Fields of Education and Training
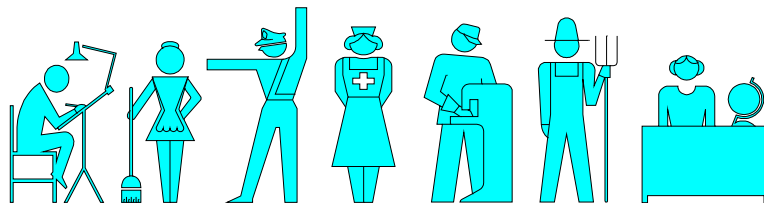
Manual

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Introduction

Background

The International Standard Classification of Education (ISCED) has been designed as an instrument suitable for assembling, compiling, and presenting statistics of education both within countries and internationally. The system has recently been revised and updated, and the 'new' ISCED was introduced in 1997 (ISCED 97).

The ISCED system is built up by classifying each educational programme by field of education and by level. This manual deals with the classification into fields.

The manual is the outcome of an EUROSTAT project carried out in close co-operation with UNESCO and OECD but not yet adopted by the UNESCO General Conference and thus not forming an integral part of ISCED 97 although it is based on it.

Fields of Education

ISCED 97 contains 25 two-digit fields of education. The classification presented here uses a three-digit code in a hierarchical system for classifying fields of education, where the two-digit level is the ISCED 97 fields of education[1]. It is mainly the first two digits that will be used in international data collection. However, the third digit gives a more flexible system, and other aggregations based on the third digit may be used in ad hoc data collections to suit specific purposes. It is also believed that the more detailed fields at the three-digit level will bring a better understanding when allocating programmes into the two-digit fields.

The third digit is also intended for national purposes. Countries which have not developed comprehensive national classification system may adopt it as it stands or modify it to suit national conditions.

CEDEFOP and EUROSTAT[2] developed the 'Fields of training' system for classifying vocational education and training in 1997-1998. It should be emphasised that the 3-digit level of fields in the classification presented here has been synchronised with the 'Fields of training' classification. That is also the reason for calling this manual *Fields of Education and Training*. There are some small differences compared to the manual on Fields of Training. Such changes are clearly marked in this manual.

Aim of the Manual

The availability of a common classification is only the first step towards the collection of comparable data. The second step is to ensure a consistent application of the classification across countries. Thus, it is the aim of this manual to offer clear guidelines on how to apply the classification for fields of education and training. This

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[1] A few small changes compared to ISCED 97 in the names of the fields of education has been made in order to try to clarify the content of these fields.

[2] CEDEFOP= European Centre for the Development of Vocational Training. EUROSTAT= Statistical office of the European Communities

is done by both specifying a number of rules to be observed and by providing detailed lists of examples.

It should in principle be possible to classify all education programmes, both initial and continuing education, both general education and vocational training, into one and only one field of education and training. When doing this, some decisions have to be made. With the help of this manual, all countries should hopefully be in a position to make similar decisions.

Structure and Rationale of the Classification

Structure for fields of education and training

Broad fields	Narrow fields	Detailed fields	Programmes/Subjects
X	XX	XXX	. . . .
			. . . .
			. . . .
		XXX	. . . .
			. . . .
			. . . .
			. . . .
		. . . .	
	XX	XXX	. . . .
			. . . .
		XXX	. . . .
			. . . .
			. . . .
	XX	XXX	. . . .
			. . . .
			. . . .
		XXX	. . . .
			. . . .
			. . . .

The Structure of the Classification System

This classification of fields uses a 3-digit code in a hierarchical system for classifying fields of education and training – one for 'broad fields', one for 'narrow fields' and one for 'detailed fields'. There are 9 broad fields, 25 narrow fields and about 80 detailed fields.

The 2-digit level (the narrow fields) will normally be used by the international organisations when collecting data, and the term 'fields of education' usually refers to this level. The 2-digit level or the narrow fields are the same as the ISCED 97 fields of education. The 3-digit level (the detailed fields) are referred to as 'fields of education and training'. To summarise:

Digits	Names of fields		Amount of fields
1-digit	Broad field		9
2-digit	Narrow field	Fields of education (ISCED 97)	25
3-digit	Detailed field	Fields of education and training	$\cong 80$

Fields - independent of level

It is worth mentioning that the fields are not defined within levels, but are independent of levels. It is recognised, however, that not all fields appear at all levels.

Rationale of the Classification; Subject content approach

Fields of Education and Training is defined as the subject matter taught in an educational programme. The rationale of the classification for fields of education and training is the subject content approach. The programmes are put together by closeness in subject matter content. The programmes are aggregated to detailed, narrow and broad fields, based on 'knowledge closeness'. It must be emphasised that it is the **main subject content** of the programme which decides into which field it should be classified.

Thus, the distinction between fields does not take into account the personal purposes of the participation in the programmes (pleasure, leisure, to get a job etc.), nor is the intended occupation explicitly taken into account.

In developing the structure of the field classification the following criteria were used in priority order when trying to decide 'closeness in subject matter content':

* Theoretical content, which is by far the most important criteria.
* Purpose of learning,
* Objects of interest,
* Methods and techniques,
* Tools and equipment.

More details on the rationale of this classification may be found in Appendix 1.

General, broad programmes at secondary level

General, broad programmes at secondary level which cover a range of subjects such as languages and literature, social science, natural science, mathematics, arts, physical education etc. should be classified into 010 'Basic / broad, general programmes'. 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.

Example: A broad, general programme at secondary level, mainly preparing for further studies and covering a wide range of subjects should be classified into field 010 'Basic / broad, general programmes', even if some emphasis is given on e.g. humanities.

Vocational programmes including supporting subjects

In some long vocational programmes, often at upper secondary school, more time may be devoted to several other supporting subjects than the 'intended occupation' subject. Such programmes should all the same be classified into the appropriate vocational field.

Example: A health care programme should be classified into field 723 'Nursing and caring', even if more time altogether is devoted to other subjects than 'nursing and caring' subjects.

Teacher training programmes with a subject-matter speciality

Teacher training programmes consisting primarily of a subject-matter speciality should be classified as teacher training, even if the main content is a subject-matter speciality. When using the 3-digit level, these programmes should be classified into 145 'Training for teachers with subject specialisation' or 146 'Training for teachers of vocational subjects'.

Educational programmes for engineers

Educational programmes for engineers should normally be included in some of the fields under 52 'Engineering[3] and engineering trades' or, if civil engineer / constructional engineer, under 58 'Architecture and building'. This should be the case even if these programmes are oriented towards computing, media techniques, environmental protection, textiles, food etc., if the emphasis is on designing and constructing machinery, engines, electrical devices, electronics, computers etc. or buildings, roads and bridges.

Manufacturing programmes

Manufacturing programmes should be classified into the appropriate field under 52 'Engineering and engineering trades' if the emphasis is towards the engineering industry, i.e. on metals, mechanics, machinery, engines, electrical devices etc.

Other manufacturing programmes should be classified under 54 'Manufacturing and processing'. This is the case for programmes with emphasis on manufacturing specific products such as food, textiles, shoes, paper, furniture, glass, plastic etc., However, manufacturing of metal products is excluded from 54 and included in field 521 'Mechanics and metal work'.

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[3] Note that Engineering is a much broader concept than Engineer, who works as a professional in Engineering, but many other categories also work in this field and there is no level difference intended between field 52 and 54.

Fields of Education and Training

Broad fields	*Narrow fields*	*Detailed fields*
0 General[4] Programmes	01 Basic / broad, general programmes 08 Literacy and numeracy 09 Personal skills	010 Basic / broad general programmes 080 Literacy and numeracy 090 Personal skills
1 Education	14 Teacher training and education science	*(141[5] Teaching and training =143+144+145+146)* 142 Education science 143 Training for pre-school teachers 144 Training for teachers at basic levels 145 Training for teachers with subject specialisation 146 Training for teachers of vocational subjects
2 Humanities and Arts	21 Arts	211 Fine arts 212 Music and performing arts 213 Audio-visual techniques and media production 214 Design 215 Craft skills
	22 Humanities	221 Religion 222 Foreign languages 223 Mother tongue *(224 History, philosophy and related subjects = 225+226)* 225 History and archaeology 226 Philosophy and ethics
3 Social sciences, Business and Law	31 Social and behavioural science	311 Psychology 312 Sociology and cultural studies 313 Political science and civics 314 Economics
	32 Journalism and information	321 Journalism and reporting 322 Library, information, archive
	34 Business and administration	341 Wholesale and retail sales 342 Marketing and advertising 343 Finance, banking, insurance 344 Accounting and taxation 345 Management and administration 346 Secretarial and office work 347 Working life
	38 Law	380 Law
4 Science, Mathematics and Computing	42 Life science	421 Biology and biochemistry 422 Environmental science
	44 Physical science	441 Physics 442 Chemistry 443 Earth science
	46 Mathematics and statistics	461 Mathematics 462 Statistics

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[4] 'General' in this context refers to 'general' as opposed to 'specialised', and has **not** the explicit meaning of 'general' as opposed to 'vocational' .

[5] This field (and the other fields within brackets) is used in the EUROSTAT and CEDEFOP 'Fields of training' classification system for vocational education and training. Its' sub-division used in the present classification is shown within in the brackets.

Broad fields	Narrow fields	Detailed fields
	48 Computing	481 Computer science
		482 Computer use
5 Engineering, Manufacturing and Construction	52 Engineering and engineering trades	521 Mechanics and metal work
		522 Electricity and energy
		523 Electronics and automation
		524 Chemical and process
		525 Motor vehicles, ships and aircraft
	54 Manufacturing and processing	541 Food processing
		542 Textiles, clothes, footwear, leather
		543 Materials (wood, paper, plastic, glass)
		544 Mining and extraction
	58 Architecture and building	581 Architecture and town planning
		582 Building and civil engineering
6 Agriculture and Veterinary	62 Agriculture, forestry and fishery	621 Crop and livestock production
		622 Horticulture
		623 Forestry
		624 Fisheries
	64 Veterinary	641 Veterinary
7 Health and Welfare	72 Health	721 Medicine
		(722 Medical services = 725+726+727)
		723 Nursing and caring
		724 Dental studies
		725 Medical diagnostic and treatment technology
		726 Therapy and rehabilitation
		727 Pharmacy
	76 Social services	761 Child care and youth services
		762 Social work and counselling
8 Services	81 Personal services	811 Hotel, restaurant and catering
		812 Travel, tourism and leisure
		813 Sports
		814 Domestic services
		815 Hair and beauty services
	84 Transport services	840 Transport services
	85 Environmental protection	851 Environmental protection technology
		852 Natural environments and wildlife
		853 Community sanitation services
	86 Security services	861 Protection of persons and property
		862 Occupational health and safety
		863 Military and defence

'0' is used in the third position when there is only one detailed field for the corresponding narrow field or when classifying broad programmes comprising parts from -at least three of the detailed fields, and none of the detailed fields is dominating (see also 'Interdisciplinary and broad programmes on page 12).

'9', '99' or '999' should be used in data collection if the field is not known or unspecified.

Relation to other classifications and ISCED 97 dimensions

Programme orientation and fields

Programme orientation (general, vocational and pre-vocational education) and fields are two **different** dimensions in ISCED 97 and must not be confused.

Many programmes which are classified as General education under Programme orientation should be classified by their main subject in fields. Example: An educational programme in mathematics may be general education for programme orientation, but the field should be 461 'Mathematics'.

Differences compared to fields of training

When creating fields of training a third digit was added to divide most of the two-digit ISCED-fields, especially fields in areas with a lot of VET (Vocational Education and Training). 'Academic' fields, that is fields where it was believed there was not much VET, were kept undivided. In the classification presented here 'academic' fields have also been sub-divided and thus giving a more 'balanced' field classification.

Field of training	Field of education and training
141 Teaching and training	143+144+145+146
224 History, philosophy and related subjects	225+226
310 Social and behavioural science	311+312+313+314
420 Life science	421+422
440 Physical science	441+442+443
460 Mathematics and statistics	461+462
722 Medical services	725+726+727
850 Environmental protection	851+852+853

A few minor changes in the names of the fields of training have also been made in order to make them clearer.

The only 'major' change of content is **Environmental science**, which in fields of training is classified together with Environmental protection under field 850, while in this classification Environmental science/Ecology is classified under Life science in field 422. The reason being that this is considered a more correct classification according to the criteria used. There are also a few other small changes, but the changes are not believed to make any difference in the statistics on vocational education and training.

Compared to Fields of training it has been made clearer in this manual that broad general programmes at upper secondary level with some emphasis on e.g. humanities, social sciences, natural science without neglecting other fields of knowledge should be classified under field 010 'Basic broad/general programmes'.

Relation to ISCO-88

The International Standard Classification of Occupations (ISCO-88) provides a system for classifying and aggregating occupational information obtained by means of population censuses and other statistical surveys, as well from administrative records.

The framework necessary for designing and constructing ISCO-88 has been made on two main concepts: the concept of the kind of work performed (job) and the concept of skill.

Job – defined as a set of tasks and duties executed by one person – is the statistical unit classified by ISCO-88. A set of jobs whose main tasks and duties are characterised by a high degree of similarity constitutes an occupation. Persons are classified by occupation through their relationship to a past, present or future job.

Skill - defined as the ability to carry out the tasks and duties of a given job - has for the purpose of ISCO-88 the following dimensions:

1. Skill level - which is a function of the complexity and range of the tasks and duties involved.

2. Skill specialisation - defined by the field of knowledge required, the tools and machinery used, the materials worked on or with, as well as the kinds of goods and services produced.

Four broad skill levels were defined and made operational by using ISCED 76.

Obviously, there are connections between ISCO-88 and ISCED-fields, but it should be remembered that they classify different statistical units using different criteria. Fields try to classify educational programmes by subject content and ISCO-88 classifies jobs (occupational information) using the concepts mentioned above. A cross tabulation of e.g. census data by ISCED-fields and ISCO-88 should reveal interesting and valuable statistical information for education planners and decision makers.

Inter-disciplinary and broad programmes

Inter-disciplinary programmes

'Inter-disciplinary programmes' has here the meaning of programmes combining (generally **two**) fields of education and training. For these programmes (see *example 1 to 3*), the 'majority rule' should be used, that is the subject that dominates decides into which field the programme should be classified. The criteria for dominating is normally the time used on the subject.

Example 1: A programme consisting of both political science (313) and economics (314) should be classified according to which of the subjects dominates, that is on which subject most of the time is spent.

In *Example 2* subjects also fall into the same field of education but in two different fields of education and training. Also in this example, use the majority rule. The programme is not broad enough to be considered as a 'broad programme' according to the definition given below.

Example 2: A programme combining study of retail sales with study of office work should be classified according to which of the fields dominates; 341 'Wholesale and retail sales' or 346 'Secretarial and office work'.

In *Example 3* below subjects fall into two different narrow fields (2-digit level). Use the majority rule; you are more or less obliged to do that as there is no other solution (except 999).

Example 3: A programme that mainly includes subjects within the area of computer science should be allocated to field 481 ('Computer science') even if a certain amount of computer engineering (field 523 'Electronics and automation') is included.

Broad programmes

'Broad programmes' here means that an education or training programme comprises parts from several - **at least three** - fields of education and training, mainly within the same field of education, and none of the fields of education and training is clearly dominating. These broad programmes should be classified by using '0' as the third digit[6].

Note that the '0' in the third position will be used for information about broad programmes, and it should not be used as a rest code. Note that a '0' in the second position is in principal not allowed.

Examples 4: A programme in business and administration, consisting of management, financing, sales and marketing etc. should be classified as 340 'Broad programmes in business and administration'.

Programmes aiming at one specific vocational field consisting also of supporting subjects from other fields are *not* considered as broad programmes in this context.

Example 5: In a programme in electrical installation, more time may be devoted to other supporting subjects (language, mathematics, natural science etc.) than the

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[6] This is applicable only for the fields of education (two-digit fields) that are divided into three or more fields of education and training, and is expected to be used especially under 34 'Business and administration' and 52 'Engineering and engineering trades'

intended vocational subject. However, this programme should be classified as 522 'Electricity and energy' and not as a broad programme.

Not specified or not able to classify

As a last resort, the '9' may be used in the third position if available information about a programme is not available or if a specific programmes is not possible to classify into any of the detailed fields. A '9' in the second position is in principal not allowed[7], except that in data collections on the 2-digit level, '99' can be used if the 2-digit field is not known.

Example 6: A programme in engineering where more information is not available should be classified as 529.

How to Use the Manual

1. When classifying an educational programme or a group of programmes, look at the overview of the classification on pages 8–9. Start by deciding into which broad field it should be classified into. Go on and look at the narrow fields. In many cases, it is more or less obvious which of the fields the programme belongs to.

2. When you have found an appropriate narrow field, check the description given for each detailed field to confirm that it is the right narrow field – and if wanted also the right detailed field – that has been chosen.

3. If it is not obvious into which field a programme should be classified, or if you need more help, look up the name of the programme in the alphabetical code list (appendix 4). Then, check the description given for the detailed fields to see if it is the right code.

4. You may also use the rationale of this classification (see appendix 1) in order to allocate the programme. In cases where particular problems are encountered in the application of the field classification, it would be appreciated if they could be brought to the attention of the organisations responsible for co-ordinating the data collection, so as to allow for the improvement of the field manual in the future.

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[7] In the Fields of Training manual both '9' and '0' are allowed in the second position. This means that exceptionally a '0' or a '9' may be allowed in the second position. The decision depends on the needs of each data collection and should be clearly indicated in the relevant implementation instructions. For example, in the UOE data collection a '0' or a '9' in the second position is **not** allowed.

Field Descriptions

This part of the manual describes each field of education and training with regard to the subject content of the field. When classifying programmes, it is very important to look at these descriptions of the content and see which field best corresponds to the programme (programme group) that is to be classified.

If classifying only from the names of the programmes, large mistakes may be made. Especially, this is the case with some popular terms like 'communication', 'management' etc, which are used in many contexts. Also, a programme name might have different meanings in different countries. So, be careful with the names of the programmes and, as far as possible, consider the main subject content of the programmes instead.

Note that the lists of programmes given under each field description below are not complete. At the end of the manual (appendix 3) a more comprehensive list of programmes/subjects is found.

It should be pointed out that the codes 140, 210, 220, 310, 340, 440, 520, 540, 620, 720, 810, 850 and 860 are implementations of the '0' in the third position mentioned in the footnote in the table presenting an overview if the field classification.

0   General Programmes

'General' in this context refers to basic and personal skills ('general' as opposed to 'specialised'), and has not explicit the meaning of 'general' as opposed to 'vocational'.

This category 0 'General programmes' must not be used as a residual category. Programmes with a **subject emphasis** should be classified in fields 1 to 8.

Countries may be asked to report which programmes they have classified as 0 'General programmes', especially at ISCED level 3. Educational programmes at levels 4, 5, and 6 should only by way of exception be classified here.

010   Basic / broad, general programmes

Basic / broad, general programmes are programmes designed to give a basic education in reading, writing and arithmetic along with an elementary understanding of other subjects such as history, geography, natural science, social science, art and music, and in some cases religious instruction is featured. Basic programmes are normally given at primary and lower secondary level. Broad, general programmes at upper secondary level are also classified here – which 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. Vocational programmes are included only by way of exception. Programmes with the following main content are classified here:

    Basic programmes
    Broad, general programmes
    General programmes with no special subject emphasis

Inclusions:

Broad, general programmes at upper secondary level (in some countries at lower secondary level) with some *emphasis on e.g. humanities, social science, natural science* without neglecting other fields of knowledge are included in this field. In some countries such programmes are given in a kind of modular system. These programmes should also be classified here.

Exclusions:

Programmes that are considered as general in the program orientation meaning (non-vocational) but have a clear emphasis on a subject or a group of subjects are excluded from this field and are included in one of the fields 1-8, depending on the subject.

080   Literacy and numeracy

Literacy and numeracy are programmes arranged mainly for illiterate **adults**, designed to teach basic reading, writing and sometimes arithmetic. The typical age range can be used to distinguish between field 010 'Basic / broad, general programmes' and this field. Programmes with the following main content are classified here:

    Basic remedial programmes for adults
    Literacy
    Numeracy

090   Personal skills

Personal skills programmes can be defined by reference to the effects on the individual's capacity (mental, social etc.). This field covers personal skills programmes, not included in 010 'Basic / broad, general programmes' or 080 'Literacy and numeracy', giving key competencies and transferable skills. Programmes with the following main content are classified here:

    Argumentation and presentation
    Assertiveness training
    Communication skills
    Co-operation
    Development of behavioural capacities
    Development of mental skills
    Job-seeking programmes
    Public speaking
    Self esteem skills
    Social competence
    Time management

Inclusions:

Education and training in *leadership* in the context of *personal development* is included in this field.

Education and training related to the *working place* or to the *assignments* is included in this field if it has more to do with personal development than work development.

Programmes for the intellectually disabled on how to *cope with their daily life* are included here

Exclusions:

Study of *leadership* in the context of *management* is excluded from this group and included in field 345 'Management and administration'.

1   Education

140   Teacher training and education science (broad programmes)

Teacher training and education science (broad programmes) is the study of pedagogical theory combined with practice of teaching without specialising in basic teaching, special subject teaching, vocational teaching etc. Broad programmes with the following main content are classified here:

> Teacher training, general
> Practical pedagogical courses, general

142   Education science

Education science is the study of the learning process and the theories, methods and techniques of imparting knowledge to others. Programmes with the following main content are classified here:

> Didactics
> Education science
> Educational assessment, testing and measurement
> Educational evaluation and research
> Pedagogical sciences

Exclusions:

Teacher training programmes which combine education science with the practice of teaching are excluded from this field and included in the some of the fields for teacher training (143-146).

143   Training for pre-school teachers

Training for pre-school teachers is the study of the theories, methods and practice of teaching children between approximately 3-7 years of age within formal school settings at pre-primary level. Programmes with the following main content are classified here:

> Early childhood teaching
> Pre-primary teacher training

144   Training for teachers at basic levels

Training for teachers at basic levels is the study of the theories, methods and practice of giving children between normally 5-15 years of age a sound basic education in reading, writing and mathematics along with an elementary understanding of other subjects such as history, geography, social science etc. Subject specialisation should be stressed less than in field 145 'Training for teachers with subject specialisation'. The study of teaching children with special needs is included in this field, likewise the study of teaching adults basic reading and writing and teaching immigrants the basics in their home language. Programmes with the following main content are classified here:

> Class teacher training
> Home language teacher training
> Primary teaching
> Teacher training for children with special need

Inclusions:

The study of *teaching adults basic reading and writing* is included in this field.

145   Training for teachers with subject specialisation

Training for teachers with subject specialisation is the study of the theories, methods and practice of teaching a special subject, mostly at secondary or higher levels. Programmes included in this field often comprise study also of the subject/subjects that are going to be taught. Programmes with the following main content are classified here:

>   Secondary teaching
>   Teacher training – theoretical subjects, e.g. English, Mathematics, History

Inclusion:

Teacher training programmes with *both a vocational and a theoretical subject* is included in this field.

Exclusions:

Teaching programmes in *vocational, practical and artistic subjects* is excluded from this field and included in field 146 'Training for teachers of vocational subjects'[8].

146   Training for teachers of vocational subjects

Training for teachers of vocational subjects is the study of the theories, methods and practice of vocational/practical teaching and training. Training for music teachers, art teachers and other teachers in aesthetic subjects are included, likewise training for teachers in physical training. Programmes with the following main content are classified here:

>   Teacher training – arts and crafts
>   Teacher training – commercial subjects
>   Teacher training – music
>   Teacher training – nursing
>   Teacher training – physical training
>   Teacher training – technical subjects
>   Driving instructor training
>   Training of instructors at companies
>   Training of trainers

Inclusions:
Training of *driving instructors* is included in this field. Training of *trainers for work* is included in this field.

Exclusions:
Training of *sport trainers* is excluded from this field and included in field 813 'Sports'.

Teacher training programmes with *both a vocational and a theoretical subject* is excluded from this field and included in field 145 'Training for teachers with subject specialisation'.

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[8] In some cases it may be difficult to differentiate between field 145 and 146, but it should be pointed out that it is the subject the teacher is trained to teach which decide the field, not the type of school (all subjects in vocational programmes are not vocational subjects).

2   Humanities and Arts

210   Arts (broad programmes)

Arts (broad programmes) is the study of arts without specialising in any of the detailed fields. Broad programmes with the following main content are classified here:

Arts
Arts and crafts

211   Fine arts

Fine arts is the study of visual forms of creative expressions, dealing with theory, history, techniques, performance and production in fine arts. Programmes with the following main content are classified here:

Art theory
Etching
Fine art printmaking
History of art
Painting
Philosophy of art
Sculpture

Exclusions:

Training in *ceramics, pottery etc* is excluded from this field and included in field 215 'Craft skills'.

Study of *architecture* is excluded from this field and included in field 581 'Architecture and town planning'.

Teacher training in arts is excluded from this field and included in field 146 'Training for teachers of vocational subjects'.

212   Music and performing arts

Music and performing arts is the study of the principles and techniques associated with performance involving music, speech, movement, mime, characterisation, improvisation and stage craft. Programmes with the following main content are classified here:

Acting and directing
Choreography
Circus
Composition (music)
Conducting (music)
Dance (art)
Drama
History of film and theatre
History of music
Music
Theatre

Inclusions:

Study of music and performing arts *history and theory* is included in this field.

Exclusions:

Teacher training in music and other performing arts is excluded from this field and included in field 146 'Training for teachers of vocational subjects'.

213   Audio-visual techniques and media production

Audio-visual techniques and media production is the study of techniques and skills to produce books, newspapers, radio/TV production, film/video production, recorded music production and graphic reproduction. It includes programmes in methods of colour reproduction, photography and computer graphics. Study of combining pictures, words and decorations in the production of books, magazines, posters, adverts etc. is also included. Programmes with the following main content are classified here:

    Bookbinding
    Camera operating
    Compositing (printing)
    Computer type-setting
    Film production
    Graphic design
    Graphic reproduction
    Illustration
    Media techniques
    Multimedia production
    Photography
    Printing
    Publishing design, lay-out
    Radio and TV production
    Recorded music production
    Sound technique
    Type-setting

Inclusions:

Programmes in *desktop publishing and lay-out* are included in this field.

Exclusions:

Separate programmes in using *specific software applications* for desktop publishing are excluded from this field and included in field 482 'Computer use'.

Study of *journalism* (wording and content of messages) is excluded from this field and included in field 321 'Journalism and reporting'.

214   Design

Design is the study of creatively combining line, form and fabric in designing and constructing e.g. fashion garments, industrial products and interiors. Programmes with the following main content are classified here:

    Costume design
    Design of industrial products
    Fashion design
    Interior architecture
    Interior design
    Stage designing
    Window dressing

Exclusions:

Study of *Building design* is excluded from this field and included in field 581 'Architecture and town planning'.

Study of *Industrial design* is excluded from this field if emphasis is given to technical subjects and not to artistic design, and included in the appropriate field under 52 'Engineering and engineering trades'.

Publishing design and *graphic design* are excluded from this field and included in field 213 'Audio-visual techniques and media production'.

215 Craft skills

Craft skills is the study of techniques and skills in a chosen aspect of **handicraft**, such as jewellery, pottery, weaving, woodcarving etc. Programmes with the following main content are classified here:

> Ceramics
> Crafts, folk arts and artisanry
> Decorative metal crafts
> Embroidery
> Floristry (flower arranging)
> Glass arts and craft
> Goldsmithing
> Handicrafts
> Jewellery
> Making of musical instruments (not industrial)
> Musical instruments (repairing and tuning)
> Silversmithing
> Stone carving (craft)
> Weaving (craft)
> Woodcarving

Exclusions:

Study of *industrial production* of pottery, woven materials, embroidery etc. is excluded from this field and included in some of the detailed fields under broad field 5 'Engineering, manufacturing and construction'.

220 Humanities (broad programmes)

Humanities (broad programmes) is the study of humanities without specialising in any of the detailed fields. Education and training programmes with the following main content are classified here:

> Humanities

221 Religion

Religion is the study of religious beliefs, concepts, symbols, expressions, texts and spirituality. Programmes with the following main content is classified here:

> Religious history
> Study of sacred books
> Study of different religions

Inclusions:

Included in this field are programmes for children and young people, usually given in religious schools or seminars, in monasteries etc, *aiming to develop an interest in the tenets of their religion* and sufficient familiarity with its philosophy to assist in the propagation of their faith.

Exclusions:

Basic programmes given in religious schools, seminars etc. containing religious instruction but not emphasising it or leading to a religious vocation, are excluded from this field and included in 010 'Basic / broad, general programmes'.

222   Foreign languages

Foreign languages is the study of the structure and composition of foreign languages. It includes the study of related cultures, literature and linguistics. Programmes with the following main content are classified here:

  Dead languages
  Foreign languages
  Interpretation programmes
  Second languages
  Translation programmes

Inclusions:

Foreign languages is the study of a language being *taught as a foreign language* or a second language. A second language means a national language taught to pupils whose main language is another language.

Exclusions:

Programmes teaching the *mother tongue*, even if this language is not the national language (e.g. programmes for immigrants learning their mother tongue) are excluded from this field and included in field 223 'Mother tongue'.

223   Mother tongue

Mother tongue is the study of the native language, including the study of related literature and linguistics. Programmes with the following main content are classified here:

  Creative writing
  Home language
  Languages, native
  Mother tongue programmes
  Sign language

Inclusions:

Mother tongue is study of a language *taught as the mother tongue*, even if the language is not the national language of the country, e.g. programmes for immigrants in their home language.

Exclusions:

National language programmes are excluded from this field if the language is *taught as a foreign or a second language*, and are then included in 222 'Foreign languages'.

Programmes in *literacy and numeracy* are excluded from this field and included in field 080 'Literacy and numeracy'.

225   History and archaeology

History is the study of past events, especially the political, social and economic development of a country, a continent or the world. Study of comparative literature is included in this field, likewise the study of history of science and ideas. **Archaeology** is the study of ancient civilisations by scientific analysis of what is found in the ground. Programmes with the following main content are classified here:

  Archaeology
  Cultural history
  History
  History of literature
  History of science and ideas

Museology

Inclusions:

Study of *literature in general* (not combined with study of a special language) is included in this field.

Study of *general linguistics* (not related to a the study of a particular language) is included in this field.

Exclusions:

If study of *literature is combined with study of a special language* it is excluded from this field and included in field 222 'Foreign languages' or 223 'Mother tongue'.

Study of *dead languages* (latin etc.) is excluded from this field and included in field 222 'Foreign languages'.

Study of *History of art* is excluded from this field and included in field 211 'Fine arts'.

Study of *Music and performing arts history* is excluded from this field and included in field 212 'Music and performing arts'.

Study of *Economic history/history of economics* is excluded from this field and included in field 314 'Economics'.

226   Philosophy and ethics

Philosophy and ethics is the study of philosophy, ethics and related subjects dealing with conception of life. Programmes with the following main content are classified here:

Ethics
Logic
Morals
Philosophy

Exclusions:

Study of *religion* is excluded from this field and included in field 221 'Religion'.

Study of *Philosophy of arts* is excluded from this field and is included in field 211 'Fine arts'

3   Social Sciences, Business and Law

310   Social and behavioural science (broad programmes)

Social and behavioural science (broad programmes) is the study of social and behavioural science without specialising in any of the detailed fields. Training programmes with the following main content are classified here:

Behavioural science
Social sciences

311   Psychology

Psychology is the study of the human mind and behaviour as a result of individual differences, experience and environment. Programmes with the following main content are classified here:

Psychology
Psychoanalysis
Psychotherapy

312   Sociology and cultural studies

Sociology and cultural studies is the study of human beings and the way they behave in groups and in relation to the society. Study of ethnology and social anthropology is included in this field, likewise is the study of human and social geography. Programmes with the following main content are classified here:

Cultural geography
Cultural studies
Demography/population studies
Gender studies
Ethnology
Social anthropology
Social geography
Sociology

Exclusions:
Social welfare programmes where emphasis is given to practical social work are excluded from this field and included in field 762 'Social work and counselling'.

313   Political science and civics

Political science and civics is the study of government and political principles or practice. Subjects dealing with rights and duties of the citizens are included. Programmes with the following main content are classified here:

Civics
Human rights
International relations
Peace and conflict studies
Political history
Political science

Exclusions:
Study of *political economics* is excluded from this field and included in the field 314 'Economics'.

314   Economics

Economics is the study of economic policy, economic theory and economic decision making. Programmes with the following main content are classified here:

Economic history
Economics
Political economy

Exclusions:

Study of economics where emphasis is given to *business studies* is excluded from this field and classified as 340 'Business and administration (broad programmes)'.

321   Journalism and reporting

Journalism and reporting is the study of the theory and practices of journalism/reporting as part of the field of mass communication. Journalism and reporting is about the wording and content of messages. It comprises news reporting, writing commentaries and feature stories of public interest etc. Programmes with the following main content are classified here:

Broadcast journalism
Information (wording and content)
Journalism
Mass communication (wording and content)
News reporting

Exclusions:

Study of *techniques for mass communication* (e.g. printing and radio/TV production) is excluded from this field and included in field 213 'Audio-visual techniques and media production'.

Study of lay-out and publishing design is excluded from this field and included in field 213 'Audio-visual techniques and media production'.

Study of *public relations* is excluded from this field and included in field 342 'Marketing and advertising'.

322   Library, information, archive

Library, information, archive is the study of the methods of selecting, acquiring, organising and storing collections of information, and facilitating the use of information. Library programmes are included in this field. Programmes with the following main content are classified here:

Archival sciences
Documentation
Information science
Library programmes
Museum documentation

340   Business and administration (broad programmes)

Business and administration (broad programmes) is the study of the theory and practice of planning, directing, organising and co-ordinating the resources of private and public organisations and institutions. Programmes with the following main content are classified here:

Business and administration
Business economics
Business studies

Inclusions:

Study of *business and administration* where emphasis is not given towards any of the detailed fields under 34 is included in this field.

Exclusions:

Business programmes where emphasis is given to any of the detailed fields under 34 'Business and administration' (management, administration, marketing etc) should be classified according to the specialisation.

341   Wholesale and retail sales

Wholesale and retail sales is the study of buying and selling goods and services, including stock management, pricing practice, loss prevention, sale systems and procedures. It includes the study of the workings and current trends of the wholesale and retail industries. Selling of buildings and properties is also included. Programmes with the following main content are classified here:

   Auctioneering
   Consumer services
   Demonstration techniques
   Purchasing
   Real-estate business
   Retailing
   Stock-keeping
   Ware-housing
   Wholesaling

Inclusions:

Study of *buying and selling buildings* and properties is included in this field.

342   Marketing and advertising

Marketing and advertising is the study of exchange processes of goods and services between organisations and/or individuals, and the study of consumer behaviour and requirements. It includes the study of the role of product development, pricing, distribution, promotion and sales in order to maximise business performance. Programmes with the following main content are classified here:

   Advertising
   Market research
   Marketing
   Merchandising
   Public relations

343   Finance, banking, insurance

Finance, banking, insurance is the study of planning, directing, organising and controlling financial activities and services. It includes the control and monitoring of the financial resources of organisations, institutions and individuals, and the provision of financial services at the corporate and individual level. Programmes with the following main content are classified here:

   Bank teller programmes
   Banking and finance
   Finance theory
   Insurance
   Investment analysis
   Investments and securities

Pension insurance
Social insurance
Stock-broking

Exclusions:

Study of *actuarial science* is excluded from this field and included in field 462 'Statistics'.

344   Accounting and taxation

Accounting and taxation is the study of maintaining, auditing and recording financial transactions. Programmes with the following main content are classified here:

Accounting
Auditing
Bookkeeping
Tax accounting

345   Management and administration

Management and administration is the study of planning, directing and operating the functions and activities of organisations and institutions. Programmes in management also including administration, economics, finance etc. are included in this field if emphasis is given to management and administration. Programmes with the following main content are classified here:

Administration
Educational management
Employment management
Logistic management
Management science
Office management
Organisational theory and behaviour
Personnel administration
Personnel management
Start your own business-courses
Training management

Inclusions:

Study of *leadership in the context of management* is included in this field.

Exclusions:

Training of *leadership in the context of personal development* is excluded from this field and included in field 090 'Personal skills'.

Study of *administration in the meaning of office work* is excluded from this field and included in field 346 'Secretarial and office work'.

346   Secretarial and office work

Secretarial and office work is the study of administrative procedures and practises, office technology and clerical, shorthand and keyboard skills. Specialised secretarial programmes (bilingual, medical, law, accounting etc) are included if the programme has secretarial work as its objective, rather than work as specialised assistants. Programmes with the following main content are classified here:

Administrative and secretarial services
Clerical programmes
Data entry
Foreign language secretary programmes

Keyboard skills
Legal secretary programmes
Medical secretary programmes
Operation of office machines
Receptionist training
Secretarial programmes
Shorthand
Switchboard operating
Typing

Inclusions:

Broad secretarial programmes comprising among other thing computer courses are included in this field.

Exclusions:

Separate programmes in *using a specific computer software* are excluded from this field and included in 482 'Computer use'.

Office management is excluded from this group and included in field 345 'Management and administration'.

Hotel receptionist programmes are excluded from this field and included in field 811 'Hotel, restaurant and catering'.

347   Working life

Working life is the study of the structure and function of working life. It comprises programmes, mainly given as staff training, related to the working place and to assignments. Programmes with the following main content are classified here:

Company knowledge
Introductory courses
Clients' needs
Organisation at work
Quality assurance
Trade union courses (general)
Work development

Inclusions:

Staff training related to the *working place or the assignments* is included in this field if not possible to classify into any other fields.

Exclusions:

Training related to the working place or the assignments is excluded from this field if it has *more to do with personal development* than work development and is included in field 090 'Personal skills'.

Staff training which *can be classified* to any other field is excluded from this field and included in the appropriate field. E.g. quality courses should, if technical, be included in the fields under 52 'Engineering and engineering trades'.

Programmes in *work environment* should be included in filed 862 'Occupational health and safety'.

Programmes, mostly at tertiary level, dealing with *working life in general* in terms of the labour market, the social partners, industrial psychology etc. are excluded in this field and included in the fields under 31 'Social and behaviour science'.

380 Law

Law is the study of the principles and procedures for formally maintaining social order, including training for legal professions such as advocate or training for the judicial bench. Programmes with the following main content are classified here:

    Commercial law
    Criminal justice studies
    History of law
    Jurisprudence
    Labour law
    Legal practice
    Notary/Notary's practise

4 Science, Mathematics and Computing

421 Biology and biochemistry

Biology and biochemistry is the study of the structure, function, reproduction, growth, evolution and behaviour of all living organisms. It comprises the study of biological and related sciences, and includes the study of the chemistry of living organisms. Programmes with the following main content are classified here:

Biochemistry
Biology
Botany
Genetics
Pharmacology
Toxicology
Zoology

Inclusions:

Study of *chemical processes in living organisms* (biochemistry, toxicology, pharmacology etc.) is included in this field.

Exclusions:

Study of *environmental science*, which is study of the relation between living organisms and the environment, is excluded from this field and included in field 422 'Environmental science'.

422 Environmental science

Environmental science[9] is the study of organisms in relation to one another and to the environment. Programmes with the following main content are classified here:

Ecology
Environmental science

Exclusions:

Study of *biology* and *toxicology* is excluded from this field and included in field 421 'Life science'.

440 Physical science (broad programmes)

Physical science (broad programmes) is the study of physical science without specialising in any of the detailed fields. Broad programmes within the physical science are classified here.

441 Physics

Physics is the study of properties and interactions of matter and energy. It includes the study of astronomy and space science. Programmes with the following main content are classified here:

Astronomy
Optics
Physics
Space science

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[9] **Environmental science** is in Fields of training classified together with Environmental protection under field 850, while in this classification Environmental science/Ecology is classified under Life science under field 422. The reason being that this is considered a more correct classification according to the criteria used.

Exclusions:

Opticians' practice is excluded from this field and included in field 725 'Medical diagnostic and treatment technology'.

442   Chemistry

Chemistry is the study of substances and their elements and how they react when combined. Programmes with the following main content are classified here:

   Chemistry
   Organic chemistry

Exclusions:

Biochemistry is excluded from this field and included in field 421 'Life science'.

443   Earth science

Earth science is the study of the composition and structure of earth including the hydrosphere and the atmosphere. Programmes with the following main content are classified here:

   Earth science
   Geography (nature)
   Geology
   Meteorology
   Oceanography
   Seismology

Exclusions:

Social geography is excluded from this field and included in field 312 'Sociology and cultural studies'.

461   Mathematics

Mathematics is study of abstract deductive systems. It includes algebra, arithmetic, geometry, real and complex analysis and applied mathematics. Programmes with the following main content are classified here:

   Algebra
   Geometry
   Mathematics
   Numerical analysis

462   Statistics

Statistics is the study of collecting, describing, arranging and analysing numerical data. Study of probability theory and actuarial science is included. Programmes with the following main content are classified here:

   Actuarial science
   Mathematical (theoretical) statistics
   Probability theory
   Statistics, applied
   Survey design
   Survey sampling

Inclusions:

Study of *applied statistics* is included in this field.

Study of *mathematical (theoretical) statistics* is included in this field.

Exclusions:

Study of *demography/population studies* is excluded from this field and included in field 312 'Sociology and cultural studies'

481   Computer science

Computer science is the study of the design and development of computer systems and computing environments. It includes the study of the design, maintenance and integration of software applications. Programmes with the following main content are classified here:

  Computer programming
  Computer science
  Computer system analysis
  Computer system design
  Informatics
  Network administration
  Operating systems
  Programming languages (Visual Basic, C++ etc.)

Exclusions:

Computer engineering (hardware) is excluded from this field and included in field 523 'Electronics and automation'.

Programmes in *using computer applications* are excluded from this field and included in field 482 'Computer use'.

482   Computer use

Computer use is the study of using computers and computer software and applications for different purposes. These programmes are generally of short duration. Programmes with the following main content are classified here:

  Computer use
  Software for calculating (spreadsheets)
  Software for data processing
  Software for desk top publishing
  Software for word processing
  Use of Internet

5 Engineering, Manufacturing and Construction

520 Engineering and engineering trades (broad programmes)

Engineering and engineering trades (broad programmes) is the study of engineering and engineering trades without specialising in any of the detailed fields. Training programmes with the following main content are classified here:

Engineering
Engineering industry programmes
Maintenance engineering

521 Mechanics and metal work

Mechanics and metal work (Engineering and engineering trades) is the study of planning, designing, developing, producing, maintaining and monitoring machines, mechanical plants and systems and metal products. It includes designing and maintaining machines which produce goods and services. The focus of programmes in this field is machines, mechanical systems and metal products. Programmes with the following main content are classified here:

Gunsmith
Hydraulics
Locksmith and safe repairer
Mechanical engineering
Mechanical trades programmes
Metal casting and patternmaking
Metal fitting, turning and machining
Metallurgical engineering
Precision mechanics
Sheetmetal working
Steel production
Tool and die making
Welding

Exclusions:

Study of *motor vehicle mechanics and engineering* is excluded from this field and included in field 525 'Motor vehicles, ships and aircraft'.

522 Electricity and energy

Electricity (Engineering and engineering trades) is the study of installing, maintaining, repairing and diagnosing faults in electrical wiring and related equipment in domestic, commercial and industrial establishments. Installation and maintenance of overhead and underground electrical power distribution networks is included. Energy is the study of energy generation. Programmes with the following main content are classified here:

Air-conditioning trades programmes
Climate engineering
Electrical appliances repairing
Electrical engineering
Electrical fitting
Electrical power generation
Electrical trades programmes
Energy programmes
Gas distribution
Heating trades programmes

Nuclear, hydraulic and thermal energy
Power production
Powerline installation and maintenance
Refrigeration programmes

Inclusions:

The study of *installing, diagnosing faults in and repairing heating, air-conditioning and refrigeration equipment* is included in this field.

Exclusions:

Study of *vehicle electricity* is excluded from this field and included in field 525 'Motor vehicles, ships and aircraft'.

523   Electronics and automation

Electronics and automation (Engineering and engineering trades) is the study of planning, designing, developing maintaining and monitoring electronic equipment, machinery and systems. It includes designing computers and equipment for communication. Programmes with the following main content are classified here:

Broadcasting electronics
Communication systems
Communications equipment installation
Communications equipment maintenance
Computer engineering
Computer repairing
Control engineering
Data processing technology
Digital technology
Electronic engineering
Electronic equipment servicing
Network technology
Robotics
Telecommunication technology
Television and radio repairing

Exclusions:

Computer science (design of computer systems and software applications) is excluded from this field and included in 481 'Computer science'.

524   Chemical and process

Chemical and process (Engineering and engineering trades) is the study of planning, designing, and developing products and processes where chemical and physical changes occur. It includes designing chemical plants and control systems. Programmes with the following main content are classified here:

Biochemical technologies
Biotechnology engineering
Chemical engineering
Chemical process engineering
Laboratory technology
Oil/gas/petrochemicals processing
Plant and machine operation (processing)
Process technology

Inclusions:

Programmes in *laboratory technology* are included in this field if *emphasis is not given to a specific application.*

Laboratory technology programmes are excluded from this field if emphasis is *given to a specific application* (biological, medical, etc.) and are included under appropriate field (420, 725 etc).

Programmes with emphasis on *production of a specific material* are excluded from this field; e.g. programmes with emphasis on *paper processing* should be included in field 543 'Materials (wood, paper, plastic, glass)'.

525   Motor vehicles, ships and aircraft

Motor vehicles, ships and aircraft (Engineering and engineering trades) is the study of designing, developing, producing, maintaining, diagnosing faults in, repairing and servicing motor vehicles, including earth moving equipment and agriculture machines. Typical is the combining of studies in both metal structures and motors. Programmes with the following main content are classified here:

    Air craft engineering
    Air craft maintenance
    Automotive electricity
    Automotive engineering
    Coachwork
    Motorcycle engineering
    Panel beating
    Shipbuilding
    Varnishers/sprayers
    Vehicle building and repairing

Inclusions:

Study of *vehicle electricity* is included in this field.

Exclusions:

Study of *producing and repairing non-motor vehicles* is excluded from this field and included in 521 'Mechanics and metal work' (e.g. bicycles) or 543 'Materials; wood, paper, plastic, glass' (e.g. boats, non-motor).

540   Manufacturing and processing (broad programmes)

Manufacturing and processing (broad programmes) is the study of manufacturing and processing without specialising in any of the detailed fields. Broad programmes within manufacturing and processing is classified here.

541   Food processing

Food processing (Manufacturing and processing) is the study of processing and packaging of food and beverages, and the equipment and procedures used in the production and distribution of foods. Programmes with the following main content are classified here:

    Baking
    Beer brewing
    Butchering
    Confectionery
    Dairy foods
    Food and drink processing
    Food preservation
    Food science and technology
    Meat processing

Pastry cooking
Tobacco processing
Wine production

Inclusions:

Study of *food handling and food hygiene* is included in this field.

Study of *tobacco processing* is included in this field.

Exclusions:

Restaurant and catering programmes are excluded from this group and included in field 811 'Hotel, restaurant and catering'.

Nutritional science is excluded from this field and included in field 726 'Therapy and rehabilitation'.

542 Textiles, clothes, footwear, leather

Textiles, clothes, footwear, leather (Manufacturing and processing) is the study of the manufacture of textiles, textile and leather products, clothing and related items, shoes and other forms of footwear. Programmes with the following main content are classified here:

Clothing trades programmes
Dressmaking
Footwear making
Fur making
Garment production
Leather processing
Saddlery
Shoemaking
Skins and leather production
Spinning
Tailoring
Textile trades programmes
Upholstery
Weaving (industrial)
Wool science

Exclusions:

Handicraft programmes (weaving, embroidery etc.) are excluded from this field and included in field 215 'Craft skills'.

543 Materials (wood, paper, plastic, glass)

Materials (Manufacturing and processing) is the study of the manufacturing of products in wood, paper, plastic, glass or other materials like stone, clay, artificial materials etc. Programmes included in this field have more to do with a specific material than general technical knowledge. Programmes with the following main content are classified here:

Boat building (non-motor)
Cabinet making
Carpentry (not building)
Ceramics (industrial)
Furniture making
Glass working (industrial)
Industrial diamond production
Paper manufacturing and processing

Plastic manufacturing
Rubber manufacturing
Timber technology
Wood machining and turning
Woodwork trades programmes

Exclusions:

Study of *metal work* is excluded from this field and included in field 521 'Mechanics and metal work'.

Study of *building carpentry and joinery* is excluded from this field and included in field 582 'Building and civil engineering'.

Study of *chemical processing in general* is excluded from this field and included in field 524 'Chemical and process'.

Study of *printing and bookbinding* is excluded from this field and included in field 213 'Audio-visual techniques and media production'.

Handicraft programmes (glass arts and crafts, woodcarving etc) are excluded from this field and included in field 215 'Craft skills'.

544   Mining and extraction

Mining and extraction (Manufacturing and processing) is the study of planning, developing, assessing and directing the extraction of minerals, oil and gas from the earth. Programmes with the following main content are classified here:

Coal mining
Mineral technology
Oil and gas extraction
Raw material extraction

Exclusions:

Study of *metallurgical engineering* is excluded from this field and included in 521 'Mechanics and metal work'

Study of *geology* is excluded from this field and included in field 443 'Earth science'.

581   Architecture and town planning

Architecture is the study of the art, science and techniques of building design. It encompasses both utilitarian ends - such as the soundness of the structure and the functional and economic efficiency of the building - and aesthetic considerations.
Town planning is the study of the regulated growth and improvement of towns in both functional and aesthetical points of view. Programmes with the following main content are classified here:

Architectural urban design and planning
Architecture
Building design
Cartography/Land surveying
City planning
Community development
Landscape architecture
Structural architecture
Surveying
Town and country planning
Urban planning

Inclusions:

Study of *cartography and surveying* is included in this field

Study of *interior design* is excluded from this field and included in field 214 'Design'.

The *laying out and construction of* parks and gardens is excluded from this field and included in field 622 'Horticulture'.

582 Building and civil engineering

Building is the study of the science, technology and techniques of assembling, erecting and maintaining public, commercial, industrial and residential structures and their fittings. **Civil engineering** is the study of planning, designing, testing and directing the construction of large scale buildings and structures, including systems for transport, water supply, sewage etc. Programmes with the following main content are classified here:

    Bricklaying
    Bridge construction
    Building construction
    Building engineering
    Building technology
    Carpentry and joinery (building)
    Civil engineering
    Constructional metalwork (building)
    Dock and harbour engineering
    Floor and wall tiling
    Floor covering
    Mason and tile setting
    Painting and wall covering
    Plastering
    Plumbing and pipefitting
    Road building
    Water engineering and technology
    Water supply and sewerage engineering
    Ventilation

Exclusions:

Installation of electricity is excluded from this field and included in field 522 'Electricity and energy'. Similarly, *installing and repairing of heating, air-conditioning and refrigeration equipment* is excluded from this field and included in field 522 'Electricity and energy'.

6   Agriculture and Veterinary

620   Agriculture, forestry and fichery (broad programmes)

Agriculture, forestry and fishery (broad programmes) is the study of agriculture, forestry and fishery without specialising in any of the detailed fields. Broad programmes within agriculture, forestry and fishery are classified here.

621   Crop and livestock production

Crop and livestock production (agriculture) is the study of growing, maintaining and harvesting crops and pastures, and grazing and managing animals. It includes the study of managing and maintaining farms and producing unprocessed plant and animal products. Programmes with the following main content are classified here:

Agricultural sciences
Agronomy and crop science
Animal husbandry
Crop husbandry
Dog breeding
Farm and ranch management
Farming
Fruit growing
Grain growing
Horse breeding
Pig farming
Poultry husbandry
Rye and wheat growing
Sheep farming
Soil science
Vegetable plantation
Wine growing

Inclusions:

Study of *soil science, soil fertility and irrigation* techniques is included in this field.

Study of *growing intensively managed crops* such as fruit and vegetables is included in this field.

Exclusions:

Study of *wine production* is excluded from this field and is included in field 541 'Food processing'.

Jockeying is excluded from this field and is included in field 813 'Sports'

622   Horticulture

Horticulture (gardening) is the study of horticultural technology and management, floriculture, greenhouse methods, nursery management, landscape gardening etc. Programmes with the following main content are classified here:

Floriculture
Gardening
Greenkeeping
Horticultural techniques
Nursery management
Turf cultivation

Inclusions:

The *laying out and construction of urban and domestic* parks and gardens is included in this field.

Gardening programmes combining floriculture and growing vegetables are included in this field.

Exclusions:

Study of *growing crops* (plants such as wheat, rice, fruit, vegetables etc, grown in order to be eaten) is excluded from this field and included in field 621 'Crop and livestock production'.

Study of *soil science, soil fertility and irrigation* techniques is excluded from this field and included in field 621 'Crop and livestock production'.

Study of *National park management* is excluded from this field and included in field 853 'Natural environments and wildlife'.

Study of *Landscape architecture* is excluded from this field and included in field 581 'Architecture and town planning'.

623   Forestry

Forestry is the study of establishing, cultivating, harvesting and managing forests. It includes study of hunting and trapping. Programmes with the following main content are classified here:

    Forest keeping
    Forest product techniques
    Forestry
    Hunting and trapping

Exclusions:

Study of *National park management* is excluded from this field and included in field 852 'Natural environments and wildlife'.

Timber technology (sawmill production etc) is excluded from this field and included in field 543 'Materials (wood, paper, plastic, glass)'.

624   Fisheries

Fisheries is the study of breeding, rearing and harvesting fish and other seafood. Programmes with the following main content are classified here:

    Fish breeding
    Fish farms
    Fishery
    Fishery science and technology
    Shellfish breeding

Inclusions:

Programmes for *operating fishing boats* are included in this field.

Exclusions:

Study of *industrial processing of fish* is excluded from this group and included in field 541 'Food processing'.

640 *Veterinary*

Veterinary is the study of preventing, diagnosing and treating diseases and injuries in animals, and their general care. The study of caring for sick, injured and infirm animals undergoing treatment in veterinary clinics is included. Programmes with the following main content are classified here:

    Animal health care
    Animal reproduction (science)
    Veterinary assisting
    Veterinary medicine
    Veterinary science

Inclusions:

The science of *animal reproduction* is included in this field.

Exclusions:

Study of *animal breeding* is excluded from this field and included in field 621 ' Crop and livestock production'.

7   Health and Welfare

720   Health (broad programmes)

Health (broad programmes) is the study of health without specialising in any of the detailed fields. Training programmes with the following main content are classified here:

> Health
> Public health programmes

721   Medicine

Medicine is the study of the principles and procedures used in preventing, diagnosing, caring for and treating illness, disease and injury in humans and the maintenance of general health. Principally, this field consists of training of physicians/doctors. Programmes with the following main content are classified here:

> General medicine
> Gynaecology
> Medical science
> Medical training
> Medicine
> Paediatrics
> Surgery
> Training of physicians/doctors

723   Nursing and caring

Nursing and caring is the study of providing health care for the sick, disabled or infirm and assisting physicians and other medical and health professionals diagnose and treat patients. The focus of qualifications in nursing is maintaining and caring for the health during illness and rehabilitation. It includes care of old people and care of the disabled. Programmes with the following main content are classified here:

> Assistant nursing
> Basic nursing
> Care of old people
> Care of the disabled
> Health care programmes
> Infant hygiene (nursing)
> Midwifery
> Nursing aide/Orderly
> Psychiatric nursing

Inclusions:

Caring programmes comprising both health care and social care e.g. for old people, are included in this field.

Exclusions:

Veterinary nursing is excluded from this field and is included in field 640 'Veterinary'.

Dental nursing is excluded from this field and is included in field 724 'Dental studies'.

Care of children (if not health care) is excluded from this field and included in field 761 'Child care and youth services'.

724   Dental studies

Dental studies is the study of diagnosing, treating and preventing diseases and abnormalities of the teeth and gums. It includes the study of designing, making and repairing dental prostheses and orthodontic appliances. It also includes the study of providing assistance to dentists. Programmes with the following main content are classified here:

    Dental assisting
    Dental hygiene
    Dental laboratory technology
    Dental nursing
    Dental science
    Dental surgery
    Odontology
    Orthodontics

Inclusions:

Study of *dental hygiene and public dental health* is included in this field.

725   Medical diagnostic and treatment technology

Medical diagnostic and treatment technology is the study of a wide range of technlogies used for diagnosing and treating diseases and handicaps. Programmes with the following main content are classified here:

    Ambulance technology
    Medical laboratory technology
    Radiology technology
    Radiotherapy
    Hearing aid technology
    Optical technology
    Prosthetic technology
    X-ray technology

Inclusions:

Medical laboratory technology is included in this field.

Exclusions:

Study of *laboratory technology* is excluded from this field if emphasis is *not given to medical laboratory technology*. General laboratory technology is included in field 524 'Chemical and process'. Laboratory technology where emphasis is given to other specific applications (biology, physics, chemistry etc) is included in the appropriate field (421, 441, 442 etc).

Study of *dental technology* is excluded from this field and included in field 724 'Dental studies'.

726   Therapy and rehabilitation

Therapy and rehabilitation is the study of restoring normal physical conditions to those incapacitated by temporary or permanent disability. Programmes with the following main content are classified here:

    Dietician programmes
    Medical massage
    Nutrition/Dietetics
    Occupational therapy
    Physiotherapy

Rehabilitation
Speech therapy

Inclusions:

Study of vocational *rehabilitation and occupational therapy* is included in this field.

Exclusions:

Study of *psychotherapy* is excluded from this field and included in field 311 'Psychology'.

Study of *nutrition **science*** is excluded from this field and included in field 421 'Biology and biochemistry'.

727 Pharmacy

Pharmacy is the study of drugs and their effects on humans. It includes their preparation, dispensing and administration. Programmes with the following main content are classified here:

Dispensing pharmacy
Pharmacy

Exclusions:

Study of *pharmacology* is excluded from this field and included in field 421 'Biology and biochemistry'.

761 Child care and youth services

Child care and youth services is the study of the development and care of children and youths. It includes study of recreation and leisure activities as a social service for school children. Programmes with the following main content are classified here:

Child care
Children recreation programmes
Youth services
Youth worker programs

Exclusions:

Study of *early childhood education* is excluded from this field and included in field 143 'Pre-primary teaching'.

Study of *health care of children* is excluded from this field and included in field 723 'Nursing and caring'.

762 Social work and counselling

Social work and counselling is the study of the welfare needs of communities, specific groups and individuals and the appropriate ways of meeting these needs. The focus is on social welfare with emphasis on social policy and practice. Programmes with the following main content are classified here:

Alcohol and drug abuse counselling
Alcohol, tobacco, drugs (knowledge about)
Crisis support
Family and marriage counselling
Mobbing and maltreatment (knowledge about)
Social policy

Social practice
Social theory (applied)
Social work (welfare)
Vocational counselling
Vocational guidance

Inclusions:

Study of *vocational guidance* is included in this field.

Exclusions:

Study of *sociology and social science* is excluded from this field and included in field 312 'Sociology and cultural studies'.

Caring programmes *combining health care and social care*, e.g. for old people, are excluded from this field and included in field 723 'Nursing and caring'.

8   Services

810   Personal services (broad programmes)

Personal services (broad programmes) is the broad study of personal service without specialising in any of the detailed fields. The field consists to a large extent of programmes at secondary level. Training programmes with the following main content are classified here:

   Personal services

811   Hotel, restaurant and catering

Hotel, restaurant and catering is the study of providing food, beverages, accommodation and related services at hotels, restaurants etc. Programmes with the following main content are classified here:

   Catering
   Cooking (restaurant and hotel-type)
   Food serving
   Hospitality services
   Hotel- and restaurant programmes
   Hotel receptionist training
   Hotel services
   Waiting and bar service

Exclusions:

Study of *food processing (industrial)* is excluded from this field and included in field 541 'Food processing'.

Receptionist training (general) is excluded from this field and included in field 346 'Secretarial and office work'.

812   Travel, tourism and leisure

Travel and tourism is the study of marketing and advertising tourist destinations and events. It includes the study of ticketing and reservation practices. *Leisure* is the study of recreational and leisure activities for individuals and groups. Programmes with the following main content are classified here:

   Ground crew training (airport)
   Guiding, tour leading
   Recreation and leisure
   Tourist trades programmes
   Travel agency services
   Travel and tourism
   Travel services

Exclusions:

Study of *recreation and leisure activities for school children is* excluded from this field and included in field 761 'Child care and youth services'.

813   Sports

Sports is the study of techniques and skills in a chosen sport. Programmes with the following main content are classified here:

Sport trainer programmes
Techniques and skills in a chosen sport
Programmes for umpires and other sports officials

Inclusions:

Jockeying is included in this field.

Exclusions:

Training of school teachers in physical education (sports teachers) is excluded from this field and included in field 146 'Training for teachers of vocational subjects'.

814 Domestic services

Domestic services is the study of various domestic services, such as housekeeping, cleaning, laundering, sewing etc. Programmes with the following main content are classified here:

Caretaking, housekeeping and homeservice workers
Chimney sweeping
Cleaning
Cooking (home)
Domestic science
Dry-cleaning
Funeral services and mortuary science
Home economics
Laundry
Needlework (home)
Sewing (home)

Inclusions:

Cleaning programmes are included in this field even if *directed towards cleaning schools, hospitals, factories* etc.

Exclusions:

Study of *building maintenance* is excluded from this field and included in field 582 'Building and civil engineering'.

815 Hair and beauty services

Hair and beauty services is the study of caring for the hair and the body for beautification. Programmes with the following main content are classified here:

Barbering
Beauty therapy
Cosmetology (make up)
Hairdressing
Fitness and weight control

840 Transport services

Transport services is the study of operating, navigating and directing ships, aircraft and other forms of transportation. Programmes with the following main content are classified here:

Air traffic control
Aircraft operation
Cabin crew training

Communication (air, railway, road etc.) programmes
Crane and truck driving
Driving programmes
Flying and navigation
Navigation technologies
Postal service
Railway operations
Road motor vehicle operations
Ship operation
Transport programmes

Inclusions:

Cabin crew training is included in this field.

Exclusions:

Programmes in *telephone network services* are excluded from this field and included in field 523 'Electronics and automation'. Programmes in *switchboard operating* are excluded from this field and included in field 346 'Secretarial and office work'.

850   Environmental protection (broad programmes)

Environmental protection (broad programmes) is the study of environmental protection without specialising in any of the detailed fields. Training programmes with the following main content are classified here:

Environmental protection
Natural resources use programmes

851   Environmental protection technology

Environmental protection technology is the study of processes in order to minimise discharge and waste and avoid pollution. It includes programmes dealing with control of water, air, soil etc. Programmes with the following main content are classified here:

Air pollution control
Ecological technology
Noise pollution control
Industrial discharge control
Recycling
Water pollution control

Exclusions:

Programmes dealing with *hygienic standards in food, water etc.* are excluded from this field and included in field 853 'Community sanitation services'.

852   Natural environments and wildlife

Natural environments and wildlife is the study of the relationships between living organisms in natural environments in order to protect nature and wildlife. It includes study of establishing and maintaining national parks in order to preserve their original natural state. Programmes with the following main content are classified here:

National parks and wildlife management
Nature conservation
Wildlife

Exclusions:

Study of *forestry and horticulture* is excluded from this field and included in some of the fields under 62 'Agriculture, forestry and fishery'.

Study of *hunting and trapping* is excluded from this field and included in field 623 'Forestry'.

853   Community sanitation services

Community sanitation services is the study of community services dealing with items that affect public health such as hygienic standards in food, water supply, disposal of sewage and garbage and street cleaning. Programmes with the following main content are classified here:

Hygienic standards
Hygiene, community
Refuse collection
Refuse/sewage disposal
Street cleaning
Water supply (service)

Inclusions:

Programmes in *services to the community dealing with items that affect public health*, such as hygiene standards in food and water supply, disposal of garbage, street cleaning etc. is included in this field.

860   Security services (broad programmes)

Security services (broad programmes) is the study of security services without specialising in any of the detailed fields. Broad programmes within security services are classified here.

861   Protection of persons and property

Protection of persons and property is the study of services to the community concerning protection of property and persons. It comprises training in police work, public security, fire protection and fire fighting. Programmes with the following main content are classified here:

Civil security
Customs programmes
Fire technology
Fire-protection (fire fighting)
Life guarding
Police work
Policing studies
Prison work
Public security
Security and loss prevention services

Exclusions:

Study of law is excluded from this field and included in field 380 'Law'.

Study of criminology is excluded from this field and included in field 312 'Sociology and cultural studies'.

862   Occupational health and safety

Occupational health and safety is study of recognising, evaluating and controlling environmental factors associated with the workplace. Programmes with the following main content are classified here:

Ergonomics (occupational health and safety)
Health and safety in the workplace
Industrial welfare
Labour protection
Labour security
Labour welfare (safety)
Occupational health and industrial hygiene
Occupational safety
Stress
Work environment

Exclusions:

Study of *vocational rehabilitation and occupational therapy* is excluded from this field and included in field 726 'Therapy and rehabilitation'.

Study of *labour law* is excluded from this field and included in 380 'Law'.

Study of *ergonomics* is excluded from this field if emphasis is given to technical aspects and is included in the appropriate field under 52 'Engineering and engineering trades'.

863   Military and defence

Military and defence is the study of services to the community connected with war and defence, designed to provide training in the principles and practice of military science. Programmes with the following main content are classified here:

Army training
Defence studies
Military science
War theory

Exclusions:

Military personnel participating in non-military programmes should be classified according to the subject content of the training programme.

Rationale for fields

Much of the wording in this appendix comes from ABSCQ, the Australian Bureau of Statistics Classifications of Qualifications. Also when writing the field descriptions in this manual, the 'Australian Bureau of Statistics Classification of Qualifications' (ABSCQ) has been helpful. Thank you, Australia, for letting us use some of your wordings.

Introduction

The rationale of the classification for fields of education and training is the subject content approach. The programmes are put together by closeness in subject matter content. The programmes are aggregated to detailed, narrow and broad fields, based on 'knowledge closeness'. It must be emphasised that it is the main content of the programme which decides into which field it should be classified.

This is the same rationale as for fields of study in the old ISCED (ISCED76).

A number of existing classifications were considered as a starting point for developing the new classification (see Andersson and Olsson (1996) : Fields of Training. Appendices).

The conclusion was very clear; the subject content approach is the best rationale for fields of education.

But what is meant by closeness in subject matter content or 'knowledge closeness'?

Subject matter

Fields of Education and Training is defined as the subject matter taught in an educational programme. The Field of Education of an educational programme refers to factual and practical learning (subject matter). The subject matter knowledge is applied to a particular type of problem or for a specific purpose. This purpose may be practical (e.g. engineering), abstract (e.g. philosophy) or both (e.g. architecture).

Field of Education is a function of the subject matter content. Therefore, two educational programmes have the same field of education if the main subjects studied are the same. In practise, educational programmes are classified in the same detailed field of education if the main subjects studied are sufficiently similar for the purpose of the classification. This, evidently, leaves room for subjective judgements. When making the classification, we have tried to think that:

1. The major requirements of users should be met.

2. We should provide a reasonably accurate reflection of reality.

3. The classification must be manageable.

4. The statistical output, for example the detailed fields should not be too small. Though size of the fields are not seen as an important factor in a worldwide classification, the same fields are small in some countries and large in others.

5. The classification must build on the two-digit ISCED-*Fields of Education* and also the EUROSTAT/CEDEFOP *Fields of Training.*

There is no absolute objective way to create a classification. It should also be clearly understood that **one definitive best** system for classifying educational programmes into fields does not exist. It is always a compromise between different views and considerations. It is impossible to find one classification system that satisfies all

demands. However, it is believed that the classification given in this manual is a reasonably good solution.

Fields of education are related to each other through the amount of subject matter they have in common, through the broad purpose for which the study is undertaken and through the theoretical knowledge which underpins the subject matter. For example, biology is related to chemistry and physics because:

* in order to understand biology it is necessary to know some physics and chemistry

* studies are undertaken for the same broad purpose of understanding natural phenomena

* the same theoretical knowledge is applied, e.g. the scientific method and the nature of the universe.

Criteria for Fields of Education

In ISCED 97 fields of education are classified into groups according to the following criteria in **priority** order:

* Theoretical content

* Purpose of learning

* Objects of interest

* Methods and techniques

* Tools and equipment

Theoretical content refers to the ideas and concepts included in an educational programme.

Purpose of learning refers to the aim of the skills and knowledge gained from an educational programme. Note that this has nothing to do with the students personal purposes, it is what the educational programme is designed for, that is the *purpose of the programme*.

Objects of interest are the phenomena, problems or entities studied. They are the 'things' to which the students learns to apply the knowledge and skills of the course. They may, for example, be mathematical problems, vehicles requiring repair, people with a particular illness.

Methods and techniques are the specific procedures for applying the skills and knowledge gained in an educational programme. They may, for example, be steps for solving mathematical problems, techniques for repairing vehicles or procedures for treating particular ailments.

Tools and equipment are the instruments and implementations which an individual learns to use and operate in an educational programme.

Application of the Criteria

All educational programmes are associated with a blend of theoretical understanding, factual knowledge and practical skill. In trade educational programmes, for example, the emphasis is primarily on practical skill, but a certain amount of theoretical understanding and factual knowledge is also necessary. If it is determined that the factual knowledge and the theoretical understanding associated with such a trade educational programme form part of the same body of knowledge as certain higher level educational programmes, then these programmes should have the same field of education. 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 (but different levels of attainment). The same applies to electrical trade programmes which are related to higher level programmes in electrical engineering, thus the same field of education. Nursing and caring is classified as 723 and Medicine as 721, why not in the same detailed field? They are obviously close, but there are differences in content. There is also a strong user interest to be able to differentiate between nurses and doctors, and in some countries the educational level is the same so the differentiation must come through fields.

When the criteria points at different directions, then the border line cases appear. The most obvious example is veterinary studies, should this be associated with medicine or animal husbandry? We have chosen the latter. Another example is Environment science and Environment protection. The first is close to biology and is classified as life science. The second is closer to other protection services and even if it contains subjects related to biology etc., we have classified it under services.

Countries should use the criteria mentioned above when allocating into fields new educational programmes not found in the field descriptions.

Example 1. Educational programmes for intellectually handicapped how to cope with their daily life is classified under '090 Personal skills', because the content in such programmes is development of personal capacity.

Example 2. Cabin crew programmes contain elements of safety, aircraft knowledge, medical assistance and hospitality service etc. Applying the criteria above it was found that such programmes should be classified as '840 Transport" and not ''811 Hotel, restaurant and catering'.

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Numerical Code List

010 Basic / broad, general programmes
Basic programmes
Broad, general programmes
General programmes with no special
subject emphasis
080 Literacy and numeracy
Basic remedial programmes for adults
Functional literacy
Literacy
Numeracy
Simple literacy
090 Personal skills
Argumentation technique
Assertiveness
Co-operation
Communication skills
Development of behavioural capacities
Development of mental skills
Development of personal organisational
capacities
Enhancing personal skills
Family life development training
Job-seeking programmes
Life orientation programmes
Personal career planning
Personal development
Positive thinking
Presentation technique
Public speaking
Self esteem skills
Self-confidence
Social competence
Teamwork
Time management
140 Teacher training and education science
(broad programmes)
Education technology
Practical pedagogical courses
Teacher education
Teacher training
142 Education science
Curriculum development (theory)
Didactics
Distance education methodology
Education science

Educational assessment, testing and
measurement
Educational evaluation and research
Pedagogical sciences (education)
143 Training for pre-school teachers
Early childhood teaching
Pre-primary teacher training
144 Training for teachers at basic levels
Class teacher training
Elementary teacher education
Home language teacher training
Primary teaching
Special education teaching
145 Training for teachers with specialisation
in general subjects
Secondary teaching
Special subject teaching
Teacher training, theoretical subjects
146 Training for teachers of vocational subjects
Driver and safety teacher education
Driving instructor training
Flight instructor training
Nursing teacher training
Physical education teacher training
Post-school teacher training
Teacher training in arts and crafts
Teacher training in commercial subjects
Teacher training in music
Teacher training in nursing
Teacher training in technical subjects
Teacher training, physical training
Teacher training, vocational subjects
Technical teaching
Training of instructors in companies etc.
Training of trainers
Vocational teacher training
210 Arts (broad programmes)
Arts (broad programmes)
Arts and craft (broad programmes)
211 Fine arts
Aesthetics
Art history
Art studies
Art theory
Calligraphy
Drawing (artistic)

Etching (artistic)
Fine art printmaking
History of art
Lithography
Painting (art)
Philosophy of art
Sculpture
Sketching (art)

212 Music and performing arts
Acting and directing
Choreography
Circus
Composition (music)
Conducting (music)
Dance
Directing (theatre)
Drama
Elocution
Fashion modelling
History of music
History of film and theatre
Music
Music and the stage
Performing arts
Theatre

213 Audio-visual techniques and media production
Animation
Binding and finishing (printing)
Bookbinding
Camera operating
Cinematography
Compositing (printing)
Composition equipment operating
Computer graphics
Computer type-setting
Desktop publishing
Discjockey training
Film and TV editing
Film production
Graphic design
Graphic reproduction
Illustration
Lay-out
Media techniques
Multimedia production
Photo developing
Photography
Printing
Printing machining
Publishing design
Radio and TV production
Recorded music production
Screen printing
Silk screen printing
Sound and vision
Sound technique

Type-setting
214 Design
Costume design
Design
Design of industrial products (artistic)
Fashion design
Industrial design (artistic)
Interior architecture
Interior decorating
Interior design
Stage designing
Three dimensional design
Window dressing

215 Craft skills
Ceramics (craft)
Conservation of cultural material
Craft programmes
Crafts, folk arts and artisanry
Decorative metal crafts
Embroidery (craft)
Fibre, textile and weaving arts
Floristry (flower arranging)
Glass arts and craft
Goldsmithing
Handicrafts
Jewellery design
Jewellery making (craft)
Lapidary and jewellery
Making of musical instruments (not industrial)
Musical instruments (repairing and tuning)
Needle craft
Picture framing
Silversmithing
Stone carving (craft)
Weaving (craft)
Woodcarving

220 Humanities (broad programmes)
Humanities
221 Religion
Religion
Religious history
Religious studies
Sacred books, study of
222 Foreign languages
Interpretation programmes
Languages, dead
Languages, foreign
Linguistics, foreign languages
Second languages
Semantics, foreign languages
Translation programmes
223 Mother tongue
Creative writing
Home language
Language maintenance
Languages, native

Linguistics, native language
Mother tongue programmes
Philology (native language)
Semantics, native language
Sign language
Speech and rhetorical studies (native language)

225 History and archaeology
Archaeology
Comparative literature
Cultural history
History
History and philosophy of science and technology
History of science and ideas
Literature history
Medieval and renaissance studies
Museology

226 Philosophy and ethics
Ethics
Logic
Morals
Philosophy

310 Social and behavioural science (broad programmes)
Behavioural sciences
Social sciences

311 Psychology
Conversational therapy
Development and child psychology
Psychoanalysis
Psychology
Psychotherapy

312 Sociology and cultural studies
Criminology
Cultural geography
Cultural studies
Demography/population studies
Ethnology
Futurology
Gender studies
Geography (social)
Human geography
Regional cultures
Social anthropology
Social conflict theory
Social geography
Sociology
Women studies

313 Political science and civics
Civics
Human rights
International relations
Peace and conflict studies
Political history
Political science
Politics

314 Economics
Econometrics
Economic history
Economics
International economics
Macro economics
National accounts
Political economy

321 Journalism and reporting
Broadcast journalism
Communication, mass- (wording and content)
Information (wording and content)
Journalism
Mass communication (wording and content)
News reporting
Publishing (dissemination of messages)

322 Library, information, archive
Archival sciences
Documentation
Information science
Information searching
Librarianship training
Library programmes
Museum documentation

340 Business and administration (broad programmes)
Business and administration
Business programmes, broad
Business studies (broad programmes)
Economics, business

341 Wholesale and retail sales
Auctioneering
Buying and selling
Consumer services
Dairy retailing
Demonstration techniques
Property sales
Purchasing
Purchasing, procurement and contracts
Real-estate business
Retailing
Sales representatives
Stock-keeping
Telephone selling
Ware-housing
Wholesaling

342 Marketing and advertising
Advertising
Market research
Marketing
Merchandising
Public relations
Sales and marketing

343 Finance, banking, insurance
Bank teller programmes
Banking and finance

Business finance
Finance theory
Finance, banking, insurance
Financial management
Insurance
Investment analysis
Investments and securities
Pension insurance
Social insurance
Stock-broking

344 Accounting and taxation
Accounting
Auditing
Bookkeeping
Tax accounting

345 Management and administration
Administration
Business administration
Educational management
Employment management
Enterprise training
Human resources management
Local public administration
Logistic management
Management of education
Management science
Management skills
Office management
Organisational theory and behaviour
Performance appraisal
Personnel administration
Personnel management
Public administration
Public and institution management
Quality management
Recruitment
Start your own business-courses
Training management

346 Secretarial and office work
Administrative and secretarial services
Business correspondence
Clerical programmes
Court reporting
Data entry
Foreign language secretary programmes
Information processing/data entry
Keyboard skills
Legal secretary programmes
Management support services
Medical secretary programmes
Office automation
Operation of office machines
Receptionist training
Secretarial programmes
Shorthand
Stenography

Switchboard operating
Typing

347 Working life
Clients' needs
Company knowledge
Industrial relations
Introductory courses at work
Organisation at work
Quality assurance
Trade union courses (general)
Work development
Working life

380 Law
Commercial law
Criminal justice studies
History of law
Jurisprudence
Labour law
Law
Legal practice
Legal studies
Notary/Notary's practise
Para-legal studies

421 Biology and biochemistry
Biochemistry
Biology
Biometrics
Biophysics
Botany
Entomology
Genetics
Life sciences
Limnology
Microbiology
Molecular biology
Ornithology
Parasitology
Pharmacology
Toxicology
Virology
Zoology

422 Environmental science
Ecology
Environmental science

440 Physical science (broad programmes)
Physical programmes (broad programmes)

441 Physics
Acoustics
Astronomy
Astrophysics
Nuclear physics
Optics
Physics
Planetary sciences
Space science

442 Chemistry

Analytical chemistry
Chemistry
Organic chemistry
Petrology
Polymer chemistry

443 Earth science

Atmospheric sciences
Earth science
Geodesy
Geography (nature)
Geography (physical)
Geology
Geophysics
Geoscience
Hydrogeology
Hydrology
Marine science
Meteorology
Mineralogy
Ocean life sciences
Oceanography
Palaeontology
Seismology
Vulcanology

461 Mathematics

Algebra
Applied mathematics
Data analysis (mathematics)
Geometry
Mathematics
Numerical analysis
Operations research

462 Statistics

Actuarial science
Mathematical (theoretical) statistics
Probability theory
Statistics, applied
Survey design
Survey sampling

481 Computer science

Computer programming
Computer science
Computer system analysis
Computer system design
Informatics (computer science)
Network administration
Operating systems
Programming (computer)
Programming languages (Visual Basic, C++ etc.)
Software localisation
Software testing

482 Computer use

Computer software use
Computer use
Internet use programmes

Software for calculating (spreadsheets)
Software for data processing
Software for desktop publishing
Software for word processing

520 Engineering and engineering trades (broad programmes)

Engineering
Engineering industry programmes
Maintenance engineering
Materials technology
Quality control (technical)

521 Mechanics and metal work

Bicycle production
Bicycle repair
Boilermaking and welding
Gunsmith
Hydraulics
Locksmith and safe repairer
Mechanical engineering
Mechanical trades programmes
Metal casting and patternmaking
Metal fitting, turning and machining
Metal trades programmes
Metallurgical engineering
Metallurgical technology
Micromechanics
Precision mechanics
Sheetmetal working
Steel production
Tool and die making
Watchmaking
Welding

522 Electricity and energy

Air-conditioning programmes
Climate engineering
Electrical appliances repairing
Electrical engineering
Electrical fitting
Electrical power generation
Electrical trades programmes
Energy programmes
Energy studies
Gas distribution
Heating trades programmes
Nuclear, hydraulic and thermal energy
Power production
Powerline installation and maintenance
Refrigeration programmes
Solar energy

523 Electronics and automation

Automation
Broadcasting electronics
Communication systems
Communications equipment installation
Communications equipment maintenance
Computer repairing

Computer engineering
Control engineering
Data processing technology
Digital technology
Electronic data processing
Electronic engineering
Electronic equipment servicing
Network technology
Robotics
Telecommunication technology
Television and radio repairing

524 Chemical and process
Biochemical technologies
Biotechnology engineering
Chemical engineering
Chemical process engineering
Laboratory assistant programmes
Laboratory technician programmes
Laboratory technology
Oil refining
Oil/gas/petrochemicals processing
Plant and machine operation (processing)
Process technology

525 Motor vehicles, ships and aircraft
Aeronautical engineering
Aerospace engineering
Agriculture machinery mechanics
Air-craft engineering
Air-craft maintenance
Automotive electricity
Automotive engineering
Coachwork
Helicopter construction
Marine construction
Maritime engineering
Motorbike mechanics
Motorcycle engineering
Naval engineering
Panel beating
Shipbuilding
Varnishers/sprayers
Vehicle and motor engineering
Vehicle building
Vehicle diagnostics
Vehicle electricity
Vehicle mechanics
Vehicle painting
Vehicle repairing
Vehicle trimming

540 Manufacturing and processing (broad programmes
Manufacturing and processing (broad programmes)

541 Food processing
Baking
Beer brewing

Brewing
Butchering
Cheese production
Confectionery
Dairy foods (industrial)
Dairy science
Distilling
Food and drink processing
Food handling/hygiene
Food preparation
Food preservation
Food processing industry
Food programmes
Food science
Food science and technology
Food technique
Industrial bakery/flour production
Meat processing
Pastry cooking
Tobacco processing
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Wine science
Wine storing/maturing

542 Textiles, clothes, footwear, leather
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Custom tailoring
Cutting and tailoring
Dressmaking
Embroidery and needlework (industrial)
Footwear making
Fur making
Furrier
Garment production
Knitting (industrial)
Leather goods maker
Leather goods production
Leather processing
Leather trades programmes
Pelt worker
Saddlery
Sewing (industrial)
Shoe production
Shoe, boot and leather repairing
Shoemaking
Skins and leather production
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Spinning
Tailoring
Textile technique
Textile trades programmes
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Weaving (industrial)
Wool science

543 Materials (wood, paper, plastic, glass)
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Cabinet making
Cane willow and bamboo work
Carpentry (not building)
Ceramics (industrial)
Furniture crafts
Furniture making
Glass production
Glass working (industrial)
Industrial diamond production
Paper manufacturing and processing
Plastic manufacturing
Rubber processing
Stone cutting
Synthetic fibre manufacturing
Timber technology
Wood machining and turning
Wood technology
Woodwork trades programmes
Woodworking and carpentry

544 Mining and extraction
Coal mining
Mineral technology
Mining engineering
Mining technology
Oil and gas extraction
Quarry supervision
Raw material extraction

581 Architecture and town planning
Architectural urban design and planning
Architecture
Building design
Cartography/Land surveying
City planning
Community development
Community planning
Landscape architecture
Rural development
Structural architecture
Surveying
Topography
Town and country planning
Town and regional planning
Town planning
Urban planning
Urban studies

582 Building and civil engineering
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Brickwork and masonry
Bridge construction
Building construction
Building engineering
Building maintenance
Building renovation
Building technology

Carpentry and joinery (building)
Cement working
Civil engineering
Constructing plant operation
Construction technology
Constructional engineering
Constructional metalwork (building)
Demolition
Dock and harbour engineering
Drawing, technical
Excavation engineering
Floor and wall tiling
Floor covering
Glazing
Insulation
Irrigation and drainage (construction)
Joining and carpentry
Mason and tile setting
Masonry
Painting and wall covering
Pipe fitting
Plastering (building)
Plumbing
Quantity surveying
Road building
Roof fixing
Sanitation (building)
Scaffolding work
Stonemasonry
Structural engineering
Technical drawing
Water supply and sewerage engineering
Water technology and engineering
Ventilation (building)

620 Agriculture, forestry and fishery (broad programmes)
Agriculture, forestry and fishery (broad programmes)

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Agriculture
Agronomy and crop science
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Animal husbandry
Animal training
Basic skills in agriculture
Crop husbandry
Dog breeding
Farm and ranch management
Farm maintenance
Farming
Fruit growing
Fruit production
Goose keeping

Grain growing
Horse breeding
Horse husbandry
Irrigation techniques
Olive growing
Orchards construction
Pig farming
Poultry husbandry
Race horse care
Rye and wheat growing
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622 Horticulture
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Nursery management (horticulture)
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Sports grounds maintenance
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Forest product techniques
Forest ranging
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624 Fisheries
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640 Veterinary
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720 Health (broad programmes)
Health (broad programmes)
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Anatomy
Audiology/hearing sciences
Bacteriology
Cardiology
Cytology
Dermatology
Epidemiology
Forensic medicine
General medicine
Gerontology
Gynaecology
Haematology
Histology
Homeopathic medicine
Immunology
Internal medicine
Medical science
Medical training
Medicine
Naturopathic medicine
Neurology
Obstetrics and gynaecology
Oncology
Ophthalmic
Ophthalmology
Paediatrics
Pathology
Physiology
Plastic surgery
Preventive and social medicine
Psychiatry
Stomatology
Surgery
Training of doctors
Training of physicians

723 Nursing and caring
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Basic nursing
Care of old people
Care of the disabled
Community nursing
Elder care
Gerontological services
Health care programmes
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Midwifery
Mothercraft nursing
Nursing
Nursing aide/Orderly
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724 Dental studies
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Dental hygiene
Dental laboratory technology
Dental nursing
Dental science
Dental surgery
Dental technology
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725 Medical diagnostic and treatment technology
Ambulance service
Ambulance technology
Auditory prosthetics
Emergency para-medical technologies
Forensic medicine technology
Hearing aid technology
Medical laboratory technology
Medical technology
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Optical technology
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Prosthetic technology
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Radiology technology
Radiotherapy
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726 Therapy and rehabilitation
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Dietician programmes
Massage (medical)
Mental health services
Nutrition/dietetics
Nutrition and dietetics
Occupational therapy
Optometry
Osteopathy
Physiotherapy
Reflexology
Rehabilitation
Speech pathology and therapy
Vocational rehabilitation

727 Pharmacy
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Pharmacy

761 Child care and youth services
Child care
Children recreation programmes
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Youth services
Youth worker programmes

762 Social work and counselling
Alcohol and drug abuse counselling
Alcohol, tobacco, drugs (knowledge about)
Career advising

Counselling
Crisis support
Family and marriage counselling
Maltreatment (knowledge about)
Mobbing (knowledge about)
Social care
Social policy
Social practice
Social theory (applied)
Social work (welfare)
Vocational counselling
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810 Personal services (broad programmes)
Personal services (broad programmes)

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Bartender/mixologist
Catering
Cooking (restaurant and hotel-type)
Culinary arts
Food and hospitality services
Food serving
Hospitality services
Hotel receptionist training
Hotel services
Hotel- and restaurant programmes
Hotel/motel and restaurant services
Waiting and bar service

812 Travel, tourism and leisure
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Guiding, tour leading
Leisure and tourism
Recreation and leisure
Recreation management
Tourism
Tourist trades programmes
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Travel and tourism
Travel services

813 Sports
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Diving (sport)
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Gymnastics
Jockeying
Physical training (sports)
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Sport trainer training
Sports
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Sports instructor training
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814 Domestic services
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Cleaning

Consumer economics
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Custodian/caretaker
Domestic science
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Funeral services and mortuary science
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Needlework (home)
Sewing (home)

815 Hair and beauty services
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Beauty therapy
Cosmetic services
Cosmetology
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Fitness services
Hairdressing
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Pedicure
Salon services (beauty therapy)
Wig making

840 Transport services
Air crew programmes (flying and navigation)
Air traffic control
Aircraft operation
Aviation
Bus and coach driving
Cabin crew training
Communication (air, railway, road etc.)
programmes
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Driving programmes
Flying and navigation
Fork-lift driving
Mail operations
Nautical science
Navigation technologies
Postal service
Railway operations
Road motor vehicle operations
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Seamen's programmes
Ship operation
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Transport programmes
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Environmental protection
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Natural resources conservation

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Ecological technology
Environmental control
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Water pollution control

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National parks and wildlife management
Nature conservation
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853 Community sanitation services
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Refuse/sewage disposal
Sanitation, community
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Security services (broad programmes)

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Fire-protection (fire fighting)
Law enforcement
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Police work
Policing studies
Prison work
Public security
Security and loss prevention services
Security guarding

862 Occupational health and safety
Ergonomics (occupational health and safety)
Health and safety in the work place
Industrial welfare
Job safety
Labour protection
Labour security
Labour welfare (safety)
Occupational health and industrial hygiene
Occupational health and safety
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Work environment

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840 Air crew programmes (flying and navigation)
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621 Soil and water technician programmes
621 Soil fertility
621 Soil science
522 Solar energy
213 Sound and vision
213 Sound technique
441 Space science
144 Special education teaching
145 Special subject teaching
223 Speech and rhetorical studies (native language)
726 Speech pathology and therapy
542 Spinning
813 Sport leadership
813 Sport trainer training
813 Sports
813 Sports coaching
622 Sports grounds maintenance
813 Sports instructor training
214 Stage designing
345 Start your own business-courses
462 Statistics
521 Steel production
346 Stenography
840 Stewardess/steward training (air)
343 Stock-broking
341 Stock-keeping
721 Stomatology
215 Stone carving (craft)
543 Stone cutting
582 Stonemasonry
853 Street cleaning
862 Stress at work
581 Structural architecture
582 Structural engineering
721 Surgery
462 Survey design
462 Survey sampling
581 Surveying
346 Switchboard operating
543 Synthetic fibre manufacturing

T

542 Tailoring
344 Tax accounting
140 Teacher education
140 Teacher training
146 Teacher training in arts and crafts
146 Teacher training in commercial subjects
146 Teacher training in music
146 Teacher training in nursing
146 Teacher training in technical subjects
145 Teacher training, theoretical subjects

146 Teacher training, physical training
146 Teacher training, vocational subjects
090 Teamwork
582 Technical drawing
146 Technical teaching
500 Technology
523 Telecommunication technology
341 Telephone selling
523 Television and radio repairing
542 Textile technique
542 Textile trades programmes
542 Textiles, clothing and footwear
212 Theatre
214 Three dimensional design
543 Timber technology
090 Time management
541 Tobacco processing
521 Tool and die making
581 Topography
812 Tourism
812 Tourist trades programmes
581 Town and country planning
581 Town and regional planning
581 Town planning
421 Toxicology
347 Trade union courses (general)
345 Training management
721 Training of doctors
146 Training of instructors in companies etc.
721 Training of physicians
146 Training of trainers
222 Translation programmes
840 Transport programmes
812 Travel agency services
812 Travel and tourism
812 Travel services
840 Truck driving
622 Turf cultivation
622 Turf management
213 Type-setting
346 Typing

U

813 Umpires and other sports officials
542 Upholstery
581 Urban planning
581 Urban studies

V

525 Varnishers/sprayers
621 Vegetable plantation
525 Vehicle and motor engineering
525 Vehicle building
525 Vehicle diagnostics
525 Vehicle electricity

525 Vehicle mechanics
525 Vehicle painting
525 Vehicle repairing
525 Vehicle trimming
582 Ventilation (building)
640 Veterinary assisting
640 Veterinary medicine
640 Veterinary science
621 Vineyard construction
421 Virology
621 Viticulture
762 Vocational counselling
762 Vocational guidance
726 Vocational rehabilitation
146 Vocational teacher training
443 Vulcanology

W

811 Waiting and bar service
863 War theory
341 Ware-housing
521 Watchmaking
851 Water pollution control
853 Water supply (service)
582 Water supply and sewerage engineering
582 Water technology and engineering
215 Weaving (craft)
542 Weaving (industrial)
521 Welding
341 Wholesaling
815 Wig making
852 Wildlife management
852 Wildlife ranger studies
214 Window dressing
621 Wine growing
541 Wine production
541 Wine science
541 Wine storing/maturing
312 Women studies
543 Wood machining and turning
543 Wood technology
215 Woodcarving
543 Woodwork trades programmes
543 Woodworking and carpentry
542 Wool science
347 Work development
862 Work environment
347 Working life

X

725 X-ray technology (medical)

Y

761 Youth recreation programmes

761 Youth services
761 Youth worker programmes

Z

421 Zoology