



INTERNATIONAL STANDARD CLASSIFICATION OF EDUCATION

CHALLENGES AND SOLUTIONS FORWARD

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2024 CONFERENCE ON
**EDUCATION DATA
AND STATISTICS**

INTRODUCTION

The International Standard Classification of Education (ISCED)¹ is a comprehensive framework that facilitates the transformation of national education data into internationally agreed categories that make cross-national comparisons possible. The UNESCO Institute for Statistics (UIS) is the custodian of ISCED and responsible for its development and maintenance. The UIS is also responsible for providing guidance on the effective and consistent use of the ISCED for data collection and analysis.

The ISCED family classifications includes ISCED 2011 on the classification of national educational programmes (ISCED-P) and educational attainment (ISCED-A), the ISCED-F 2013 classification of fields of education and training and the ISCED-T 2021 classification of teacher training programmes and related qualifications.

UIS ISCED DATA COLLECTION AND QUALITY ASSURANCE

The UIS conducts annual data collection in UNESCO Member States using ISCED questionnaires pre-filled with the most recent available information on national education programmes and sending them to countries for review, update and validation.² When the questionnaire is returned by a country, the UIS processes the submission and works with the country to validate the information collected before publishing the data on the UIS website in the form of ISCED mapping.³ ISCED data collection and cleaning for countries belonging to the Organisation for Economic Co-operation and Development (OECD) and to non-OECD European Union countries, is carried out by OECD and Eurostat. The so-called UNESCO-OECD-Eurostat (UOE) data collection on ISCED 2011 uses ISCMAP, which is the equivalent of the ISCED questionnaire for the UOE countries.

¹ See Annex 1 on the historical chronology of the development of ISCED.

² The latest UIS country-specific pre-filled ISCED questionnaires are accessible at: <http://uis.unesco.org/uis-questionnaires>.

³ The ISCED mappings are found at: <http://uis.unesco.org/en/isced-mappings>.

Both questionnaires collect data on free and compulsory education from ISCED 0 to ISCED 3, and on information required for mapping national education systems to ISCED 2011 educational programmes (ISCED-P) and to ISCED 2011 educational attainment (ISCED-A). ISCMAP collects additional information including information on qualifications outside the scope of UOE, old qualifications from programmes that no longer exist, metadata on Early Childhood Education and Care (ECEC) – especially ECEC programmes that meet ISCED 0 criteria, and other ECEC services that are not covered by ISCED 2011 classification.

For the quality assurance of survey operations, the UIS produces clear instructions and guidelines for data collection exercises, including the UIS Instruction Manual for Survey of Formal Education⁴, and the UNESCO-OECD-Eurostat (UOE) data collection manual 2022. The UIS also produces, jointly with OECD and Eurostat, an Operational Manual on ISCED 2011 providing guidelines for classifying national education programmes and related qualifications.

In terms of the production of the ISCED 2011 mapping, the data reported by countries via the ISCED 2011 questionnaire are used to draft the ISCED-P and ISCED-A mappings to the classification, which are collaboratively reviewed and approved with each country. ISCED 2011 mappings are ‘approved’ before countries start using them to report education data internationally. In terms of workflow, ISCED 2011 mappings for UOE countries are assessed by OECD, Eurostat and the UIS before being ‘approved’. For non-UOE countries, the draft mappings are assessed by UIS prior to ‘approval’.

From an operational point of view, the OECD consults the UIS on technical questions regarding ISCED when necessary to validate modifications in existing programmes for specific UOE countries. When the ‘clean’ and ‘final’ version of the ISCMAP questionnaire is produced, the OECD and Eurostat notify the UIS. For non-UOE countries, the validation of ISCED mappings is carried out jointly between UIS regional/field staff and the country.

⁴ The manual is found at:

https://uis.unesco.org/sites/default/files/questionnaires/UIS_ED_M_2021_EN.pdf.

The process of collaborative validation of ISCED mappings for UOE countries between the UIS, OECD and Eurostat dates back to the start of the implementation of ISCED 2011. This co-validation work is also reflected in the annual education indicators review and validation exercise carried out by the UIS and OECD, usually between July and August, prior to the UIS data release of September.

The UIS also uses webinars, education workshops and country site visits to review and update ISCED mappings, and to discuss any pending ISCED issues with the relevant national officials. The ISCED 2011 Operational Manual⁵ presents the typical ISCED issues that countries may encounter during the classification exercise of their national education programmes and provides guidelines and recommendations on how to classify these programmes in ISCED.

The ISCED mapping questionnaire contains a wealth of unexploited data that could be used to gain a better understanding of countries' educational systems, especially commonalities and differences in the structure and characteristics of education systems.

COMMON ISSUES ABOUT THE USE OF ISCED 2011 AND ISCED-F 2013

Issues related to the use of ISCED 2011

In reference to the definitions, guidelines and recommendations provided in the ISCED 2011 manual and operational manuals, many national education programmes are currently either not properly classified according to ISCED or are classified but not in a harmonized manner across countries.

The main cause preventing the classification of educational programmes at the correct level of the ISCED is the lack of information on these programmes' principal characteristics (e.g. entry requirements, duration, orientation and qualification awarded). Issues related to this cause are

⁵ OECD, European Union and UNESCO Institute for Statistics (2015). *ISCED 2011 Operational Manual: Guidelines for Classifying National Education Programmes and Related Qualifications*. OECD Publishing. http://uis.unesco.org/sites/default/files/documents/isced-2011-operational-manual-guidelines-for-classifying-national-education-programmes-and-related-qualifications-2015-en_1.pdf.

not intrinsic to the ISCED. As a standard action, the UIS systematically follows up with countries to get complete information through training, webinars, workshops and site visits to countries. Ten years after the launch of ISCED 2011, new programmes have emerged that may not be properly classified because the characteristics or related fields of education are not appropriately captured in ISCED 2011.

In the case of education programmes where sufficient information on their characteristics exists but the main and subsidiary criteria⁶ used for classification by level of education are applied differently across the country, the cause may be the complexity of these programmes and countries' misinterpretation of the criteria used to classify them by ISCED level.

Based on the information gathered by the UIS through ISCED data collection and quality assurance of national ISCED mappings, an inventory of the most common issues has been prepared (**Table 1 and Table 2**).

⁶ Main criteria indicate necessary characteristics of education programmes at the respective ISCED level. Subsidiary criteria indicate characteristics shared by many – but not all – education programmes at the ISCED level.

Table 1: Education programmes that cannot be classified in the correct ISCED level because they lack information on their principal characteristics

Issue	Typical examples and comments Key: 1. ISCED concepts/definitions or classification criteria 2. Insufficient information on programme characteristics 3. Insufficient country training/collaboration 4. Political reasons	Estimated number of countries affected or related thematic brief
Classification of programmes that span two levels of ISCED	Integrated Early Childhood Education programme (see paragraph 109 of ISCED 2011 Manual).	About 10 countries (mostly OECD countries).
	Programme spanning ISCED 1 and 2	Mostly in countries with a ‘basic education’ system (about 10 countries).
	Programmes spanning ISCED 3, 4 and 5	Mostly in some former Soviet Union countries.
	Comments (2 and 3): Research of stages in the combined programmes (and their characteristics in terms of duration, age group, qualifications, etc.) that could be used to delimitate the programmes and classify them.	
Wrong classification of a programme in an ISCED level	Programmes without educational component and providing only children’s day care (e.g. only supervision, nutrition and health) classified as ISCED 0	Mostly home-based day-care programmes. Prevalence is not known because, as in UOE countries, the availability of metadata on ECEC programmes is limited.
	ISCED 3 programmes classified as ISCED 4 (e.g. A-level programmes in some countries)	About 25 countries, mostly with an Anglo-Saxon type of education system.
	ISCED 4 programmes classified as ISCED 5	Common in countries with college-university bridging (TVET) programmes, mainly in sub-Saharan Africa.
	Long first degrees at the master’s level classified as long first degrees at the bachelor’s level	The classification of long first degree education programmes at ISCED 6 and ISCED 7 (ISCED 666 and 766 programmes) varies across countries (see Annex 2).
	Second degree programme at bachelor’s level classified at the master’s level	Prevalent especially in low- and middle-income countries with programmes with intermediate qualifications from the successful completion of stages of a first programme at ISCED 7, which is insufficient for ISCED 7 completion.
	Comments (2, 3 and 4): Collaborate with countries to classify the programme at the appropriate ISCED level based on programme characteristics and ISCED classification guidelines.	
Programme orientation at tertiary levels 6, 7 and 8 (academic vs professional)	ISCED 2011 does not yet define academic and professional more precisely for higher ISCED levels but opens up the possibility of distinguishing academic and professional orientations in the future based, for example, on fields of education. At ISCED level 5, the definitions of general and vocational education will be used until definitions of academic and professional have been developed. (ISCED 2011 manual, §53)	Applies to nearly every country with tertiary-level education programmes.
Comments (1).		

Table 2: Education programmes with sufficient information on their characteristics but with variable application of main and subsidiary criteria for classification by level of education across countries

Issue	Typical examples and comments Key: 1. ISCED concepts/definitions or classification criteria 2. Insufficient information on programme characteristics 3. Insufficient country training/collaboration 4. Political reasons	Estimated number of countries affected or related thematic brief
Long tertiary first degrees classified differently by countries: some in ISCED 6 and some in ISCED 7	Some engineering, architecture and medical studies classified as ISCED 6 in one country and as ISCED 7 first degree in another. Comments (2, 3): Discuss with each country to ensure that the programmes are classified in a harmonized way at the appropriate ISCED level based on programme characteristics and ISCED classification guidelines.	The classification of long first degree education programmes at ISCED 6 and ISCED 7 (ISCED 666 and 766 programmes) varies across countries (see Annex 2).
Classification of short post-secondary programmes: borders between ISCED 3 and ISCED 4 and between ISCED 4 and ISCED 5 are difficult to establish for some countries	Classification of A-level programmes in some countries (with an Anglo-Saxon type education system) as ISCED 4 (in the Caribbean region and some countries in Africa) and as ISCED 3 (in the United Kingdom) is different. Post-secondary programmes designed to 'review' the content of ISCED level 3 programmes. Comments (2, 3): Discuss with each country to ensure that the programmes are classified in a harmonized way at the appropriate ISCED level based on programme characteristics (complexity, purpose, duration, etc.) and ISCED classification guidelines.	About 25 countries, mostly with an Anglo-Saxon type of education system Prevalent especially in low- and middle-income countries with bridging programmes, second chance programmes or enhancement programmes, preparing learners for examinations to enter university.
Second or further degree for specialization (following successful completion of a bachelor's or equivalent programme): some countries might classify it as ISCED 7	Business administration for engineers or specialization in environmental aspects for chemical engineers. Comments (2, 3): Discuss with each country to ensure that the programmes are classified in a harmonized way at the appropriate ISCED level based on programme characteristics and ISCED classification guidelines.	Prevalent especially in middle- and high-income countries.

Issues related to the use of ISCED-F 2013

Countries reported various issues regarding the use of ISCED-F and suggested classification changes (**Table 3**).

Table 3: Issues identified regarding ISCED-F 2013 and suggestions to address them

Issue	Change suggested
The field '03 Social sciences, journalism and information' needs revision to reflect the growing importance of this academic field	Expand the field by adding to it a new component – 'international relations'
Insufficiently accurate classification coverage of the categories 'Economy' and 'Economics', to address the three levels of the economy: the movement of goods and services (economy), the movement of money (finance) and the purposeful combination of these processes (administration)	<ul style="list-style-type: none"> - Correct the title of the broad field '04 Business, administration and law' by adding '04 Economy, business, administration and law'. Or, considering that business is a component of economy, call this broad field '04 Economy, administration and law'. Accordingly, in the narrow field, replace '041 Business and administration' with '041 Economy, business and administration' or with '041 Economy and administration'. Add 'Economy and business' to the detailed field, emphasizing the inextricable connection between business and the economy and the fact that business is the implementation of economic processes. - In the detailed field of the narrow field '031 Social and behavioural sciences', insert the social science 'Jurisprudence'.
The description of the detailed field '0111 Education Science' is not fully formed and does not include other main directions of the field of education, namely: Education Administration, Education Policy, Education Leadership, Education Technologies and other fields, besides Teacher Education (e.g. studying the teaching-learning process and the theories, methods and techniques of knowledge transfer to others)	<ul style="list-style-type: none"> - Change the description of the field '0111 Education Science' to reflect the following: 'Education Science is the study of the learning process theories, methods and techniques of imparting knowledge to others. Also, it studies education policy, educational leadership and administration.' - Add the following fields of study to the detailed field '0111 Education Science': Educational Science, Education Policy, Education Leadership, Education Administration, Education Philosophy, Education Sociology, Education Anthropology, Education Economics, Education Psychology, Education Technologies and Innovations, International Education, Lifelong Learning, Vocational Education and Training.

Availability of ISCED 2011 mappings

The latest UIS database (September 2023 release) includes 201 country-approved ISCED 2011 mappings.

Table 4: Number of countries that have approved their ISCED 2011 mappings

SDG regions	Number of countries	Number of ISCED 2011 published mappings	Coverage (%)
Central and Southern Asia	14	14	100
Eastern and South-Eastern Asia	18	16	89
Europe and Northern America	48	48	100
Latin America and the Caribbean	42	34	81
Northern Africa and Western Asia	24	24	100
Oceania	17	17	100
Sub-Saharan Africa	48	48	100
Total	211	201	95

- Countries with incomplete ISCED 2011 mapping are the Democratic People's Republic of Korea, Myanmar, Nicaragua, Puerto Rico, Saint Kitts and Nevis, Sint Maarten and Trinidad and Tobago.
- Countries with ISCED 1997 mapping only are Dominica, Haiti and Paraguay.

Implementation of ISCED-T 2021

The main results achieved in the implementation of ISCED-T since its adoption in November 2021 included the publication of the ISCED-T Manual in the six United Nations languages⁷, the pilot survey of ISCED-T, a series of trainings to Member States on the classification and how to apply it for data collection, and a proposal of a global standard on teacher qualification by level of education taught, expected to help improve concepts and measures related to teacher qualification, and contribute to policy dialogue on the quality of teachers. The global data collection on ISCED-T is planned to start in 2024. ISCED-T 2021 aims to help address the currently poor international data collection on teachers and to aid with the issues of coverage and definitions that are hampering the availability of comparable data on teacher qualification needed for the monitoring of Sustainable Development Goal target 4.c.

AGENDA FORWARD

ISCED Committee

To support the governance of ISCED, the ISCED 2011 Manual recommends: 'An ISCED Committee should be formed in order to advise UIS regarding the classification of national programmes and qualifications, to review the current version of ISCED and to identify potential areas for further development, although ISCED revisions are not expected to be within its remit [...]'.⁸ Consistent with this recommendation, the UIS has established an ISCED Committee, which is working to review the current version of ISCED 2011 and ISCED Fields of Education and Training 2013 after a decade of implementation and identify potential areas for further development of the classifications. The Committee includes education and classification experts from international

⁷ The ISCED-T manual can be accessed via the [UIS ISCED microsite](#) and the [UNESCO Digital Library](#).

⁸ See: <https://uis.unesco.org/sites/default/files/documents/international-standard-classification-of-education-isced-2011-en.pdf>, p. 23

organizations and UNESCO Member States. It is balanced technically and geographically and reflects different types of education systems that exist globally.⁹

The recommendations of the ISCED Committee are expected by mid-2024. Unresolved broad ISCED 2011 classification issues for consideration by the ISCED Committee include:

- Under which conditions can home schooling be classified in ISCED 2011 as formal education?
- Under which conditions can programmes intended for children aged 3 or 4 be classified as ISCED 01?
- How can academic and professional programmes be defined for ISCED 6-8?

Training and technical support to countries on ISCED

Continued training and technical support to countries on ISCED 2011 and ISCED-F 2013 is considered an important axis by UIS to serve as a solution to problems and improve consistency in the classification of some programmes across countries, specifically:

- Programmes in ISCED 2 and 3 at partial level completion.
- Classification of programmes that span two ISCED levels.
- Classification of long first-degree programmes at ISCED 6 and ISCED 7 levels (e.g. Argentina classifying medical programmes of six years as ISCED 766 but Colombia classifying them as ISCED 666. Also some countries of the former Soviet Union classifying first-degrees of five years' duration as ISCED 766 whereas in other countries these programmes are classified as ISCED 666.
- Second or a further degree for specialization (following successful completion of a bachelor's or equivalent programme): some countries might classify it as ISCED 7.

⁹ See: <https://isced.uis.unesco.org/isced-committee/>

ANNEX 1: THE DEVELOPMENT OF THE ISCED

The International Standard Classification of Education (ISCED) is as an instrument for assembling, compiling and presenting education statistics both nationally and internationally. Related UNESCO work started in the late 1950s with the UNESCO recommendation on classifying education programmes. In the 1970s, UNESCO designed the ISCED, which was the first framework for facilitating comparisons of education indicators across countries. It was approved at the International Conference on Education (Geneva, 1975), and referred to as ISCED 76.¹⁰

By the mid-1990s, ISCED 76 was revised to better capture new developments in education systems worldwide, including improvements to the conceptual framework and its implementation. These revisions were endorsed at the UNESCO General Conference at its 29th session in November 1997 and ISCED 97 was introduced. The revised ISCED 1997 classification reflected more diverse forms of vocational education and training, new types of education and learning providers, the growing trend of distance education and new technologies. While ISCED 1997 encompasses a variety of programmes and types of education,¹¹ subsequent revisions have focused mainly on organized learning.

Although ISCED 1997 retained its two main axes for cross-classification – levels and fields of education – there were some modifications to the framework. The number of levels of education was reduced from 8 to 7. It included a new level (ISCED 4) to cover programmes which overlapped between upper secondary and tertiary education. Tertiary education was divided into two levels instead of three. The fields of education were increased to cover 25 categories compared to 21 in ISCED 76.

In 2007, the 34th session of the UNESCO General Conference affirmed UIS efforts for a systematic review of ISCED 1997 to reflect changes in education systems since 1997, improve existing concepts and definitions, address gaps in the classification, improve the implementation of the

¹⁰ It was subsequently endorsed by UNESCO's General Conference in Paris in 1978.

¹¹ ISCED covers formal education, non-formal education, continuing education, distance education, open education, lifelong education, part-time education, apprenticeship and vocational training, among others.

ISCED, and submit a revised ISCED standard for approval by the UNESCO General Conference in 2011.

The new revision focused on changes to the levels of education programmes (ISCED-P) and introduced, for the first time, a classification of levels of educational attainment based on qualifications (ISCED-A). Changes to the classification levels aimed to recognize the expansion of early childhood education and the restructuring of tertiary education. New features included: i) the introduction of educational qualifications as a related statistical unit alongside the education programme; ii) three-digit coding schemes for the levels of education programmes and educational attainment; iii) a section on ISCED governance, and iv) an expanded glossary, with improved definitions for types of education and clarification about their application to ISCED.

ISCED 2011 was adopted by the UNESCO General Conference at its 36th session in November 2011. At the same session, the General Conference adopted a Resolution to review the 1997 ISCED fields of education to take into account changes in the fields of education worldwide. The revision prioritized conceptual and implementation issues. It led to [ISCED-F 2013](#) which was adopted by the UNESCO General Conference at its 37th session in 2013.

ANNEX 2

Number and percentage of countries with published ISCED 2011 mappings offering tertiary-long first-degree programmes at ISCED 6 and ISCED 7 (ISCED 666 and 766 programmes), by SDG region

Number of countries with published mappings by region offering programmes at selected ISCED levels	Published ISCEDs	ISCED 665		ISCED 666		ISCED 667		ISCED 766			ISCED 767			ISCED 768
		3, 4 years	5 years	6 years	1 year	2 years	4 years	5 years	6 and + years	1 year	2 years	3 and + years	Any duration	
Central and Southern Asia	14	14	5	1	5	1	0	5	5	2	13	0	6	
Eastern and South-Eastern Asia	16	15	8	2	8	2	0	2	7	3	15	6	1	
Northern America and Europe	47	47	4	3	18	13	6	27	24	24	45	9	23	
Latin America and Caribbean	34	31	14	8	6	3	0	3	10	9	25	8	5	
Northern Africa and Western Asia	24	24	12	0	15	3	0	6	22	3	23	3	2	
Oceania	16	15	2	0	5	3	0	0	0	0	9	2	2	
Sub-Saharan Africa	47	47	21	3	24	3	0	9	18	14	41	5	5	
World	198	198	66	17	81	28	6	52	86	55	171	33	44	

Percentage of countries with published mappings by region offering programmes at selected ISCED levels*	ISCED 665		ISCED 666		ISCED 667		ISCED 766			ISCED 767			ISCED 768
	3, 4 years	5 years	6 years	1 year	2 years	4 years	5 years	6 and + years	1 year	2 years	3 and + years	Any duration	
Central and Southern Asia	100%	36%	7%	36%	7%	0%	36%	36%	14%	93%	0%	43%	
Eastern and South-Eastern Asia	94%	50%	13%	50%	13%	0%	13%	44%	19%	94%	38%	6%	
Northern America and Europe	100%	9%	6%	38%	28%	13%	57%	51%	51%	96%	19%	49%	
Latin America and Caribbean	91%	41%	24%	18%	9%	0%	9%	29%	26%	74%	24%	15%	
Northern Africa and Western Asia	100%	50%	0%	63%	13%	0%	25%	92%	13%	96%	13%	8%	
Oceania	94%	13%	0%	31%	19%	0%	0%	0%	0%	56%	13%	13%	
Sub-Saharan Africa	100%	45%	6%	51%	6%	0%	19%	38%	30%	87%	11%	11%	
World	97%	33%	9%	41%	14%	3%	26%	43%	28%	86%	17%	22%	

Variability across SDG regions in the classification of ISCED 666 and ISCED 766 programmes (programmes with a duration of 5 years or 6 years and longer):

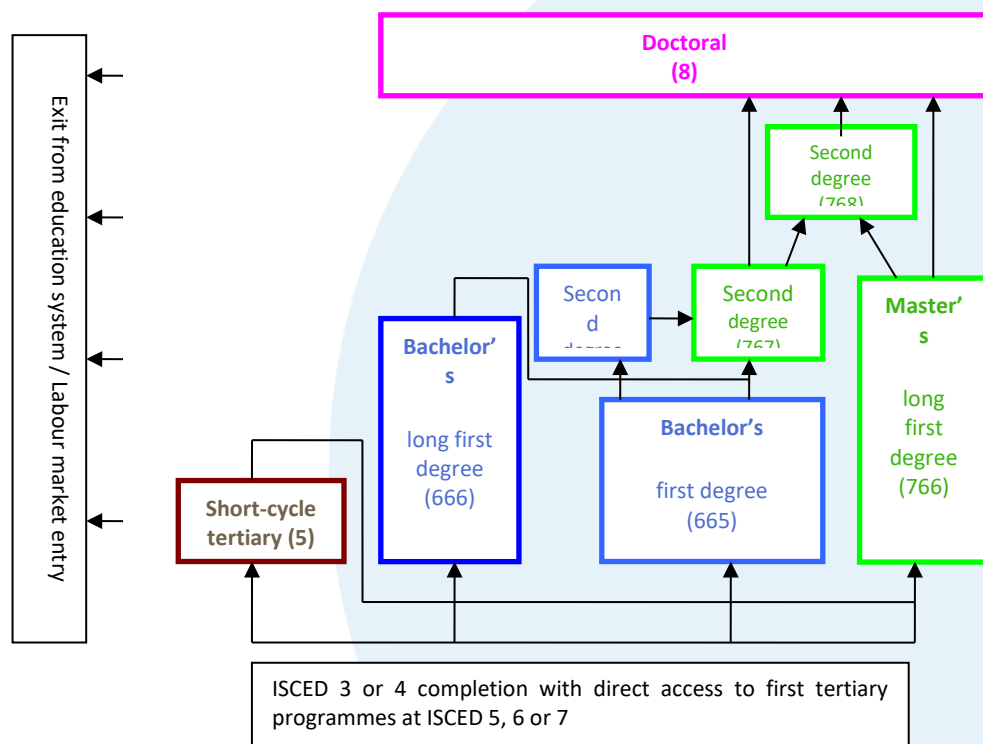
- Programmes with 5 years duration: In Northern America and Europe, the majority of countries with published mappings classify these programmes as ISCED 766. The opposite is observed in the other regions, except in Central and Southern Asia where an equal proportion of countries (36%) classify these programmes as ISCED 666 or ISCED 766.
- Programmes with 6 years and more duration: in SDG regions with published mappings, these programmes are mostly classified as ISCED 766. Across SDG regions, Latin America and the Caribbean has the highest proportion of countries (24%) where these programmes are classified as ISCED 666 (instead of as ISCED 766, 29%). In Northern Africa and Western Asia, all these programmes (92%) are classified as ISCED 766.

Tertiary education pathways in ISCED (from ISCED Manual, §206)

For ISCED levels 6 and 7, there are four sub-categories:

- First degree/qualification programme – bachelor's or equivalent

- Long first degree/qualification programme – bachelor's (>4 years) or master's (≥5 years), or equivalent
- Second or further degree/qualification programme – following a bachelor's or equivalent programme
- Second or further degree/qualification programme – following a master's or equivalent programme



Links to ISCED documents

- ISCED 2011 Manual: <https://uis.unesco.org/sites/default/files/documents/international-standard-classification-of-education-isced-2011-en.pdf>
- ISCED Fields of Education:
 - <https://uis.unesco.org/sites/default/files/documents/isced-fields-of-education-and-training-2013-en.pdf>

- <https://uis.unesco.org/sites/default/files/documents/international-standard-classification-of-education-fields-of-education-and-training-2013-detailed-field-descriptions-2015-en.pdf>
- ISCED Operational Manual: http://uis.unesco.org/sites/default/files/documents/isced-2011-operational-manual-guidelines-for-classifying-national-education-programmes-and-related-qualifications-2015-en_1.pdf
- ISCED Microsite: <https://isced.uis.unesco.org/>
- UIS questionnaires for the survey of formal education: <http://uis.unesco.org/uis-questionnaires>