International Standard Classification of Education: Fields of Education and Training 2013

Instructions ISCED-F 2013 (adapted text)

Introduction

The aim of this manual is to offer clear guidelines on how to apply the ISCED Fields of Education and Training. This is done by both specifying a number of criteria to be observed and by providing lists of inclusions and exclusions from each field of education and training.

The basic units of classification in ISCED 2011 are education programmes and their related qualifications.
(a) An *education programme* is "*a coherent set or sequence of educational activities designed and organized to achieve pre-determined learning objectives or accomplish a specific set of educational tasks over a sustained period of time*". Educational activities are "*deliberate activities involving some form of communication intended to bring about learning*".
(b) A *qualification* is the "*official confirmation, usually in the form of a document certifying the successful completion of an education programme. Credits awarded for the successful completion of individual courses (e.g. modules or subjects) are not considered as qualifications within ISCED. In such cases, a sufficient number of credits or subjects equivalent in duration and/or covering the curriculum of a full programme would represent a qualification*".
A field is the "*broad domain, branch or area of content covered by an education programme or qualification*".

Level	Categories of fields	Number of fields
1st level	Broad field	11
2nd level	Narrow field	29
3rd level	Detailed field (mainly Higher Education)	≅80

Fields are not defined within levels of education.

However, general education programmes and qualifications which cover a broad range of subjects with little or no specialization in a particular field or fields will typically be classified within the broad field 00 "Generic programmes and qualifications".

Rationale of the Classification

The classification of fields of education and training follows a subject content approach. This is the same approach as used in previous versions of the ISCED (1976, 1997 and 2011). Where content is closely related, subjects are grouped together to form the broad, narrow and detailed fields of the classification, based on the similarity of the subject matter. The aim is to classify education programmes and their related qualifications by fields of education and training on the basis of the content of the programme and not the characteristics of the intended participants.

It is the **main subject content** which determines the field of education and training into which a programme or qualification should be classified. Subject matter is the factual, practical and theoretical knowledge imparted during the programme and which is recognised by the related qualification. This knowledge is applied to particular types of problems or for specific purposes which may be abstract (e.g. philosophy), practical (e.g. engineering) or both (e.g. architecture). For practical purposes, the main subject of a programme or qualification is determined by the detailed field in which the majority (i.e. more than 50%) or clearly predominant part of

learning credits or of students' intended learning time is spent. Learning credits, where available, should be used. Otherwise, an approximate assessment of the intended learning time should be made. Learning time includes that spent in lectures and seminars, as well as in laboratories or on special projects. Private study time is excluded (as it is difficult to measure and varies between students). Programmes and qualifications are classified in the detailed field containing their main subject.

Where there is insufficient information available to determine the relative shares of learning credits or intended learning time, the programme or qualification should be classified in the field listed first in its title. Where a main subject cannot be identified because the programme or qualification covers several detailed fields (and, even, narrow or broad fields) none of which dominates, the programme or qualification should be classified in an inter-disciplinary category.

Two programmes or qualifications belong to the same field if the main subjects studied are the same or are sufficiently similar. In developing the structure of the classification, the following criteria were used in **priority order** when determining the degree of similarity of the subject matter content in order to classify the fields of education and training into broad, narrow and detailed fields:
(a) Theoretical knowledge content (i.e. the ideas and concepts involved and their use in explaining facts and predicting outcomes).
(b) Purpose of learning (i.e. the intended use of the knowledge, skills and competencies gained).
(c) Objects of interest (i.e. the phenomena, problems or entities being studied).
(d) Methods and techniques (i.e. procedures for learning and applying the skills and knowledge gained).
(e) Tools and equipment (i.e. the instruments and implements which an individual learns to use or operate).

Application of classification criteria: some examples
The broad and narrow field categories in this classification are closely related to those defined in the previous revision, ISCED97. They are largely determined on the basis of the similarity of the theoretical knowledge and the purpose of learning and, to a lesser extent, the objects of interest of the group of fields they cover. The detailed fields are largely distinguished on the basis of methods and techniques and tools and instruments.

SUBJECT MATTER SIMILARITY ACROSS LEVELS OF EDUCATION
All education programmes and qualifications are associated with a blend of theoretical understanding, factual knowledge and practical skills. Two programmes or qualifications at different levels of education will belong to the same field of education and training if they cover similar types of theoretical, factual and practical knowledge or skills even if the relative emphasis given to each may be different. For example, a tool-making programme includes some of the mathematics, factual knowledge and engineering theory used in mechanical engineering. Thus tool-making and mechanical engineering should have the same field of education and training (0715 "Mechanics and metal trades") despite being associated with different levels of education or educational attainment.

SUBJECT MATTER SIMILARITY WITHIN LEVELS OF EDUCATION
By contrast, "Nursing and midwifery" is classified as 0913 and "Medicine" as 0912. Whilst they are closely related there are differences in subject content especially the purpose of learning (doctors and nurses are expected to acquire and apply different knowledge, skills and competencies), methods and techniques and even tools and equipment. There is also a strong interest amongst users of data generated using this classification to be able to differentiate between nurses and doctors. In some countries, doctors and nurses study and qualify at the same levels of education. In these cases, differentiation between them is more easily made through fields than levels of education.

BORDERLINE CASES
Borderline cases occur where a programme or qualification is closely related to two different fields in the classification. For example, veterinary studies has similarities both with medicine (theoretical knowledge especially but also purpose of learning) and animal husbandry (the objects of interest, methods and techniques, and tools and equipment). The latter has been chosen for classifying veterinary studies in order to maintain correspondence between previous versions of ISCED, with key related classifications (e.g., the Fields of Science, and the International Standard Industrial Classification of All Economic Activities (ISIC)) and to preserve a broad field devoted to (Human) Health and Welfare which is important for national policy analysis.
21. Another example is care. Medical care has been classified in narrow field 091 "Health2 and non-medical

care in narrow field 092 "Welfare" on the grounds that the theoretical knowledge required for the two fields is very different.

GENERIC PROGRAMMES
Generic programmes which cover a range of subjects such as languages and literature, social and natural sciences, mathematics, arts and/or physical education should be classified in 0011 "Basic programmes and qualifications". This should be the case even if there is **some** concentration on a certain category of subject matter such as humanities, social science, natural science etc., which can occur. These programmes are a specific type of inter-disciplinary or broad programmes for which a broad field has been created. They should therefore not be classified in other broad fields as inter-disciplinary or broad programmes.

PROGRAMMES AND QUALIFICATIONS FOR ENGINEERS
Education programmes and qualifications for engineers should be included in the detailed fields under 071 "Engineering[1] and engineering trades" or, if for civil or construction engineers, in 0732 "Building and civil engineering". Even if the studies are oriented towards computing, media techniques, textiles, food etc., they should be classified under 071 or 0732 if the **emphasis** is on designing and constructing machinery, engines, electrical devices, electronics, computers, telecommunications etc. (071) or buildings, roads and bridges (0732).

[1] Note that Engineering is a much broader concept than an Engineer, who works as a professional in Engineering, but many other categories also work in this field. There is no difference intended between detailed fields 071 and 072 in terms of level of education.

[2] i.e., whether learners are already proficient in the language to be studied or not.

MANUFACTURING PROGRAMMES
Manufacturing programmes should be classified in the detailed fields under 071 "Engineering and engineering trades" if the emphasis is towards engineering, i.e. on metals, mechanics, machinery, engines, electrical devices etc.

Other manufacturing programmes and qualifications should be classified under 072 "Manufacturing and processing". This is the case where the emphasis is on manufacturing specific products such as food, textiles, shoes, paper, furniture, glass, plastic etc., However, manufacturing of metal products is excluded from narrow field 072 and included in detailed field 0715 "Mechanics and metal trades".

LANGUAGES
Languages should be classified as either detailed field 0231 "Language acquisition" or detailed field 0232 "Literature and linguistics" based on the characteristics of the intended participants[2] (as, in this particular case, this is a proxy for the subject matter content of the studies). There is a clear difference between the theoretical content, purpose of learning and teaching style of programmes and qualifications designed for existing native or fluent speakers of a language and those designed for speakers of other languages who are trying to acquire a given language. In the former case, the emphasis will be on the literature and linguistics of the language rather than the grammar and vocabulary (at least at secondary and tertiary levels of education). In the latter case, the focus will be on grammar and vocabulary and perhaps culture and rather less on literature and linguistics.

VOCATIONAL PROGRAMMES AND QUALIFICATIONS INCLUDING SUBSIDIARY SUBJECTS
In vocational programmes, more time in total may be devoted to subsidiary subjects than the main subject matter content of the intended occupation or class of occupations. Nevertheless, such programmes and their resulting qualifications should be classified in the vocational field associated with the intended occupation or class of occupations. This is an exception to the rule on the classification according to the majority or predominant subject as it is important to be able to identify separately target occupation(s) of vocational programmes and qualifications. In practice, it is likely that the field of the target occupation(s) is the one to which the greatest intended learning time is devoted.

Example 1: A nursing health care programme should be classified in detailed field 0913 "Nursing and midwifery", even if more intended learning time in total is devoted to other subjects than "nursing".

Teacher training programmes and qualifications with a subject matter specialization
Teacher training programmes and qualifications focusing primarily on teaching a subject matter specialization should be classified as teacher training, even if the main content is a subject matter specialization. The same principle should be applied to programmes and qualifications which combine education or teacher training and a specialized subject. Note this is an exception to the majority or predominant subject rule on the classification of programmes and qualifications as it is important to be able to identify separately teacher training from other detailed fields especially in analyses of education systems.

Inter-disciplinary or broad programmes and qualifications

Inter-disciplinary or broad programmes and qualifications are those which combine **several** detailed fields of education and training where **no single detailed field dominates**. Many inter-disciplinary programmes and qualifications cover several narrow or even broad fields. In this classification, the "leading subject rule" is used to determine the **broad** field into which the inter-disciplinary study should be classified. That is, the leading subject or subjects determines the (broad) field. The criterion for determining the leading subject(s) is, as before, the share of learning credits or of students' intended learning time. Inter-disciplinary programmes should be classified by using "8" at the narrow and detailed field levels (i.e. xx88) within the leading broad field as "Interdisciplinary programmes or qualifications involving [the broad field]". Thus all inter-disciplinary study with no dominant subject will be separately identified and, at least, the leading broad field of the programme or qualification will also be known.

Example 2: A programme consisting of equal parts (one-third each) of theology (0221), history (0222) and philosophy (0223) should be classified as 0288 ("Inter-disciplinary programmes and qualifications involving arts and humanities"). If a programme consists of 60% theology, 20% history and 20% philosophy, it should be classified as 0221 as theology is the dominant subject.

Where more than one leading broad field is identified, the inter-disciplinary study should be classified in the broad field listed first in the title (or in the curriculum or syllabus if not listed in the title) of the programme or qualification. Where there is insufficient information to determine the leading subject, the "first-listed" rule described in the previous sentence should be applied.

Programmes or qualifications covering two or more detailed fields where one detailed field represents the predominant share of the learning credits or intended learning time should be classified in that detailed field. Thus, if the major share of learning credits or intended learning time is devoted to a single detailed field, the programme/qualification should be classified in that detailed field and not as an inter-disciplinary programme/qualification.

Example 3: A programme majoring in mathematics with a minor in French should be classified as 0541 "Mathematics" as mathematics is the dominant subject.
Example 4: A programme consisting of 40% engineering (071), 30% business (041) and 30% languages (023) should be classified as 0788 ("Inter-disciplinary programmes and qualifications involving engineering, manufacturing and construction") as no field predominates but 07 is the leading broad field. If engineering and business were equally important and greater than languages (e.g. 40%, 40% and 20%), the programme would be classified as either 0788 or 0488 depending on which programme, engineering (071) or business (041), is listed first in the programme title (or, if not in the title, in the curriculum or syllabus).
Example 5: A programme consisting of 40% history (0222), 30% economics (0311) and 30% politics (0312) would be classified as 0388 ("Inter-disciplinary programmes and qualifications involving social sciences, journalism and information") as economics and politics are in the same broad field.

Programmes and qualifications aimed at one specific vocational field consisting also of subsidiary subjects from other fields are not considered as inter-disciplinary programmes or qualifications and should be classified according to the specific vocational field.
Example 6: In a programme in electrical installation, more time may be devoted to subsidiary subjects (language, mathematics, natural science etc.) than the intended vocational subject. However, this programme should be classified as 0713 "Electricity and energy" and not as an inter-disciplinary programme.

The "leading subject rule" is the only feasible solution for classifying inter-disciplinary programmes and qualifications as long as only one code can be assigned as is recommended in this manual. However, users who are able to assign two or more codes[3] may be able to classify inter-disciplinary programmes or qualifications to combinations of fields.

Coding of other difficult cases
Not further defined and not elsewhere classified

Two common situations need to be provided for within the classification of fields of education and training when coding programmes/qualifications in specific data collections:

(a) Cases where there is no further information about a given programme or qualification than that known at a higher level of the classification. These are known as cases which are "not further defined" and are designated by the use of one or more "0" at the end of codes at the narrow or detailed fields hierarchical levels of the classification (as appropriate).

Example 7: A programme in engineering where no more information is available should be classified as 0710 "Engineering and engineering trades not further defined". Such cases should not be considered as inter-disciplinary or broad programmes.

Example 8: A programme in services where no more information is available should be classified as 1000 "Services not further defined".

(b) Cases where the particular detailed field is known and adequately described but is not explicitly provided for in the classification. These are known as cases which are "not elsewhere classified" and are designated by the use of "9" at the detailed field level of the classification (i.e. as the last digit).

Example 9: A programme in a new field in ICTs which does not belong to any of the other detailed fields should be classified as 0619 "Information and Communication Technologies not elsewhere classified".

These "not further defined" and "not elsewhere classified" codes are not included in the classification structure but are supplementary codes which can be used when processing data which are not adequately or sufficiently described ("not further defined") or which are not explicitly covered in the classification structure ("not elsewhere classified").

It can be difficult to differentiate the use of "0", "8" and "9". The following table may be of assistance:

NB Programmes and qualifications with a dominant detailed field (comprising more than 50% of learning credits or time) are classified in that dominant field (see Examples 1, 2 (second part), 3 and 6).

In data collection, where the field of study is completely unknown, a code of "9999" can be assigned or, in surveys which are limited to the narrow or broad field levels only, "999" or "99" respectively.

Code	Name	Use	Example
0	*Not further defined*	*No further information than is known at a higher level of the classification*	*7 and 8*
8	*Inter-disciplinary programmes/qualifications*	*Programmes/qualifications with no dominant detailed field*	*2 (first part), 4 and 5*
9	*Not elsewhere classified*	*The detailed field is known but not provided for in the classification*	*9*

Relation to ISCED 2011 and other classifications

Orientation and fields

Orientation (general or vocational education) and **fields** of education and training are two **different** dimensions in ISCED and must not be confused.

Example 10: An education programme or qualification in mathematics at ISCED 2011 level 5 may be general education for orientation, but the detailed field should be 0541 "Mathematics".

Correspondence between ISCED-F and ISCED 1997 (and 2011) Fields of Education

There has been some reassignment of narrow or detailed fields between broad fields in the ISCED Fields of Education *and* Training 2013 (ISCED-F) in line with the principles of classification described in Section 5 Rationale of the Classification and, in particular in paragraph 15. These are shown in the following

correspondence table (Table 1).

The main changes are:
(a) The splitting of Field 22 "Humanities" in ISCED 1997 into two narrow fields: 022 "Humanities (except languages)" and 023 "Languages".
(b) The splitting of Broad Group 3 "Social sciences, business and law" in ISCED 1997 into two broad fields: 03 "Social sciences, journalism and information" and 04 "Business, administration and law".
(c) The creation of a new narrow field 052 "Environment" within the broad field 05 Natural sciences, mathematics and statistics by splitting Field 42 "Life sciences" in ISCED 1997 and combining with some of Field 62 "Agriculture, forestry and fishery".

(d) The splitting of Broad Group 4 "Science" in ISCED 1997 into two broad fields: 05 "Natural sciences, mathematics and statistics" and 06 "Information and Communication Technologies (ICTs)".

(e) The creation of a new narrow field 0712 "Environmental protection technology" by transferring most of Field 85 "Environmental protection" from the Broad Group 8 "Services" to the new broad field 07 Engineering, manufacturing and construction".

(f) The renaming of Broad Group 6 "Agriculture" in ISCED 1997, to create a new broad field 08 "Agriculture, forestry, fisheries and veterinary" and the transfer of some of Field 62 "Agriculture, forestry and fishery" to the new narrow field 052 "Environment".

(g) The creation of a new narrow field 102 "Safety services" from the remains of Field 85 "Environmental protection" in ISCED 1997.

TABLE 1: CORRESPONDENCE BETWEEN ISCED FIELDS OF EDUCATION AND TRAINING ISCED 1997 AND 2013 (ISCED-F) FIELDS OF EDUCATION

ISCED 1997 (and 2011) Fields of Education	ISCED Fields of Education and Training 2013
0 General programmes	00 Generic programmes and qualifications
01 Basic programmes	001 Basic programmes and qualifications
08 Literacy and numeracy	002 Literacy and numeracy
09 Personal development	003 Personal skills and development
1 Education	01 Education
14 Teacher training and education science	011 Education
2 Humanities and Arts	02 Arts and humanities
21 Arts	021 Arts
22 Humanities	022 Humanities (except languages)
	023 Languages
3 Social sciences, business and law (minus business and law)	03 Social sciences, journalism and information
31 Social and behavioural science	031 Social and behavioural sciences
32 Journalism and information	032 Journalism and information
3 Social sciences, business and law (minus social sciences)	04 Business, administration and law
34 Business and administration	041 Business and administration
38 Law	042 Law
4 Science (minus computing) plus natural parks and wildlife from 62 Agriculture, forestry and fishery	05 Natural sciences, mathematics and statistics
42 Life sciences minus other allied sciences	051 Biological and related sciences
Part of 42 Life sciences (other allied sciences), part of 62 Agriculture, forestry and fishery (natural parks, wildlife)	052 Environment
44 Physical science	053 Physical sciences
46 Mathematics and statistics	054 Mathematics and statistics
4 Science (Computing only)	06 Information and Communication Technologies
48 Computing	061 Information and Communication Technologies
5 Engineering, manufacturing and construction (plus most of 85 Environmental protection)	07 Engineering, manufacturing and construction
52 Engineering and engineering trades (plus most of 85 Environmental protection)	071 Engineering and engineering trades
54 Manufacturing and processing	072 Manufacturing and processing
58 Architecture and building	073 Architecture and construction
6 Agriculture (minus natural parks and wildlife)	08 Agriculture, forestry, fisheries and veterinary
62 Agriculture, forestry and fishery (minus natural parks and wildlife)	081 Agriculture
	082 Forestry
	083 Fisheries
64 Veterinary	084 Veterinary
7 Health and welfare	09 Health and welfare
72 Health	091 Health
76 Social services	092 Welfare
8 Services (minus most of 85 Environmental protection)	10 Services
81 Personal services	101 Personal services
Part of 85 Environmental protection (community sanitation and labour protection and security)	102 Hygiene and occupational health services
86 Security services	103 Security services

| 84 Transport services | 104 Transport services |