn care (See RDF3030513 Maternal and newborn care)
- midwifery (See RDF3030518 Midwifery)
- regenerative medicine (See RDF3040104 Regenerative medicine (including stem cells and tissue engineering))

RDF3020501 Fetal development and medicine

This subclass comprises research and experimental development in fetal development and medicine.

RDF3020502 Obstetrics and gynecology

This subclass comprises research and experimental development in obstetrics and gynecology.

Exclusion(s)

- maternal and newborn care (See RDF3030513 Maternal and newborn care)
- midwifery (See RDF3030518 Midwifery)

RDF3020503 Pediatrics

This subclass comprises research and experimental development in pediatrics.

Exclusion(s)

- maternal and newborn care (See RDF3030513 Maternal and newborn care)
- midwifery (See RDF3030518 Midwifery)

RDF3020504 Human reproduction and development sciences

This subclass comprises research and experimental development in human reproduction and development sciences.

RDF3020505 Neonatology

This subclass comprises research and experimental development in neonatology.

Exclusion(s)

- maternal and newborn care (See RDF3030513 Maternal and newborn care)

RDF3020506 Embryology

This subclass comprises research and experimental development in embryology.

RDF3020507 Fertility and maternal health

This subclass comprises research and experimental development in fertility and maternal health.

RDF3020508 Assisted reproductive technologies

This subclass comprises research and experimental development in assisted reproductive technologies.

RDF3020599 Pediatrics and reproductive medicine, n.e.c.

This subclass comprises research and experimental development in pediatrics and reproductive medicine, n.e.c.

RDF30299 Other clinical medicine

This class comprises research and experimental development in other clinical medicine.

RDF3029999 Other clinical medicine

This subclass comprises research and experimental development in other clinical medicine, n.e.c.

RDF303 Health sciences

This group comprises research and experimental development in health sciences.

Exclusion(s)

- history and philosophy of medicine (See RDF6030306 History and philosophy of medicine)
- history of medicine and health care (See RDF6010112 History of medicine and health care)
- nutritional content and balance of foods (See RDF40402 Food sciences (including food engineering))
- veterinary medicine (See RDF4030105 Veterinary medicine)

RDF30301 Human nutrition and dietetics

This class comprises research and experimental development in human nutrition and dietetics.

Exclusion(s)

- animal nutrition (See RDF4020104 Animal nutrition and metabolism)
- metabolism in animal physiology (See RDF1060803 Animal physiology, metabolism)
- nutritional content and balance of foods (See RDF40402 Food sciences (including food engineering))
- plant nutrition and metabolism (See RDF1060910 Plant nutrition and metabolism)

RDF3030101 Clinical nutrition

This subclass comprises research and experimental development in clinical nutrition.

RDF3030102 Sports nutrition

This subclass comprises research and experimental development in sports nutrition.

RDF3030103 Dietetics and nutrigenomics

This subclass comprises research and experimental development in dietetics and nutrigenomics.

RDF3030104 Nutritional physiology

This subclass comprises research and experimental development in nutritional physiology.

RDF3030105 Public health nutrition policy

This subclass comprises research and experimental development in Public health nutrition policy.

RDF3030106 Human nutrition and metabolism

This subclass comprises research and experimental development in human nutrition and metabolism.

Exclusion(s)

- animal nutrition (See RDF4020104 Animal nutrition and metabolism)
- food safety (See RDF4040203 Food safety)
- plant nutrition and metabolism (See RDF1060910 Plant nutrition and metabolism)

RDF3030199 Human nutrition and dietetics, n.e.c.

This subclass comprises research and experimental development in human nutrition and dietetics, n.e.c.

RDF30302 Public and population health

This class comprises research and experimental development in public and population health.

RDF3030201 Indigenous health

This subclass comprises research and experimental development in indigenous health.

RDF3030202 Population health interventions

This subclass comprises research and experimental development in population health interventions.

RDF3030203 Environmental, developmental and social factors of youth health

This subclass comprises research and experimental development in environmental, developmental and social factors of youth health.

RDF3030204 Prevention, treatment and support of youth health

This subclass comprises research and experimental development in prevention, treatment and support of youth health.

RDF3030205 Psychosocial, sociocultural and behavioural determinants of health

This subclass comprises research and experimental development in psychosocial, sociocultural and behavioural determinants of health.

RDF3030206 Environmental determinants of health (including environment-gene interactions)

This subclass comprises research and experimental development in environmental determinants of health (including environment-gene interactions).

RDF3030207 Ethical, legal, and social issues in health, health systems and health research

This subclass comprises research and experimental development in ethical, legal, and social issues in health, health systems and health research.

RDF3030208 Aging process

This subclass comprises research and experimental development in aging process.

Exclusion(s)

- environmental determinants of health (See RDF3030206 Environmental determinants of health (including environment-gene interactions))
- social and biological determinants of aging (See RDF3030209 Social and biological determinants of aging)

RDF3030209 Social and biological determinants of aging

This subclass comprises research and experimental development in social and biological determinants of aging.

Exclusion(s)

- environmental determinants of health (See RDF3030206 Environmental determinants of health (including environment-gene interactions))

RDF3030210 Environmental and occupational health and safety

This subclass comprises research and experimental development in environmental and occupational health and safety.

Exclusion(s)

- management aspects of occupational health, safety and wellness (See RDF5020203 Occupational health, safety and wellness management)

RDF3030211 Epidemiology (except nutritional and veterinary epidemiology)

This subclass comprises research and experimental development in epidemiology (except nutritional and veterinary epidemiology).

Exclusion(s)

- nutritional epidemiology (See RDF3030221 Nutritional epidemiology)
- veterinary epidemiology (See RDF4030103 Veterinary epidemiology)

RDF3030212 Health promotion and disease prevention

This subclass comprises research and experimental development in health promotion and disease prevention.

RDF3030213 Food security

This subclass comprises research and experimental development in food security.

RDF3030214 Health equity

This subclass comprises research and experimental development in health equity.

RDF3030215 Sex and gender-based analysis

This subclass comprises research and experimental development in sex and gender-based analysis.

RDF3030216 Gender and health relationship

This subclass comprises research and experimental development in gender and health relationship.

Exclusion(s)

- sex and gender-based analysis (See RDF3030215 Sex and gender-based analysis)

RDF3030217 Global health

This subclass comprises research and experimental development in global health.

RDF3030218 Health and gender based violence

This subclass comprises research and experimental development in health and gender based violence.

RDF3030219 Military and veterans' health

This subclass comprises research and experimental development in military and veterans' health.

RDF3030220 Etiology of disease and conditions

This subclass comprises research and experimental development in etiology of disease and conditions.

RDF3030221 Nutritional epidemiology

This subclass comprises research and experimental development in nutritional epidemiology.

RDF3030222 One Health approach

This subclass comprises research and experimental development in one Health approach.

RDF3030299 Public and population health, n.e.c.

This subclass comprises research and experimental development in public and population health, n.e.c.

RDF30303 Rehabilitation medicine

This class comprises research and experimental development in rehabilitation medicine.

RDF3030301 Kinesiology

This subclass comprises research and experimental development in kinesiology.

RDF3030302 Physical therapy

This subclass comprises research and experimental development in physical therapy.

RDF3030303 Occupational therapy

This subclass comprises research and experimental development in occupational therapy.

RDF3030304 Speech pathology

This subclass comprises research and experimental development in speech pathology.

RDF3030305 Mental health rehabilitation

This subclass comprises research and experimental development in mental health rehabilitation.

RDF3030306 Addiction rehabilitation

This subclass comprises research and experimental development in addiction rehabilitation.

RDF3030307 Sports medicine

This subclass comprises research and experimental development in sports medicine.

Exclusion(s)

- kinesiology (See RDF3030301 Kinesiology)

RDF3030308 Audiology

This subclass comprises research and experimental development in audiology.

RDF3030399 Rehabilitation medicine, n.e.c.

This subclass comprises research and experimental development in rehabilitation medicine, n.e.c.

RDF30304 Health services and systems

This class comprises research and experimental development in health services and systems.

Exclusion(s)

- health care (See RDF30305 Care)

RDF3030401 Health and community services

This subclass comprises research and experimental development in health and community services.

Exclusion(s)

- community child health (See RDF3030405 Community child health)

RDF3030402 Health care administration

This subclass comprises research and experimental development in health care administration.

RDF3030403 Health information systems (including surveillance)

This subclass comprises research and experimental development in health information systems (including surveillance).

RDF3030404 Health counselling

This subclass comprises research and experimental development in health counselling.

RDF3030405 Community child health

This subclass comprises research and experimental development in community child health.

RDF3030406 Health care effectiveness and outcomes

This subclass comprises research and experimental development in health care effectiveness and outcomes.

RDF3030407 Health care safety and quality improvement

This subclass comprises research and experimental development in health care safety and quality improvement.

RDF3030408 Knowledge translation and implementation science in health

This subclass comprises research and experimental development in knowledge translation and implementation science in health.

RDF3030409 Patient and citizen engagement research

This subclass comprises research and experimental development in patient and citizen engagement research.

RDF3030410 Electronic health (e-Health)

This subclass comprises research and experimental development in electronic health (e-Health).

RDF3030411 Mobile health (mHealth)

This subclass comprises research and experimental development in mobile health (mHealth).

Exclusion(s)

- eHealth (See RDF3030410 Electronic health (e-Health))

RDF3030499 Health services and systems, n.e.c.

This subclass comprises research and experimental development in health services and systems, n.e.c.

RDF30305 Care

This class comprises research and experimental development in care.

RDF3030501 Family care

This subclass comprises research and experimental development in family care.

RDF3030502 Primary health care

This subclass comprises research and experimental development in primary health care.

RDF3030503 Residential client care

This subclass comprises research and experimental development in residential client care.

RDF3030504 Aged health care services (except nursing)

This subclass comprises research and experimental development in aged health care services (except nursing).

Exclusion(s)

- clinical geriatrics and gerontology (See RDF3020212 Geriatrics and gerontology)
- geriatric nursing (See RDF3030601 Geriatric nursing)

RDF3030505 Services for persons with disabilities

This subclass comprises research and experimental development in services for persons with disabilities.

RDF3030506 Emergency care and critical care

This subclass comprises research and experimental development in emergency care and critical care.

RDF3030507 Personalized medicine

This subclass comprises research and experimental development in personalized medicine.

RDF3030508 Genetic medicine

This subclass comprises research and experimental development in genetic medicine.

RDF3030509 Coordinated and integrated care

This subclass comprises research and experimental development in coordinated and integrated care.

RDF3030510 Hospital and specialist care

This subclass comprises research and experimental development in hospital and specialist care.

RDF3030511 Patient-centered care

This subclass comprises research and experimental development in patient-centered care.

RDF3030512 Palliation and end-of-life care

This subclass comprises research and experimental development in palliation and end-of-life care.

RDF3030513 Maternal and newborn care

This subclass comprises research and experimental development in maternal and newborn care.

Exclusion(s)
- midwifery (See RDF3030518 Midwifery)

RDF3030514 Health care access, privilege or marginalization

This subclass comprises research and experimental development in health care access, privilege or marginalization.

RDF3030515 Home health care

This subclass comprises research and experimental development in home health care.

RDF3030516 Traumatology

This subclass comprises research and experimental development in traumatology.

RDF3030517 Internal medicine

This subclass comprises research and experimental development in internal medicine.

RDF3030518 Midwifery

This subclass comprises research and experimental development in midwifery.

RDF3030599 Care, n.e.c.

This subclass comprises research and experimental development in care, n.e.c.

RDF30306 Nursing

This class comprises research and experimental development in nursing.

RDF3030601 Geriatric nursing

This subclass comprises research and experimental development in geriatric nursing.

RDF3030602 Clinical nursing, primary (preventive care)

This subclass comprises research and experimental development in clinical nursing, primary (preventive care).

RDF3030603 Clinical nursing, secondary (acute care)

This subclass comprises research and experimental development in clinical nursing, secondary (acute care).

RDF3030604 Clinical nursing, tertiary (rehabilitative care)

This subclass comprises research and experimental development in clinical nursing, tertiary (rehabilitative care).

RDF3030605 Mental health nursing

This subclass comprises research and experimental development in mental health nursing.

Exclusion(s)

- mental health associated with wellbeing (See RDF5010121 Mental health and wellbeing)
- mental health rehabilitation (See RDF3030305 Mental health rehabilitation)

RDF3030699 Nursing, n.e.c.

This subclass comprises research and experimental development in nursing, n.e.c.

RDF30399 Other health sciences

This class comprises research and experimental development in other health sciences.

RDF3039999 Other health sciences, n.e.c.

This subclass comprises research and experimental development in other health sciences, n.e.c.

RDF304 Medical biotechnology

This group comprises research and experimental development in medical biotechnology.

Exclusion(s)

- history and philosophy of medicine (See RDF6030306 History and philosophy of medicine)
- history of medicine and health care (See RDF6010112 History of medicine and health care)
- nanobiotechnology (See RDF2110102 Nanobiotechnology)
- nanomedicine (See RDF2110108 Nanomedicine)

RDF30401 Medical biotechnology

This class comprises research and experimental development in medical biotechnology.

Exclusion(s)

- assisted reproduction technologies (See RDF3020508 Assisted reproductive technologies)
- biochemistry associated with clinical medicine (See RDF302 Clinical medicine)
- biomaterials not solely restricted to dentistry (See RDF2070101 Biomedical materials)
- dental materials (See RDF3020401 Dental materials and equipment)
- environmental biotechnology (See RDF20901 Environmental biotechnology)

- ethical use of biotechnology (See RDF6030203 Ethics in technology (e.g., digital, artificial intelligence))
- genetic modification of plants, microbes or animals for agricultural purposes (See RDF40401 Agricultural biotechnology)
- industrial biotechnology (See RDF21001 Industrial biotechnology)
- nanobiotechnology (See RDF2110102 Nanobiotechnology)
- nanomedicine (See RDF2110108 Nanomedicine)
- pharmacogenomics (See RDF3010502 Pharmacogenomics)

RDF3040101 Gene and molecular therapy

This subclass comprises research and experimental development in gene and molecular therapy.

RDF3040102 Medical biotechnology diagnostics (including biosensors)

This subclass comprises research and experimental development in medical biotechnology diagnostics (including biosensors).

RDF3040103 Medical molecular engineering of nucleic acids and proteins

This subclass comprises research and experimental development in medical molecular engineering of nucleic acids and proteins.

RDF3040104 Regenerative medicine (including stem cells and tissue engineering)

This subclass comprises research and experimental development in regenerative medicine (including stem cells and tissue engineering).

RDF3040199 Medical biotechnology, n.e.c.

This subclass comprises research and experimental development in medical biotechnology, n.e.c.

RDF305 Other medical sciences

This group comprises research and experimental development in other medical sciences.

Exclusion(s)
- history and philosophy of medicine (See RDF6030306 History and philosophy of medicine)
- history of medicine and health care (See RDF6010112 History of medicine and health care)
- veterinary medicine (See RDF4030105 Veterinary medicine)

RDF30599 Other medical sciences

This class comprises research and experimental development in other medical sciences.

RDF3059999 Other medical sciences

This subclass comprises research and experimental development in other medical sciences, n.e.c.

RDF40 Agricultural and veterinary sciences

This division comprises research and experimental development in agricultural and veterinary sciences. Agricultural and veterinary sciences refer to scientific disciplines concerned with understanding, exploring or developing the natural world, in the fields of agricultural and veterinary sciences, which include agriculture, forestry and fisheries; animal and dairy sciences; veterinary sciences; agricultural and food biotechnology; and other agricultural sciences. Research consists of systematic investigation carried by means of experiment or analysis

to achieve a scientific or technological advance such as acquiring new knowledge of the underlying foundation of phenomena and observable facts. Experimental development consists of new or substantially improved goods, services, systems, methods or processes.

RDF401 Agriculture, forestry, and fisheries

This group comprises research and experimental development in agriculture, forestry, and fisheries.

Exclusion(s)

- agricultural biotechnology (See RDF40401 Agricultural biotechnology)
- agricultural economics (See RDF5020106 Agricultural economics)
- agricultural water management (See RDF4059999 Other agricultural sciences)
- animal and dairy sciences (See RDF402 Animal and dairy sciences)
- food sciences, including food processing and packaging) (See RDF40402 Food sciences (including food engineering))
- land use and environmental planning (See RDF5070204 Land use and environmental planning)
- natural environmental management (See RDF1051004 Natural (biophysical) environment management)
- urban and regional economics (See RDF5020119 Urban, rural and regional economics)

RDF40101 Agriculture, land and farm management

This class comprises research and experimental development in agriculture, land and farm management.

Exclusion(s)

- agricultural waste management (See RDF2080107 Waste management (including agricultural waste))
- agricultural water management (See RDF4059999 Other agricultural sciences)
- animal and dairy sciences (See RDF402 Animal and dairy sciences)
- animal management (See RDF4020103 Animal management)
- management and planning of land and parks in built environments (See RDF5070204 Land use and environmental planning)
- management of forests for forestry production (See RDF40104 Forestry sciences)
- management of parks in natural environments (See RDF10510 Natural environment sciences)
- soil sciences (See RDF10511 Soil sciences)

RDF4010101 Agricultural land management

This subclass comprises research and experimental development in agricultural land management.

RDF4010102 Agricultural land planning

This subclass comprises research and experimental development in agricultural land planning.

RDF4010103 Agricultural ecology

This subclass comprises research and experimental development in agricultural ecology.

RDF4010104 Agricultural production systems simulation

This subclass comprises research and experimental development in agricultural production systems simulation.

RDF4010105 Agricultural spatial analysis and modelling

This subclass comprises research and experimental development in agricultural spatial analysis and modelling.

RDF4010106 Agricultural production systems analysis and modelling

This subclass comprises research and experimental development in agricultural production systems analysis and modelling.

Exclusion(s)

- agricultural spatial analysis and modelling (See RDF4010105 Agricultural spatial analysis and modelling)

RDF4010107 Farm management, rural management and agribusiness

This subclass comprises research and experimental development in farm management, rural management and agribusiness.

Exclusion(s)

- agricultural waste management (See RDF2080107 Waste management (including agricultural waste))
- management of non-rural businesses (See RDF50205 Management and trade)

RDF4010108 Farming systems research

This subclass comprises research and experimental development in farming systems research.

RDF4010109 Indigenous food system

This subclass comprises research and experimental development in indigenous food system.

RDF4010110 Sustainable agricultural development

This subclass comprises research and experimental development in sustainable agricultural development.

RDF4010199 Agriculture, land and farm management, n.e.c.

This subclass comprises research and experimental development in agriculture, land and farm management, n.e.c.

RDF40102 Crop and pasture production

This class comprises research and experimental development in crop and pasture production.

Exclusion(s)

- biological control of pests, diseases and exotic species (See RDF2090102 Biological control)
- genetic engineering of crops and pasture (See RDF4040103 Genetically modified field crops and pastures)

RDF4010201 Agro-ecosystem function and prediction

This subclass comprises research and experimental development in agro-ecosystem function and prediction.

RDF4010202 Agronomy

This subclass comprises research and experimental development in agronomy.

Exclusion(s)

- animal and dairy sciences (See RDF402 Animal and dairy sciences)

RDF4010203 Crop and pasture biochemistry and physiology

This subclass comprises research and experimental development in crop and pasture biochemistry and physiology.

RDF4010204 Crop and pasture biomass and bioproducts

This subclass comprises research and experimental development in crop and pasture biomass and bioproducts.

RDF4010205 Crop and pasture improvement (selection and breeding)

This subclass comprises research and experimental development in crop and pasture improvement (selection and breeding).

Exclusion(s)

- improvement of horticulture crops through selective breeding (See RDF4010302 Horticultural crop improvement (selection and breeding))

RDF4010206 Crop and pasture nutrition

This subclass comprises research and experimental development in crop and pasture nutrition.

RDF4010207 Crop and pasture post harvest technologies (including transportation and storage)

This subclass comprises research and experimental development in crop and pasture post harvest technologies (including transportation and storage).

RDF4010208 Crop and pasture protection (pests, diseases and weeds)

This subclass comprises research and experimental development in crop and pasture protection (pests, diseases and weeds).

RDF4010299 Crop and pasture production, n.e.c.

This subclass comprises research and experimental development in crop and pasture production, n.e.c.

RDF40103 Horticultural production

This class comprises research and experimental development in horticultural production.

Exclusion(s)

- biological control of pests, diseases and exotic species (See RDF2090102 Biological control)
- food science, including food processing and packaging (See RDF40402 Food sciences (including food engineering))
- genetic engineering of horticultural crops (See RDF4040104 Genetically modified horticulture plants)

RDF4010301 Horticultural crop growth and development

This subclass comprises research and experimental development in horticultural crop growth and development.

RDF4010302 Horticultural crop improvement (selection and breeding)

This subclass comprises research and experimental development in horticultural crop improvement (selection and breeding).

RDF4010303 Horticultural crop protection (pests, diseases and weeds)

This subclass comprises research and experimental development in horticultural crop protection (pests, diseases and weeds).

RDF4010304 Enology and viticulture

This subclass comprises research and experimental development in enology and viticulture.

RDF4010305 Post harvest horticultural technologies (including transportation and storage)

This subclass comprises research and experimental development in post harvest horticultural technologies (including transportation and storage).

RDF4010399 Horticultural production, n.e.c.

This subclass comprises research and experimental development in horticultural production, n.e.c.

RDF40104 Forestry sciences

This class comprises research and experimental development in forestry sciences.

Exclusion(s)

- biological control of pests, diseases and exotic species (See RDF2090102 Biological control)
- genetic engineering of trees for agricultural production (See RDF4040105 Genetically modified trees)
- management of forests in natural environments other than for forestry production (See RDF10510 Natural environment sciences)
- management of land for agricultural production (See RDF40101 Agriculture, land and farm management)

RDF4010401 Agroforestry

This subclass comprises research and experimental development in agroforestry.

RDF4010402 Forestry biomass and bioproducts

This subclass comprises research and experimental development in forestry biomass and bioproducts.

RDF4010403 Forestry fire management

This subclass comprises research and experimental development in forestry fire management.

RDF4010404 Forestry management and environment

This subclass comprises research and experimental development in forestry management and environment.

Exclusion(s)

- forest operations (See RDF4010412 Forest operations)
- forestry fire management (See RDF4010403 Forestry fire management)
- forestry product quality assessment (See RDF4010407 Forestry product quality assessment)
- tree improvement (See RDF4010408 Tree improvement (selection and breeding))

RDF4010405 Forest ecology

This subclass comprises research and experimental development in forest ecology.

RDF4010406 Forestry pests, health and diseases

This subclass comprises research and experimental development in forestry pests, health and diseases.

RDF4010407 Forestry product quality assessment

This subclass comprises research and experimental development in forestry product quality assessment.

RDF4010408 Tree improvement (selection and breeding)

This subclass comprises research and experimental development in tree improvement (selection and breeding).

RDF4010409 Tree nutrition and physiology

This subclass comprises research and experimental development in tree nutrition and physiology.

RDF4010410 Wood and wood fibre processing

This subclass comprises research and experimental development in wood and wood fibre processing.

RDF4010411 Forest dynamics (including stand dynamics)

This subclass comprises research and experimental development in forest dynamics (including stand dynamics).

RDF4010412 Forest operations

This subclass comprises research and experimental development in forest operations.

RDF4010413 Forest engineering

This subclass comprises research and experimental development in forest engineering.

RDF4010414 Quantitative methods in forestry

This subclass comprises research and experimental development in quantitative methods in forestry.

RDF4010499 Forestry sciences, n.e.c.

This subclass comprises research and experimental development in forestry sciences, n.e.c.

RDF40105 Fisheries sciences

This class comprises research and experimental development in fisheries sciences.

Exclusion(s)

- biological control of pests, diseases and exotic species (See RDF2090102 Biological control)
- food science, including food processing and packaging (See RDF40402 Food sciences (including food engineering))

RDF4010501 Aquaculture

This subclass comprises research and experimental development in aquaculture.

RDF4010502 Aquatic ecosystem studies and stock assessment

This subclass comprises research and experimental development in aquatic ecosystem studies and stock assessment.

RDF4010503 Fisheries management

This subclass comprises research and experimental development in fisheries management.

RDF4010504 Fish pests and diseases

This subclass comprises research and experimental development in fish pests and diseases.

RDF4010505 Fish physiology and genetics

This subclass comprises research and experimental development in fish physiology and genetics.

RDF4010506 Post-harvest fisheries technologies (including transportation)

This subclass comprises research and experimental development in post-harvest fisheries technologies (including transportation).

RDF4010599 Fisheries sciences, n.e.c.

This subclass comprises research and experimental development in fisheries sciences, n.e.c.

RDF402 Animal and dairy sciences

This group comprises research and experimental development in animal and dairy sciences.

Exclusion(s)

- agricultural biotechnology and food sciences (See RDF404 Agricultural biotechnology and food sciences)

RDF40201 Animal production

This class comprises research and experimental development in animal production.

Exclusion(s)

- biological control of pests, diseases and exotic species (See RDF2090102 Biological control)
- culture and production of marine and freshwater animals, including fish, crustaceans and shellfish (See RDF40105 Fisheries sciences)
- food science, including food processing and packaging (See RDF40402 Food sciences (including food engineering))
- livestock cloning (See RDF4040107 Livestock cloning)
- veterinary sciences (See RDF40301 Veterinary sciences)

RDF4020101 Animal breeding

This subclass comprises research and experimental development in animal breeding.

Exclusion(s)

- genetically modified animals (See RDF4040106 Genetically modified animals)

RDF4020102 Animal growth and development

This subclass comprises research and experimental development in animal growth and development.

RDF4020103 Animal management

This subclass comprises research and experimental development in animal management.

RDF4020104 Animal nutrition and metabolism

This subclass comprises research and experimental development in animal nutrition and metabolism.

RDF4020105 Animal protection (pests and pathogens)

This subclass comprises research and experimental development in animal protection (pests and pathogens).

RDF4020106 Animal reproduction

This subclass comprises research and experimental development in animal reproduction.

Exclusion(s)

- animal breeding (See RDF4020101 Animal breeding)
- genetically modified animals (See RDF4040106 Genetically modified animals)

RDF4020107 Humane animal treatment

This subclass comprises research and experimental development in humane animal treatment.

RDF4020199 Animal production, n.e.c.

This subclass comprises research and experimental development in animal production, n.e.c.

RDF403 Veterinary sciences

This group comprises research and experimental development in veterinary science.

RDF40301 Veterinary sciences

This class comprises research and experimental development in veterinary sciences.

Exclusion(s)

- biological control of pests, diseases and exotic species (See RDF2090102 Biological control)
- biological or life sciences associated with human health and medicine (See RDF30 Medical, health and life sciences)
- field procedures to protect animals against pests and pathogens (See RDF4020105 Animal protection (pests and pathogens))

RDF4030101 Veterinary anesthesiology and intensive care

This subclass comprises research and experimental development in veterinary anesthesiology and intensive care.

RDF4030102 Veterinary diagnosis and diagnostics

This subclass comprises research and experimental development in veterinary diagnosis and diagnostics.

RDF4030103 Veterinary epidemiology

This subclass comprises research and experimental development in veterinary epidemiology.

RDF4030104 Veterinary immunology

This subclass comprises research and experimental development in veterinary immunology.

RDF4030105 Veterinary medicine

This subclass comprises research and experimental development in veterinary medicine.

RDF4030106 Veterinary microbiology (except virology)

This subclass comprises research and experimental development in veterinary microbiology (except virology).

RDF4030107 Veterinary parasitology

This subclass comprises research and experimental development in veterinary parasitology.

Exclusion(s)

- veterinary virology (See RDF4030111 Veterinary virology)

RDF4030108 Veterinary pathology

This subclass comprises research and experimental development in veterinary pathology.

RDF4030109 Veterinary pharmacology

This subclass comprises research and experimental development in veterinary pharmacology.

RDF4030110 Veterinary surgery

This subclass comprises research and experimental development in veterinary surgery.

RDF4030111 Veterinary virology

This subclass comprises research and experimental development in veterinary virology.

RDF4030112 Veterinary ophthalmology

This subclass comprises research and experimental development in veterinary ophthalmology.

RDF4030113 Veterinary dentistry

This subclass comprises research and experimental development in veterinary dentistry.

RDF4030199 Veterinary sciences, n.e.c.

This subclass comprises research and experimental development in veterinary sciences, n.e.c.

RDF404 Agricultural biotechnology and food sciences

This group comprises research and experimental development in agricultural biotechnology and food sciences.

RDF40401 Agricultural biotechnology

This class comprises research and experimental development in agricultural biotechnology.

Exclusion(s)

- agricultural biotechnology applied for medical purposes (See RDF30401 Medical biotechnology)
- agricultural production (See RDF401 Agriculture, forestry, and fisheries)
- biological control of pests, diseases and exotic species (See RDF2090102 Biological control)
- environmental biotechnology (See RDF20901 Environmental biotechnology)
- human nutrition (See RDF30301 Human nutrition and dietetics)
- improvement of animals through selective breeding (See RDF4020101 Animal breeding)
- improvement of crops and pasture through selective breeding (See RDF4010205 Crop and pasture improvement (selection and breeding))
- improvement of horticulture crops through selective breeding (See RDF4010302 Horticultural crop improvement (selection and breeding))
- improvement of trees through selective breeding (See RDF4010408 Tree improvement (selection and breeding))
- industrial biotechnology (See RDF21001 Industrial biotechnology)
- nanobiotechnology (See RDF2110102 Nanobiotechnology)

RDF4040101 Agricultural marine biotechnology

This subclass comprises research and experimental development in agricultural marine biotechnology.

RDF4040102 Agricultural biotechnology diagnostics (including biosensors)

This subclass comprises research and experimental development in agricultural biotechnology diagnostics (including biosensors).

RDF4040103 Genetically modified field crops and pastures

This subclass comprises research and experimental development in genetically modified field crops and pastures.

RDF4040104 Genetically modified horticulture plants

This subclass comprises research and experimental development in genetically modified horticulture plants.

RDF4040105 Genetically modified trees

This subclass comprises research and experimental development in genetically modified trees.

RDF4040106 Genetically modified animals

This subclass comprises research and experimental development in genetically modified animals.

Exclusion(s)
- livestock cloning (See RDF4040107 Livestock cloning)

RDF4040107 Livestock cloning

This subclass comprises research and experimental development in livestock cloning.

RDF4040108 Biomass feedstock production technologies

This subclass comprises research and experimental development in biomass feedstock production technologies.

RDF4040109 Biopharming

This subclass comprises research and experimental development in biopharming.

RDF4040110 Agricultural biotechnology ethics

This subclass comprises research and experimental development in agricultural biotechnology ethics.

RDF4040111 Agricultural hydrology

This subclass comprises research and experimental development in agricultural hydrology.

RDF4040112 Fertilizers and agrochemicals (including their application)

This subclass comprises research and experimental development in fertilizers and agrochemicals (including their application).

RDF4040113 Transgenesis

This subclass comprises research and experimental development in transgenesis.

RDF4040199 Agricultural biotechnology, n.e.c.

This subclass comprises research and experimental development in agricultural biotechnology, n.e.c.

RDF40402 Food sciences (including food engineering)

This class comprises research and experimental development in food sciences (including food engineering).

RDF4040201 Food chemistry (including fermentation)

This subclass comprises research and experimental development in food chemistry (including fermentation).

RDF4040202 Food microbiology

This subclass comprises research and experimental development in food microbiology.

RDF4040203 Food safety

This subclass comprises research and experimental development in food safety.

RDF4040204 Food and beverage processing (including packaging, additives, transportation and preservation)

This subclass comprises research and experimental development in food and beverage processing (including packaging, additives, transportation and preservation).

RDF4040205 Nutraceuticals, functional foods and bioactive

This subclass comprises research and experimental development in nutraceuticals, functional foods and bioactive.

RDF4040206 Food rheology, food texture and sensory evaluation

This subclass comprises research and experimental development in food rheology, food texture and sensory evaluation.

RDF4040207 Food colloids, gels, foam and emulsions

This subclass comprises research and experimental development in food colloids, gels, foam and emulsions.

RDF4040208 Food engineering

This subclass comprises research and experimental development in food engineering.

RDF4040299 Food sciences, n.e.c.

This subclass comprises research and experimental development in food sciences, n.e.c.

RDF405 Other agricultural sciences

This group comprises research and experimental development in other agricultural sciences.

RDF40599 Other agricultural sciences

This class comprises research and experimental development in Other agricultural sciences.

RDF4059999 Other agricultural sciences

This subclass comprises research and experimental development in other agricultural sciences, n.e.c.

RDF50 Social sciences

This division comprises research and experimental development in social sciences. Social sciences refer to disciplines concerned with the study of human actions and conditions and the social, economic and institutional mechanisms affecting humans, in the fields of social sciences, which include psychology and cognitive sciences; economics and business administration; education; sociology and related studies; law and legal practices; political sciences and policy administration; social and economic geography; media and communications; and other social sciences. Research consists of systematic investigation carried by means of experiment or analysis to achieve a

scientific or technological advance such as acquiring new knowledge of the underlying foundation of phenomena and observable facts. Experimental development consists of new or substantially improved goods, services, systems, methods or processes.

RDF501 Psychology and cognitive sciences

This group comprises research and experimental development in psychology and cognitive sciences.

Exclusion(s)

- applied research and experimental development of algorithms for machine learning and artificial intelligence (See RDF10201 Artificial intelligence (AI))
- learning sciences (See RDF5030309 Learning sciences)
- neuropsychology (See RDF3010422 Neuropsychology)
- philosophical psychology, moral psychology and psychology of action (See RDF6030109 Philosophical psychology (including moral psychology and philosophy of action))
- philosophy of cognition (See RDF6030110 Philosophy of cognition)
- psychiatry and psychotherapy (See RDF3020223 Psychiatry (including psychotherapy))
- psychology and cognitive sciences associated with criminology (See RDF50902 Criminology)

RDF50101 Psychology, social and behavioural aspects

This class comprises research and experimental development in psychology, social and behavioural aspects.

Exclusion(s)

- application of psychology to cognitive sciences (See RDF50102 Cognitive sciences)
- applications of psychology to computer-human interactions (See RDF1020501 Human computer interaction)
- biological and chemical aspects of neurosciences (See RDF10611 Neurosciences, biological and chemical aspects)
- learning sciences (See RDF5030309 Learning sciences)
- medical, health and physiological aspects of neurosciences (See RDF30104 Neurosciences, medical and physiological and health aspects)
- mental health nursing (See RDF3030605 Mental health nursing)
- mental health rehabilitation (See RDF3030305 Mental health rehabilitation)
- neuropsychology (See RDF3010422 Neuropsychology)
- philosophical psychology, moral psychology and psychology of action (See RDF6030109 Philosophical psychology (including moral psychology and philosophy of action))
- psychiatry and psychotherapy (See RDF3020223 Psychiatry (including psychotherapy))
- psychology associated with criminology (See RDF50902 Criminology)

RDF5010101 Psychology of addiction

This subclass comprises research and experimental development in psychology of addiction.

RDF5010102 Developmental psychology

This subclass comprises research and experimental development in developmental psychology.

RDF5010103 Educational psychology

This subclass comprises research and experimental development in educational psychology.

RDF5010104 Evolutionary psychology

This subclass comprises research and experimental development in evolutionary psychology.

RDF5010105 Forensic psychology

This subclass comprises research and experimental development in forensic psychology.

RDF5010106 Gender psychology

This subclass comprises research and experimental development in gender psychology.

RDF5010107 Sexual identity, sexual attraction and sexual behaviour

This subclass comprises research and experimental development in sexual identity, sexual attraction and sexual behaviour.

Exclusion(s)

- gender psychology (See RDF5010106 Gender psychology)

RDF5010108 Health psychology

This subclass comprises research and experimental development in health psychology.

RDF5010109 Clinical psychology

This subclass comprises research and experimental development in clinical psychology.

Exclusion(s)

- clinical child psychology (See RDF5010112 Clinical child psychology)
- counselling psychology (See RDF5010110 Counselling psychology)
- mental health associated with wellbeing (See RDF5010121 Mental health and wellbeing)
- psychological trauma and related clinical interventions (See RDF5010111 Psychological trauma and related clinical interventions)
- psychopathology (See RDF5010113 Psychopathology)
- sport and exercise psychology (See RDF5010119 Sport and exercise psychology)

RDF5010110 Counselling psychology

This subclass comprises research and experimental development in counselling psychology.

RDF5010111 Psychological trauma and related clinical interventions

This subclass comprises research and experimental development in psychological trauma and related clinical interventions.

RDF5010112 Clinical child psychology

This subclass comprises research and experimental development in clinical child psychology.

RDF5010113 Psychopathology

This subclass comprises research and experimental development in psychopathology.

RDF5010114 Industrial and organizational psychology

This subclass comprises research and experimental development in industrial and organizational psychology.

RDF5010115 Cultural psychology

This subclass comprises research and experimental development in cultural psychology.

RDF5010116 Psychological methodology design and analysis, and psychometrics

This subclass comprises research and experimental development in psychological methodology design and analysis, and psychometrics.

RDF5010117 Social psychology

This subclass comprises research and experimental development in social psychology.

Exclusion(s)

- community psychology (See RDF5010118 Community psychology)
- social cognition (See RDF5010124 Social cognition)

RDF5010118 Community psychology

This subclass comprises research and experimental development in community psychology.

RDF5010119 Sport and exercise psychology

This subclass comprises research and experimental development in sport and exercise psychology.

RDF5010120 Positive psychology

This subclass comprises research and experimental development in positive psychology.

RDF5010121 Mental health and wellbeing

This subclass comprises research and experimental development in mental health and wellbeing.

RDF5010122 Ecopsychology

This subclass comprises research and experimental development in ecopsychology.

RDF5010123 Personality psychology

This subclass comprises research and experimental development in personality psychology.

RDF5010124 Social cognition

This subclass comprises research and experimental development in social cognition.

RDF5010199 Psychology, social and behavioural aspects, n.e.c.

This subclass comprises research and experimental development in psychology, social and behavioural aspects, n.e.c.

RDF50102 Cognitive sciences

This class comprises research and experimental development in cognitive sciences.

Exclusion(s)

- applied behavioral neurology and neuropsychiatry (See RDF3010423 Applied behavioural neurology and neuropsychiatry
- applied research and experimental development of algorithms for machine learning and artificial intelligence (See RDF10201 Artificial intelligence (AI))

- biological and chemical aspects of neurosciences (See RDF10611 Neurosciences, biological and chemical aspects)
- cognition and cognitive dynamic systems (See RDF2030308 Cognition and cognitive dynamic systems)
- cognitive computing (See RDF1020113 Cognitive computing)
- cognitive ergonomics (See RDF2020102 Physical, environmental and cognitive ergonomics)
- linguistics other than linguistic processes (See RDF60202 Linguistics)
- medical and physiological and health aspects of neurosciences (See RDF30104 Neurosciences, medical and physiological and health aspects)
- neurocognitive patterns and neural networks (See RDF1061107 Neurocognitive patterns and neural networks)
- philosophy of cognition (See RDF6030110 Philosophy of cognition)
- social cognition (See RDF5010124 Social cognition)

RDF5010201 Sensory processes, perception and performance

This subclass comprises research and experimental development in sensory processes, perception and performance.

RDF5010202 Judgement and decision making

This subclass comprises research and experimental development in judgement and decision making.

RDF5010203 Speech production

This subclass comprises research and experimental development in speech production.

RDF5010204 Speech comprehension

This subclass comprises research and experimental development in speech comprehension.

RDF5010205 Cognitive understanding

This subclass comprises research and experimental development in cognitive understanding.

RDF5010206 Supplementary languages

This subclass comprises research and experimental development in supplementary languages.

RDF5010207 Cognitive development

This subclass comprises research and experimental development in cognitive development.

RDF5010208 Cognitive behaviour

This subclass comprises research and experimental development in cognitive behaviour.

RDF5010209 Sleep (including sleep behaviour and development)

This subclass comprises research and experimental development in sleep (including sleep behaviour and development).

RDF5010210 Memory (including episodic and semantic memory, and working memory)

This subclass comprises research and experimental development in memory (including episodic and semantic memory, and working memory).

RDF5010299 Cognitive sciences, n.e.c.

This subclass comprises research and experimental development in cognitive sciences, n.e.c.

RDF502 Economics and business administration

This group comprises research and experimental development in economics and business administration.

Exclusion(s)

- agriculture, land, farm and rural management (See RDF40101 Agriculture, land and farm management)
- animal management (See RDF4020103 Animal management)
- architecture management (See RDF6040204 Architecture management)
- business ethics (See RDF6030202 Business ethics)
- business history (See RDF6030301 Business and labour history)
- business, commercial and corporate law (See RDF5050107 Business, commercial and corporate law)
- database management (See RDF1020605 Database management)
- design management (See RDF60403 Design practice and management)
- development geography (See RDF5070102 Development geography)
- economic geography (See RDF5070101 Economic geography)
- economic geology (See RDF1050313 Economic geology)
- economics, business and management curriculum, pedagogy and didactics (See RDF5030203 Economics, business and management curriculum, pedagogy and didactics)
- educational administration and management (See RDF5030304 Educational administration, management and leadership)
- fisheries management (See RDF4010503 Fisheries management)
- forestry fire management (See RDF4010403 Forestry fire management)
- forestry management (See RDF4010404 Forestry management and environment)
- heritage management (See RDF6040804 Heritage management)
- history and philosophy of economics (See RDF6030303 History and philosophy of economics)
- housing market management (See RDF5070203 Housing market development and management)
- management of residual materials (See RDF2080101 Residual materials management)
- manufacturing management (See RDF2040305 Manufacturing management)
- natural resource management (See RDF1051007 Natural resource management)
- private policing and security services (See RDF5090206 Private policing and security services)
- records and information management other than business records and information management (See RDF1020706 Records and information management (except business records and information management))
- recreation, leisure and tourism geography (See RDF5070103 Recreation, leisure and tourism geography)
- social impacts of marketing and advertising (See RDF5040101 Applied sociology, program evaluation and social impact assessment)
- tourism policy (See RDF5060218 Tourism policy)
- waste management (See RDF2080107 Waste management (including agricultural waste))
- wildlife and habitat management (See RDF1051008 Wildlife and habitat management)

RDF50201 Economics

This class comprises research and experimental development in economics.

Exclusion(s)

- development geography (See RDF5070102 Development geography)
- economic development policy (See RDF5060208 Economic development policy)
- economic geography (See RDF5070101 Economic geography)
- economic geology (See RDF1050313 Economic geology)
- history and philosophy of economics (See RDF6030303 History and philosophy of economics)
- international cooperation and development policies (See RDF5060209 International cooperation and development policies)
- recreation, leisure and tourism geography (See RDF5070103 Recreation, leisure and tourism geography)

RDF5020101 Economic history and heterodox economics

This subclass comprises research and experimental development in economic history and heterodox economics.

Exclusion(s)

- economic systems (See RDF5020122 Economic systems)

RDF5020102 Macroeconomics (including monetary and fiscal theory)

This subclass comprises research and experimental development in macroeconomics (including monetary and fiscal theory).

RDF5020103 Microeconomics

This subclass comprises research and experimental development in microeconomics.

RDF5020104 Comparative economic systems

This subclass comprises research and experimental development in comparative economic systems.

RDF5020105 Econometrics

This subclass comprises research and experimental development in econometrics.

RDF5020106 Agricultural economics

This subclass comprises research and experimental development in agricultural economics.

RDF5020107 Economics of development and growth

This subclass comprises research and experimental development in economics of development and growth.

RDF5020108 Economics of innovation and technical change

This subclass comprises research and experimental development in economics of innovation and technical change.

RDF5020109 Economics of education

This subclass comprises research and experimental development in economics of education.

RDF5020110 Economics of health care

This subclass comprises research and experimental development in economics of health care.

RDF5020111 Environment and natural resources economics

This subclass comprises research and experimental development in environment and natural resources economics.

Exclusion(s)

- environmental management other than in natural environment (See RDF5020515 Environmental management (except in natural environment))

RDF5020112 Financial economics

This subclass comprises research and experimental development in financial economics.

RDF5020113 Industry economics and industrial organization

This subclass comprises research and experimental development in industry economics and industrial organization.

RDF5020114 International economics and international finance

This subclass comprises research and experimental development in international economics and international finance.

Exclusion(s)

- international trade (See RDF5020503 International trade)

RDF5020115 Indigenous economics

This subclass comprises research and experimental development in indigenous economics.

RDF5020116 Labour and demographic economics

This subclass comprises research and experimental development in labour and demographic economics.

RDF5020117 Public economics

This subclass comprises research and experimental development in public economics.

RDF5020118 Transport economics

This subclass comprises research and experimental development in transport economics.

RDF5020119 Urban, rural and regional economics

This subclass comprises research and experimental development in urban, rural and regional economics.

RDF5020120 Economics of international development

This subclass comprises research and experimental development in economics of international development.

Exclusion(s)

- international economics and international finance (See RDF5020114 International economics and international finance)
- international trade (See RDF5020503 International trade)

RDF5020121 Welfare economics

This subclass comprises research and experimental development in welfare economics.

RDF5020122 Economic systems

This subclass comprises research and experimental development in economic systems.

RDF5020123 Circular economy

This subclass comprises research and experimental development in circular economy.

RDF5020124 Social and solidarity economics

This subclass comprises research and experimental development in social and solidarity economics.

Exclusion(s)

- circular economy (See RDF5020123 Circular economy)

RDF5020125 Collaborative economy and sharing economy

This subclass comprises research and experimental development in collaborative economy and sharing economy.

Exclusion(s)

- circular economy (See RDF5020123 Circular economy)

RDF5020126 Real estate economics

This subclass comprises research and experimental development inrReal estate economics.

RDF5020127 Experimental economics

This subclass comprises research and experimental development in experimental economics.

RDF5020199 Economics, n.e.c.

This subclass comprises research and experimental development in economics, n.e.c.

RDF50202 Industrial relations and work relations

This class comprises research and experimental development in industrial relations and work relations.

Exclusion(s)

- economic development policy (See RDF5060208 Economic development policy)
- international cooperation and development policies (See RDF5060209 International cooperation and development policies)
- policy and policy administration (See RDF50602 Policy and policy administration)

RDF5020201 Labour laws, policies and standards applications in the workplace

This subclass comprises research and experimental development in labour laws, policies and standards applications in the workplace.

RDF5020202 Unionism

This subclass comprises research and experimental development in unionism.

RDF5020203 Occupational health, safety and wellness management

This subclass comprises research and experimental development in occupational health, safety and wellness management.

RDF5020204 Human resources management

This subclass comprises research and experimental development in human resources management.

RDF5020205 Interpersonal communication in the workplace studies

This subclass comprises research and experimental development in interpersonal communication in the workplace studies.

RDF5020299 Industrial relations and work relations, n.e.c.

This subclass comprises research and experimental development in industrial relations and work relations, n.e.c.

RDF50203 Marketing

This class comprises research and experimental development in marketing.

RDF5020301 Distribution and start-ups

This subclass comprises research and experimental development in distribution and start-ups.

RDF5020302 Market studies

This subclass comprises research and experimental development in market studies.

RDF5020303 Advertising and promotion

This subclass comprises research and experimental development in advertising and promotion.

RDF5020304 Sales and marketing

This subclass comprises research and experimental development in sales and marketing.

RDF5020399 Marketing, n.e.c.

This subclass comprises research and experimental development in marketing, n.e.c.

RDF50204 Finance

This class comprises research and experimental development in finance.

Exclusion(s)

- actuarial science and mathematical finance (See RDF1010308 Actuarial science and mathematical finance)
- financial economics (See RDF5020112 Financial economics)

RDF5020401 Accounting

This subclass comprises research and experimental development in accounting.

Exclusion(s)

- actuarial science (See RDF1010308 Actuarial science and mathematical finance)

RDF5020402 Financial management

This subclass comprises research and experimental development in financial management.

Exclusion(s)

- financial economics (See RDF5020112 Financial economics)

RDF5020403 Insurances

This subclass comprises research and experimental development in insurances.

RDF5020404 Financial systems and banking

This subclass comprises research and experimental development in financial systems and banking.

RDF5020405 Monetary systems and policies

This subclass comprises research and experimental development in monetary systems and policies.

Exclusion(s)

- monetary and fiscal theory (See RDF5020102 Macroeconomics (including monetary and fiscal theory))

RDF5020406 Taxation and tax systems

This subclass comprises research and experimental development in taxation and tax systems.

RDF5020407 Stock markets

This subclass comprises research and experimental development in stock markets.

RDF5020499 Finance, n.e.c.

This subclass comprises research and experimental development in finance, n.e.c.

RDF50205 Management and trade

This class comprises research and experimental development in management and trade.

Exclusion(s)

- heritage management (See RDF6040804 Heritage management)
- manufacturing management (See RDF2040305 Manufacturing management)

RDF5020501 Management information systems

This subclass comprises research and experimental development in management information systems.

RDF5020502 Entrepreneurship

This subclass comprises research and experimental development in entrepreneurship.

RDF5020503 International trade

This subclass comprises research and experimental development in international trade.

RDF5020504 Operations and supply chain management

This subclass comprises research and experimental development in operations and supply chain management.

Exclusion(s)

- research specifically oriented towards inventory and distribution logistics (See RDF5020506 Inventory and distribution logistics)

RDF5020505 Facilities management

This subclass comprises research and experimental development in facilities management.

RDF5020506 Inventory and distribution logistics

This subclass comprises research and experimental development in inventory and distribution logistics.

RDF5020507 Business policy

This subclass comprises research and experimental development in business policy.

RDF5020508 Organizational behaviour

This subclass comprises research and experimental development in organizational behaviour.

RDF5020509 Management theory

This subclass comprises research and experimental development in management theory.

RDF5020510 Public sector and government management

This subclass comprises research and experimental development in public sector and government management.

RDF5020511 Sustainability management

This subclass comprises research and experimental development in sustainability management.

Exclusion(s)

- natural environment sustainability studies (See RDF1051005 Natural environment sustainability studies)

RDF5020512 Sustainable development and policy

This subclass comprises research and experimental development in sustainable development and policy.

Exclusion(s)

- sustainability management (See RDF5020511 Sustainability management)

RDF5020513 Competitiveness and innovation

This subclass comprises research and experimental development in competitiveness and innovation.

RDF5020514 Crisis management

This subclass comprises research and experimental development in crisis management.

RDF5020515 Environmental management (except in natural environment)

This subclass comprises research and experimental development in environmental management (except in natural environment).

Exclusion(s)

- natural environmental management (See RDF1051004 Natural (biophysical) environment management)

RDF5020516 Assessment and optimization in management

This subclass comprises research and experimental development in assessment and optimization in management.

RDF5020517 Change management

This subclass comprises research and experimental development in change management.

RDF5020518 Social innovation management

This subclass comprises research and experimental development in social innovation management.

RDF5020599 Management and trade, n.e.c.

This subclass comprises research and experimental development in management and trade, n.e.c.

RDF503 Education

This group comprises research and experimental development in education.

Exclusion(s)

- economics of education (See RDF5020109 Economics of education)
- education associated with linguistics (See RDF60202 Linguistics)
- educational psychology (See RDF5010103 Educational psychology)
- sociology of education (See RDF5040109 Sociology of education)

RDF50301 Education systems

This class comprises research and experimental development in education systems.

Exclusion(s)

- curriculum, pedagogy and didactics relating to specific subject areas (See RDF50302 Curriculum, pedagogy and didactics)
- specialized studies in education (including educational administration) (See RDF50303 Specialized studies in education)

RDF5030101 Early childhood education

This subclass comprises research and experimental development in early childhood education.

RDF5030102 Primary education

This subclass comprises research and experimental development in primary education.

RDF5030103 Secondary education

This subclass comprises research and experimental development in secondary education.

RDF5030104 Higher education

This subclass comprises research and experimental development in higher education.

RDF5030105 Adult and continuing education, and community education

This subclass comprises research and experimental development in adult and continuing education, and community education.

RDF5030106 Indigenous education system

This subclass comprises research and experimental development in indigenous education system.

Exclusion(s)

- teaching approaches (See RDF5030213 Teaching approaches)

RDF5030107 Technical, continuing and workplace education

This subclass comprises research and experimental development in technical, continuing and workplace education.

Exclusion(s)

- teaching approaches (See RDF5030213 Teaching approaches)

RDF5030108 Open education

This subclass comprises research and experimental development in open education.

Exclusion(s)

- open pedagogy (See RDF5030214 Open pedagogy)
- teaching approaches (See RDF5030213 Teaching approaches)

RDF5030109 Distance learning

This subclass comprises research and experimental development in distance learning.

Exclusion(s)

- teaching approaches (See RDF5030213 Teaching approaches)

RDF5030199 Education systems, n.e.c.

This subclass comprises research and experimental development in education systems, n.e.c.

RDF50302 Curriculum, pedagogy and didactics

This class comprises research and experimental development in curriculum, pedagogy and didactics.

Exclusion(s)

- pedagogy associated with linguistics (See RDF60202 Linguistics)
- teacher education and the professional development of educators (See RDF5030311 Teacher education and professional development of educators)

RDF5030201 Creative arts, media and communication curriculum, and pedagogy and didactics

This subclass comprises research and experimental development in creative arts, media and communication curriculum, and pedagogy and didactics.

RDF5030202 Curriculum and pedagogy theory and development

This subclass comprises research and experimental development in curriculum and pedagogy theory and development.

RDF5030203 Economics, business and management curriculum, pedagogy and didactics

This subclass comprises research and experimental development in economics, business and management curriculum, pedagogy and didactics.

RDF5030204 English language and literacy curriculum, pedagogy and didactics (except ESL, TESOL, LOTE and sign language)

This subclass comprises research and experimental development in English language and literacy curriculum, pedagogy and didactics (except ESL, TESOL, LOTE and sign language).

Exclusion(s)

- curriculum, pedagogy and didactics in esl, tesol, lote and sign language (See RDF5030206 ESL, TESOL, LOTE and sign language curriculum, pedagogy and didactics)

RDF5030205 French language and literacy curriculum, pedagogy and didactics (except sign language)

This subclass comprises research and experimental development in French language and literacy curriculum, pedagogy and didactics (except sign language).

Exclusion(s)

- curriculum and pedagogy theory and development (See RDF5030202 Curriculum and pedagogy theory and development)
- curriculum, pedagogy and didactics for economics, business and management (See RDF5030203 Economics, business and management curriculum, pedagogy and didactics)
- curriculum, pedagogy and didactics in economics, business and management (See RDF5030203 Economics, business and management curriculum, pedagogy and didactics)

RDF5030206 ESL, TESOL, LOTE and sign language curriculum, pedagogy and didactics

This subclass comprises research and experimental development in ESL, TESOL, LOTE and sign language curriculum, pedagogy and didactics.

RDF5030207 Humanities and social sciences curriculum, pedagogy and didactics (except economics, business and management)

This subclass comprises research and experimental development in humanities and social sciences curriculum, pedagogy and didactics (except economics, business and management).

Exclusion(s)

- sign language (See RDF5030206 ESL, TESOL, LOTE and sign language curriculum, pedagogy and didactics)

RDF5030208 Mathematics and numeracy curriculum, pedagogy and didactics

This subclass comprises research and experimental development in mathematics and numeracy curriculum, pedagogy and didactics.

RDF5030209 Medicine, nursing and health curriculum, pedagogy and didactics

This subclass comprises research and experimental development in medicine, nursing and health curriculum, pedagogy and didactics.

RDF5030210 Physical education and development curriculum, pedagogy and didactics

This subclass comprises research and experimental development in physical education and development curriculum, pedagogy and didactics.

RDF5030211 Science, technology and engineering curriculum, pedagogy and didactics

This subclass comprises research and experimental development in science, technology and engineering curriculum, pedagogy and didactics.

RDF5030212 Vocational education and training curriculum, pedagogy and didactics

This subclass comprises research and experimental development in vocational education and training curriculum, pedagogy and didactics.

RDF5030213 Teaching approaches

This subclass comprises research and experimental development in teaching approaches.

RDF5030214 Open pedagogy

This subclass comprises research and experimental development in open pedagogy.

Exclusion(s)

- open education (See RDF5030108 Open education)

RDF5030299 Curriculum, pedagogy and didactics, n.e.c.

This subclass comprises research and experimental development in curriculum, pedagogy and didactics, n.e.c.

RDF50303 Specialized studies in education

This class comprises research and experimental development in specialized studies in education.

Exclusion(s)

- curriculum, pedagogy and didactics relating to specific subject areas (See RDF50302 Curriculum, pedagogy and didactics)
- economics of education (See RDF5020109 Economics of education)
- education associated with linguistics (See RDF60202 Linguistics)
- education policy (See RDF5060211 Educational policy)
- education systems (including indigenous education system) (See RDF50301 Education systems)
- educational psychology (See RDF5010103 Educational psychology)
- history and philosophy of education (See RDF6030302 History and philosophy of education)
- sociology of education (See RDF5040109 Sociology of education)

RDF5030301 Specialized studies in Indigenous education

This subclass comprises research and experimental development in specialized studies in Indigenous education.

RDF5030302 Comparative and cross-cultural education

This subclass comprises research and experimental development in comparative and cross-cultural education.

RDF5030303 Educational assessment and evaluation

This subclass comprises research and experimental development in educational assessment and evaluation.

RDF5030304 Educational administration, management and leadership

This subclass comprises research and experimental development in educational administration, management and leadership.

RDF5030305 Educational counselling

This subclass comprises research and experimental development in educational counselling.

RDF5030306 Educational technology and computing

This subclass comprises research and experimental development in educational technology and computing.

RDF5030307 Ethnic education (except Indigenous education)

This subclass comprises research and experimental development in ethnic education (except Indigenous education).

Exclusion(s)

- specialized studies in indigenous education (See RDF5030301 Specialized studies in Indigenous education)

RDF5030308 Gender, sexuality and education

This subclass comprises research and experimental development in gender, sexuality and education.

RDF5030309 Learning sciences

This subclass comprises research and experimental development in learning sciences.

RDF5030310 Special education and disability

This subclass comprises research and experimental development in special education and disability.

RDF5030311 Teacher education and professional development of educators

This subclass comprises research and experimental development in teacher education and professional development of educators.

RDF5030312 Inter-disciplinary, trans-disciplinary learning and education

This subclass comprises research and experimental development in inter-disciplinary, trans-disciplinary learning and education.

RDF5030399 Specialist studies in education, n.e.c.

This subclass comprises research and experimental development in specialist studies in education, n.e.c.

RDF50399 Other education

This class comprises research and experimental development in other education.

RDF5039901 Disciplinary education

This subclass comprises research and experimental development in disciplinary education.

RDF5039902 Environmental education and extension

This subclass comprises research and experimental development in environmental education and extension.

RDF5039903 Orthopedagogy

This subclass comprises research and experimental development in orthopedagogy.

RDF5039904 Psychopedagogy

This subclass comprises research and experimental development in psychopedagogy.

RDF5039905 Psychoeducation

This subclass comprises research and experimental development in psychoeducation.

RDF5039999 Other education, n.e.c.

This subclass comprises research and experimental development in other education, n.e.c.

RDF504 Sociology and related studies

This group comprises research and experimental development in sociology and related studies.

Exclusion(s)

- economics (including urban and regional economics) (See RDF50201 Economics)
- philosophy of religion (See RDF6030113 Philosophy of religion)
- religion and religious studies (See RDF60103 Religion and religious studies)
- social geography (See RDF5070104 Social and cultural geography)
- social philosophy (See RDF6030116 Social philosophy)
- sociolinguistics (language in society) (See RDF6020205 Sociolinguistics)
- urban and regional planning (See RDF50702 Urban and regional planning)

RDF50401 Sociology

This class comprises research and experimental development in other studies in sociology.

Exclusion(s)

- cultural impacts of marketing and advertising (See RDF60501 Cultural studies)
- social policy (See RDF5060217 Social policy)

RDF5040101 Applied sociology, program evaluation and social impact assessment

This subclass comprises research and experimental development in applied sociology, program evaluation and social impact assessment.

Exclusion(s)

- social impacts of artificial intelligence (See RDF5040113 Social impacts of artificial intelligence)

RDF5040102 Environmental sociology

This subclass comprises research and experimental development in environmental sociology.

RDF5040103 Race and ethnic relations

This subclass comprises research and experimental development in race and ethnic relations.

RDF5040104 Rural sociology

This subclass comprises research and experimental development in rural sociology.

RDF5040105 Social change

This subclass comprises research and experimental development in social change.

RDF5040106 Social theory

This subclass comprises research and experimental development in social theory.

Exclusion(s)

- sociological methodology and research methods (See RDF5040107 Sociological methodology and research methods)

RDF5040107 Sociological methodology and research methods

This subclass comprises research and experimental development in sociological methodology and research methods.

RDF5040108 Sociology and social studies of science and technology

This subclass comprises research and experimental development in sociology and social studies of science and technology.

RDF5040109 Sociology of education

This subclass comprises research and experimental development in sociology of education.

RDF5040110 Sociology of work

This subclass comprises research and experimental development in sociology of work.

RDF5040111 Urban sociology and community studies

This subclass comprises research and experimental development in urban sociology and community studies.

RDF5040112 Sociology and social studies of health, health systems and health care

This subclass comprises research and experimental development in sociology and social studies of health, health systems and health care.

RDF5040113 Social impacts of artificial intelligence

This subclass comprises research and experimental development in social impacts of artificial intelligence.

RDF5040199 Sociology, n.e.c.

This subclass comprises research and experimental development in sociology, n.e.c.

RDF50499 Other studies in human society

This class comprises research and experimental development in other studies in human society.

RDF5049901 Studies of Indigenous societies

This subclass comprises research and experimental development in studies of Indigenous societies.

RDF5049902 Studies of Canadian society

This subclass comprises research and experimental development in studies of Canadian society.

Exclusion(s)

- studies specific to Indigenous societies (See RDF5049901 Studies of Indigenous societies)

RDF5049903 Social relations

This subclass comprises research and experimental development in social relations.

RDF5049904 Social institutions

This subclass comprises research and experimental development in social institutions.

RDF5049905 Social oppression and marginalization

This subclass comprises research and experimental development in social oppression and marginalization.

RDF5049906 Social structures

This subclass comprises research and experimental development in social structures.

RDF5049907 Postcolonial systems and colonialism studies

This subclass comprises research and experimental development in postcolonial systems and colonialism studies.

RDF5049999 Other studies in human society, n.e.c.

This subclass comprises research and experimental development in other studies in human society, n.e.c.

RDF505 Law and legal practice

This group comprises research and experimental development in law and legal practice.

Exclusion(s)
- applications of labour laws, policies and standards in the workplace (See RDF5020201 Labour laws, policies and standards applications in the workplace)
- history and philosophy of law and justice (See RDF6030305 History and philosophy of law and justice)

RDF50501 Law (except legal practice and international law)

This class comprises research and experimental development in law (except legal practice and international law).

Exclusion(s)
- applications of labour laws, policies and standards in the workplace (See RDF5020201 Labour laws, policies and standards applications in the workplace)
- international law (See RDF50503 International law)
- legal practice (See RDF50502 Legal practice)

RDF5050101 Indigenous law

This subclass comprises research and experimental development in indigenous law.

RDF5050102 Aboriginal law

This subclass comprises research and experimental development in aboriginal law.

RDF5050103 Private law

This subclass comprises research and experimental development in private law.

RDF5050104 Administrative law

This subclass comprises research and experimental development in administrative law.

RDF5050105 Civil law

This subclass comprises research and experimental development in civil law.

RDF5050106 Common law

This subclass comprises research and experimental development in common law.

RDF5050107 Business, commercial and corporate law

This subclass comprises research and experimental development in business, commercial and corporate law.

RDF5050108 Comparative law

This subclass comprises research and experimental development in comparative law.

RDF5050109 Constitutional law

This subclass comprises research and experimental development in constitutional law.

RDF5050110 Criminal law and procedure

This subclass comprises research and experimental development in criminal law and procedure.

RDF5050111 Environmental and natural resources law

This subclass comprises research and experimental development in environmental and natural resources law.

RDF5050112 Equity and trusts law

This subclass comprises research and experimental development in equity and trusts law.

RDF5050113 Family law, children's law and elder law

This subclass comprises research and experimental development in family law, children's law and elder law.

RDF5050114 Human rights

This subclass comprises research and experimental development in human rights.

RDF5050115 Intellectual property law

This subclass comprises research and experimental development in intellectual property law.

RDF5050116 Tax law

This subclass comprises research and experimental development in tax law.

RDF5050117 Torts, private obligations and product liability law

This subclass comprises research and experimental development in torts, private obligations and product liability law.

RDF5050118 Labour, employment, compensation and pension law

This subclass comprises research and experimental development in labour, employment, compensation and pension law.

Exclusion(s)

- applications of labour laws, policies and standards in the workplace (See RDF5020201 Labour laws, policies and standards applications in the workplace)

RDF5050119 Property law (except intellectual property law)

This subclass comprises research and experimental development in property law (except intellectual property law).

Exclusion(s)
- intellectual property law (See RDF5050115 Intellectual property law)

RDF5050120 Consumer law

This subclass comprises research and experimental development in consumer law.

RDF5050121 Health law

This subclass comprises research and experimental development in health law.

RDF5050122 Law and technology

This subclass comprises research and experimental development in law and technology.

RDF5050123 Law and society

This subclass comprises research and experimental development in law and society.

RDF5050124 Cyberlaw and cyberjustice

This subclass comprises research and experimental development in cyberlaw and cyberjustice.

RDF5050125 Outer space law and policy

This subclass comprises research and experimental development in outer space law and policy.

RDF5050199 Law (except legal practice and international law), n.e.c.

This subclass comprises research and experimental development in law (except legal practice and international law), n.e.c.

Exclusion(s)
- international law (See RDF50503 International law)
- legal practice (See RDF50502 Legal practice)

RDF50502 Legal practice

This class comprises research and experimental development in legal practice.

RDF5050201 Legal institutions (including courts and justice systems)

This subclass comprises research and experimental development in legal institutions (including courts and justice systems).

RDF5050202 Lawyering and the legal profession

This subclass comprises research and experimental development in lawyering and the legal profession.

RDF5050203 Legal theory, jurisprudence and legal interpretation

This subclass comprises research and experimental development in legal theory, jurisprudence and legal interpretation.

RDF5050204 Litigation, adjudication and dispute resolution

This subclass comprises research and experimental development in litigation, adjudication and dispute resolution.

RDF5050205 Access to justice

This subclass comprises research and experimental development in access to justice.

RDF5050299 Legal practice, n.e.c.

This subclass comprises research and experimental development in legal practice, n.e.c.

RDF50503 International law

This class comprises research and experimental development in international law.

RDF5050301 Public international law (except international trade law)

This subclass comprises research and experimental development in public international law (except international trade law).

Exclusion(s)

- international trade law (See RDF5050302 International trade law)

RDF5050302 International trade law

This subclass comprises research and experimental development in international trade law.

RDF5050303 Private international law

This subclass comprises research and experimental development in private international law.

RDF5050399 International law, n.e.c.

This subclass comprises research and experimental development in international law, n.e.c.

RDF506 Political science and policy administration

This group comprises research and experimental development in political science and policy administration.

RDF50601 Political science

This class comprises research and experimental development in political science.

RDF5060101 Canadian politics and government

This subclass comprises research and experimental development in Canadian politics and government.

RDF5060102 Indigenous politics

This subclass comprises research and experimental development in indigenous politics.

RDF5060103 Political theory

This subclass comprises research and experimental development in political theory.

RDF5060104 Comparative politics

This subclass comprises research and experimental development in comparative politics.

RDF5060105 International relations

This subclass comprises research and experimental development in international relations.

RDF5060106 Political methodology

This subclass comprises research and experimental development in political methodology.

RDF5060107 Political areas studies

This subclass comprises research and experimental development in political areas studies.

RDF5060108 Specialized politics

This subclass comprises research and experimental development in specialized politics.

Exclusion(s)

- Indigenous politics (See RDF5060102 Indigenous politics)

RDF5060109 Political behaviour and election studies

This subclass comprises research and experimental development in political behaviour and election studies.

Exclusion(s)

- social movements and democracy (See RDF5060110 Social movements and democracy)

RDF5060110 Social movements and democracy

This subclass comprises research and experimental development in social movements and democracy.

RDF5060111 Politics of outer space

This subclass comprises research and experimental development in politics of outer space.

Exclusion(s)

- outer space policy (See RDF5050125 Outer space law and policy)

RDF5060199 Political science, n.e.c.

This subclass comprises research and experimental development in political science, n.e.c.

RDF50602 Policy and policy administration

This class comprises research and experimental development in policy and policy administration.

Exclusion(s)

- educational administration (See RDF5030304 Educational administration, management and leadership)
- health care administration (See RDF3030402 Health care administration)
- history and philosophy of engineering and technology (See RDF6030304 History and philosophy of engineering and technology)
- history and philosophy of science and technology (See RDF6030307 History and philosophy of science (including non-historical philosophy of science))
- law and legal practice (See RDF505 Law and legal practice)
- policy and policy administration associated with criminology (See RDF50902 Criminology)
- religion and religious studies (See RDF60103 Religion and religious studies)

- social philosophy (See RDF6030116 Social philosophy)
- sociolinguistics (language in society) (See RDF6020205 Sociolinguistics)

RDF5060201 Indigenous policy and policy administration

This subclass comprises research and experimental development in indigenous policy and policy administration.

Exclusion(s)

- Indigenous politics (See RDF5060102 Indigenous politics)

RDF5060202 Studies related to the Truth and Reconciliation Commission of Canada

This subclass comprises research and experimental development in studies related to the Truth and Reconciliation Commission of Canada.

RDF5060203 Arts and cultural policy

This subclass comprises research and experimental development in arts and cultural policy.

RDF5060204 Communication and media policy

This subclass comprises research and experimental development in communication and media policy.

RDF5060205 Crime policy

This subclass comprises research and experimental development in crime policy.

RDF5060206 Public security policy

This subclass comprises research and experimental development in public security policy.

Exclusion(s)

- crime policy (See RDF5060205 Crime policy)
- cybersecurity policy (See RDF5060207 Cybersecurity policy)

RDF5060207 Cybersecurity policy

This subclass comprises research and experimental development in cybersecurity policy.

RDF5060208 Economic development policy

This subclass comprises research and experimental development in economic development policy.

RDF5060209 International cooperation and development policies

This subclass comprises research and experimental development in international cooperation and development policies.

RDF5060210 Ecological policy

This subclass comprises research and experimental development in ecological policy.

RDF5060211 Educational policy

This subclass comprises research and experimental development in educational policy.

RDF5060212 Environmental policy

This subclass comprises research and experimental development in environmental policy.

RDF5060213 Health policy

This subclass comprises research and experimental development in health policy.

RDF5060214 Public administration

This subclass comprises research and experimental development in public administration.

RDF5060215 Public policy

This subclass comprises research and experimental development in public policy.

Exclusion(s)

- public administration (See RDF5060214 Public administration)

RDF5060216 Research, science and technology policy

This subclass comprises research and experimental development in research, science and technology policy.

RDF5060217 Social policy

This subclass comprises research and experimental development in social policy.

RDF5060218 Tourism policy

This subclass comprises research and experimental development in tourism policy.

RDF5060219 Urban policy

This subclass comprises research and experimental development in urban policy.

RDF5060220 Employment policy

This subclass comprises research and experimental development in employment policy.

RDF5060299 Policy and policy administration, n.e.c.

This subclass comprises research and experimental development in policy and policy administration, n.e.c.

RDF507 Social and economic geography

This group comprises research and experimental development in social and economic geography.

Exclusion(s)

- biogeography and phylogeography (See RDF1060502 Biogeography and phylogeography)
- geodesy (See RDF1050408 Geodesy)
- geomatics associated with earth systems observations (See RDF10509 Geomatics and earth systems observations)
- geomatics engineering (See RDF20802 Geomatics engineering)

RDF50701 Human geography

This class comprises research and experimental development in human geography.

Exclusion(s)

- biogeography and phylogeography (See RDF1060502 Biogeography and phylogeography)
- demography (See RDF50903 Demography)

- economics (including urban and regional economics) (See RDF50201 Economics)
- geomatics associated with earth systems observations (See RDF10509 Geomatics and earth systems observations)
- geomatics engineering (See RDF20802 Geomatics engineering)
- urban and environment policy (See RDF50602 Policy and policy administration)
- urban and regional planning (See RDF50702 Urban and regional planning)

RDF5070101 Economic geography

This subclass comprises research and experimental development in economic geography.

RDF5070102 Development geography

This subclass comprises research and experimental development in development geography.

RDF5070103 Recreation, leisure and tourism geography

This subclass comprises research and experimental development in recreation, leisure and tourism geography.

RDF5070104 Social and cultural geography

This subclass comprises research and experimental development in social and cultural geography.

RDF5070105 Population geography

This subclass comprises research and experimental development in population geography.

RDF5070106 Health geography

This subclass comprises research and experimental development in health geography.

RDF5070107 Political geography

This subclass comprises research and experimental development in political geography.

RDF5070108 Transportation geography

This subclass comprises research and experimental development in transportation geography.

RDF5070109 Regional geography

This subclass comprises research and experimental development in regional geography.

RDF5070110 Historical geography

This subclass comprises research and experimental development in historical geography.

RDF5070111 Environmental geography

This subclass comprises research and experimental development in environmental geography.

Exclusion(s)
- geodesy (See RDF1050408 Geodesy)

RDF5070112 Behavioural geography

This subclass comprises research and experimental development in behavioural geography.

RDF5070199 Human geography, n.e.c.

This subclass comprises research and experimental development in human geography, n.e.c.

RDF50702 Urban and regional planning

This class comprises research and experimental development in urban and regional planning.

Exclusion(s)
- agricultural land use and planning (See RDF40101 Agriculture, land and farm management)
- architecture (See RDF60402 Architecture)
- human geography (See RDF50701 Human geography)
- land transport systems engineering (See RDF20103 Land transportation systems engineering)
- landscape architecture (See RDF6040206 Landscape architecture)
- management of parks in natural environments (See RDF10510 Natural environment sciences)
- urban policy (See RDF5060219 Urban policy)

RDF5070201 Community planning

This subclass comprises research and experimental development in community planning.

RDF5070202 History and theory of the built environment (except architecture)

This subclass comprises research and experimental development in history and theory of the built environment (except architecture).

Exclusion(s)
- architectural history and theory (See RDF6040202 Architectural history and theory)

RDF5070203 Housing market development and management

This subclass comprises research and experimental development in housing market development and management.

RDF5070204 Land use and environmental planning

This subclass comprises research and experimental development in land use and environmental planning.

RDF5070205 Regional analysis and development

This subclass comprises research and experimental development in regional analysis and development.

RDF5070206 Transport planning

This subclass comprises research and experimental development in transport planning.

RDF5070207 Urban analysis and development

This subclass comprises research and experimental development in urban analysis and development.

RDF5070208 Urban design and studies

This subclass comprises research and experimental development in urban design and studies.

RDF5070209 Landscape studies (except architecture)

This subclass comprises research and experimental development in landscape studies, except architecture.

Exclusion(s)

- landscape architecture (See RDF6040206 Landscape architecture)

RDF5070210 Smart city design and development and related analysis

This subclass comprises research and experimental development in smart city design and development and related analysis.

RDF5070299 Urban and regional planning, n.e.c.

This subclass comprises research and experimental development in urban and regional planning, n.e.c.

RDF50799 Other social and human geography

This class comprises research and experimental development in other social and human geography.

RDF5079999 Other social and human geography

This subclass comprises research and experimental development in other social and human geography, n.e.c.

RDF508 Media and communications

This group comprises research and experimental development in media and communications.

RDF50801 Communication and media studies

This class comprises research and experimental development in communication and media studies.

Exclusion(s)

- communications technologies (See RDF20302 Communications and networks technologies)
- cultural impacts of marketing and advertising (See RDF60501 Cultural studies)
- film, television and digital media (See RDF50802 Film, television and digital media)
- journalism and professional writing (See RDF50803 Journalism and professional writing)
- marketing and advertising (See RDF50203 Marketing)
- social impacts of marketing and advertising (See RDF5040101 Applied sociology, program evaluation and social impact assessment)
- studies on cultural aspects of media (including digital) (See RDF6050104 Media, visual and digital culture)

RDF5080101 General communication studies

This subclass comprises research and experimental development in general communication studies.

Exclusion(s)

- communication technology and digital media studies (See RDF5080102 Communication technology and digital media studies)
- film, television and digital media (See RDF50802 Film, television and digital media)
- international and development communication studies (See RDF5080103 International and development communication)
- media studies other than social media and digital media (See RDF5080104 Media studies (except social media and digital media))
- organizational, interpersonal and intercultural communication studies (See RDF5080105 Organizational, interpersonal and intercultural communication)
- political communication studies (See RDF5080108 Political communication studies)

- public relations studies (See RDF5080107 Public relations studies)
- social media studies (See RDF5080106 Social media studies)

RDF5080102 Communication technology and digital media studies

This subclass comprises research and experimental development in communication technology and digital media studies.

RDF5080103 International and development communication

This subclass comprises research and experimental development in international and development communication.

RDF5080104 Media studies (except social media and digital media)

This subclass comprises research and experimental development in media studies (except social media and digital media).

Exclusion(s)

- digital media studies (See RDF50802 Film, television and digital media)
- social media studies (See RDF5080106 Social media studies)

RDF5080105 Organizational, interpersonal and intercultural communication

This subclass comprises research and experimental development in organizational, interpersonal and intercultural communication.

RDF5080106 Social media studies

This subclass comprises research and experimental development in social media studies.

RDF5080107 Public relations studies

This subclass comprises research and experimental development in public relations studies.

Exclusion(s)

- political communication studies (See RDF5080108 Political communication studies)

RDF5080108 Political communication studies

This subclass comprises research and experimental development in political communication studies.

RDF5080199 Communication and media studies, n.e.c.

This subclass comprises research and experimental development in communication and media studies, n.e.c.

RDF50802 Film, television and digital media

This class comprises research and experimental development in film, television and digital media.

Exclusion(s)

- communications technologies including broadcasting systems (See RDF20302 Communications and networks technologies)
- computer hardware (See RDF20301 Computer engineering)
- computer software development (See RDF10203 Programming languages and software engineering)
- film and television scriptwriting (See RDF6040402 Script development)

- lens-based practice, including photography (See RDF6040703 Photography)
- media, visual and digital culture (See RDF6050104 Media, visual and digital culture)
- studies on cultural aspects of films (See RDF60501 Cultural studies)

RDF5080201 Cinema studies

This subclass comprises research and experimental development in cinema studies.

Exclusion(s)

- film and television scriptwriting (See RDF6040402 Script development)

RDF5080202 Television studies

This subclass comprises research and experimental development in television studies.

RDF5080203 Interactive media studies

This subclass comprises research and experimental development in interactive media studies.

Exclusion(s)

- film and television scriptwriting (See RDF6040402 Script development)

RDF5080204 Computer gaming and animation studies

This subclass comprises research and experimental development in computer gaming and animation studies.

Exclusion(s)

- computer software development (See RDF10203 Programming languages and software engineering)

RDF5080299 Film, television and digital media, n.e.c.

This subclass comprises research and experimental development in film, television and digital media, n.e.c.

RDF50803 Journalism and professional writing

This class comprises research and experimental development in journalism and professional writing.

Exclusion(s)

- communication and media studies (See RDF50801 Communication and media studies)
- communications technologies (See RDF20302 Communications and networks technologies)
- creative writing (See RDF60404 Creative writing)
- literary studies (See RDF60203 Literature and literary studies)

RDF5080301 Journalism studies

This subclass comprises research and experimental development in journalism studies.

Exclusion(s)

- creative writing (See RDF60404 Creative writing)

RDF5080302 Rhetoric and writing studies

This subclass comprises research and experimental development in rhetoric and writing studies.

Exclusion(s)

- technical writing (See RDF5080304 Technical writing)

RDF5080303 Professional writing

This subclass comprises research and experimental development in professional writing.

RDF5080304 Technical writing

This subclass comprises research and experimental development in technical writing.

RDF5080399 Journalism and professional writing, n.e.c.

This subclass comprises research and experimental development in journalism and professional writing, n.e.c.

Exclusion(s)

- creative writing (See RDF60404 Creative writing)

RDF50899 Other media and communication

This class comprises research and experimental development in other media and communication.

RDF5089999 Other media and communication

This subclass comprises research and experimental development in other media and communication, n.e.c.

RDF509 Other social sciences

This group comprises research and experimental development in other social sciences.

RDF50901 Anthropology

This class comprises research and experimental development in anthropology.

Exclusion(s)

- anthropological genetics (See RDF1060601 Anthropological genetics)
- archaeology (See RDF60102 Archaeology)

RDF5090101 Developmental anthropology

This subclass comprises research and experimental development in developmental anthropology.

RDF5090102 Biological (physical) anthropology

This subclass comprises research and experimental development in biological (physical) anthropology.

RDF5090103 Linguistic anthropology

This subclass comprises research and experimental development in linguistic anthropology.

RDF5090104 Social and cultural anthropology

This subclass comprises research and experimental development in social and cultural anthropology.

RDF5090105 Medical anthropology

This subclass comprises research and experimental development in medical anthropology.

RDF5090106 Anthropology of sex and gender

This subclass comprises research and experimental development in anthropology of sex and gender.

RDF5090199 Anthropology, n.e.c.

This subclass comprises research and experimental development in anthropology, n.e.c.

RDF50902 Criminology

This class comprises research and experimental development in criminology.

Exclusion(s)

- crime policy (See RDF5060205 Crime policy)
- criminal law (See RDF5050110 Criminal law and procedure)
- forensic biology (See RDF1060113 Forensic biology)
- forensic chemistry (See RDF1049901 Forensic chemistry)
- forensic psychology (See RDF5010105 Forensic psychology)
- forensic statistics (See RDF10103 Statistics)

RDF5090201 Causes and prevention of crime

This subclass comprises research and experimental development in causes and prevention of crime.

RDF5090202 Correctional theory, offender treatment and rehabilitation

This subclass comprises research and experimental development in correctional theory, offender treatment and rehabilitation.

RDF5090203 Courts and sentencing

This subclass comprises research and experimental development in courts and sentencing.

RDF5090204 Criminological theories

This subclass comprises research and experimental development in criminological theories.

RDF5090205 Police administration, procedures and practice

This subclass comprises research and experimental development in police administration, procedures and practice.

RDF5090206 Private policing and security services

This subclass comprises research and experimental development in private policing and security services.

RDF5090207 Juvenile delinquency

This subclass comprises research and experimental development in juvenile delinquency.

RDF5090208 Cybercrime

This subclass comprises research and experimental development in cybercrime.

RDF5090299 Criminology, n.e.c.

This subclass comprises research and experimental development in criminology, n.e.c.

RDF50903 Demography

This class comprises research and experimental development in demography.

RDF5090301 Family and household demographic studies

This subclass comprises research and experimental development in family and household demographic studies.

RDF5090302 Fertility

This subclass comprises research and experimental development in fertility.

RDF5090303 Migration

This subclass comprises research and experimental development in migration.

RDF5090304 Mortality

This subclass comprises research and experimental development in mortality.

RDF5090305 Population trends and policies

This subclass comprises research and experimental development in population trends and policies.

RDF5090399 Demography, n.e.c.

This subclass comprises research and experimental development in demography, n.e.c.

RDF50904 Social work

This class comprises research and experimental development in social work.

Exclusion(s)

- human geography (See RDF50701 Human geography)
- social policy (See RDF5060217 Social policy)

RDF5090401 Clinical social work practice

This subclass comprises research and experimental development in clinical social work practice.

RDF5090402 Counselling, welfare and community services

This subclass comprises research and experimental development in counselling, welfare and community services.

RDF5090499 Social work, n.e.c.

This subclass comprises research and experimental development in social work, n.e.c.

RDF50999 Other social sciences, n.e.c.

This class comprises research and experimental development in other social sciences, n.e.c.

RDF5099901 Sexology

This subclass comprises research and experimental development in sexology.

RDF5099902 Disability studies

This subclass comprises research and experimental development in disability and accessibility studies, including critical disability studies.

RDF5099903 Gender studies

This subclass comprises research and experimental development in gender studies.

RDF5099904 Family social studies (except demographic aspects)

This subclass comprises research and experimental development in family social studies (except demographic aspects).

Exclusion(s)

- demographic aspects of family social studies (See RDF5090301 Family and household demographic studies)

RDF5099905 Black studies

This subclass comprises research and experimental development in Black studies as an interdisciplinary field of study.

RDF5099906 Indigenous studies

This subclass comprises research and experimental development in the interdisciplinary field of Indigenous studies.

Exclusion(s)

- Aboriginal law, other than in an interdisciplinary context (See RDF5050102 Aboriginal law)
- Indigenous arts, other than in an interdisciplinary context (See RDF6040601 Indigenous arts)
- Indigenous economics, other than in an interdisciplinary context (See RDF5020115 Indigenous economics)
- Indigenous education system, other than in an interdisciplinary context (See RDF5030106 Indigenous education system)
- Indigenous food system, other than in an interdisciplinary context (See RDF4010109 Indigenous food system)
- Indigenous health, other than in an interdisciplinary context (See RDF3030201 Indigenous health)
- Indigenous history, other than in an interdisciplinary context (See RDF6010101 Indigenous history)
- Indigenous law, other than in an interdisciplinary context (See RDF5050101 Indigenous law)
- Indigenous literatures, other than in an interdisciplinary context (See RDF6020303 Indigenous literatures)
- Indigenous peoples environmental knowledge, other than in an interdisciplinary context (See RDF1051001 Indigenous peoples environmental knowledge)
- Indigenous policy and policy administration, other than in an interdisciplinary context (See RDF5060201 Indigenous policy and policy administration)
- Indigenous politics, other than in an interdisciplinary context (See RDF5060102 Indigenous politics)
- North American Indigenous languages, other than in an interdisciplinary context (See RDF6020108 North American Indigenous languages)
- religion and spirituality of Indigenous peoples, other than in an interdisciplinary context (See RDF6010303 Religion and spirituality of Indigenous peoples)
- specialized studies in Indigenous education, other than in an interdisciplinary context (See RDF5030301 Specialized studies in Indigenous education)
- studies of Indigenous societies, other than in an interdisciplinary context (See RDF5049901 Studies of Indigenous societies)
- traditional Indigenous medicine and treatments, other than in an interdisciplinary context (See RDF3020303 Traditional Indigenous medicine and treatments)

RDF5099999 All other social sciences, n.e.c.

This subclass comprises research and experimental development in all other social sciences, n.e.c.

RDF60 Humanities and the arts

This division comprises research and experimental development in humanities and the arts. Humanities and the arts refer to disciplines concerned with the study of human actions and conditions and the social, economic and institutional mechanisms affecting humans, in the fields of humanities and the arts, which include history, archaeology and related studies; languages and literature; philosophy (including ethics and religion); arts (including arts and history of arts, performing arts and music), architecture and design; and other humanities. Research consists of systematic investigation carried by means of experiment or analysis to achieve a scientific or technological advance such as acquiring new knowledge of the underlying foundation of phenomena and observable facts. Experimental development consists of new or substantially improved goods, services, systems, methods or processes.

RDF601 History, archaeology and related studies

This group comprises research and experimental development in history, archaeology and related studies.

Exclusion(s)

- anthropology (See RDF50901 Anthropology)
- architectural history and theory (See RDF6040202 Architectural history and theory)
- art history and theory (See RDF60401 Art history and theory)
- cultural studies (See RDF60501 Cultural studies)
- digital humanities other than digital arts (See RDF6059901 Digital humanities)
- economic history (See RDF5020101 Economic history and heterodox economics)
- history and philosophy of specific fields (See RDF60303 History and philosophy of specific fields)
- history and theory of the built environment (except architecture) (See RDF5070202 History and theory of the built environment (except architecture))
- history and theory of the built environment other than architectural history and theory (See RDF5070202 History and theory of the built environment (except architecture))
- history of art and architecture (See RDF6040101 History of art and architecture)
- history of design (See RDF6040301 Design history and theory)
- history of specific concepts or fields of study (See RDF60303 History and philosophy of specific fields)
- librarianship (See RDF1020701 Library science (librarianship))

RDF60101 Historical studies

This class comprises research and experimental development in historical studies.

Exclusion(s)

- architectural history and theory (See RDF6040202 Architectural history and theory)
- art history and theory (See RDF60401 Art history and theory)
- biography associated with literature (See RDF60203 Literature and literary studies)
- economic history (See RDF5020101 Economic history and heterodox economics)
- history and philosophy of specific fields (See RDF60303 History and philosophy of specific fields)
- history and theory of the built environment (except architecture) (See RDF5070202 History and theory of the built environment (except architecture))
- history of art and architecture (See RDF6040101 History of art and architecture)

- history of design (See RDF6040301 Design history and theory)
- history of specific concepts or fields of study (See RDF60303 History and philosophy of specific fields)

RDF6010101 Indigenous history

This subclass comprises research and experimental development in indigenous history.

RDF6010102 Asian history

This subclass comprises research and experimental development in Asian history.

RDF6010103 Classical Greek and Ancient Rome history

This subclass comprises research and experimental development in Classical Greek and Ancient Rome history.

RDF6010104 British history

This subclass comprises research and experimental development in British history.

RDF6010105 European history (except British, classical Greek and Roman)

This subclass comprises research and experimental development in European history (except British, classical Greek and Roman).

Exclusion(s)

- british history (See RDF6010104 British history)
- classical Greek and Ancient Rome history (See RDF6010103 Classical Greek and Ancient Rome history)

RDF6010106 Latin American history

This subclass comprises research and experimental development in Latin American history.

RDF6010107 Middle Eastern history

This subclass comprises research and experimental development in Middle Eastern history.

RDF6010108 African history

This subclass comprises research and experimental development in African history.

RDF6010109 American history

This subclass comprises research and experimental development in American history.

RDF6010110 Canadian history

This subclass comprises research and experimental development in Canadian history.

Exclusion(s)

- history of Quebec, apart from Canadian history (See RDF6010115 Quebec history)

RDF6010111 Medieval history

This subclass comprises research and experimental development in medieval history.

RDF6010112 History of medicine and health care

This subclass comprises research and experimental development in history of medicine and health care.

RDF6010113 History of sciences and technology (except medicine and health care)

This subclass comprises research and experimental development in history of sciences and technology, except medicine and health care.

Exclusion(s)

- history of medicine and health care (See RDF6010112 History of medicine and health care)
- philosophy of sciences and technologies (See RDF6030125 Philosophy of sciences and technologies)

RDF6010114 Book history (including print culture)

This subclass comprises research and experimental development in book history and print culture.

RDF6010115 Quebec history

This subclass comprises research and experimental development in Quebec history, apart from Canadian history.

RDF6010199 Historical studies, n.e.c.

This subclass comprises research and experimental development in historical studies, n.e.c.

RDF60102 Archaeology

This class comprises research and experimental development in archaeology.

Exclusion(s)

- anthropology (See RDF50901 Anthropology)
- geomatic surveying (See RDF2080205 Geomatic surveying (including hydrographic surveying))
- remote sensing in geomatics and photogrammetry (See RDF2080204 Remote sensing in geomatics and photogrammetry)

RDF6010201 Archaeometry

This subclass comprises research and experimental development in archaeometry.

RDF6010202 Historical archaeology (including industrial archaeology)

This subclass comprises research and experimental development in historical archaeology (including industrial archaeology).

RDF6010203 Prehistoric archaeology

This subclass comprises research and experimental development in prehistoric archaeology.

RDF6010204 Underwater archaeology

This subclass comprises research and experimental development in underwater archaeology.

RDF6010205 Classical archaeology

This subclass comprises research and experimental development in classical archaeology.

RDF6010206 Ethno-archaeology

This subclass comprises research and experimental development in ethno-archaeology.

RDF6010207 Bioarchaeology

This subclass comprises research and experimental development in bioarchaeology.

RDF6010208 Archaeology of pre-literate societies

This subclass comprises research and experimental development in archaeology of pre-literate societies.

RDF6010209 Archaeological theory

This subclass comprises research and experimental development in archaeological theory.

RDF6010210 Paleolithic archaeology

This subclass comprises research and experimental development in paleolithic archaeology.

RDF6010211 Mortuary archaeology

This subclass comprises research and experimental development in mortuary archaeology.

RDF6010299 Archaeology, n.e.c.

This subclass comprises research and experimental development in archaeology, n.e.c.

RDF60103 Religion and religious studies

This class comprises research and experimental development in religion and religious studies.

Exclusion(s)
- language studies (See RDF60201 Languages)
- philosophy of religion (See RDF6030113 Philosophy of religion)

RDF6010301 Christianity studies (including biblical studies and church history)

This subclass comprises research and experimental development in christianity studies (including biblical studies and church history).

RDF6010302 Comparative religious studies

This subclass comprises research and experimental development in comparative religious studies.

RDF6010303 Religion and spirituality of Indigenous peoples

This subclass comprises research and experimental development in religion and spirituality of indigenous peoples.

RDF6010304 Islamic studies

This subclass comprises research and experimental development in Islamic studies.

RDF6010305 Jewish studies

This subclass comprises research and experimental development in Jewish studies.

RDF6010306 Religion and society

This subclass comprises research and experimental development in religion and society.

RDF6010307 Eastern religions

This subclass comprises research and experimental development in Eastern religions.

RDF6010308 Classical religion

This subclass comprises research and experimental development in classical religion.

RDF6010399 Religion and religious studies, n.e.c.

This subclass comprises research and experimental development in religion and religious studies, n.e.c.

RDF60199 Other studies related to history and archaeology

This class comprises research and experimental development in other studies related to history and archaeology.

RDF6019999 Other studies related to history and archaeology

This subclass comprises research and experimental development in other studies related to history and archaeology, n.e.c.

RDF602 Languages and literature

This group comprises research and experimental development in languages and literature.

Exclusion(s)

- digital humanities other than digital arts (See RDF6059901 Digital humanities)
- english language and literacy curriculum, pedagogy and didactics (See RDF5030204 English language and literacy curriculum, pedagogy and didactics (except ESL, TESOL, LOTE and sign language))

RDF60201 Languages

This class comprises research and experimental development in languages.

Exclusion(s)

- linguistic anthropology (See RDF5090103 Linguistic anthropology)
- linguistic processes (See RDF60202 Linguistics)
- philosophy of language (See RDF6030111 Philosophy of language)
- speech comprehension (See RDF5010204 Speech comprehension)
- speech production (See RDF5010203 Speech production)

RDF6020101 English language

This subclass comprises research and experimental development in English language.

RDF6020102 French language

This subclass comprises research and experimental development in French language.

RDF6020103 Spanish language

This subclass comprises research and experimental development in Spanish language.

RDF6020104 Chinese language

This subclass comprises research and experimental development in Chinese language.

RDF6020105 Arabic language

This subclass comprises research and experimental development in Arabic language.

RDF6020106 African languages

This subclass comprises research and experimental development in African languages.

RDF6020107 Oceania and Pacific island languages

This subclass comprises research and experimental development in Oceania and Pacific island languages.

RDF6020108 North American Indigenous languages

This subclass comprises research and experimental development in North American Indigenous languages.

RDF6020109 Asian languages (except chinese language)

This subclass comprises research and experimental development in Asian languages (except chinese language).

RDF6020110 Other South and Central American languages

This subclass comprises research and experimental development in Other South and Central American languages.

RDF6020111 Other European languages

This subclass comprises research and experimental development in Other European languages.

RDF6020112 Comparative language studies

This subclass comprises research and experimental development in comparative language studies.

RDF6020113 Bilingualism and second language learning

This subclass comprises research and experimental development in bilingualism and second language learning.

Exclusion(s)
- curriculum, pedagogy and didactics of second language (See RDF50302 Curriculum, pedagogy and didactics)

RDF6020199 Languages, n.e.c.

This subclass comprises research and experimental development in languages, n.e.c.

RDF60202 Linguistics

This class comprises research and experimental development in linguistics.

Exclusion(s)
- speech comprehension (See RDF5010204 Speech comprehension)
- speech production (See RDF5010203 Speech production)

RDF6020201 Classical linguistics

This subclass comprises research and experimental development in classical linguistics.

RDF6020202 Computational linguistics

This subclass comprises research and experimental development in computational linguistics.

RDF6020203 Discourse and pragmatics

This subclass comprises research and experimental development in discourse and pragmatics.

RDF6020204 Phonetics and speech sciences

This subclass comprises research and experimental development in phonetics and speech sciences.

Exclusion(s)

- speech comprehension (See RDF5010204 Speech comprehension)
- speech pathology (See RDF3030304 Speech pathology)
- speech production (See RDF5010203 Speech production)

RDF6020205 Sociolinguistics

This subclass comprises research and experimental development in sociolinguistics.

RDF6020206 Historical linguistics, diachronics, and dialectology

This subclass comprises research and experimental development in historical linguistics, diachronics, and dialectology.

RDF6020207 Lexicography

This subclass comprises research and experimental development in lexicography.

RDF6020208 Linguistic structures (including grammar, phonology, lexicon and semantics)

This subclass comprises research and experimental development in linguistic structures (including grammar, phonology, lexicon and semantics).

RDF6020209 Lexicology (including onomastics)

This subclass comprises research and experimental development in lexicology (including onomastics).

Exclusion(s)

- lexicography (See RDF6020207 Lexicography)

RDF6020210 Comparative linguistics

This subclass comprises research and experimental development in comparative linguistics.

RDF6020211 Translation studies

This subclass comprises research and experimental development in translation studies, as an interdisciplinary field of study.

RDF6020299 Linguistics, n.e.c.

This subclass comprises research and experimental development in linguistics, n.e.c.

RDF60203 Literature and literary studies

This class comprises research and experimental development in literature and literary studies.

Exclusion(s)

- creative writing (See RDF60404 Creative writing)
- language studies (See RDF60201 Languages)

RDF6020301 Canadian literatures in English

This subclass comprises research and experimental development in Canadian literatures in English.

RDF6020302 Quebec literatures

This subclass comprises research and experimental development in Quebec literatures.

RDF6020303 Indigenous literatures

This subclass comprises research and experimental development in Indigenous literatures.

RDF6020304 Literatures in French outside Quebec

This subclass comprises research and experimental development in literatures in French outside Quebec.

RDF6020305 British literatures

This subclass comprises research and experimental development in British literatures.

RDF6020306 Greek and roman literatures

This subclass comprises research and experimental development in Greek and roman literatures.

RDF6020307 Chinese literatures

This subclass comprises research and experimental development in Chinese literatures.

RDF6020308 Arabic literatures

This subclass comprises research and experimental development in Arabic literatures.

RDF6020309 African literatures

This subclass comprises research and experimental development in African literatures.

RDF6020310 Old English literatures

This subclass comprises research and experimental development in old English literatures.

RDF6020311 Medieval Literatures

This subclass comprises research and experimental development in Medieval Literatures.

RDF6020312 Victorian literatures

This subclass comprises research and experimental development in Victorian literatures.

RDF6020313 Twentieth-century British literatures

This subclass comprises research and experimental development in Twentieth-century British literatures.

RDF6020314 Contemporary British literatures

This subclass comprises research and experimental development in contemporary British literatures.

RDF6020315 Irish literatures

This subclass comprises research and experimental development in Irish literatures.

RDF6020316 American literatures

This subclass comprises research and experimental development in American literatures.

RDF6020317 Latin American literatures

This subclass comprises research and experimental development in Latin American literatures.

RDF6020318 Caribbean literatures

This subclass comprises research and experimental development in Caribbean literatures.

RDF6020319 South Asian literatures

This subclass comprises research and experimental development in South Asian literatures.

RDF6020320 Australia, New Zealand, and New South Wales literatures

This subclass comprises research and experimental development in Australia, New Zealand, and New South Wales literatures.

RDF6020321 Postcolonial literatures

This subclass comprises research and experimental development in postcolonial literatures.

RDF6020322 Renaissance literatures

This subclass comprises research and experimental development in renaissance literatures.

RDF6020323 Classical literatures

This subclass comprises research and experimental development in classical literatures.

RDF6020324 Contemporary literatures

This subclass comprises research and experimental development in contemporary literatures.

RDF6020325 Science fiction and fantasy literatures

This subclass comprises research and experimental development in science fiction and fantasy literatures.

RDF6020326 Children's literatures

This subclass comprises research and experimental development in children's literatures.

RDF6020327 Literature and critical theory

This subclass comprises research and experimental development in literature and critical theory.

RDF6020328 Intellectual history in literary studies

This subclass comprises research and experimental development in intellectual history in literary studies.

RDF6020329 Comparative literatures

This subclass comprises research and experimental development in comparative literatures.

RDF6020330 Electronic literatures

This subclass comprises research and experimental development in electronic literatures.

RDF6020399 Literature and literary studies, n.e.c.

This subclass comprises research and experimental development in literature and literary studies, n.e.c.

RDF60299 Other languages and literature

This class comprises research and experimental development in other languages and literature.

RDF6029999 Other languages and literature

This subclass comprises research and experimental development in other languages and literature, n.e.c.

RDF603 Philosophy

This group comprises research and experimental development in philosophy (including ethics and religion).

Exclusion(s)

- architectural history and theory (See RDF6040202 Architectural history and theory)
- classical philosophy (See RDF6030122 Classical philosophy (Greek, Latin, Medieval))
- design history and theory (See RDF6040301 Design history and theory)
- digital humanities other than digital arts (See RDF6059901 Digital humanities)
- historical linguistics (See RDF6020206 Historical linguistics, diachronics, and dialectology)
- history and theory of the built environment other than architectural history and theory (See RDF5070202 History and theory of the built environment (except architecture))
- history of art and architecture (See RDF6040101 History of art and architecture)
- history of peoples, nations or geographics (See RDF60101 Historical studies)
- human rights law (See RDF5050114 Human rights)
- humane treatment of animals in agriculture, domestic or sporting environments (See RDF4020107 Humane animal treatment)
- language studies (See RDF60201 Languages)
- mathematical logic (See RDF1010109 Foundations, logic, and set theory of mathematics)
- political science (See RDF50601 Political science)
- sociology and social studies of science and technology (See RDF5040108 Sociology and social studies of science and technology)

RDF60301 Philosophy (except philosophy of specific fields)

This class comprises research and experimental development in philosophy (except philosophy of specific fields).

Exclusion(s)

- applied ethics (See RDF60302 Applied ethics)
- architectural history and theory (See RDF6040202 Architectural history and theory)
- design history and theory (See RDF6040301 Design history and theory)
- historical linguistics (See RDF6020206 Historical linguistics, diachronics, and dialectology)
- history and theory of the built environment other than architectural history and theory (See RDF5070202 History and theory of the built environment (except architecture))
- history of art and architecture (See RDF6040101 History of art and architecture)
- history of peoples, nations or geographics (See RDF60101 Historical studies)
- mathematical logic (See RDF1010109 Foundations, logic, and set theory of mathematics)
- philosophy of specific fields of study (See RDF60303 History and philosophy of specific fields)
- political science (See RDF50601 Political science)
- sociology and social studies of science and technology (See RDF5040108 Sociology and social studies of science and technology)

RDF6030101 Aesthetics

This subclass comprises research and experimental development in aesthetics.

RDF6030102 Environmental philosophy

This subclass comprises research and experimental development in environmental philosophy.

RDF6030103 Epistemology

This subclass comprises research and experimental development in epistemology and philosophy of science.

RDF6030104 Feminist philosophy

This subclass comprises research and experimental development in feminist philosophy.

RDF6030105 Philosophy of sexuality

This subclass comprises research and experimental development in philosophy of sexuality.

RDF6030106 Logic

This subclass comprises research and experimental development in logic.

Exclusion(s)

- computational logic (See RDF1020205 Computational logic theory)

RDF6030107 Metaphysics

This subclass comprises research and experimental development in metaphysics.

RDF6030108 Phenomenology

This subclass comprises research and experimental development in phenomenology.

RDF6030109 Philosophical psychology (including moral psychology and philosophy of action)

This subclass comprises research and experimental development in philosophical psychology (including moral psychology and philosophy of action).

RDF6030110 Philosophy of cognition

This subclass comprises research and experimental development in philosophy of cognition.

RDF6030111 Philosophy of language

This subclass comprises research and experimental development in philosophy of language.

RDF6030112 Philosophy of mind (except cognition)

This subclass comprises research and experimental development in philosophy of mind (except cognition).

Exclusion(s)

- philosophy of cognition (See RDF6030110 Philosophy of cognition)

RDF6030113 Philosophy of religion

This subclass comprises research and experimental development in philosophy of religion.

RDF6030114 Philosophy of specific cultures (including comparative philosophy)

This subclass comprises research and experimental development in philosophy of specific cultures (including comparative philosophy).

RDF6030115 Philosophy of law

This subclass comprises research and experimental development in philosophy of law.

RDF6030116 Social philosophy

This subclass comprises research and experimental development in social philosophy.

RDF6030117 Postcolonial philosophy

This subclass comprises research and experimental development in postcolonial philosophy.

RDF6030118 Political philosophy

This subclass comprises research and experimental development in political philosophy.

RDF6030119 Critical theory in philosophy

This subclass comprises research and experimental development in critical theory in philosophy.

RDF6030120 Contemporary philosophy

This subclass comprises research and experimental development in contemporary philosophy.

RDF6030121 Metaethics and ethical theory

This subclass comprises research and experimental development in Metaethics and ethical theory.

RDF6030122 Classical philosophy (Greek, Latin, Medieval)

This subclass comprises research and experimental development in Classical philosophy (Greek, Latin, Medieval).

RDF6030123 History of philosophy

This subclass comprises research and experimental development in history of philosophy.

RDF6030124 Ontology

This subclass comprises research and experimental development in ontology.

RDF6030125 Philosophy of sciences and technologies

This subclass comprises research and experimental development in philosophy of sciences and technologies.

Exclusion(s)
- epistemology (See RDF6030103 Epistemology)

RDF6030199 Philosophy, n.e.c.

This subclass comprises research and experimental development in philosophy, n.e.c.

RDF60302 Applied ethics

This class comprises research and experimental development in applied ethics.

Exclusion(s)

- agricultural biotechnology related ethics (See RDF4040110 Agricultural biotechnology ethics)
- environmental philosophy (See RDF6030102 Environmental philosophy)
- human rights law (See RDF5050114 Human rights)
- humane treatment of animals in agriculture, domestic or sporting environments (See RDF4020107 Humane animal treatment)
- metaethics and ethical theory (See RDF6030121 Metaethics and ethical theory)

RDF6030201 Bioethics (humans and animals)

This subclass comprises research and experimental development in bioethics (humans and animals).

RDF6030202 Business ethics

This subclass comprises research and experimental development in business ethics.

RDF6030203 Ethics in technology (e.g., digital, artificial intelligence)

This subclass comprises research and experimental development in ethics in technology (e.g., digital, artificial intelligence).

RDF6030204 Human rights, justice, and ethical issues

This subclass comprises research and experimental development in human rights, justice, and ethical issues.

RDF6030205 Legal ethics

This subclass comprises research and experimental development in legal ethics.

RDF6030206 Medical ethics

This subclass comprises research and experimental development in medical ethics.

RDF6030207 Professional ethics

This subclass comprises research and experimental development in professional ethics.

RDF6030208 Research ethics

This subclass comprises research and experimental development in research ethics.

RDF6030209 Animal ethics

This subclass comprises research and experimental development in animal ethics.

RDF6030210 Reproductive health ethics

This subclass comprises research and experimental development in reproductive health ethics.

RDF6030211 Ethics and management of personal data

This subclass comprises research and experimental development in ethics and management of personal data.

RDF6030299 Applied ethics, n.e.c.

This subclass comprises research and experimental development in applied ethics, n.e.c.

RDF60303 History and philosophy of specific fields

This class comprises research and experimental development in history and philosophy of specific fields.

Exclusion(s)

- architectural history and theory (See RDF6040202 Architectural history and theory)
- classical philosophy (See RDF6030122 Classical philosophy (Greek, Latin, Medieval))
- design history and theory (See RDF6040301 Design history and theory)
- historical linguistics (See RDF6020206 Historical linguistics, diachronics, and dialectology)
- history and theory of the built environment other than architectural history and theory (See RDF5070202 History and theory of the built environment (except architecture))
- history of art and architecture (See RDF6040101 History of art and architecture)
- history of peoples, nations or geographics (See RDF60101 Historical studies)
- sociology and social studies of science and technology (See RDF5040108 Sociology and social studies of science and technology)

RDF6030301 Business and labour history

This subclass comprises research and experimental development in business and labour history.

RDF6030302 History and philosophy of education

This subclass comprises research and experimental development in history and philosophy of education.

RDF6030303 History and philosophy of economics

This subclass comprises research and experimental development in history and philosophy of economics.

RDF6030304 History and philosophy of engineering and technology

This subclass comprises research and experimental development in history and philosophy of engineering and technology.

RDF6030305 History and philosophy of law and justice

This subclass comprises research and experimental development in history and philosophy of law and justice.

RDF6030306 History and philosophy of medicine

This subclass comprises research and experimental development in history and philosophy of medicine.

RDF6030307 History and philosophy of science (including non-historical philosophy of science)

This subclass comprises research and experimental development in history and philosophy of science (including non-historical philosophy of science).

RDF6030308 History and philosophy of the humanities

This subclass comprises research and experimental development in history and philosophy of the humanities.

RDF6030309 History and philosophy of the social sciences

This subclass comprises research and experimental development in history and philosophy of the social sciences.

RDF6030310 Intellectual history (except in literary studies)

This subclass comprises research and experimental development in intellectual history (except in literary studies.

RDF6030311 History of ideas

This subclass comprises research and experimental development in history of ideas.

Exclusion(s)

- intellectual history (See RDF6030310 Intellectual history (except in literary studies))

RDF6030399 History and philosophy of specific fields, n.e.c.

This subclass comprises research and experimental development in history and philosophy of specific fields, n.e.c.

RDF604 Arts (arts, history of arts, performing arts, music), architecture and design

This group comprises research and experimental development in arts (including arts and history of arts, performing arts, music), architecture and design.

Exclusion(s)

- digital humanities other than digital arts (See RDF6059901 Digital humanities)

RDF60401 Art history and theory

This class comprises research and experimental development in art history and theory.

Exclusion(s)

- curatorial and related studies (See RDF60408 Curatorial and related studies)
- literary studies (See RDF60203 Literature and literary studies)

RDF6040101 History of art and architecture

This subclass comprises research and experimental development in history of art and architecture.

RDF6040102 Art theory and analysis

This subclass comprises research and experimental development in art theory and analysis.

RDF6040103 Visual theory, visual culture and visual literacy

This subclass comprises research and experimental development in visual theory, visual culture and visual literacy.

RDF6040199 Art theory and criticism, n.e.c.

This subclass comprises research and experimental development in art theory and criticism, n.e.c.

RDF60402 Architecture

This class comprises research and experimental development in architecture.

Exclusion(s)

- civil engineering (See RDF20101 Civil engineering)
- history and theory of the built environment other than architectural history and theory (See RDF5070202 History and theory of the built environment (except architecture))

RDF6040201 Architectural design

This subclass comprises research and experimental development in architectural design.

Exclusion(s)

- landscape architecture (See RDF6040206 Landscape architecture)

RDF6040202 Architectural history and theory

This subclass comprises research and experimental development in architectural history and theory.

Exclusion(s)

- history of art in architecture (See RDF6040101 History of art and architecture)

RDF6040203 Architectural science and technology (including architectural acoustics)

This subclass comprises research and experimental development in architectural science and technology (including architectural acoustics).

RDF6040204 Architecture management

This subclass comprises research and experimental development in architecture management.

Exclusion(s)

- landscape architecture (See RDF6040206 Landscape architecture)

RDF6040205 Interior design

This subclass comprises research and experimental development in interior design.

RDF6040206 Landscape architecture

This subclass comprises research and experimental development in landscape architecture.

RDF6040299 Architecture, n.e.c.

This subclass comprises research and experimental development in architecture, n.e.c.

RDF60403 Design practice and management

This class comprises research and experimental development in design practice and management.

Exclusion(s)

- architectural design (See RDF6040201 Architectural design)
- architectural history and theory (See RDF6040202 Architectural history and theory)
- engineering design (See RDF21201 Engineering design)
- fine arts (See RDF60407 Visual arts and media arts)

RDF6040301 Design history and theory

This subclass comprises research and experimental development in design history and theory.

RDF6040302 Design innovation

This subclass comprises research and experimental development in design innovation.

RDF6040303 Digital and interaction design

This subclass comprises research and experimental development in digital and interaction design.

RDF6040304 Textile and fashion design

This subclass comprises research and experimental development in textile and fashion design.

RDF6040305 Visual communication design (except computer graphics)

This subclass comprises research and experimental development in visual communication design (except computer graphics).

Exclusion(s)

- computer graphics (infographics) (See RDF1020507 Computer graphics)

RDF6040306 Industrial design

This subclass comprises research and experimental development in industrial design.

Exclusion(s)

- industrial design in manufacturing engineering (See RDF2040313 Industrial design in manufacturing engineering)

RDF6040399 Design practice and management, n.e.c.

This subclass comprises research and experimental development in design practice and management, n.e.c.

RDF60404 Creative writing

This class comprises research and experimental development in creative writing.

RDF6040401 Novels, stories and news

This subclass comprises research and experimental development in novels, stories and news.

RDF6040402 Script development

This subclass comprises research and experimental development in script development.

RDF6040403 Poetry, essays and songs

This subclass comprises research and experimental development in poetry, essays and songs.

RDF6040499 Creative writing, n.e.c.

This subclass comprises research and experimental development in creative writing, n.e.c.

RDF60405 Music

This class comprises research and experimental development in music.

RDF6040501 Opera

This subclass comprises research and experimental development in opera.

RDF6040502 Sound creation

This subclass comprises research and experimental development in sound creation.

RDF6040503 Organology

This subclass comprises research and experimental development in organology.

RDF6040504 Music composition

This subclass comprises research and experimental development in music composition.

RDF6040505 Music interpretation

This subclass comprises research and experimental development in music interpretation.

Exclusion(s)

- performing arts (See RDF60406 Performing arts)

RDF6040599 Music, n.e.c.

This subclass comprises research and experimental development in music, n.e.c.

RDF60406 Performing arts

This class comprises research and experimental development in performing arts.

Exclusion(s)

- film, television and digital media (See RDF50802 Film, television and digital media)
- journalism, professional and technical writing (See RDF50803 Journalism and professional writing)
- literary studies (See RDF60203 Literature and literary studies)
- performance and installation art (See RDF6040704 Performance and installation art)

RDF6040601 Indigenous arts

This subclass comprises research and experimental development in indigenous arts.

RDF6040602 Music therapy

This subclass comprises research and experimental development in music therapy.

RDF6040603 Musicology and ethnomusicology

This subclass comprises research and experimental development in musicology and ethnomusicology.

RDF6040604 Interpretive dance

This subclass comprises research and experimental development in interpretive dance.

RDF6040605 Choreography

This subclass comprises research and experimental development in choreography.

RDF6040606 Theater Interpretation

This subclass comprises research and experimental development in theater Interpretation.

RDF6040607 Art therapy

This subclass comprises research and experimental development in art therapy.

RDF6040699 Performing arts, n.e.c.

This subclass comprises research and experimental development in performing arts, n.e.c.

RDF60407 Visual arts and media arts

This class comprises research and experimental development in visual arts and media arts.

Exclusion(s)

- film, television and digital media (See RDF50802 Film, television and digital media)
- visual communication design (See RDF6040305 Visual communication design (except computer graphics))

RDF6040701 Sculpture and painting

This subclass comprises research and experimental development in sculpture and painting.

RDF6040702 Crafts

This subclass comprises research and experimental development in crafts.

RDF6040703 Photography

This subclass comprises research and experimental development in photography.

RDF6040704 Performance and installation art

This subclass comprises research and experimental development in performance and installation art.

Exclusion(s)

- performing arts (See RDF60406 Performing arts)

RDF6040705 Media arts

This subclass comprises research and experimental development in media arts.

RDF6040706 Digital arts

This subclass comprises research and experimental development in digital arts.

RDF6040799 Visual arts and media arts, n.e.c.

This subclass comprises research and experimental development in visual arts and media arts, n.e.c.

RDF60408 Curatorial and related studies

This class comprises research and experimental development in curatorial and related studies.

Exclusion(s)

- cultural studies (See RDF60501 Cultural studies)
- librarianship (See RDF1020701 Library science (librarianship))

RDF6040801 Cultural property conservation

This subclass comprises research and experimental development in cultural property conservation.

RDF6040802 Materials conservation

This subclass comprises research and experimental development in materials conservation.

RDF6040803 Museum studies (Museology)

This subclass comprises research and experimental development in museum studies (Museology).

RDF6040804 Heritage management

This subclass comprises research and experimental development in heritage management.

RDF6040805 Architectural heritage conservation

This subclass comprises research and experimental development in architectural heritage conservation.

RDF6040899 Curatorial artworks and related studies, n.e.c.

This subclass comprises research and experimental development in curatorial artworks and related studies, n.e.c.

RDF60499 Other Arts

This class comprises research and experimental development in other arts.

RDF6049999 Other Arts

This subclass comprises research and experimental development in other arts, n.e.c.

RDF605 Other humanities

This group comprises research and experimental development in other humanities.

RDF60501 Cultural studies

This class comprises research and experimental development in cultural studies.

Exclusion(s)

- cultural conservation (See RDF6040801 Cultural property conservation)
- digital print culture (See RDF6010114 Book history (including print culture))
- film, television and digital media (See RDF50802 Film, television and digital media)
- languages and culture associated with language studies (See RDF60201 Languages)
- marketing and advertising (See RDF50203 Marketing)
- organisational, interpersonal and intercultural communication (See RDF5080105 Organizational, interpersonal and intercultural communication)
- social impacts of marketing and advertising (See RDF5040101 Applied sociology, program evaluation and social impact assessment)

RDF6050101 Critical identity, ethnic and race studies

This subclass comprises research and experimental development in critical identity, ethnic and race studies.

RDF6050102 Environment, space and place

This subclass comprises research and experimental development in environment, space and place.

RDF6050103 Critical film studies

This subclass comprises research and experimental development in critical film studies.

RDF6050104 Media, visual and digital culture

This subclass comprises research and experimental development in media, visual and digital culture.

Exclusion(s)

- digital print culture (See RDF6010114 Book history (including print culture))

RDF6050105 Critical studies of technology

This subclass comprises research and experimental development in critical studies of technology.

RDF6050106 Theories of cultural studies

This subclass comprises research and experimental development in theories of cultural studies.

RDF6050107 Globalization and culture

This subclass comprises research and experimental development in globalization and culture.

RDF6050108 Critical studies of literature

This subclass comprises research and experimental development in critical studies of literature.

RDF6050199 Other cultural studies, n.e.c.

This subclass comprises research and experimental development in other cultural studies, n.e.c.

RDF60599 All other humanities, n.e.c.

This class comprises research and experimental development in all other humanities, n.e.c.

RDF6059901 Digital humanities

This class comprises research and experimental development in digital humanities.

Exclusion(s)

- digital arts (See RDF6040706 Digital arts)

RDF6059999 All other humanities, n.e.c.

This subclass comprises research and experimental development in all other humanities, n.e.c.

Socioeconomic Objective (SEO) - CRDC 2020 Version 2.0

Classification structure of SEO

RDS101 Exploration and exploitation of the earth

RDS10101 Mineral exploration

RDS10102 Energy resources exploration

RDS10103 Atmosphere and weather

RDS10104 Climate and climate change

RDS10105 Water and hydrology

RDS10199 Exploration and exploitation of the earth, n.e.c.

RDS102 Environmental protection

RDS10201 Environmentally sustainable human activities

RDS10202 Water provision and waste services

RDS10203 Air quality

RDS10204 Control of pests, diseases and exotic species

RDS10205 Control and care of the environment

RDS10299 Environment protection, n.e.c.

RDS103 Exploration and exploitation of space

RDS10301 Scientific exploration of space

RDS10302 Celestial objects and phenomena

RDS10303 Space launch systems

RDS10304 Space laboratories and space travel

RDS10305 Terraforming

RDS10399 Exploration and exploitation of space, n.e.c.

RDS104 Transport, telecommunication and other infrastructures (including buildings)

RDS10401 Construction planning

RDS10402 Construction design

RDS10403 Construction materials performance

RDS10404 Construction processes

RDS10405 Transport systems

RDS10406 Communication technologies, systems and services

RDS10407 Land and water management

RDS10499 Transport, telecommunication and other infrastructures (including buildings), n.e.c.

RDS105 Energy (except prospecting)

RDS10501 Mining and extraction of energy resources

RDS10502 Preparation and production of energy sources

RDS10503 Energy transformation

RDS10504 Renewable energy

RDS10505 Energy storage and distribution

RDS10506 Energy conservation and efficiency

RDS10599 Energy (except prospecting), n.e.c.

RDS106 Industrial production and technology

RDS10601 Industrial processes related to mineral resource

RDS10602 Industrial processes related to agricultural products (except wood, paper and fiber)

RDS10603 Leather products, fibre processing and textiles

RDS10604 Wood, wood products and paper

RDS10605 Agricultural and industrial chemicals

RDS10606 Veterinary pharmaceutical products

RDS10607 Transport equipment

RDS10608 Machinery and equipment (including automated machinery and equipment)

RDS10609 Computer, electronic, optical products and communication equipment

RDS10610 Information systems, technologies and services

RDS10611 Measurement standards and calibration services

RDS10699 Industrial production and technology, n.e.c.

RDS107 Health

RDS10701 Human health procedures and pharmaceutical treatments

RDS10702 Provision of care

RDS10703 Public health (except specific population health)

RDS10704 Specific population health

RDS10799 Health, n.e.c.

RDS108 Agriculture (including fisheries and forestry)

RDS10801 Forestry

RDS10802 Soils

RDS10803 Crops

RDS10804 Harvesting and packing of plant products

RDS10805 Fisheries (including aquaculture and wild caught)

RDS10806 Livestock raising (including beekeeping and pet breeding)

RDS10807 Primary animal products

RDS10899 Agriculture, n.e.c.

RDS109 Education

RDS10901 Stages of education

RDS10902 Teaching methods and curriculum

RDS10903 Educational institutions, systems, and policies

RDS10999 Education, n.e.c.

RDS110 Culture, recreation, religion and media

RDS11001 Information services

RDS11002 Media services

RDS11003 Tourism

RDS11004 Arts and culture

RDS11005 Sports, exercise and recreation

RDS11006 Communication, literature and language

RDS11007 Heritage (including Indigenous culture)

RDS11008 Ethics

RDS11009 Religion

RDS11010 Understanding of societies, past and current

RDS11099 Culture, recreation, and media, n.e.c.

RDS111 Political and social systems, structures and processes

RDS11101 Finance and economics

RDS11102 International trade

RDS11103 Management, marketing and productivity

RDS11104 Government and politics

RDS11105 International relations

RDS11106 Justice and the law

RDS11107 Work and labour market issues

RDS11108 Environment, urban, and rural planning and development

RDS11109 Family and social work

RDS11110 Social justice

RDS11199 Political and social systems, structure and processes, n.e.c.

RDS112 Defence

RDS11299 Defence

Classification description of SEO

RDS101 Exploration and exploitation of the earth

This division is a socioeconomic objective which covers research and experimental development (R&D) activities with objectives related to the exploration of the Earth's crust and mantle, seas, oceans and atmosphere, as well as for R&D activities on their exploitation. It also includes climatic and meteorological research, polar exploration and hydrology. It does not include R&D activities related to soil improvement (objective 4 or RDS104), land use or fishing (objective 8 or RDS108), or pollution (objective 2 or RDS102).

Exclusion(s)

- conservation of energy and efficient energy use (See RDS10506 Energy conservation and efficiency)
- control and treatment of human diseases within the country's borders (See RDS107 Health)
- environmental ethics (See RDS11007 Heritage (including Indigenous culture))
- farming and production aspects of animals and primary animal product (See RDS108 Agriculture (including fisheries and forestry))
- production aspects of agricultural crops, plants and primary plant products (See RDS108 Agriculture (including fisheries and forestry))
- rural, regional and urban construction planning issues, including environmental impact studies of new developments (See RDS10401 Construction planning)

RDS10101 Mineral exploration

This group covers research and experimental development (R&D) activities directed towards exploration for minerals, other than energy mineral resources. It includes precious and semi-precious stones and mineral sands.

Illustrative example(s)

- base metal ore exploration
- diamond exploration
- iron ore exploration
- potash ore exploration
- precious (noble) metal ore exploration
- rare earth metal ore exploration

Exclusion(s)

- exploration for energy mineral resources (See RDS10102 Energy resources exploration)
- scientific activities related to fighting pollution and other environment protection activities (See RDS102 Environmental protection)

RDS10102 Energy resources exploration

This group covers research and experimental development (R&D) activities directed towards exploration for energy mineral and geothermal energy resources. It does not include the mining and extraction of energy mineral resource.

Illustrative example(s)

- coal exploration
- geothermal exploration
- oil and gas exploration

- oil shale and tar sands exploration
- uranium exploration

Exclusion(s)

- exploration for non-energy mineral resources (See RDS10101 Mineral exploration)
- mining and extraction of energy resources (See RDS10501 Mining and extraction of energy resources)
- scientific activities related to fighting pollution and other environment protection activities (See RDS102 Environmental protection)

RDS10103 Atmosphere and weather

This group covers research and experimental development (R&D) activities directed towards understanding the dynamics of atmospheric and weather systems.

Illustrative example(s)

- atmospheric composition (including greenhouse gas inventory)
- atmospheric processes and dynamics
- weather conditions

Exclusion(s)

- climate, climate change and the effects of climate change on ecosystems and societies (See RDS10104 Climate and climate change)

RDS10104 Climate and climate change

This group covers research and experimental development (R&D) activities directed towards climate and climate change. For the purpose of the classification, climate refers to the long-term average condition of the weather in a given area.

Illustrative example(s)

- climate change adaptation measures
- climate change mitigation strategies
- climate change models
- climate variability (except social impacts)
- ecosystem adaptation to climate change
- effects of climate change and variability on north america (except social impacts)
- effects of climate change and variability on the arctic (except social impacts)
- social impacts of climate change and variability

Exclusion(s)

- atmosphere and weather, including atmospheric composition (See RDS10103 Atmosphere and weather)
- non-climate related oceanic processes (See RDS10199 Exploration and exploitation of the earth, n.e.c.)

RDS10105 Water and hydrology

This group covers research and experimental development (R&D) activities directed towards the physical and chemical conditions of water in various environments.

Illustrative example(s)

- arctic oceanography
- marine oceanic processes (except climate related)
- physical and chemical conditions of water for urban and industrial use
- physical and chemical conditions of water in coastal and estuarine environments
- physical and chemical conditions of water in fresh, ground and surface water environments (except urban and industrial use)
- physical and chemical conditions of water in marine environments

Exclusion(s)

- changes in the physical and chemical conditions of water due to climate change (See RDS10104 Climate and climate change)
- water services and management of wastewater and stormwater (See RDS10202 Water provision and waste services)

RDS10199 Exploration and exploitation of the earth, n.e.c.

This group covers research and experimental development (R&D) activities directed towards issues related to the exploration and exploitation of the earth not elsewhere classified, including advancement of knowledge in these areas.

Illustrative example(s)

- modelling and mathematical simulation of natural processes

RDS102 Environmental protection

This division is a socioeconomic objective which covers research and experimental development (R&D) activities with objectives related to improving the control of pollution, including the identification and analysis of the sources of pollution and their causes, and all pollutants, including their dispersal in the environment and the effects on humans, species (fauna, flora, micro-organisms) and the biosphere. The development of monitoring facilities for the measurement of all kinds of pollution is included, as are R&D activities for the elimination and prevention of all forms of pollution in all types of environment.

Exclusion(s)

- conservation of energy and efficient energy use (See RDS10506 Energy conservation and efficiency)
- control and treatment of human diseases within the country's borders (See RDS107 Health)
- environmental ethics (See RDS11007 Heritage (including Indigenous culture))
- rural, regional and urban construction planning issues, including environmental impact studies of new developments (See RDS10401 Construction planning)
- the interaction of oceanic processes and climate (See RDS10104 Climate and climate change)

RDS10201 Environmentally sustainable human activities

This group covers research and experimental development (R&D) activities directed towards environmentally sustainable production of plants and plant primary products; animals and animal primary products; exploration, mining, extraction, and processing of mineral resources; manufactured materials; construction and building activities; transport activities; and, information and communication service activities by minimising the generation of emissions and waste and by reducing or optimising the consumption of water and other natural resources.

Illustrative example(s)

- environmentally sustainable animal production
- environmentally sustainable commercial services and tourism
- environmentally sustainable construction
- environmentally sustainable energy activities
- environmentally sustainable information and communication services
- environmentally sustainable manufacturing activities
- environmentally sustainable mineral resource activities
- environmentally sustainable plant production
- environmentally sustainable transport

RDS10202 Water provision and waste services

This group covers research and experimental development (R&D) activities directed towards the development and provision of water and waste services and utilities to households and industrial and commercial premises.

Illustrative example(s)

- waste management services
- water recycling services (including sewage and greywater)

Exclusion(s)

- construction of dams, water mains and pumping stations (See RDS10404 Construction processes)
- provision of energy services and utilities (See RDS10505 Energy storage and distribution)
- water management associated with land management (See RDS10407 Land and water management)

RDS10203 Air quality

This group covers research and experimental development (R&D) activities directed towards the understanding and improvement of air quality in various environments.

RDS10204 Control of pests, diseases and exotic species

This group covers research and experimental development (R&D) activities directed towards the control of pests, diseases and exotic species in various natural and man-made environments. It includes quarantine and control measures within, at or outside national borders.

Illustrative example(s)

- control of pests, diseases and exotic species in agricultural environments
- control of pests, diseases and exotic species in aquatic environments
- control of pests, diseases and exotic species in forest and woodlands environments
- control of pests, diseases and exotic species in mountain and high country environments
- control of pests, diseases and exotic species in sparseland, permanent grassland and arid zone environments

Exclusion(s)

- control and treatment of human diseases within the country's borders (See RDS107 Health)

RDS10205 Control and care of the environment

This group covers research and experimental development (R&D) activities directed towards assessment and management of various ecosystems; environmental and natural resources; and, finding appropriate ways to nurture and rehabilitate seriously degraded environments back to original condition or to an improved state. This group also covers R&D directed towards an understanding of natural hazards (such as bushfire, cyclones and storms, earthquakes, landslides, tsunamis and volcanic eruptions), their impact on lives, property and environments and the development of warning systems and control measures to minimise impacts from these hazards.

Illustrative example(s)

- consumption patterns and natural resources
- ecosystem assessment and management
- environmental and resource evaluation
- flora, fauna and biodiversity
- natural hazards
- rehabilitation of degraded environments
- remnant vegetation and protected conservation areas

RDS10299 Environment protection, n.e.c.

This group covers research and experimental development (R&D) activities directed towards environmental issues, not elsewhere classified, including advancement of knowledge in this area.

RDS103 Exploration and exploitation of space

This division is a socioeconomic objective which covers all civil space research and experimental development (R&D) activities with objectives related to the R&D in exploration of space, space laboratories, space travel and launch systems. Although civil space R&D activities are not always concerned with particular objectives, they frequently have a specific goal, such as the advancement of knowledge (e.g. astronomy) or relate to particular applications (e.g. telecommunications satellites or earth observation). This objective does not include corresponding R&D activities for defence purposes.

Exclusion(s)

- scientific activities related to exploration and exploitation of space for defence purposes (See RDS112 Defence)

RDS10301 Scientific exploration of space

This group covers research and experimental development (R&D) activities directed towards improving the scientific exploration of space, including robotic exploration of the solar system, and advanced exploration development.

Illustrative example(s)

- scientific exploration of space

Exclusion(s)

- construction of air terminal infrastructure (See RDS104 Transport, telecommunication and other infrastructures (including buildings))

RDS10302 Celestial objects and phenomena

This group covers research and experimental development (R&D) activities directed towards an understanding of celestial objects and phenomena, including space telescopes and space astronomy.

RDS10303 Space launch systems

This group covers research and experimental development (R&D) activities directed towards improving launch systems for space. It includes launch preparations and operations, launchers, and launching complexes.

RDS10304 Space laboratories and space travel

This group covers research and experimental development (R&D) activities directed towards improving space laboratories and space travel. It includes conventional electronic test laboratories and hardware, spacecraft integration and testing, control rooms, clean rooms, and human space flight.

RDS10305 Terraforming

This group covers research and experimental development (R&D) activities directed towards an understanding of terraforming, and systems capable of supporting terrestrial life forms, including the effects of space on living things, and how life adapts to the space environment.

RDS10399 Exploration and exploitation of space, n.e.c.

This group covers research and experimental development (R&D) activities directed towards issues related to the exploration and exploitation of space not elsewhere classified, including advancement of knowledge in these areas.

RDS104 Transport, telecommunication and other infrastructures (including buildings)

This division is a socioeconomic objective which covers research and experimental development (R&D) activities with objectives related to infrastructure, including e-infrastructures, land development, and the construction of buildings. More generally, this objective covers all R&D activities relating to the general planning of land use. This objective includes R&D activities into protection against harmful effects in town and country planning but not the research into other types of pollution (objective 2 or RDS102). This objective also includes R&D activities related to transport systems; telecommunication systems; network systems and services, including network security; mobile technologies; general planning of land use; the construction and planning of buildings; civil engineering; and water supply.

Exclusion(s)

- conservation of energy and improving energy efficiency in transport (See RDS10506 Energy conservation and efficiency)
- conservation of historic buildings and structures and heritage aspects of urban and regional planning (See RDS11007 Heritage (including Indigenous culture))
- construction-related environmental health issues (See RDS10703 Public health (except specific population health))
- energy conservation and efficiency in construction activities (See RDS10506 Energy conservation and efficiency)
- manufacturing of materials used in construction (See RDS10601 Industrial processes related to mineral resource)
- manufacturing of transport equipment (See RDS10607 Transport equipment)
- pipeline distribution of water and waste handling services provided by local councils and governments or private and non-profit waste management businesses (See RDS10202 Water provision and waste services)
- pipeline transportation of energy products (See RDS10505 Energy storage and distribution)
- prefabricated buildings manufacturing (See RDS10699 Industrial production and technology, n.e.c.)
- property services (e.g. property developers, real estate agents, alarm and surveillance services) (See RDS11103 Management, marketing and productivity)

- scientific activities related to research into pollution, except protection against harmful effects in town and country planning, and into environments affected by construction activities (See RDS102 Environmental protection)
- transportation of forest products (See RDS10801 Forestry)
- water distribution and waste handling services provided by local councils and governments or private and non-profit waste management businesses (See RDS10202 Water provision and waste services)

RDS10401 Construction planning

This group covers research and experimental development (R&D) activities directed towards improving the activities associated with the development of construction projects to the sketch plan stage.

Illustrative example(s)

- civil construction planning
- commercial construction planning
- regional planning
- residential construction planning
- urban planning

Exclusion(s)

- detailed architectural design (See RDS10402 Construction design)
- heritage aspects of urban and regional planning (See RDS11007 Heritage (including Indigenous culture))
- transport systems unrelated to construction planning (See RDS10405 Transport systems)

RDS10402 Construction design

This group covers research and experimental development (R&D) activities directed towards improving the activities associated with turning a project sketch plan into detailed architectural and engineering designs and specifications.

Illustrative example(s)

- civil construction design
- commercial construction design
- industrial construction design
- residential construction design

Exclusion(s)

- energy conservation and efficiency design other than design aimed at reducing the energy needs of finished buildings (See RDS10506 Energy conservation and efficiency)

RDS10403 Construction materials performance

This group covers research and experimental development (R&D) activities directed towards testing the performance, durability and life cycle of construction components and materials which are delivered to or assembled on construction sites.

Illustrative example(s)

- cement and concrete materials
- light weight materials
- metals

- polymeric materials
- stone, ceramics and clay materials
- timber materials

Exclusion(s)

- manufacturing of base metal products (e.g. copper wire, steel rods) and fabricated metal products (e.g. aluminum frames, steel pipes, structural steel) used in construction (See RDS10601 Industrial processes related to mineral resource)
- manufacturing of ceramics, glass and glass products and industrial mineral products including clay, cement and concrete products used in construction (See RDS10601 Industrial processes related to mineral resource)
- manufacturing of industrial chemicals used in construction (e.g. paints, plastics) (See RDS10605 Agricultural and industrial chemicals)

RDS10404 Construction processes

This group covers research and experimental development (R&D) activities directed towards improving the processes and activities associated with translating plans and specifications into finished buildings and structures.

Illustrative example(s)

- civil construction processes
- commercial construction processes
- industrial construction processes
- residential construction processes

Exclusion(s)

- energy conservation and efficiency in construction processes (See RDS10506 Energy conservation and efficiency)

RDS10405 Transport systems

This group covers research and experimental development (R&D) activities directed towards improving the efficiency, safety and utility of ground, sea, rail and air transport. It also covers R&D directed towards improving the efficiency, safety and utility of deep space transport.

Illustrative example(s)

- aerospace transport (including air freight, air safety, air terminal infrastructure and management)
- ground transport
- space transport
- water transport

Exclusion(s)

- construction of road and rail infrastructure (See RDS10404 Construction processes)
- transportation of forest products (See RDS10801 Forestry)

RDS10406 Communication technologies, systems and services

This group covers research and experimental development (R&D) activities directed towards fixed line, mobile and satellite communication networks and services. It includes videoconference services.

Illustrative example(s)

- e-infrastructures
- green communication technologies
- internet protocols (IP)
- mobile technologies and communications
- network security
- network systems and services
- satellite technologies, communications networks and services
- wireless technologies, networks and services

Exclusion(s)

- development and manufacturing of communication equipment (See RDS10609 Computer, electronic, optical products and communication equipment)
- radio and tv broadcasting (See RDS11002 Media services)

RDS10407 Land and water management

This group covers research and experimental development (R&D) activities directed towards land associated with water management in various natural environments and ecosystems. It includes urban and industrial land and water management issues, and the allocation of water for agricultural production.

Illustrative example(s)

- arctic land and water management
- coastal and estuarine land and water management
- farmland, arable cropland and permanent cropland land and water management
- forest and woodlands land and water management
- mountain and high country land and water management
- sparseland, permanent grassland and arid zone land and water management
- water allocation and quantification

Exclusion(s)

- physical and chemical conditions of water (See RDS10105 Water and hydrology)
- soils not associated with water management (See RDS10802 Soils)

RDS10499 Transport, telecommunication and other infrastructures (including buildings), n.e.c.

This group covers research and experimental development (R&D) activities directed towards transport, construction, telecommunication and other infrastructures activities not elsewhere classified, including advancement of knowledge in these areas.

RDS105 Energy (except prospecting)

This division is a socioeconomic objective which covers research and experimental development (R&D) activities with objectives related to improve the production, storage, transportation, distribution and rational use of all forms of energy. This objective also includes R&D activities on processes designed to increase the efficiency of energy production and distribution, and the study of energy conservation. It does not include R&D activities related to prospecting (objective 1 or RDS101) or R&D activities into vehicle and engine propulsion (objective 6 or RDS106).

Exclusion(s)

- characteristics, propagation, growing and harvesting of crops for use as biomass or conversion to biofuels (See RDS10803 Crops)
- design of buildings to minimise energy consumption in the finished building (See RDS10402 Construction design)
- manufacturing of processed products from energy mineral resources (e.g. lubricants, plastics, synthetic resins and paints) (See RDS10605 Agricultural and industrial chemicals)
- production or processing of non-energy mineral resources (See RDS10601 Industrial processes related to mineral resource)
- scientific activities into vehicle and engine propulsion (See RDS106 Industrial production and technology)
- scientific activities related research into pollution, except protection against harmful effects in town and country planning, and into environments affected by energy (including mining) activities (See RDS102 Environmental protection)
- scientific activities related to prospecting energy (See RDS10102 Energy resources exploration)
- water distribution and waste handling services provided by local councils and governments or private and non-profit waste management businesses (See RDS10202 Water provision and waste services)

RDS10501 Mining and extraction of energy resources

This group covers research and experimental development (R&D) activities directed towards mining and extracting energy mineral resources, as well as the extraction of geothermal energy.

Illustrative example(s)

- coal mining and extraction
- geothermal energy extraction
- oil and gas extraction
- oil shale and tar sands mining and extraction
- uranium mining and extraction

Exclusion(s)

- production or processing of non-energy mineral resources (See RDS10601 Industrial processes related to mineral resource)
- scientific activities related research into pollution, except protection against harmful effects in town and country planning, and into environments affected by mining activities (See RDS102 Environmental protection)

RDS10502 Preparation and production of energy sources

This group covers research and experimental development (R&D) activities directed towards the preparation and supply of energy resources, including the production of hydrogen from other energy sources and biofuel production.

Illustrative example(s)

- conversion of carbon dioxide to fuels
- hydrogen production from fossil fuels
- hydrogen production from nuclear energy
- hydrogen production from renewable energy
- oil and gas refining

- preparation of coal
- preparation of oil shale and tar sands
- preparation of uranium
- production of biofuels (biomass)

Exclusion(s)

- characteristics, propagation, growing and harvesting of crops for use as biomass or conversion to biofuels (See RDS10803 Crops)
- processing of non-energy mineral resources (See RDS106 Industrial production and technology)

RDS10503 Energy transformation

This group covers research and experimental development (R&D) activities directed towards the transformation of energy resource minerals into heat, steam or electricity; and the conversion of coal, natural gas, oil shale and tar sands to liquid fuels. It includes hydrogen-based energy systems and fuel cells.

Illustrative example(s)

- fuel cells (except solid oxide)
- hydrogen-based energy systems (including internal hydrogen combustion engines)
- nuclear energy
- solid oxide fuel cells
- transformation of coal into electricity
- transformation of coal into gaseous fuels
- transformation of coal into liquid fuels
- transformation of gas into electricity
- transformation of gas into liquid fuels

Exclusion(s)

- engines for use in transport other than internal hydrogen combustion engines (See RDS10607 Transport equipment)
- production or processing of non-energy mineral resources (See RDS10601 Industrial processes related to mineral resource)
- transformation of renewable energy resources into heat, steam or electricity (See RDS10504 Renewable energy)

RDS10504 Renewable energy

This group covers research and experimental development (R&D) activities directed towards the conversion of renewable energy resources into heat, steam or electricity, and improving the generation and supply of renewable energy.

Illustrative example(s)

- biofuel (biomass) energy
- geothermal energy
- hydro-electric energy
- solar-photovoltaic energy
- solar-thermal energy, for electrical energy
- solar-thermal energy, for thermal energy

- tidal energy
- wave energy
- wind energy

Exclusion(s)

- fuel cells and hydrogen-based energy systems (See RDS10503 Energy transformation)
- hydrogen production from renewable energy sources (See RDS10502 Preparation and production of energy sources)

RDS10505 Energy storage and distribution

This group covers research and experimental development (R&D) activities directed towards improving energy distribution including electricity and gas transmission and distribution.

Illustrative example(s)

- battery storage
- carbon capture and storage
- energy services and utilities
- energy storage (except hydrogen)
- energy systems analysis
- energy transmission and distribution (except hydrogen)
- hydrogen distribution
- hydrogen storage
- smart power grids

Exclusion(s)

- distribution of water (See RDS10202 Water provision and waste services)

RDS10506 Energy conservation and efficiency

This group covers research and experimental development (R&D) activities directed towards the conservation and efficient use of energy in industry, transport, commerce and households. It includes energy used in forms such as petroleum products, electricity, gas, coke and briquettes and in the form of heat energy.

Illustrative example(s)

- commercial energy conservation and efficiency
- energy conservation and efficiency in transport
- energy efficiency in end uses
- industrial energy conservation and efficiency
- residential energy conservation and efficiency

Exclusion(s)

- design of buildings to minimise energy consumption in the finished building (See RDS10402 Construction design)
- minimisation of input waste (except water and energy) (See RDS10201 Environmentally sustainable human activities)

- scientific activities related to research into pollution, except protection against harmful effects in town and country planning, and into environments affected by energy and greenhouse gas sequestration activities (See RDS102 Environmental protection)
- water distribution and waste handling services provided by local councils and governments or private and non-profit waste management businesses (See RDS10202 Water provision and waste services)

RDS10599 Energy (except prospecting), n.e.c.

This group covers research and experimental development (R&D) activities directed towards energy activities not elsewhere classified, including advancement of knowledge in this area.

RDS106 Industrial production and technology

This division is a socioeconomic objective which covers research and experimental development (R&D) activities with objectives related to improve the industrial production, technology and industrial services, including R&D activities on industrial products and their manufacturing processes, except where they form an integral part of the pursuit of other objectives, e.g., defence (Objective 12 or RDS112), space (Objective 3 or RDS103), energy (Objective 5 or RDS105) or agriculture (Objective 8 or RDS108). This division also includes computer systems and security, information systems, human-computer interactions, artificial intelligence systems, and machine learning.

Exclusion(s)

- scientific activities on industrial products and their manufacturing processes as an integral part of the pursuit of agriculture objectives (See RDS108 Agriculture (including fisheries and forestry))
- scientific activities on industrial products and their manufacturing processes as an integral part of the pursuit of defence objectives (See RDS112 Defence)
- scientific activities on industrial products and their manufacturing processes as an integral part of the pursuit of energy objectives (except exploration) (See RDS105 Energy (except prospecting))
- scientific activities on industrial products and their manufacturing processes as an integral part of the pursuit of space objectives (See RDS103 Exploration and exploitation of space)

RDS10601 Industrial processes related to mineral resource

This group covers research and experimental development (R&D) activities directed towards processing, mining and extracting minerals, other than energy mineral resources. It includes precious and semi-precious stones and mineral sands. This group also covers R&D directed towards the manufacture of ceramics, glass and glass products and industrial mineral products, including clay, cement and concrete products. It includes R&D directed towards the manufacture of plaster and non-metallic mineral products. This group also covers R&D directed towards the processing of wood, and the manufacture of wood products, paper and paper products.

Illustrative example(s)

- basic metal production
- cement products and concrete materials
- ceramics
- clay products
- coated metal and metal-coated products
- concentrating processes of ores
- machined metal products
- mining and extraction of mineral resources
- plaster and plaster products
- production of unrefined precious metal ingots and concentrates

- structural glass and glass products
- structural metal products

RDS10602 Industrial processes related to agricultural products (except wood, paper and fiber)

This group covers research and experimental development (R&D) activities directed towards the manufacture of processed food and beverage products. It includes, among others, products derived from animal milk, carcass meat, nutraceuticals and functional foods.

Illustrative example(s)

- bakery products
- beverages
- butter and milk-derived fats and oils
- flour and cereal food products
- nutraceuticals and functional foods
- oils and fats
- processed fish and seafood products
- processed fruit and vegetable products
- processed meat products
- processed milk and cream (including powder, evaporated and condensed)
- soy products
- sugar and confectionery products

Exclusion(s)

- cannabis products manufacturing (See RDS10699 Industrial production and technology, n.e.c.)
- industrial processes related to wood, paper and fiber (See RDS10604 Wood, wood products and paper)
- manufacturing of processed skins (for leather) (See RDS10603 Leather products, fibre processing and textiles)
- tobacco products manufacturing (See RDS10699 Industrial production and technology, n.e.c.)

RDS10603 Leather products, fibre processing and textiles

This group covers research and experimental development (R&D) activities directed towards the production of leather and textile products and fibre processing.

Illustrative example(s)

- clothing
- cotton, not carded or spun
- natural fibres, yarns and fabrics
- non-fabric textiles
- processed skins, leather and leather products
- synthetic fibres, yarns and fabrics
- wool scouring and top making

Exclusion(s)

- furniture manufacturing (See RDS10699 Industrial production and technology, n.e.c.)

RDS10604 Wood, wood products and paper

This group covers research and experimental development (R&D) activities directed towards the processing of wood, and the manufacture of wood products, paper and paper products.

Illustrative example(s)

- paper products (including coated paper)
- printing and publishing processes
- pulp and paper
- reconstituted timber products
- wood sawing and veneer

Exclusion(s)

- furniture manufacturing (See RDS10699 Industrial production and technology, n.e.c.)
- harvest and transportation of logs and other forest products (See RDS10801 Forestry)
- prefabricated buildings manufacturing (See RDS10699 Industrial production and technology, n.e.c.)
- printing and publishing of newspapers and other media publications (See RDS11002 Media services)

RDS10605 Agricultural and industrial chemicals

This group covers research and experimental development (R&D) activities directed towards the manufacture of industrial chemicals and related products, including those derived from oil and gas refining; and, chemical fertilisers and chemicals for the protection of crops and livestock. It excludes veterinary pharmaceutical products.

Illustrative example(s)

- animal protection chemicals
- chemical fertilisers
- crop protection chemicals
- industrial gases
- inorganic industrial chemicals
- lubricants
- organic industrial chemicals
- paints
- plastic products (including construction materials)
- plastics in primary forms
- rubber and synthetic resins
- soaps and cosmetics

Exclusion(s)

- veterinary pharmaceutical products (See RDS10606 Veterinary pharmaceutical products)

RDS10606 Veterinary pharmaceutical products

This group covers research and experimental development (R&D) activities directed towards the manufacture of pharmaceutical products used in the prevention, diagnosis and treatment of veterinary diseases.

Illustrative example(s)

- veterinary biological preventatives
- veterinary diagnostics
- veterinary pharmaceutical treatments

Exclusion(s)

- manufacturing of plant extracts which may be used as insecticides or repellents (e.g. pyrethrum) (See RDS10602 Industrial processes related to agricultural products (except wood, paper and fiber))
- manufacturing of synthetic insecticides (See RDS10605 Agricultural and industrial chemicals)

RDS10607 Transport equipment

This group covers research and experimental development (R&D) activities directed towards the manufacture and repair of transport equipment, including their components.

Illustrative example(s)

- aerospace equipment
- automotive equipment
- nautical equipment
- rail equipment

Exclusion(s)

- construction of transport infrastructure (See RDS10404 Construction processes)
- internal hydrogen combustion engines (See RDS10503 Energy transformation)
- transport infrastructure (except its construction) (See RDS10405 Transport systems)

RDS10608 Machinery and equipment (including automated machinery and equipment)

This group covers research and experimental development (R&D) activities directed towards the manufacture of machinery and equipment. It includes, among others, household electrical appliances, whitewares and automated machinery.

Illustrative example(s)

- agricultural machinery and equipment
- appliances and electrical machinery and equipment
- industrial machinery and equipment
- mining machinery and equipment

Exclusion(s)

- computers and electronic equipment, including consumer electronic equipment (See RDS10609 Computer, electronic, optical products and communication equipment)
- transport equipment (See RDS10607 Transport equipment)

RDS10609 Computer, electronic, optical products and communication equipment

This group covers research and experimental development (R&D) activities dealing with computer hardware, electronic equipment, optical products and communication equipment, including consumer electronic equipment.

Illustrative example(s)

- computer and electronic office equipment
- consumer electronic equipment
- integrated circuits and devices
- integrated systems
- network infrastructure equipment
- processor modules
- robotics
- satellite navigation equipment
- telemetry equipment
- voice and data equipment

Exclusion(s)

- development of computer software and the provision of programming services (See RDS10610 Information systems, technologies and services)

RDS10610 Information systems, technologies and services

This group covers research and experimental development (R&D) activities involved in gathering, processing, storing, distributing, and use of information, and its associated technologies and services.

Illustrative example(s)

- application software packages
- applied computing
- artificial intelligence
- computer systems
- graphics
- human-computer interactions
- information security
- information systems
- machine learning

Exclusion(s)

- animation and computer generated imagery services (See RDS11002 Media services)
- computer programming or software services which is specific to media services, including video streaming software (See RDS11002 Media services)
- development and manufacturing of computer hardware (See RDS10609 Computer, electronic, optical products and communication equipment)
- whitewares, electrical appliances, automated machinery and other machinery and equipment (See RDS10608 Machinery and equipment (including automated machinery and equipment))

RDS10611 Measurement standards and calibration services

This group covers research and experimental development (R&D) activities directed towards the development and provision of measurement standards and calibration services for defence, manufacturing and the service industries.

Illustrative example(s)

- agricultural and environmental standards
- defence standards and calibrations
- manufacturing standards and calibrations
- service industries standards and calibrations

RDS10699 Industrial production and technology, n.e.c.

This group covers research and experimental development (R&D) activities directed towards the manufacture of tobacco products, furniture, prefabricated buildings and other products not classified elsewhere, including advancement of knowledge in these areas.

Illustrative example(s)

- cannabis products manufacturing
- furniture manufacturing
- prefabricated buildings manufacturing
- tobacco products manufacturing

RDS107 Health

This division is a socioeconomic objective which covers research and experimental development (R&D) activities with objectives related to protect, promote and restore human health. It ranges from biomedical and clinical research to research focused on health services and population and public health, including all aspects of medical and surgical treatment, the provision of hospital and home care, and public health, mental health, prevention and wellness.

Exclusion(s)

- community services not directly impacting health (See RDS11109 Family and social work)
- quarantine and control measures to prevent the entry of diseases into a country (See RDS10204 Control of pests, diseases and exotic species)
- workplace safety (See RDS11107 Work and labour market issues)

RDS10701 Human health procedures and pharmaceutical treatments

This group covers research and experimental development (R&D) activities directed towards the development and manufacture of products and methods used in the prevention, diagnosis and treatment (using medications or drugs) of human diseases.

Illustrative example(s)

- diagnostic methods and tools
- human biological preventatives
- human pain management
- human pharmaceutical treatments
- surgical methods and procedures

Exclusion(s)

- production of nutraceuticals (See RDS10602 Industrial processes related to agricultural products (except wood, paper and fiber))

RDS10702 Provision of care

This group covers research and experimental development (R&D) activities directed towards the provision and evaluation of care.

Illustrative example(s)

- acute and inpatient hospital care, and ambulatory care
- allied health therapies
- chronic care
- community-based care
- mental health services
- nursing
- palliative care
- primary care (including family health teams)
- specialized care
- telehealth
- urgent and critical care, and emergency medicine

Exclusion(s)

- community services not directly impacting on health (See RDS11109 Family and social work)
- development of programs for the treatment of human diseases and disorders using human pharmaceutical products (See RDS10701 Human health procedures and pharmaceutical treatments)
- health as it pertains to specific population groups (e.g., aged persons, indigenous communities, children, etc.) (See RDS10704 Specific population health)
- health as it pertains to the general population (See RDS10703 Public health (except specific population health))

RDS10703 Public health (except specific population health)

This group covers research and experimental development (R&D) activities directed towards community health and well-being of general public, excluding specific population groups. It includes research into the complex biological, social, cultural and environmental interactions that determine the health of individuals and the general public. Many activities are targeted at populations such as health campaigns and health policies. Public health services also include the provision of personal services to individual persons, such as vaccinations, behavioural counselling, or health advice.

Illustrative example(s)

- determinants of health
- disease distribution and transmission (including surveillance and response)
- health education and promotion
- health policy
- health protection and disaster response
- health status and outcomes
- health system performance (including effectiveness of interventions)
- injury control
- mental health
- preventive medicine and health interventions (including exercise, healthy behaviour, nutrition, and food safety)

- social structure and health
- substance abuse

Exclusion(s)

- evaluation of health care programs and policies (See RDS10702 Provision of care)
- public health of specific population groups (e.g., aged persons, indigenous communities, children, etc.) (See RDS10704 Specific population health)
- quarantine and control measures to prevent the entry of diseases into a country (See RDS10204 Control of pests, diseases and exotic species)

RDS10704 Specific population health

This group covers research and experimental development (R&D) activities directed towards community and public health of specific population groups and discrete community groups (e.g., aged persons, persons living in rural and remote areas), including indigenous communities. It includes the study of social and cultural factors affecting the health of these groups and the delivery of health services to these groups.

Illustrative example(s)

- global health
- health related to ageing
- health related to specific ethnic groups and immigrants
- indigenous health
- men's health
- newborn and child health
- occupational health
- rural health
- women's and maternal health

RDS10799 Health, n.e.c.

This group covers research and experimental development (R&D) activities directed towards health not elsewhere classified, including advancement of knowledge in this area.

RDS108 Agriculture (including fisheries and forestry)

This division is a socioeconomic objective which covers all research and experimental development (R&D) activities with objectives related to promote agriculture, forestry, fisheries and foodstuff production, or further knowledge on chemical fertilisers, biocides, biological pest control and the mechanisation of agriculture, as well as concerning the impact of agricultural and forestry activities on the environment. This objective also covers R&D activities aimed at improving food productivity and technology. It does not include R&D activities on the reduction of pollution (objective 2 or RDS102); on the development of rural areas; on the construction and planning of buildings; on the improvement of rural rest and recreation amenities and agricultural water supply (objective 4 or RDS104); on energy efficiency measures (objective 5 or RDS105); or on the food processing industry (objective 6 or RDS106).

Exclusion(s)

- manufacturing of processed animal products, including fish, and their primary products (See RDS10602 Industrial processes related to agricultural products (except wood, paper and fiber))
- operation of irrigation systems and the provision of waste handling services provided by local councils and governments or private and non-profit waste management enterprises (See RDS10202 Water provision and waste services)

- scientific activities directed towards energy efficiency measures (See RDS10506 Energy conservation and efficiency)
- scientific activities directed towards the development of rural areas, on the construction and planning of buildings, on the improvement of rural rest and recreation amenities and agricultural water supply (See RDS104 Transport, telecommunication and other infrastructures (including buildings))
- scientific activities directed towards the food industry (See RDS10602 Industrial processes related to agricultural products (except wood, paper and fiber))
- scientific activities directed towards research into pollution, except protection against harmful effects in town and country planning, and into environments affected by agricultural, fisheries and forestry activities (See RDS102 Environmental protection)

RDS10801 Forestry

This group covers research and experimental development (R&D) activities directed towards improving the operation, maintenance and protection (including forest fire fighting and control) of native forests, softwood and hardwood plantations. It includes harvesting and transportation of wood and other forest products from forests and plantations and the integration of farm and forestry.

Illustrative example(s)

- hardwood plantations
- harvesting and transport of forest products
- integration of farm and forestry
- native forests
- softwood plantations

Exclusion(s)

- processing of wood and manufacturing of wood and paper products, other than prefabricated wooden buildings or wooden furniture (See RDS10604 Wood, wood products and paper)

RDS10802 Soils

This group covers research and experimental development (R&D) activities directed towards an understanding of soils and improving soil quality in various environments.

Illustrative example(s)

- coastal and estuarine soils
- farmland, arable cropland and permanent cropland soils
- forest and woodlands soils
- mining soils
- mountain and high country soils
- sparseland, permanent grassland and arid zone soils
- urban and industrial soils

Exclusion(s)

- soils or land associated with water management (See RDS10407 Land and water management)

RDS10803 Crops

This group covers research and experimental development (R&D) activities directed towards improving the characteristics, propagation and growing of all crops. It includes crops grown for industrial applications such as sugar cane, cotton, wine grapes, tobacco, and plants from which essential oils are extracted.

Illustrative example(s)

- improving the characteristics, propagation and growing of canola (including rapeseed)
- improving the characteristics, propagation and growing of horticultural crops
- improving the characteristics, propagation and growing of industrial crops
- improving the characteristics, propagation and growing of summer grains and oilseeds
- improving the characteristics, propagation and growing of wine grapes
- improving the characteristics, propagation and growing of winter grains and oilseeds
- pasture, browse and fodder crops

Exclusion(s)

- harvesting, handling and packing of crops (See RDS10804 Harvesting and packing of plant products)
- harvesting, handling and packing of fresh fruits and vegetable (See RDS10804 Harvesting and packing of plant products)
- manufacturing of any processed products from horticultural plants (See RDS10602 Industrial processes related to agricultural products (except wood, paper and fiber))
- operation of irrigation systems (See RDS10202 Water provision and waste services)
- transportation of crops (See RDS10405 Transport systems)

RDS10804 Harvesting and packing of plant products

This group covers research and experimental development (R&D) activities directed towards improving technologies, processes and methods used for harvesting, handling and packing of plant products, other than forest products.

Illustrative example(s)

- improving technologies, processes and methods used for harvesting, handling and packing of cotton lint and cotton seed
- improving technologies, processes and methods used for harvesting, handling and packing of fresh fruits and vegetables
- plant product traceability and quality assurance (except forest products)
- unprocessed grains
- unprocessed industrial crops
- unprocessed oilseeds

Exclusion(s)

- harvesting and transport of forest products (See RDS10801 Forestry)
- improvement of the characteristics, propagation and growing of crops from which these plant products are obtained (See RDS10803 Crops)
- manufacturing of products other than biofuels from further processing of these plant products (See RDS10602 Industrial processes related to agricultural products (except wood, paper and fiber))
- plant product traceability and quality assurance of forest products (See RDS10801 Forestry)
- production of biofuels from plant products (See RDS10502 Preparation and production of energy sources)
- transportation of plant products, other than forest products (See RDS10405 Transport systems)

RDS10805 Fisheries (including aquaculture and wild caught)

This group covers research and experimental development (R&D) activities directed towards improving the characteristics and harvesting of fisheries grown or farmed in aquaculture, or caught in the wild, either for commercial, recreational or other reasons.

Illustrative example(s)

- crustaceans
- edible molluscs
- fish for bait
- recreational fisheries
- trout
- tuna
- wild caught atlantic salmon

RDS10806 Livestock raising (including beekeeping and pet breeding)

This group covers research and experimental development (R&D) activities directed towards farming or breeding livestock. It includes beekeeping and pet breeding.

Illustrative example(s)

- cattle and calves
- hogs
- poultry

Exclusion(s)

- animal welfare and livestock product traceability and quality assurance (See RDS10899 Agriculture, n.e.c.)
- manufacturing of processed livestock products (except skins for leather) (See RDS10602 Industrial processes related to agricultural products (except wood, paper and fiber))
- manufacturing of processed skins (for leather) (See RDS10603 Leather products, fibre processing and textiles)
- preparation, handling, and storage of primary livestock products (See RDS10807 Primary animal products)

RDS10807 Primary animal products

This group covers research and experimental development (R&D) activities directed towards improving the preparation, handling or storage of primary animal products such as eggs, honey, raw wool, unprocessed or minimally processed fish or milk, and other animal fibres, hides and skins.

Illustrative example(s)

- eggs in shell
- natural honey
- pregnant mare urine
- raw furskins
- raw wool and animal hair
- unprocessed and minimally processed milk

Exclusion(s)

- animal welfare (See RDS10899 Agriculture, n.e.c.)
- improving the characteristics and harvesting of fish (See RDS10805 Fisheries (including aquaculture and wild caught))
- manufacturing of processed livestock products (except skins for leather) (See RDS10602 Industrial processes related to agricultural products (except wood, paper and fiber))
- manufacturing of processed skins (for leather) (See RDS10603 Leather products, fibre processing and textiles)
- raising livestock from which these products are obtained (See RDS10806 Livestock raising (including beekeeping and pet breeding))
- transportation of live animals or animal products (See RDS10405 Transport systems)

RDS10899 Agriculture, n.e.c.

This group covers research and experimental development (R&D) activities directed towards animal production, animal primary products, plant production and plant primary products not elsewhere classified. It includes the traceability and quality assurance of plant products, and advancement of knowledge in all these areas.

Illustrative example(s)

- animal welfare
- fish product traceability and quality assurance
- livestock product traceability and quality assurance

Exclusion(s)

- cereal crops grown for both grain and fodder or for feed grain or fodder alone (See RDS10803 Crops)
- transportation of live animals or animal products (See RDS10405 Transport systems)

RDS109 Education

This division is a socioeconomic objective which covers research and experimental development (R&D) activities with objectives related to supporting general or special education, including training, pedagogy, didactics, and targeted methods for specially gifted persons or those with learning disabilities. This objective applies to all levels of education, from pre- and primary school through to tertiary education, as well as to subsidiary services to education.

Exclusion(s)

- ethical issues such as business ethics, social ethics, environmental ethics (See RDS11008 Ethics)
- public health education (See RDS10703 Public health (except specific population health))

RDS10901 Stages of education

This group covers research and experimental development (R&D) activities directed towards improving the learning outcomes of individual learners at specific education levels.

Illustrative example(s)

- early childhood education
- higher education
- primary education
- professional development and adult education
- secondary education

Exclusion(s)

- educational needs of Indigenous Peoples, learners of specific genders, gifted learners and disabled learners (See RDS10903 Educational institutions, systems, and policies)
- improvement of school, institution learning environments, and education and training systems (See RDS10903 Educational institutions, systems, and policies)
- improvement of teaching, instruction techniques, and curricula development (See RDS10902 Teaching methods and curriculum)

RDS10902 Teaching methods and curriculum

This group covers research and experimental development (R&D) activities directed towards improving teaching and instruction and directed towards the improvement of curricula used in education.

Illustrative example(s)

- assessment, development, and evaluation of curriculum
- pedagogy
- teacher and instructor development
- teaching and instruction technologies

Exclusion(s)

- improvement of school, institution learning environments, and education and training systems (See RDS10903 Educational institutions, systems, and policies)

RDS10903 Educational institutions, systems, and policies

This group covers research and experimental development (R&D) activities directed towards the improvement of school, educational institution learning environments, education and training systems. Teaching and instruction of Aboriginal and Indigenous Peoples, learners of specific sexes or genders, gifted learners and disabled learners are also included in this group.

Illustrative example(s)

- equity and access to education
- gender aspects of education
- indigenous education
- management, resources, and leadership in education
- policies and development in education
- special needs education (including gifted and disabled learners)
- workforce transition and employment

Exclusion(s)

- improvement of teaching, instruction techniques, and curricula development (See RDS10902 Teaching methods and curriculum)

RDS10999 Education, n.e.c.

This group covers research and experimental development (R&D) activities directed towards education and training not elsewhere classified, including advancement of knowledge in this area.

RDS110 Culture, recreation, religion and media

This division is a socioeconomic objective which covers research and experimental development (R&D) activities with objectives to improve the understanding of social phenomena related to cultural activities, religion and leisure activities so as to define their impact on life in society, as well as to racial and cultural integration and on socio-cultural changes in these areas. The concept of "culture" covers the sociology of science, religion, art, sport and leisure, and also comprises inter alia R&D activities on the media, the mastery of language and social integration, libraries, archives and external cultural policy. This objective also includes R&D activities related to: recreational and sporting services; cultural services; broadcasting or online streaming and publishing services; and religious and other community services.

RDS11001 Information services

This group covers research and experimental development (R&D) activities directed towards information services. It includes but is not limited to libraries, library databases and information processing; presentation of information, including displays, in libraries, museums and art galleries, educational centres and similar facilities; and electronic archives, open access, and news collection services.

Illustrative example(s)

- electronic information storage and retrieval services
- library and archival services
- news collection services
- open access services
- presentation of information, including displays, in libraries
- presentation of information, including displays, in museums and art galleries

Exclusion(s)

- news or media related information services (See RDS11002 Media services)

RDS11002 Media services

This group covers research and experimental development (R&D) activities directed towards media services. It includes but is not limited to broadcasting or online streaming services; internet and social media; animation and video games; publishing and printing services; and film and video services.

Illustrative example(s)

- animation, video games, and computer generated imagery services
- internet and digital and social media
- online streaming services
- publishing and print services
- radio, television, film and video services (including broadcasting)

Exclusion(s)

- internet hosting (See RDS10610 Information systems, technologies and services)
- music and theatre production mainly of a non-commercial nature (See RDS11004 Arts and culture)
- news collection services (See RDS11001 Information services)

RDS11003 Tourism

This group covers research and experimental development (R&D) activities directed towards the development and provision of tourism services.

Illustrative example(s)

- economic issues in tourism
- socio-cultural issues in tourism
- tourism infrastructure development

Exclusion(s)

- development of transport infrastructure (See RDS10405 Transport systems)
- hospitality and recreation services (See RDS11005 Sports, exercise and recreation)

RDS11004 Arts and culture

This group covers research and experimental development (R&D) activities directed towards the arts and cultural activities. It includes music; creative and performing arts; design and architecture; art galleries and museums, and including digital humanities.

Illustrative example(s)

- art galleries and museums (except information displays)
- creative and fine arts (including visual arts, graphics arts, and films)
- design and architecture
- digital humanities
- music
- performing arts (including theatre and dance)

Exclusion(s)

- presentation of information, including displays, in libraries, museums and art galleries, educational centres and similar facilities (See RDS11001 Information services)
- indigenous culture (See RDS11007 Heritage (including Indigenous culture))
- radio, television, film and video services (See RDS11002 Media services)

RDS11005 Sports, exercise and recreation

This group covers research and experimental development (R&D) activities directed towards the sports, exercise or physical endeavor and other recreational activities. It includes the provision of services to sport and sporting clubs and recreation and leisure (including the operation of race tracks, parks, and botanical and zoological gardens).

Illustrative example(s)

- exercise and physical activity
- recreation and leisure
- sports

RDS11006 Communication, literature and language

This group covers research and experimental development (R&D) activities directed towards improving understanding of the social and cultural contexts of communication. It includes but is not limited to languages, literature, journalism, linguistics and semantics.

Illustrative example(s)

- canadian official languages
- communication across languages and culture

- journalism and public relations
- languages and literacy
- linguistics and semantics
- literature
- visual communication
- writing studies

Exclusion(s)

- broadcasting services; social media; publishing and printing services; and film and video services (See RDS11002 Media services)
- library databases and information processing; presentation of information, and news collection services (See RDS11001 Information services)
- understanding past and current societies (See RDS11010 Understanding of societies, past and current)

RDS11007 Heritage (including Indigenous culture)

This group covers research and experimental development (R&D) activities directed towards heritage issues, including the conservation of natural, social and cultural heritage. This group also covers R&D directed towards indigenous culture, knowledge, language, and rights.

Illustrative example(s)

- conserving cultural heritage and traditions
- conserving natural and environmental heritage
- indigenous artefacts
- indigenous knowledge
- indigenous language
- treaty rights
- truth and reconciliation

Exclusion(s)

- environment, urban and regional planning (See RDS11108 Environment, urban, and rural planning and development)
- urban and regional planning unrelated to heritage (See RDS10401 Construction planning)

RDS11008 Ethics

This group covers research and experimental development (R&D) activities directed towards the understanding and analysis of ethics. Including but not limited to applying ethical or moral theory to such issues; and developing codes of behaviour and standards of practice for businesses, professions and trades.

Illustrative example(s)

- bioethics
- business ethics
- environmental ethics
- social ethics
- technological ethics
- workplace and organisational ethics

Exclusion(s)

- moral development in individuals (See RDS10901 Stages of education)

RDS11009 Religion

This group covers research and experimental development (R&D) activities directed towards the understanding and analysis of religion. Including but not limited to improving understanding and analysis of religious issues of concern to social, scientific or technological development.

Illustrative example(s)

- religion and society
- religious structures and rituals
- religious traditions

RDS11010 Understanding of societies, past and current

This group covers research and experimental development (R&D) activities directed towards the understanding of past and current societies.

Illustrative example(s)

- environmental role on societies
- technology impacts and societal development
- understanding Africa's past and current societies
- understanding Asia's past and current societies
- understanding Canada's past and current societies
- understanding cultural and social difference
- understanding Europe's past and current societies
- understanding Oceania's past and current societies
- understanding of industrial societies
- understanding of postindustrial societies
- understanding the past and current societies of the Americas
- understanding of preindustrial societies

RDS11099 Culture, recreation, and media, n.e.c.

This group covers research and experimental development (R&D) activities directed towards cultural understanding not elsewhere classified, including advancement of knowledge in these areas.

RDS111 Political and social systems, structures and processes

This division is a socioeconomic objective which covers research and experimental development (R&D) activities with objectives to improve the understanding of and support the political structure of society; public administration issues and economic policy; regional studies and multi-level governance; social change, social processes and social conflicts; the development of social security and social assistance systems; and the social aspects of the organisation of work. This objective also includes de R&D activities related to gender-related social studies, including discrimination and familiar problems; the development of methods of combating poverty at local, national and international levels; the protection of specific population categories on the social level (immigrants, delinquents, "drop outs", etc.), on the sociological level, i.e. with regard to their way of life (young people, adults, retired people, disabled people, etc.) and on the economic level (consumers, farmers, fishermen, miners, the unemployed, etc.); and methods of providing social assistance when sudden changes (natural, technological

or social) occur in society. This objective does not include R&D activities related to industrial health, the health control of communities from the organisational and socio-medical point of view, pollution at the place of work, the prevention of industrial accidents and the medical aspects of the causes of industrial accidents (objective 7 or RDS107).

RDS11101 Finance and economics

This group covers research and experimental development (R&D) activities directed towards the development and provision of finance and investment services. It includes but is not limited to banks, building societies, credit unions and money market dealing; investment and superannuation services; and insurance services. This group also covers R&D directed towards the understanding of economic issues at the microeconomic and macroeconomic level. It includes effects on taxation, consumption, industrial organisations, industry policy, industry cost and structure, fiscal policy, monetary policy, exchange rates, balance of payments, income policy, and taxation.

Illustrative example(s)

- economic growth
- finance, investment, and insurance services
- fiscal, monetary and industry policy
- income and wealth distribution

Exclusion(s)

- economics of health policy outcomes (See RDS10703 Public health (except specific population health))
- environmental aspects of resource consumption (See RDS10201 Environmentally sustainable human activities)
- international trade issues (See RDS11102 International trade)
- understanding current social, political and economic aspects of other countries (See RDS11105 International relations)

RDS11102 International trade

This group covers research and experimental development (R&D) activities directed towards understanding issues relating to international trade, including trade policy, assistance and protection and international agreements on trade.

Illustrative example(s)

- international agreements on trade
- trade assistance and protection
- trade policy

Exclusion(s)

- domestic trade (See RDS11101 Finance and economics)
- efficiency, safety and utility of international transport of freight and passengers (See RDS104 Transport, telecommunication and other infrastructures (including buildings))
- environmental aspects of international trade (See RDS10201 Environmentally sustainable human activities)
- international political economy, other than international trade, and international relations that do not relate to trade (See RDS11105 International relations)

RDS11103 Management, marketing and productivity

This group covers research and experimental development (R&D) activities directed towards management, productivity, and innovation issues. It includes R&D directed towards marketing, e-commerce, industrial relations, and business support services.

Illustrative example(s)

- business support services (including property services and retail trade)
- industrial relations and unions
- management
- marketing
- productivity
- technological, organisational and social innovation

Exclusion(s)

- employment, work patterns and workplace safety issues (See RDS11107 Work and labour market issues)
- occupational health (See RDS10704 Specific population health)

RDS11104 Government and politics

This group covers research and experimental development (R&D) activities directed towards government and politics. It includes electoral and political systems; civics and citizenship; and public service management.

Illustrative example(s)

- civicism, citizenship and national identity
- electoral systems
- political systems
- public services policy and analysis

RDS11105 International relations

This group covers research and experimental development (R&D) activities directed towards improving international relations. It includes R&D relating to current social, cultural and economic aspects of other nations.

Illustrative example(s)

- defence and security policy
- globalization
- international aid and development
- international organizations
- international political economy (except international trade)

Exclusion(s)

- defence and national security operations (See RDS112 Defence)
- international environmental protection issues (See RDS10201 Environmentally sustainable human activities)
- international trade issues (See RDS11102 International trade)

RDS11106 Justice and the law

This group covers research and experimental development (R&D) activities directed towards justice and the law. Not limited to but including legal processes; civil and criminal justice; crime prevention, law enforcement and correctional services; and, law reform.

Illustrative example(s)

- civil justice
- crime prevention
- criminal justice
- law enforcement
- law reform
- legal processes
- legislation, civil and criminal codes
- rehabilitation and correctional services

Exclusion(s)

- ethics (See RDS11008 Ethics)

RDS11107 Work and labour market issues

This group covers research and experimental development (R&D) activities directed towards aspects of work. Not limited to but including employment and work patterns; labour market; professions; salaries and benefits; and, workplace accommodations and safety.

Illustrative example(s)

- employment patterns and change
- labour market
- professions and professionalisation
- salaries and benefits
- work and family responsibilities
- workplace accommodations and safety

Exclusion(s)

- management and productivity, including industrial relations (See RDS11103 Management, marketing and productivity)
- occupational health (See RDS10704 Specific population health)
- workplace and organisational ethics (See RDS11008 Ethics)

RDS11108 Environment, urban, and rural planning and development

This group covers research and experimental development (R&D) activities directed towards the development of social and economic environmental policies, legislation and standards. In addition, this group covers R&D directed towards the social, economic, environmental, development, and population issues of regional, urban, suburban, rural, and northern communities.

Illustrative example(s)

- environmental issues and policies
- northern development

- population issues
- rural planning and development
- urban planning and development

Exclusion(s)

- environmentally sustainable human activities (except water management and energy efficiency) (See RDS10201 Environmentally sustainable human activities)
- management of energy consumption for better efficiencies (See RDS10506 Energy conservation and efficiency)
- scientific activities related research into pollution, except protection against harmful effects in town and country planning, and into environments affected by commerce services and tourism activities (See RDS102 Environmental protection)

RDS11109 Family and social work

This group covers research and experimental development (R&D) activities directed towards providing prevention, support, access, justice, community and welfare services to individuals, families, or to defined vulnerable populations, such youth and seniors.

Illustrative example(s)

- ageing and older persons
- children's services and childcare
- development and welfare
- families and family services
- homelessness and housing services
- violence
- youth services

Exclusion(s)

- development and provision of community services to vulnerable population groups such as the aged persons, ethnic minorities, indigenous communities, etc. (See RDS11110 Social justice)
- development and provision of health services to specific population and community health education services (See RDS10704 Specific population health)
- social ethics (See RDS11008 Ethics)
- unpaid work and volunteering (See RDS11107 Work and labour market issues)

RDS11110 Social justice

This group covers research and experimental development (R&D) activities directed towards providing or delivering community services to individuals or to defined community groups such as women, gender-diverse persons, indigenous peoples, persons with disabilities, and members of visible minorities.

Illustrative example(s)

- accessibility
- discrimination
- gender groups
- human rights
- indigenous peoples

- migrant development and refugee services
- people with disabilities
- poverty
- social equity, diversity, and inclusion
- visible minorities

Exclusion(s)
- animal welfare (See RDS10899 Agriculture, n.e.c.)
- development and provision of health services to specific population and community health education services (See RDS10704 Specific population health)
- development and welfare (See RDS11109 Family and social work)
- social ethics (See RDS11008 Ethics)
- unpaid work and volunteering (See RDS11107 Work and labour market issues)

RDS11199 Political and social systems, structure and processes, n.e.c.

This group covers research and experimental development (R&D) activities directed towards law, politics and community services not elsewhere classified, including advancement of knowledge in these areas.

RDS112 Defence

This division is a socioeconomic objective which covers research and experimental (R&D) activities with objectives to serve military purposes. This objective may also include basic research in nuclear and space activities when financed by the ministry of defence, including advancement of knowledge in these areas. Civil research and experimental development financed by the ministry of defence, for example in the fields of meteorology, telecommunications and health, should be classified in the relevant objectives.

Exclusion(s)
- development and provision of measurement standards and calibration services for defence related products and processes (See RDS10611 Measurement standards and calibration services)
- improvement of methods of producing or processing military or defence-related equipment and materials (See RDS106 Industrial production and technology)

RDS11299 Defence

This group covers research and experimental (R&D) activities with objectives to serve military purposes. This objective may also include basic research in nuclear and space activities when financed by the ministry of defence, including advancement of knowledge in these areas. Civil research and experimental development financed by the ministry of defence, for example in the fields of meteorology, telecommunications and health, should be classified in the relevant objectives.

Illustrative example(s)
- air force
- army
- command, control and communications
- defense logistics
- emerging defence technologies
- intelligence
- military personnel

- national security
- navy

Exclusion(s)

- civil-oriented projects in communication technologies, systems and services (See RDS10406 Communication technologies, systems and services)
- development and provision of measurement standards and calibration services for defence-related products and processes (See RDS10611 Measurement standards and calibration services)
- R&D activities directed towards improving relationship with other countries for the purpose of improving national and international defence and security (See RDS11105 International relations)

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RDS11110	accessibility
RDS10702	acute and inpatient hospital care, and ambulatory care
RDS10899	advancement of knowledge in activities related to agriculture
RDS11099	advancement of knowledge in activities related to culture, recreation and media
RDS10999	advancement of knowledge in activities related to education and training
RDS10799	advancement of knowledge in activities related to health
RDS10699	advancement of knowledge in activities related to industrial production and technology
RDS11299	advancement of knowledge in activities related to national defense
RDS11199	advancement of knowledge in activities related to political and social systems, structure and processes
RDS10599	advancement of knowledge in energy activities
RDS10299	advancement of knowledge in environment protection
RDS10399	advancement of knowledge in the exploration and exploitation of space
RDS10199	advancement of knowledge in the exploration and exploitation of the earth
RDS10499	advancement of knowledge in transport, construction, telecommunication and other infrastructures activities
RDS10607	aerospace equipment
RDS10405	aerospace transport (including air freight, air safety, air terminal infrastructure and management)
RDS11109	ageing and older persons
RDS10611	agricultural and environmental standards
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RDS11299	air force
RDS10203	air quality
RDS10702	allied health therapies

RDS10605	animal protection chemicals
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RDS10610	application software packages
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RDS10105	arctic oceanography
RDS11299	army
RDS11004	art galleries and museums (except information displays)
RDS10610	artificial intelligence
RDS11004	arts and culture, n.e.c.
RDS10902	assessment, development, and evaluation of curriculum
RDS10103	atmospheric composition (including greenhouse gas inventory)
RDS10103	atmospheric processes and dynamics
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B

RDS10602	bakery products
RDS10101	base metal ore exploration
RDS10601	basic metal production
RDS10505	battery storage
RDS10601	beneficiation and dressing of non-metallic minerals (including diamonds)
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RDS11008	bioethics
RDS10504	biofuel (biomass) energy
RDS11008	business ethics
RDS11103	business support services (including property services and retail trade)
RDS10602	butter and milk-derived fats and oils

C

RDS11006	canadian official languages
RDS10699	cannabis products manufacturing

RDS10505	carbon capture and storage
RDS10602	carcass meat (including fish and seafood)
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RDS10403	cement and concrete materials
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RDS10601	clay products
RDS10104	climate change adaptation measures
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RDS10601	coated metal and metal-coated products
RDS11299	command, control and communications
RDS10402	commercial construction design
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RDS11006	communication across languages and culture
RDS11006	communication, n.e.c.

RDS10702	community-based care
RDS10609	computer and electronic office equipment
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RDS10601	concentrating processes of ores
RDS11007	conserving cultural heritage and traditions
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RDS10609	consumer electronic equipment
RDS10205	consumption patterns and natural resources
RDS10204	control of pests, diseases and exotic species in agricultural environments
RDS10204	control of pests, diseases and exotic species in aquatic environments
RDS10204	control of pests, diseases and exotic species in forest and woodlands environments
RDS10204	control of pests, diseases and exotic species in mountain and high country environments
RDS10204	control of pests, diseases and exotic species in sparseland, permanent grassland and arid zone environments
RDS10502	conversion of carbon dioxide to fuels
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RDS11004	creative and fine arts (including visual arts, graphics arts, and films)
RDS11106	crime prevention
RDS11106	criminal justice
RDS10605	crop protection chemicals
RDS10805	crustaceans
RDS11099	culture, recreation, and media, n.e.c.

D

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RDS11299	defense logistics
RDS11004	design and architecture
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E

RDS10901	early childhood education
RDS11101	economic growth
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RDS10104	ecosystem adaptation to climate change
RDS10205	ecosystem assessment and management
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RDS10104	effects of climate change and variability on north america (except social impacts)
RDS10104	effects of climate change and variability on the arctic (except social impacts)
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RDS10506	energy conservation and efficiency in transport
RDS10506	energy efficiency in end uses
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RDS10903	equity and access to education
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F

RDS11109	families and family services
RDS11109	family and social work, n.e.c.
RDS10407	farmland, arable cropland and permanent cropland land and water management
RDS10802	farmland, arable cropland and permanent cropland soils
RDS11101	finance and economics, n.e.c.
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RDS11101	fiscal, monetary and industry policy
RDS10805	fish for bait
RDS10899	fish product traceability and quality assurance
RDS10805	fisheries (including aquaculture and wild caught), n.e.c.
RDS10205	flora, fauna and biodiversity
RDS10602	flour and cereal food products
RDS10407	forest and woodlands land and water management

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H

RDS10801	hardwood plantations
RDS10801	harvesting and transport of forest products
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I

RDS10804	improving technologies, processes and methods used for harvesting, handling and packing of cotton lint and cotton seed
RDS10804	improving technologies, processes and methods used for harvesting, handling and packing of fresh fruits and vegetables
RDS10803	improving the characteristics, propagation and growing of canola (including rapeseed)
RDS10803	improving the characteristics, propagation and growing of crops n.e.c.
RDS10803	improving the characteristics, propagation and growing of horticultural crops
RDS10803	improving the characteristics, propagation and growing of industrial crops
RDS10803	improving the characteristics, propagation and growing of summer grains and oilseeds
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RDS10609	integrated circuits and devices
RDS10609	integrated systems
RDS10801	integration of farm and forestry
RDS11299	intelligence
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RDS11105	international aid and development
RDS11105	international organizations
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J

RDS11006	journalism and public relations
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L

RDS11107	labour market
RDS11006	languages and literacy
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RDS11006	linguistics and semantics
RDS11006	literature
RDS10899	livestock product traceability and quality assurance
RDS10806	livestock raising (including beekeeping and pet breeding), n.e.c.
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RDS10610	machine learning
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RDS10105	marine oceanic processes (except climate related)
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RDS10199 modelling and mathematical simulation of natural processes

RDS10407 mountain and high country land and water management

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RDS11299 national security

RDS10801 native forests

RDS10603 natural fibres, yarns and fabrics

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RDS10807 natural honey

RDS10602 natural vegetable fibres

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RDS10602 oilseeds (except canola)

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RDS11103 other activities related to management, marketing and productivity, n.e.c.

RDS10899 other agriculture, n.e.c.

RDS10999 other education and training, n.e.c.

RDS10799 other health, n.e.c.

RDS10699 other industrial production and technology, n.e.c.

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P

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RDS10702 palliative care

RDS10604 paper products (including coated paper)

RDS10803 pasture, browse and fodder crops

RDS10902 pedagogy

RDS11110 people with disabilities

RDS11004 performing arts (including theatre and dance)

RDS10105 physical and chemical conditions of water for urban and industrial use

RDS10105 physical and chemical conditions of water in coastal and estuarine environments

RDS10105 physical and chemical conditions of water in fresh, ground and surface water environments (except urban and industrial use)

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RDS11001	presentation of information, including displays, in libraries
RDS11001	presentation of information, including displays, in museums and art galleries
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RDS10609	processor modules
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R

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S

RDS11107	salaries and benefits
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RDS10802	sparseland, permanent grassland and arid zone soils
RDS10903	special needs education (including gifted and disabled learners)
RDS10702	specialized care
RDS11005	sports
RDS10901	stages of education, n.e.c.
RDS10403	stone, ceramics and clay materials
RDS10601	structural glass and glass products
RDS10601	structural metal products
RDS10703	substance abuse
RDS10602	sugar and confectionery products
RDS10701	surgical methods and procedures
RDS10603	synthetic fibres, yarns and fabrics

T

RDS10902	teacher and instructor development
RDS10902	teaching and instruction technologies
RDS10902	teaching methods and curriculum, n.e.c.
RDS11008	technological ethics
RDS11103	technological, organisational and social innovation
RDS11010	technology impacts and societal development
RDS10702	telehealth
RDS10609	telemetry equipment
RDS10305	terraforming
RDS10504	tidal energy
RDS10403	timber materials
RDS10699	tobacco products manufacturing
RDS11003	tourism infrastructure development
RDS11003	tourism, n.e.c.
RDS11102	trade assistance and protection
RDS11102	trade policy
RDS10503	transformation of coal into electricity
RDS10503	transformation of coal into gaseous fuels
RDS10503	transformation of coal into liquid fuels
RDS10503	transformation of gas into electricity
RDS10503	transformation of gas into liquid fuels
RDS11007	treaty rights
RDS10805	trout
RDS11007	truth and reconciliation
RDS10805	tuna

U

RDS11010	understanding Africa's past and current societies
RDS11010	understanding Asia's past and current societies
RDS11010	understanding Canada's past and current societies
RDS11010	understanding cultural and social difference
RDS11010	understanding Europe's past and current societies

RDS11010	understanding Oceania's past and current societies
RDS11010	understanding of industrial societies
RDS11010	understanding of postindustrial societies
RDS11010	understanding of societies, past and current, n.e.c.
RDS11010	understanding the past and current societies of the Americas
RDS11010	understanding of preindustrial societies
RDS10807	unprocessed and minimally processed milk
RDS10804	unprocessed grains
RDS10804	unprocessed industrial crops
RDS10804	unprocessed oilseeds
RDS10102	uranium exploration
RDS10501	uranium mining and extraction
RDS10802	urban and industrial soils
RDS10401	urban planning
RDS11108	urban planning and development
RDS10702	urgent and critical care, and emergency medicine

V

RDS10606	veterinary biological preventatives
RDS10606	veterinary diagnostics
RDS10606	veterinary pharmaceutical treatments
RDS11109	violence
RDS11110	visible minorities
RDS11006	visual communication
RDS10609	voice and data equipment

W

RDS10202	waste management services
RDS10407	water allocation and quantification
RDS10202	water recycling services (including sewage and greywater)
RDS10405	water transport
RDS10504	wave energy
RDS10103	weather conditions
RDS10703	well-being

RDS10602	whey (lacto-serum)
RDS10805	wild caught atlantic salmon
RDS10504	wind energy
RDS10406	wireless technologies, networks and services
RDS10704	women's and maternal health
RDS10604	wood sawing and veneer
RDS10603	wool scouring and top making
RDS11107	work and family responsibilities
RDS11107	work and labour market issues, n.e.c.
RDS10903	workforce transition and employment
RDS11107	workplace accommodations and safety
RDS11008	workplace and organisational ethics
RDS11006	writing studies

Y

RDS11109	youth services

References

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- North American Product Classification (NAPCS) Canada (catalogue no. 12-003-X)
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