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International Standard Classification of Education (ISCED)

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INTRODUCTION

1. The International Standard Classification of Education (ISCED) has been designed as an instrument suitable for assembling, compiling, and presenting statistics of education both within individual countries and internationally. It is expected to facilitate international compilation and comparison of education statistics as such, and also their use in conjunction with manpower and other economic statistics, although it will not solve important data-collection problems such as duplication, gaps, and inconsistencies in reporting the statistics (see paragraph 48). Unesco does not expect that those countries now using a comprehensive national classification of education will replace it with ISCED for national compilations. On the contrary, the special requirements of countries for nationally-based classifications are understood and the value of national classifications will be enhanced when, being designed to achieve comparability with ISCED, they can be used to provide internationally comparable data in addition to statistics reflecting particular national patterns of education. Many countries, however, have not yet developed comprehensive national classifications of education, and they may choose to adopt ISCED as it stands or modified to suit national conditions. Any modifications introduced should be carefully designed to ensure that the resulting data can be rearranged into the ISCED pattern for international reporting (see paragraphs 44 to 47).

2. The classification is designed for assembling data on current educational phenomena such as enrolment, teaching staff and finances as well as for statistics of the "stock" of educated people as obtained, for example, by a census of population. In this sense it is a multi-purpose system within which comparable data can be assembled on various features of educational systems and processes. Of course, it is not feasible to assemble data on all such features to the same degree of detail because of the different units to which the data relate. Enrolment figures, for example, which relate to individuals enrolled in particular programmes can usually be reported in more detailed categories than can information on teachers, many of whom are involved in a number of programmes. Some kinds of financial information such as assets, liabilities and fixed capital employed, are usually available only for units like institutions (or groups of institutions under common management, e.g. a local educational authority). (1) "Stock" data as obtained from a population census are usually collected only in terms of the "highest educational level or grade attained" by each individual, i.e. at the first-digit stage of ISCED.

RELATIONSHIP WITH OTHER CLASSIFICATION SYSTEMS

3. ISCED should facilitate the use of education statistics in manpower planning and encourage the use of manpower statistics in educational planning. For this purpose, the most closely associated classification system in the manpower field is the International Standard Classification of Occupations (ISCO) prepared by the International Labour Office. (2) Each statistical classification is, of course,

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(1) No statistical unit corresponding exactly to the "establishment," as used in national accounting, is commonly applied in collecting statistics of education in most countries. The "institution" is the unit customarily used that most closely resembles an "establishment," but the two are by no means identical (although many institutions may be establishments in the national accounting sense). If, however, the "establishment" were used as the statistical unit for collecting data on the "output" of the industry Education Service in a period, ISCED provides a suitable vehicle for classifying, by level and subject-matter category, the various kinds of output (i.e. kinds of education) produced.

(2) For Latin American countries, the most familiar international occupational classification is the Occupational Classification for the 1970 Census of the Americas (COTA, 1970) developed by the Inter-American Statistical Institute (IASI). IASI has prepared a detailed comparison between the COTA and ISCO systems.

an independent system useful in its own right. ISCO, for example, being a classification of occupations, is based upon occupational criteria, principally the kind of work performed in each occupation, irrespective of the industry in which the work is performed or of the educational qualifications of the individuals in the occupation. ISCED, being a classification of education, has been developed on educational criteria, principally the level and content of fields and programmes of study, irrespective of the occupational plans of those enrolled in the constituent courses. At the same time the two classifications are related in the sense that many educational programmes have a vocational or occupational emphasis. The majority of the individuals involved in the education process either will move on to employment or are already employed. Thus, although at the international level any relationships adduced between educational qualifications and the qualifications required for particular occupations must necessarily be relatively crude, they do exist. Choice of particular combinations of programmes in determining the groupings in ISCED can enhance its usefulness in cross-classifications with ISCO and many groupings appropriate for this purpose have been made.

4. A few examples of virtually identical groups in the two systems will be found even at relatively broad stages of detail - e.g. ISCED 558, 658 and 758 Architectural and town-planning programmes, ISCO 0-21 Architects and town-planners; ISCED 538, 638 and 738 Law and jurisprudence programmes, ISCO 1-2 Jurists; ISCED 546, 646 and 746 Mathematics and computer science programmes, ISCO 0-8 Statisticians, mathematicians, systems analysts and related technicians. In the main, however, the same or closely related categories occur at more detailed stages of the two systems, most often in such fields of education and work as professional, technical, trade or craft, and stenographic, in which the educational or training requirements for particular kinds of work are commonly made explicit. Examples of this kind abound within such categories as engineering, natural sciences, social and behavioural sciences, agriculture, home economics, library science, stenography, teaching, medicine and health, transport equipment operating, printing, barbering, protective service, etc. Over a considerable part of the occupational range, however, no particular groups of related educational or training programmes can be identified as the usual preparation for the kind of work performed in particular occupations. This applies especially to the less skilled service and manual occupations as well as to a large part of such groups as administrative and managerial workers, clerical and related workers, sales workers, production and related workers. In any case, as mentioned above, neither the personal characteristics of enrollees nor their occupational status or plans are criteria for the designation of ISCED categories.

SCOPE OF "EDUCATION" FOR ISCED

5. In paragraph 1, above, it is stated that ISCED is a statistical classification system. For statistical purposes, the boundary of the universe to be covered should be drawn as sharply as possible. Thus, the coverage of the term education proposed below for the application of ISCED is deliberately short and arbitrary to meet the practical requirements of statisticians. It is not intended to provide a new or comprehensive definition of education for wider purposes, and still less to impose an internationally standardized conception of the philosophy, aims, or content of education or to reflect its ideological or cultural aspects.

6. For the purposes of ISCED, then, education is taken to comprise organized and sustained communication designed to bring about learning. Communication requires a relationship between two or more persons involving the transfer of information. Organized is intended to mean planned in a pattern or sequence with established aims or curricula. It involves an educational agency which organizes the learning situation and/or teachers who are employed (including unpaid volunteers) to consciously organize the communication. Sustained is intended to mean that the learning experience has the elements of duration and continuity. Learning is taken as any change in behaviour, information, knowledge, understanding, attitudes, skills or capabilities which can be retained and cannot be ascribed to physical growth or to the development of inherited behaviour patterns. Included in this scope, there-

fore, are activities that in some countries and in some languages may not usually be described as "education," but rather as "training" or as "cultural development." Excluded, however, are types of communication that are not designed to bring about learning, or that are not planned in a pattern or sequence with established aims. Thus, all education involves learning, but many forms of learning are not regarded as education. Leisure-time activities such as recreation, sports, and tourism which are not designed to bring about learning and which do not involve an organized educational agency are excluded. "Self-directed learning," "family and socially-directed learning" and "random learning" are excluded because they involve no organized agency or teacher (in the above sense), as are isolated events involving no sustained educational activity, such as one or two public lectures, conferences or meetings; entertainment; information, advertising and selling programmes; other social and corporate activities, such as meetings of clubs or associations or work camps.

7. ISCED can be applied to data from a wide range of sources covering all aspects of educational phenomena. For example, it can be used for statistics of regular school and university education, i.e. the system that provides a "ladder" for children and young people who may progress from pre-primary or primary school through university (although many drop out on the way). Education of this type may be covered regardless of ownership or sponsorship of the institution concerned (e.g. public or private), whether it constitutes part of the official educational system of the area or provides organized programmes outside this system. ISCED can also be applied to adult education provided to people who are not in the regular school and university system, including adult literacy as well as organized and sustained training for such groups as farmers, craftsmen, industrial workers, housewives. Programmes of this kind may be provided by government departments, industry, trade unions, the armed forces, and many other agencies, i.e. ISCED is intended for use with data from a wide variety of sources. Teaching and learning may take place in all kinds of places (e.g. in classrooms, community centres, or the open air) and by many methods (e.g. lectures, discussions, practice work, correspondence), through any appropriate media (e.g. books, teaching machines, radio, films, or television).

8. ISCED is intended to cover education for all types of students and for all age groups -- children (including exceptional children), young people, and adults. Thus, within most levels, fields, and programmes defined in the ISCED system, courses designed for adults take their place alongside education for children and young people. For example, programmes designed to impart functional literacy to adults are classified at the same level as programmes which provide initial instruction to children in schools. Programmes designed specifically for adults appear at both cycles of the second level and include programmes of a general nature, as well as a wide range that are vocationally oriented, taking their place with similar programmes offered in the school system. Higher education for adults is given appropriate representation within the various cycles of the third level. Thus, such factors as age or condition (e.g. whether handicapped or otherwise exceptional) of pupils are not used as criteria in defining levels. This does not mean that important factors such as age or kind of handicap need be neglected in the use of ISCED for tabulating statistics. Such distinctions as these can be included by designing tabulations in which enrolment in each ISCED category is subdivided into appropriate age groups, types of handicaps or other exceptional conditions, etc.

9. The decision to combine out-of-school education with the more structured school and university systems and to include adult as well as child education in a single classification system may complicate the task of data collection inasmuch as out-of-school and adult education are provided by a multiplicity of agencies. It is, however, in harmony with modern developments in educational policy and planning. It recognizes that education is not an instructional "package" provided to children and young persons in schools and universities, but is a continuing process providing opportunities for enlarging experience, understanding, and skill throughout the life of the individual. In statistical tabulations, however, figures for the enrolment,

etc., of children and young people in the regular school and university programmes can be shown separately from information on adult education, and programmes of special education can be shown separately for any desired combination of ages or other personal characteristics for which data are needed and therefore collected at the source.

DESCRIPTION OF ISCED

10. With the above considerations in mind, the categories in ISCED have been based upon two principal educational criteria, viz. the level and the subject-matter content of study. In the ISCED system the most detailed unit of education considered is a course. (1) (Note, however, that courses are not assigned identification codes in the system.) A selection of one or more courses, called a programme, (2) constitutes the smallest unit for classification, programmes that are related in terms of level and major subject-matter content being grouped into programme groups. (Each programme group is identified by a five-digit code.) Programme groups are further aggregated into fields made up of programme groups related to the same general subject matter or area. (Each field is identified by a three-digit code.) The fields and programme groups are designated within levels, which, as the term implies, consist of categories representing broad steps of educational progression from very elementary to more complicated learning experience. (Each level is identified by a one-digit code.) ISCED is, therefore, a three-stage classification system providing successive subdivisions from level to field to programme group. The coding system of five digits provides ample accommodation for the approximately 100 three-digit and 500 five-digit categories identified in ISCED, and gaps are provided in the coding structure at all stages to permit the insertion of additional categories as required.

LEVELS

11. For the purposes of ISCED no distinction between programmes of education is made on the basis of age of student, duration of the programme, or method of presentation of the subject matter. Thus, each ISCED educational level category is designed to include all programmes identifiable at that level and the residual category is called Education not definable by level. Furthermore, the subdivisions of the second and third levels of education mentioned in the present Unesco Recommendation on Education Statistics (3) have been incorporated as separate level categories in ISCED. It is expected that most educational programmes will be identifiable by level in the ISCED sense and therefore the coverage of Category 9, Education not definable by level, will not be large.

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(1) A course for this purpose is taken to be a planned series of learning experiences in a particular range of subject matter or skills offered by a sponsoring agency and undertaken by one or more students.

(2) A programme for this purpose is taken to be a selection of one or more courses or a combination of courses usually chosen from a syllabus, a calendar, or a list. Such a programme may consist of one or a few courses in a specific field or, more commonly, of a number of courses most of which will be classified within a specific field but some of which may be classified in other fields. Each programme has an expressed or implied aim, such as qualification for more advanced study, qualification for an occupation or a range of occupations, or solely an increase in knowledge or understanding.

(3) Recommendation concerning the International Standardization of Educational Statistics adopted by the General Conference at its Tenth Session, Paris, 3 December 1958, paras. 14 and 15.

12. Seven categories of education, based upon level, a residual category for education not definable by level, and when needed, a position for individuals having no education, are incorporated into the ISCED structure as follows:

0 Education preceding the first level

1 Education at the first level

2 Education at the second level, first stage

3 Education at the second level, second stage

5 Education at the third level, first stage, of the type that leads to an award not equivalent to a first university degree

6 Education at the third level, first stage, of the type that leads to a first university degree or equivalent

7 Education at the third level, second stage, of the type that leads to a postgraduate university degree or equivalent

9 Education not definable by level

A final position "X No Education" can be provided as required, e.g. when obtaining statistics of the stock of educated people from an enumeration of the population of an area as in a population census. Such a category is not needed for statistics of current educational operations.

DEFINING THE LEVEL CATEGORIES

13. A principal objective of ISCED is to promote the collection of comparable data on education at various level categories from different countries. Such nationally disparate factors as types of educational institutions, legal provisions governing the period of compulsory education, and practices respecting awards, diplomas or degrees granted for successful completion of a programme cannot be used internationally as criteria for determining educational level. Of course, international statistics for particular categories of education (and even for aggregates such as total enrolment or total expenditure) cannot be perfectly consistent because of differences in national practices. Furthermore, ISCED is not concerned directly with the question of educational equivalences (e.g. equivalences of degrees or awards, or measurements of educational achievements of students at different points in the educational "ladder"). Such equivalences and measures of achievement can be established only through detailed case studies of the educational systems of selected countries, and whereas ISCED is a tool that could assist in the designing of such studies, it does not provide criteria or techniques for establishing the appropriate measures. Nevertheless, comparable data of good quality can be obtained internationally through routine statistical surveys for segments of the educational systems of different countries that are sufficiently consistent in practice. Other parts of national educational systems can then be associated with these segments for the purpose of securing comparable statistics of educational activities over as wide a spectrum of activities as possible.

14. The progression of young people through the school systems of different countries can be seen as following a similar pattern in terms of timing and basic subject matter regardless of differences in institutional arrangements and technology. In fact, this pattern, which begins at the most elementary levels, persists internationally for young people who remain in school up to the university level. Thus, despite the variability in duration of so-called "primary" and "secondary" school programmes in different countries, the total number of years spent from school entry to university graduation is remarkably consistent from

country to country, being 16 or 17 years in almost all cases.

15. Thus, there is an educational core in each country consisting of its education system provided for young people who begin the educational process when very young, some of whom continue through to higher education in a university or other institution. In all countries there exists also a great variety of other educational agencies and programmes which are more or less related to this core in terms of curricula, methods and standards of instruction, rules and procedures for entrance to programmes, and general quality of educational performance. To indicate the wide range and variety of these educational agencies and programmes it is necessary only to mention such disparate elements as literacy programmes, vocational correspondence schools, hospital schools of nursing, evening classes covering a wide range of subjects, university extra-mural work, trade union educational programmes of all kinds, employer-sponsored training and retraining programmes, etc., etc.

16. If it can be accepted that a set of definitions of levels based upon years of schooling would yield data having tolerable consistency between countries for the educational core represented by the national systems of schools, colleges and universities for young people, then it is possible to develop acceptable definitions of levels in the wider sense used in ISCED. The further step or steps consist of relating as many as possible of the wide variety of other (out-of-school) educational programmes and courses to the levels determined for the core, i.e. of hanging other educational programmes onto the core. To do this requires defining the other programmes in terms of the same kind of criteria established to determine levels for the core, i.e. their identification in terms of the minimum prior education required by students to undertake them profitably. It is not the histories of the students or enrollees, but the minimum prior education required to take advantage of the programme that determines its level and therefore the recorded level of education being pursued by all the enrollees. This concept of minimum prior education required of students is not confined to prescribed requirements, but is intended to include the typical expectations of those concerned with the programmes regarding the minimum prior education needed to master the subject matter.

17. Despite its known variability, a full-time year at school successfully completed is the most objective unit of education available as an international "yardstick." Education outside of the school system does not necessarily proceed in steps or stages analogous to those in school. With these qualifications in mind, the following very short definitions of the ISCED levels can be taken as a guide. (Longer, more complete definitions are provided in the body of the classification.) Note that there is no necessary relationship between any of these level categories and the period of compulsory education in any country, because of the great variation in national practices concerning compulsory education.

Education preceding the first level, where it is provided, usually begins at age three, four, or five (sometimes earlier) and lasts from one to three years.

Education at the first level usually begins, therefore, at age five, six, or seven, and lasts for about five or six years. Allied with these "primary" levels are such related programmes as literacy programmes for older people who are illiterate because of lack of earlier schooling, and programmes with a vocational emphasis for beginners or for those who have completed some primary schooling, although these programmes are not found in all countries.

Education at the second level, first stage, begins at about age 11 or 12 and lasts for about three years. Allied with this core of lower secondary schooling is a wide variety of out-of-school programmes for adults and young people most of them being vocational programmes that require as a minimum for entrance the equivalent of some five or six years of full-time schooling. These include programmes of training for jobs requiring relatively elementary skills, some apprenticeship programmes, and some simple medical auxiliary programmes.

Education at the second level, second stage, begins at about age 14 or 15 and lasts for about three years. Allied with this core of upper secondary school is a wide range of vocational programmes that require as a minimum for entrance the equivalent of some eight years of full-time schooling. These include programmes for semi-skilled and skilled jobs, some apprenticeship programmes, programmes in home economics, secretarial and other "office work" programmes, para-medical programmes, agricultural and similar programmes, and in some countries teacher-training programmes.

Education at the third level, first stage, of the type that leads to an award not equivalent to a first university degree begins at about age 17 or 18 and lasts for about three years. Thus, at about age 20 or 21 students who have progressed through the regular school system to complete these programmes are ready to enter employment. Allied to this core is a very great variety of programmes of a more "practical" orientation than those that lead to a university degree or the equivalent. They are typically specialized in subject matter, presented at a level that requires the equivalent of full second-level education for their mastery, and they provide an education leading to highly skilled and responsible employment. Many of the programmes are part-time, evening, sandwich courses and refresher courses.

Education at the third level, first stage, of the type that leads to a first university degree or equivalent also begins at about age 17 or 18 and lasts for about four years. Thus, students who have progressed through the school system to complete their first degrees are ready for employment or for postgraduate study at about age 21. Allied to this core are programmes usually organized and operated by professional societies (e.g. engineering, accountancy, actuarial, law, pharmacy) which in many countries are part of the typical university programmes. Professional programmes of this kind are included at this level even when no university degree is involved. Education beyond this level is classed as at the third level, second stage, i.e. at ISCED level category 7.

18. The main reason for providing the above summarized definitions of the ISCED level categories 0 to 7 is to illustrate the manner in which the core of education for young people in most countries can be expressed as a sequence of stages, each being encompassed in a number of years of full-time education. This does not mean that the age and duration guidelines used to describe the level categories in the core are to be taken literally. They are used simply as identifying characteristics which should help national authorities to identify the corresponding educational programmes in their countries. Thus they are intended to be guidelines and not standards. If this is accepted, then, in each level, other kinds of education can be related to the core principally in terms of the minimum prior education (sometimes including self-education or vocational experience) required to undertake a particular programme profitably. The non-core programmes that can be classified by level are of many different kinds, and are provided by a variety of sponsoring agencies. They range from programmes paralleling those in the core in terms of subject content, but often being accelerated because designed for more experienced students, through programmes of vocational education or training that are different in content from any in the core, but that require some minimum level of core education for their mastery (e.g. programmes in aircraft piloting, or programmes in police work) and programmes of a general-interest nature requiring a minimum level of prior education and often provided for their members by agencies such as trade unions, co-operative societies, consumer groups, etc. (e.g. programmes in economics, mathematics, humanities, fine and applied arts, etc.), to many university extra-mural programmes. A full list of non-core programmes that can be classified by level would run through most ISCED groupings in level categories 1 to 5 and in many groups in categories 6 and 7 (although the core and non-core are often less distinguishable in university-type programmes). In general, these non-core programmes may be broadly described as a part of out-of-school education (i.e. the part that is definable by level).

19. Other programmes and courses of out-of-school education for which no explicit or implicit prior education is required (except those for illiterate adults

included in category 1) are classified in category 9, Education not definable by level. All such programmes and courses will be outside the core of education given in the school and university system, though some may take place in school or university premises. They often cater for students with widely different educational experience but with a common interest in the subject of the course. Most are part-time and of short duration; many are intended to increase knowledge and understanding for their own sake or to develop skills for recreational purposes; some may be used to acquire or further vocational qualifications. Some are on the borderline of education and other areas of activity more properly called recreation, information, or entertainment, which are excluded by the definition of the scope of ISCED given in Paragraph 5.

20. It would be impossible, of course, to provide the above categories with a set of definitions that could be applied directly to all educational systems in the world. The definitions (or descriptions) given here and in the body of the classification are intended to be illustrative, providing a set of guidelines that may be applied in the particular circumstances of a national or local system. The age and duration criteria used in describing the core categories and the minimum prior education recommended for use in determining the level categories of non-core programmes are merely proxies for the level criteria of achievement and performance that would be a desirable basis for establishing a level if they were available.

SUBJECT-MATTER CATEGORIES

21. Within the levels as defined in ISCED, courses of education are grouped by subject matter, in a two-tier system consisting of broad fields (each identified by a three-digit code number) and programme groups (each identified by a five-digit code number).

22. In education preceding the first level the subject-matter content of programmes is less important than the kinds of activities pursued. The programmes are intended primarily to introduce very young children to a school-type environment.

23. In education at the first level, the subjects studied and activities pursued are much the same everywhere, but provision is made in the various fields and programmes for the very special needs of students with physical and mental handicaps that necessitate modification of the usual methods of presenting material and promoting learning and progress. Special fields and programmes are, however, designed for young people and adults with no previous education who require programmes related to their needs and experience. It is because these programmes have to be so specially adjusted that they are designated as separate entities in ISCED, although they are not found in all countries.

24. In education at the second level, first stage, subject specialization may make a tentative appearance. For young students having some five years of elementary schooling, the great majority of programmes in most countries continue the pattern of general education begun at elementary school. The main difference in their educational experience is a gradual change in emphasis in the unit or project approach to present some material in a subject-matter form. This usually occurs with the introduction of some specialized teachers for subjects like science (nature study), a foreign language, music. This is not recognized as subject specialization on the students' part but is merely a preliminary step in that general direction. In many countries this level category is found in the same institution as the first level.

25. In some countries, programmes that depart somewhat from "general" education are available for young pupils at the first stage of the second level. These are not highly specialized programmes, but usually cover some of the general programme with less emphasis, e.g., on language, history, and social studies, and correspondingly more emphasis on commercial, agricultural, forestry, fishery, home economics, trade, craft, or industrial subjects. It should be emphasized again that these departures from the general programme at this level for young pupils are not

widespread, but they are used in some countries where opportunities for general primary education are not available to all the young people. Similarly, programmes in teacher training do occur, but only in some countries. They usually represent a transitional stage in the development of educational facilities for areas in which educational opportunities have been scarce. Subject specialization at the second level, first stage, for adults and school leavers who are pursuing programmes of education (often part-time) having some connection with present or prospective employment is common in most countries. In the case of adults, subject specialization generally means the development of courses and programmes with an almost exclusively "practical" orientation. For all fields and programmes at this level, provision is made in many countries for special instruction to handicapped and other special students.

26. In education at the second level, second stage, i.e. programmes based upon some eight years of previous schooling, subject specialization often begins to have some influence even on the educational experience of those pursuing a "General Programme." This means that some variations in subject-matter content of courses are expected to occur even within programmes included in the group General Programmes (301). So long as a programme is primarily composed of courses included in the general school syllabus at this level it should be assigned to one of the General Programme groups in 301. Programmes designated as those that qualify students for university entrance without any special subject prerequisite (as is the practice in many countries) are obviously General Programmes. Not all General Programmes, however, are of this type. Some may omit an essential university subject and may substitute some commercial, technical, fine arts or domestic science course but if the programme is primarily composed of the general syllabus it is a General Programme in 301. Of course, most general programmes are designed for and attended by young students who are progressing through the school system, but at this level programmes of the same kind designed to upgrade the previous education of adults desiring to enter university are not uncommon.

27. Subject-matter specialities expected to be found at this level are indicated by the list of fields and programme groups in ISCED. Almost all the programmes contain some courses such as literature, mathematics or science found in the general syllabus, but, typically, they are concentrated on courses related to the particular field of specialization. For adults and young people who have left school, subject specialization is generally associated with present or prospective employment. Subject specialization in this case can mean concentration on background knowledge as well as the techniques and methods required to master a particular combination of duties or tasks. The range of subject matter may be quite broad or very narrow and the degree or vocational specialization correspondingly wide so that the aim of a programme can vary from preparation for a general field of employment, e.g. 33401 General Commercial Programmes (for a range of office work) to a very specific job, e.g. 33422 Programmes in the Operation of Office Machines (the technique of operating a specific office machine). As a rule, the short-term (and often part-time) purely vocational programmes are highly specialized in both objectives and contents. For all the fields and programmes at this level, provision is made in many countries for special instruction to handicapped and other special students.

28. In education at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, subject-matter specialization is different in both concept and scope from that in the second level of education. Students who have reached this point in the educational process (i.e. who have had the equivalent of about eleven full years of schooling) can be considered to have received a good basic education. They are now ready to undertake specialized study of a subject or group of related subjects in a programme leading to some subject-matter expertise. In terms of the more specific vocational specialities, these programmes are designed with sufficient subject-matter depth so as to qualify graduates for highly skilled jobs or for entry into positions offering good career prospects.

29. Few programmes are designated as "general" at this level category and no provision is made for a field equivalent to 301 General Programmes at the second level, second stage. The omission of Category 501 is significant in that it underlines the kind of subject-matter groupings found in most countries at this level. (1) They tend to be specialized in terms of subject content (e.g. economics, accountancy, chemistry), specific vocational objective (e.g. teacher training, translation, optometry, architecture), broad vocational interest (e.g. agriculture, home economics, public administration, civil engineering), training on the job or for a particular job (e.g. railway operating trades, graphic arts, fire protection and fire fighting, police work). Many of the programmes are conducted for students seeking careers or employed in the field and also for non-vocational interest of students (e.g. creative writing, household arts, religion, fine and applied arts). Thus the kind of speciality found at this level is diverse and it applies to subject matter as well as to a combination of subject and vocational information.

30. The content of programmes under a particular subject-matter designation may be quite diverse. For example, a general programme in mathematics need not be confined to courses under the general heading of mathematics, although some may be. Usually such a programme contains a selection of courses from such fields as natural science, social science or humanities. Similarly, a programme in chemistry will usually contain some mathematics, physics, biological science, social science or humanities. The borderline between these classes of subjects is not at all precise and to master one of them usually requires some understanding of others. The headings of the groups of programmes in ISCED refer to major subjects or to vocational objectives usually associated with the programmes. They are not intended to imply exclusive attention to courses in a particular subject or necessarily a particular vocation.

31. In Category 6, Education at the third level, first stage, of the type that leads to a first university degree or equivalent, most programmes are specialized in terms of subject matter in that the major subject studied is usually specified. At this level provision is also made in ISCED for a field of General Programmes (601) with no special subject emphasis, or with some such emphasis, but those with such emphasis are still general and not specialized programmes. Field 601 General Programmes is not found in all countries or necessarily in all university degree or equivalent lists of programmes in any country. Being an international classification system, ISCED makes some provision for all known existing programmes and the general programmes are sufficiently important to merit a separate field. They cover two principal types of programme. One is the case in which the first year (and sometimes the first two years) of university studies consist of a general programme which is largely prescribed. This is less common now than it was some years ago, but is still found, particularly when the early years of university degree-type studies can be taken outside the universities themselves. Facilities for specialized study may not be so readily available under these conditions. The second type of programme is the straightforward general programme which is an expanding phenomenon in universities in a number of countries. In these programmes students follow a wide variety of subject matter from which they can choose courses in various fields. They are different from the "General Programmes" specified, usually first, under many ISCED fields (e.g. 61801, 62201, 63001, etc.). These last cases are specialized in the sense that a major subject field has been specified in connection with the students' programmes and the major field figures prominently in the courses of study. In fields where general pro-

(1) "General" programmes in this level category are assigned to the residual programme group, 58999, because of their relative unimportance numerically. As explained in the definition of level 5 in the body of this volume, general programmes given in some countries in secondary and post-secondary institutions and recognized by the universities as equivalent to the first or the first two years of the corresponding university programme, are included in Category 6.

grammes are not numerically important in most countries (e.g. Natural Sciences and Engineering) they are included in the residual programme group of the field concerned.

32. Subject-matter specialities and professional fields specified in level category 6 of ISCED follow generally the usual university type of subject specialization. This differs from the administrative organization of many universities which may be in terms of "colleges" or "campuses." Subject specialization in some cases may be grouped around subdivisions of the university or its constituent colleges under such headings as "schools," "faculties," or "departments," but the range of subject matter within such a subdivision tends to depend upon the size of the university. Thus, in a small university or college a faculty of "arts and sciences" may include the humanities, social sciences, and natural sciences, while in a larger institution separate subdivisions of the humanities, social sciences, and natural sciences will often be found. The subject-matter categories in ISCED are intended to be independent of all such variations in institutional arrangements. For purposes of classifying enrolment, teaching staff, finance items or any other factors, the courses, programmes or fields of study concerned are assigned on the basis of major subject content. The range of courses within a programme may be quite wide even when the programme is designated as specialized, e.g. as a programme in political science, astronomy, or philosophy. In programmes of this type students commonly study a variety of courses more or less related to the major subject. At this level, however, the programmes directed toward qualification for particular professions (i.e. the more applied programmes in fields such as medicine, law, engineering and agriculture) tend to be more set in course content with few "outside" subjects.

33. Subject specialization is much more prevalent and intensive at 7 - Education at the third level, second stage, of the type that leads to a postgraduate university degree or equivalent, than at any other level. Here the programmes of postgraduate study tend to reflect specialization within the subject area not only for subjects in the humanities, social sciences and natural sciences but also in fields relating to particular professions such as medicine, law and engineering. Furthermore, the programmes are of two main types, i.e. those that are an extension of programmes leading to the first university degree and consisting primarily of course work, and those that consist primarily of independent research work. Despite the greater specialization and variety of programmes, the subject-matter categories in ISCED at this level are mainly the same ones specified for Category 6. It would be possible to specify more detailed groups of programmes and in a national classification system the additional detail would be very useful. For international purposes, however, it is unlikely that more detailed reporting of useful data would be secured merely by designating items in ISCED. The greater detail in ISCED, when applied to the variety of programme content found around the world, could result in a much higher proportion of cases straddling ISCED categories. Under these conditions the reporting from country to country and from year to year would likely lack stability. Although the subject categories and the rules for assigning programmes to them are consistent with the Category 6 level, it is clear from the above that the variety of programmes included in the groups of programmes and fields at this level will be richer. Thus, the interpretation of national differences and changes in programme content at this level will tend to be more complicated and separate additional tabulations of statistics may be needed.

34. Programmes in Category 9, Education not definable by level, are extremely diversified and specialized in their subject matter, partly because they are planned to meet the varied and specific needs and interests of many small groups of adults and young people, and partly because they are not bound by the curricula or disciplines of the school and university system. Course subject matter ranges from academic study to practical-skill training, and includes many programmes related to the hobbies or general (non-vocational) interests of enrollees. The ISCED classification system divides Category 9 into the same set of fields as other level categories, but because of the extreme diversity and specificity of programmes and courses, subdivision into programme groups has been limited. Further programme groups may be proposed as experience is gained in the application of ISCED.

PROGRAMMES WITH MAJOR SUBJECTS OVERLAPPING ISCED CATEGORIES

35. Although most programmes have one identifiable major subject or are related to qualification for a particular profession, many are designated in terms of two -- and a few in terms of three -- major subjects. When the major subject or subjects of a programme come within the scope of a single ISCED category, there is no allocation problem. If the major subject matter, consisting of two or more major subjects (e.g. mathematics and natural philosophy, or wildlife and fisheries management), is classified in different ISCED fields or programme groups, however, an allocation problem occurs, because, to avoid duplication, each programme of education should be assigned to only one ISCED category in assembling statistics of enrolment, etc. (Of course, a special investigation using ISCED could be based upon special rules appropriate to the purpose, which might include the controlled multiple assignment of programmes that consist of two or more major subjects, but this is a special case.) For ordinary statistical purposes, then, to ensure maximum comparability in the use of ISCED, agreement is required on conventions governing the allocation of programmes having major subjects that overlap ISCED categories. It is therefore recommended that each programme be assigned to that field or programme group in which its principal subject would be placed. The principal subject is taken to be the one to which the enrollee is expected to devote the largest number of "classroom" or equivalent hours (although not necessarily the majority of such hours). If such hours are deemed to be the same for two major subjects in different ISCED categories, the first one named will be taken as the principal one. For this purpose, "classroom" or equivalent hours are taken to be hours spent in communication with a teacher or teaching agent, e.g. in a classroom, seminar, or discussion group; in an assigned laboratory period, field work or research project; in preparing assignments in a correspondence programme; in listening to broadcasts in a broadcast programme, and the like. It should not include supplementary study time or reading undertaken by the enrollee on his own initiative, which could not be measured objectively in any case. This kind of allocation problem may be encountered in any level category, but it is met especially at the third level, where subject specialization is most prevalent. Even at this level, however, the range of subject matter included in most programmes is quite wide even when a single major subject is identified. Thus, for example, a programme in a social science can include courses in natural science, mathematics, the humanities, and law; or a fine-arts programme can include natural science, social science, and technical subjects dealing with the properties of the materials used and the techniques required for their manipulation. As a general rule, programmes leading to qualification in one of the professions are so designated, and although the subject-matter content may be varied, their classification tends to be less complicated.

ISCED AS SEEN FROM A NATIONAL STANDPOINT

36. ISCED has been designed as an international standard classification of education. It follows from this that its structure, while derived from patterns of education found to exist in many countries, does not reflect conditions in any one country. Almost all national authorities examining ISCED will find categories shown separately that do not exist or are unimportant in their countries; will be unable to find separate groupings for categories of education that are important to them; will be puzzled by the relative importance assigned to various types of education; and will find that the terminology used does not conform to their traditions. These apparent anomalies in ISCED from a national standpoint have several causes:

one is the very heterogeneous nature of some kinds of education internationally due to their close connection with national or local institutions. Extreme national differences may make any detailed set of categories unsuitable for international use, for example, as in the case of educational programmes in religion and in law;

another is the relative importance of different social and economic factors which in various countries, influence the careers of the people and consequently the kinds of education required by many, e.g. agriculture, mining, service industries;

a third is the history and stage of development of the national educational system, e.g. whether adult or mass illiteracy is an important problem, or whether facilities for higher education have been developed proportionally to those for other levels;

and finally, the organization of the national system of education, i.e. whether unitary or federal and in a federal system the extent of local autonomy in the determination of educational policy and in the financing of education.

37. To accommodate the variety of educational types and forms encountered around the world, ISCED has necessarily taken a somewhat abstract approach to the assembling and evaluation of the realities of educational practice used in its formulation. This is carried through to the terminology used which does not follow a consistent model based upon any one country in any of the languages in which it is issued. To do so could imply a reflection of the educational practices of one country. In this sense, an attempt has been made to make ISCED "universal". It is expected, therefore, that ISCED will require adaptation when it is to be used for national purposes although in some countries the amendments needed may be minimal. Before considering the means by which a national classification system can be developed from ISCED, however, the coding system should be understood.

CODING SYSTEM

38. The system of code numbers used in ISCED is essentially a decimal one and Arabic numbers are employed as the most universally recognized set of symbols available. Steps in the ISCED hierarchy can be identified in the system as follows:

Each group of programmes is assigned a unique five-digit code number which is read from left to right. The first digit identifies the educational level, the next two digits the subject-matter field within a level, and the final two digits the group of programmes within a field. Two digits each are required for fields and programme groups because in some cases level categories and fields are subdivided into more than ten categories although the number specified rarely exceeds twenty. The code structure, therefore, provides ample capacity for any conceivable expansion in categories specified. This excess capacity permits the incorporation of some convenient features.

39. The coding for the levels is shown in paragraph 12; the following list of fields is used consistently, when applicable, but of course, some fields do not exist at every level, e.g. law and jurisprudence programmes are not found at level categories 2 or 3 while literacy programmes occur only at level category 1:

01 General programmes

08 Literacy programmes

14 Teacher training and education science programmes

18 Fine and applied arts programmes

22 Humanities programmes

26 Religion and theology programmes

30 Social and behavioural science programmes

34 Commercial and business administration programmes

38 Law and jurisprudence programmes

42 Natural science programmes

46 Mathematics and computer science programmes

50 Medical and health programmes

52 Trade, craft, and industrial programmes, n.e.c.

54 Engineering programmes

58 Architectural and town-planning programmes

62 Agriculture, forestry, and fishery programmes

66 Home economics (domestic science) programmes

70 Transport and communication programmes

78 Service trades programmes

84 Programmes in mass communication and documentation

89 Other programmes

The residual field within each level is coded 89 and the residual group of programmes within each field is coded 99. With few exceptions the final digit 9 in any code number indicates that it is a residual item.

40. More than one numeral is often used in the fourth position within a field even when the number of subdivisions is less than nine. This is used as a device for segregating "sub-fields" when they appear to be meaningful. For example, in field 662 Agricultural, forestry, and fishery programmes, the groups of agricultural programmes are numbered from 66201 to 66249; the forestry programmes are assigned code 66262; and the fishery programmes 66272. By assigning different numerals in the fourth position and providing a residual group for agricultural programmes, three "sub-fields" are made available for anyone who wants to use them.

41. Gaps are left in the code number series at all points so that additional categories can be inserted with minimum disturbance to the existing classification structure and code numbers. This is useful in connection with periodic revision of ISCED and for inserting categories that may be required for special national or regional requirements. It provides some leeway also for those undertaking special studies who may want to expand or otherwise adapt all or part of ISCED.

42. If a field is not further subdivided into programme groups, a five-digit category is provided having the same title as the field and a code number ending in 00. For example, 526 Religion and theology programmes is not further subdivided and therefore the only five-digit code assigned is 52600. In fields that are subdivided, programme groups covering similar subject matter at different levels are assigned the same fourth- and fifth-digit codes as far as possible.

43. Neither the coding system nor the classification structure provides for relevant factors such as the year of study (or grade) within a programme; the sex, age, or nationality of the student; the language of instruction; whether the programme or the student is full-time or part-time; whether the programme caters to rural or urban students; whether the programme is a special one for exceptional students, etc., etc. Insertion of such variables into the ISCED struc-

ture would complicate the system unnecessarily, because all such data can be obtained as required by inserting suitable questions into questionnaires issued for particular surveys. Thus, the ISCED categories provide the "stub" or the rows in a tabular presentation of data, while variables such as those mentioned above comprise the "headings" or columns.

ADAPTING ISCED TO NATIONAL REQUIREMENTS

44. Some countries have already developed their own classification of education for the collection and tabulation of statistics. The majority have not yet done so, however, and for those who want to develop such a system, ISCED can serve as a useful starting point. For the reasons mentioned above, it is unlikely that ISCED will meet the needs of any country without adaptation.

45. The title and definition of each ISCED category, beginning with the most detailed (programme groups), should be examined to determine whether it represents an important statistical entity in the country. If it is important, is its coverage so broad that it should be subdivided for national use? What subdivisions are indicated? If it is unimportant, it should be combined with one or more other ISCED categories to form a useful statistical entity, or placed in a residual category.

46. When all the programmes have been reviewed and adapted in this fashion, assemble the amended lists into the ISCED fields and examine the result critically from the viewpoint of national statistical requirements. Carry out such subdividing or combining of fields as is indicated and then assemble the result into the ISCED levels. It is very important at all stages in this procedure to respect the boundaries of existing ISCED categories, i.e. to subdivide or combine ISCED entities but not to take parts of two or more such groupings and combine the parts in such manner that ISCED categories or aggregations of ISCED categories cannot be reconstituted.

47. A principal objective of ISCED is the furtherance of international comparability in statistics of education. Such comparability will be promoted if countries adapting ISCED to their needs ensure that the resulting national classification is compatible with ISCED. When national classifications not derived from ISCED are being amended, an important objective should be improved comparability with ISCED. This does not require adoption of the ISCED structure, but the national categories should be so constituted that they can be regrouped into ISCED categories.

TO SUM UP

48. ISCED provides a systematic structure for assembling international statistics of education. The use of such a systematic structure by all countries in reporting their data is expected to improve international comparability of the statistics. The mere existence and use of ISCED, however, will not in itself solve the basic statistical problems involved in gathering and compiling statistics of education. Problems of duplication, gaps and inconsistencies in reporting factors such as enrolment, teaching staff and finances are not relevant to the design of ISCED. These familiar basic data collection problems will remain after ISCED is adopted and advances in international comparability of education statistics will still depend upon concepts, definitions and statistical collection procedures being brought into line and directed towards that end.

49. Of course, much has been done already, and good data are available on the basis of the 1958 Recommendation. ISCED adds a new dimension to this, and its introduction to the statistical system will require a review and revision of the present procedures. In this process, although ISCED does not determine the scope or kind of statistics to be collected, it will have an influence because it provides standard categories and definitions for the educational level and subject matter of fields and programmes. These serve to round out the kinds of definitions and procedures incorporated in the 1961 Unesco "Manual of Educational Statistics."

50. Official statistics have become an important feature of modern life. The increasing complexity of economic and social institutions and of their interactions in industrial societies has brought a rapid growth in the demand for statistics as a factual basis for decision-making in most fields of human activity. In developing economies seeking a sound basis for development plans, statistics have come to be an essential tool.

51. The central role of education in the economic and social programmes of countries at all levels of development need not be examined here. It is sufficient to note the very rapid growth of educational activity throughout the world during the past quarter century, whether measured in terms of enrolment, employment, or expenditure. Rapid expansion on such a scale is likely to be of uneven quality even within a country unless its direction and thrust are guided by a careful choice of objectives and of the most effective means for attaining them. Furthermore, the programmes chosen must be evaluated periodically in terms of their effectiveness in attaining the desired objectives. Statistical data of all kinds play an essential role in the design, control and evaluation of such programmes.

52. Statistics can be used most effectively if they are based upon standard terminology, concepts, definitions, methods of tabulation, and classification. Such standards should be applied as widely as possible to ensure maximum comparability not only in data obtained from different sources on the same or closely related events, but in data obtained from the same sources at different times. Much has been done both nationally and internationally to improve the comparability of statistics relating to population, trade, industrial activity, agriculture, labour, health, education, telecommunications, transport and many other fields. (1) Of particular interest is the group of more or less related international standard classifications that have been developed since 1948. These include the International Standard Industrial Classification (2), most recently revised in 1968, designed as a standard classification, by industry, of establishments in all branches of economic activity; the Standard International Trade Classification (3), which is now under revision and which constitutes a standard commodity classification for imports and exports; and the International Standard Classification of Occupations (4), most recently revised in 1968, providing a standard classification of occupations for use in statistics of the labour force as well as in the operation of manpower programmes such as immigration, employment placement, vocational guidance and vocational training. The latest addition to this battery of statistical standard classification systems is the International Standard Classification of Education (ISCED) now being developed by Unesco.

53. This guide to the use of ISCED is intended to provide a summary of what ISCED is, what it has been designed to do, some of the things it has not been designed to do, and how it may be used. Some of these points are covered more fully in the introduction to this volume to which reference should be made for additional information.

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(1) For a summary of international standards see the United Nations Directory of International Standards for Statistics, New York, 1960 (Statistical Papers Series M No. 22, Rev.1).

(2) United Nations, International Standard Industrial Classification of all Economic Activities, New York, 1966 (Statistical Papers Series M No. 4, Rev.2).

(3) United Nations, Standard International Trade Classification, New York, 1951, (Statistical Papers Series M No. Rev.1). This is the latest edition available at the time of writing.

(4) International Labour Office, International Standard Classification of Occupations, Revised edition. Geneva, 1968.

SCOPE OF EDUCATION FOR ISCED

54. ISCED is a statistical classification system, and for statistical purposes, the boundary of the universe to be covered should be drawn as sharply as possible. Thus, the coverage of the term Education proposed below for the application of ISCED is deliberately short and arbitrary to meet the practical requirements of statisticians. It is not intended to provide a new or comprehensive definition of education for wider purposes, still less to impose an internationally standardized conception of the philosophy, aims or content of education or to reflect its ideological or cultural aspects.

55. So, for the purposes of ISCED, the term Education is taken to comprise organized and sustained communication designed to bring about learning. The key words in this phrase are used with the meanings indicated below:

- COMMUNICATION: a relationship between two or more persons involving the transfer of information ("messages," ideas, knowledge, skills, etc.). (Communication may be verbal or non-verbal, direct/face-to-face, or indirect/distant, and may involve a wide variety of channels and media.)

- LEARNING: any change in behaviour, information, knowledge, understanding, attitudes, skills or capabilities which can be retained and which cannot be ascribed to physical growth or to the development of inherited behaviour patterns.

- ORGANIZED: planned in a pattern or sequence with explicit or implicit aims. It involves an educational agency which organizes the learning situation and/or teachers who consciously organize the communication. The providing agency must be educational in the sense that it has educational aims, and the term "teacher" includes anyone who is employed to communicate knowledge, skill or understanding, or to otherwise bring about learning. (In this context, employed includes unpaid volunteers in an organized programme.)

- SUSTAINED: is intended to mean that the learning experience has the elements of duration and continuity. No minimum duration is stipulated, but it is assumed that appropriate minima will be stated in applications of ISCED.

56. Thus, Education, for the purpose of ISCED, excludes communication that is not designed to bring about learning. It also excludes various forms of learning that are not organized. Thus, all education involves learning, but many forms of learning are not regarded as education. The distinction between education and other forms of learning is taken to depend upon the existence or non-existence of communication organized by a providing agency or by a teacher, who is employed (in the above sense) and consciously involved in communication, although he may not always be specifically called a teacher but may be known by some such title as instructor, monitor, tutor, or extension agent.

57. Clearly, the term Education as used in ISCED includes activities that in some countries and in some languages may not usually be described as education but by such terms as training or cultural activities. On the other hand, certain forms of learning that may be quite legitimately regarded as education are excluded from the coverage of ISCED because they are not organized as here defined. Random learning from experience, observation, and other responses to stimuli in the environment is clearly excluded. So also is self-directed learning, where the learning is not consciously organized by a teacher or any providing agency, but by the learner himself, for example, through reading or self-directed training or practice. Also excluded, though widely regarded as informal education, is family- and socially-directed learning -- for example, a mother teaching her children at home when she is not employed as a teacher.

58. Isolated learning activities, such as one or two public lectures, conferences

or seminars, are excluded because they are not sustained. Public information, advertising, and other forms of communication, as well as corporate activities (such as meetings of clubs or associations or work camps) involving no educational aim, are also excluded because they are not organized and designed to bring about learning.

59. Within the framework of ISCED, the universe of education will include several categories which also need to be defined. Two major categories are as follows:

-- Regular school and university education: This is used here to describe the system that provides a "ladder" by which children and young people may progress from primary schools through universities (although many drop out on the way). It is designed and intended for children and young people, generally beginning at age five to seven up to the early twenties (although in some circumstances other students are accommodated along with their younger colleagues).

-- Adult education: This is used here to describe out-of-school education, which provides education for people who are not in the regular school and university system and who are generally fifteen or older (although in some circumstances, younger students are accommodated along with their older colleagues).

Two other major categories that should be distinguished for statistical purposes are:

-- Formal education: i.e. education in which students are enrolled (1) or registered, (2) regardless of the mode of teaching used; i.e. it includes an educational series transmitted by radio or television if the listeners are registered.

-- Non-formal education: i.e. education in which students or "clients" are not enrolled or registered.

In this sense, all regular school and university education is essentially formal in that students are enrolled. Adult education, however, can be formal or non-formal, and this distinction is useful statistically in that measurement of participation by students or clients presents particular problems in the absence of enrolment or registration.

Another category that is usually distinguished on a third axis applying to the whole universe of education is the one that separates:

-- Special education, i.e. education specially designed for exceptional students in special classes, special groups or special institutions. In many countries, special education is defined as applying only to regular school and university education where it consists of programmes designed for children and young people who, due to physical, emotional or mental handicap, are provided with special aids or special teaching facilities (usually including special teachers). (3) Other countries apply a wider definition to include, along

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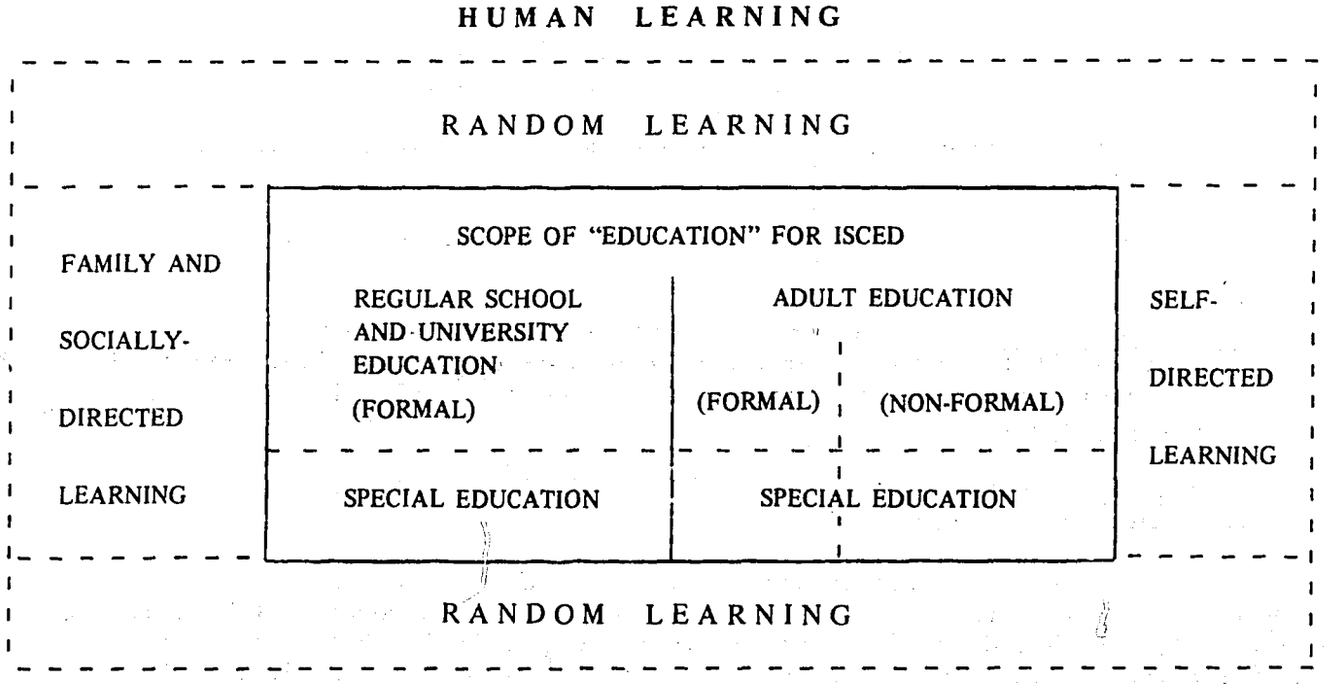
(1) Enrolment: The act of identifying oneself as wishing to follow a particular educational programme and being accepted as a student.

(2) Registration: Enrolment followed by the recording of the student's name and other particulars in a register, which is often used to record attendances or submissions of written material.

(3) In the report of an Expert Meeting on Special Education (ED/SPECED/2) held at Unesco on 5-7 December 1968, special education was defined as "an enriched form of general education aimed at enhancing the quality of the lives of those who labour under a variety of handicapping conditions; enriched insofar as it makes use of specially trained educational personnel who are aware of the application of methodological advances in education and of technological equipment to offset certain types of handicap."

with special provisions for the handicapped, special provisions for other exceptional students such as those with extraordinarily high mental capacities and/or those in very special circumstances, e.g. having a migratory or other unusual way of life, etc. In view of the scope of education intended for ISCED (see paragraphs 5-9 and 54-59), it is clear that the concept of special education may be widened in application of ISCED to include education in which special facilities are provided in adult education for those who can benefit from them. Of course, the various sub-categories within special education (e.g. enrolment by age, types of handicap, extraordinary capacity, special circumstances, etc.) can be separated in the statistics as required.

60. The diagram below indicates in schematic form the scope of Education as defined for the purpose of ISCED within the wider framework of human learning.



The largest rectangle enclosed by a broken line represents all human learning and the rectangle enclosed by a solid line the intended scope of Education to be covered by ISCED. Within this scope, Regular School and University Education (all formal) is separated by a solid line from Adult (out-of-school) Education (both formal and non-formal), while Special Education is shown as being a segment of both Regular and Adult Education.

DESCRIPTION OF ISCED

61. As a classification of education, ISCED classifies courses, programmes, and fields of education according to their educational content. The educational content of each course, programme, and field is designated according to its level category and its subject matter. For this purpose a course is defined as a planned series of learning experiences in a particular range of subject matter or skills offered by a sponsoring agency and undertaken by one or more students. A programme is defined as a selection of one or more courses or a combination of courses usually chosen from a syllabus. Such a programme may consist of one or a few courses in a specific field or, more commonly, of a number of courses most of which will be classified within a specific field but some of which may be classified in other fields. Each programme has an expressed or implied aim such as qualification for more advanced study, qualification for an occupation or a range of occupations, or solely an increase in knowledge or understanding. A field is a grouping of programmes related to the same broad subject-matter area.

62. The most detailed categories in ISCED are groups of programmes that are related in terms of level and subject-matter content, e.g. programmes in history at a given level (each such programme group being identified by a five-digit code number). Programme groups are further aggregated into fields composed of programme groups related to the same general subject matter within a level category, e.g. humanities programmes at a given level (each such field being identified by a three-digit code number). Fields and their constituent programme groups are designated within level categories which, as their name implies, are categories representing broad steps of educational progress from very elementary to more and more complicated learning experience (each level category being identified by a one-digit code number). ISCED is, therefore, a three-stage classification system containing groups in a hierarchical arrangement from very broad level categories to broad subject-matter fields to narrower subject-matter programme groups (the programmes constituting programme groups are composed of courses which represent the smallest educational units recognized in the ISCED system of definitions, but courses are not specified separately in the classification system and are not assigned code numbers).

ISCED level categories, with their code numbers, are the following:

0 Education preceding the first level

1 Education at the first level

2 Education at the second level, first stage

3 Education at the second level, second stage

5 Education at the third level, first stage, of the type that leads to an award not equivalent to a first university degree

6 Education at the third level, first stage, of the type that leads to a first university degree or equivalent

7 Education at the third level, second stage, of the type that leads to a postgraduate university degree or equivalent

9 Education not definable by level

63. A final category, coded X "No Education," may be added if required, for example, on surveys collecting information on a population, including the stock of those in the population who have had formal education according to the highest level attained by each. This category is not required for statistics of current educational operations.

64. Note that code numbers 4 and 8 have not been used, merely because they are not needed at present. Gaps of this type exist throughout the ISCED code system so that additional categories may be inserted or existing categories amended and an appropriate code number assigned without necessarily upsetting the system.

65. The Appendix to this volume provides a list of the fields and programme groups within each ISCED level category. It illustrates the growing complexity of subject-matter content through the level categories. It also shows very clearly the fact that some subjects are not found (or do not constitute separate fields) at some levels, e.g. programmes in Fine and Applied Arts begin with level category 3, and Humanities programmes at level category 5, while Literacy programmes are found only in level category 1.

ISCED is a standard classification of Education

66. As a standard classification system, ISCED is intended for use with a variety of educational data. One of its principal functions is to provide a standard format for assembling, reporting and compiling statistics of different educational phenomena (e.g. enrolment, teaching staff, awards, degrees or diplomas, finances, examinations, etc.) both within a country and internationally. Thus, ISCED is a tool designed to promote international comparisons and is not a new statistical collection programme.

67. ISCED is not intended to supplant national classifications of education. The international character of ISCED is explained in paragraphs 36 and 37 of the introduction to the ISCED volume, where it is pointed out that important features of national systems of education that are related to local circumstances cannot be reflected in ISCED. Paragraphs 44 to 47 of the introduction provide a short explanation of a method by which ISCED may be used as the basis for a national classification of education by countries not having such a system. To promote internationally comparable statistics, for both national and international use, it is important that the groups in each national classification be so constituted that they can be rearranged into the ISCED pattern.

68. Thus, ISCED is a classification of programmes of education, not a classification of people, sponsoring agencies, institutions (schools), or qualifications. Of course the individuals enrolled can be shown in ISCED categories according to the kinds of programmes in which they are enrolled and the total of enrolment in each ISCED category can be distributed on other axes, according to personal characteristics such as sex, age, nationality, whether handicapped, or whether attending full- or part-time, etc. Similarly, the number of programmes offered under each ISCED category can be distributed according to type of sponsoring agency, type of institution in which given, method of instruction (classroom, correspondence, radio or T.V. broadcast), etc. When survey forms are sent out the various characteristics required on enrolment, educational programmes, teaching staff, institutions, finances, degrees, diplomas or qualifications granted, etc., can be specified. Changes can be introduced into the statistical questionnaires on detail of this type to meet changing circumstances and changing needs without alteration in ISCED. In other words, desirable stability can be maintained in the categories of educational programmes for which data are collected over a period of years through occasional revision of ISCED. At the same time, the personal and other characteristics of the units for which the data are collected can be varied in both quantity and type to meet evolving needs. Of course, the extent to which the detailed categories in ISCED can be used in assembling statistics will vary according to the kind of information being collected. For example, information relating to individuals can be obtained for detailed categories because each individual is a separate statistical unit, but information such as financial data which are related to institutions or groups of institutions can be obtained only for broad ISCED categories, because institutions cannot be assigned to more detailed categories.

Some things ISCED does not do

69. ISCED does not constitute a programme for data collection. Each survey that uses ISCED must designate the kind of data required, the coverage, and the items of information sought. For example, a survey of adult education will have to provide a suitable definition of adult education, the personal characteristics of registrants or enrollees required, the particulars of programmes, teaching staff, and financial items sought, etc. A quite different set of items would be specified for a survey of degrees, diplomas, certificates, etc., awarded in a particular year. Yet each survey could use ISCED as the

basic classification system for the programmes of education involved. In fact, the use of ISCED will enhance the value of all surveys in ensuring comparability of the resulting data with respect to categories of education.

70. In the case of enrolment statistics, for example, ISCED can accommodate data of events or of individuals. Individuals may enrol simultaneously in different programmes of education, frequently in different institutions. The two or more events involving the same person may be recorded quite separately or they may be linked in the records to provide information about the enrolment of individuals. ISCED is not directly concerned with the record-keeping practices of educational authorities, which is a matter for arrangement between the educational and statistical authorities. This applies to all kinds of records and not only to enrolment.

71. The question of definition of the educational events or items to be collected is important statistically, but again ISCED is not directly concerned. For example, the definition of a student or an enrollee may be based upon initial enrolment (the gross figure); or on effective enrolment (the net figure); i.e. the number still enrolled after cancellations and drop-out; or on the number that had attended a given proportion of the sessions; or on an average figure based upon average daily attendance. Each of these and other definitions is appropriate for various purposes. Similarly, definitions of teaching staff, student "wastage," programme completion, etc., will vary according to the needs to be served by the statistics. ISCED can accommodate such data based upon any set of definitions.

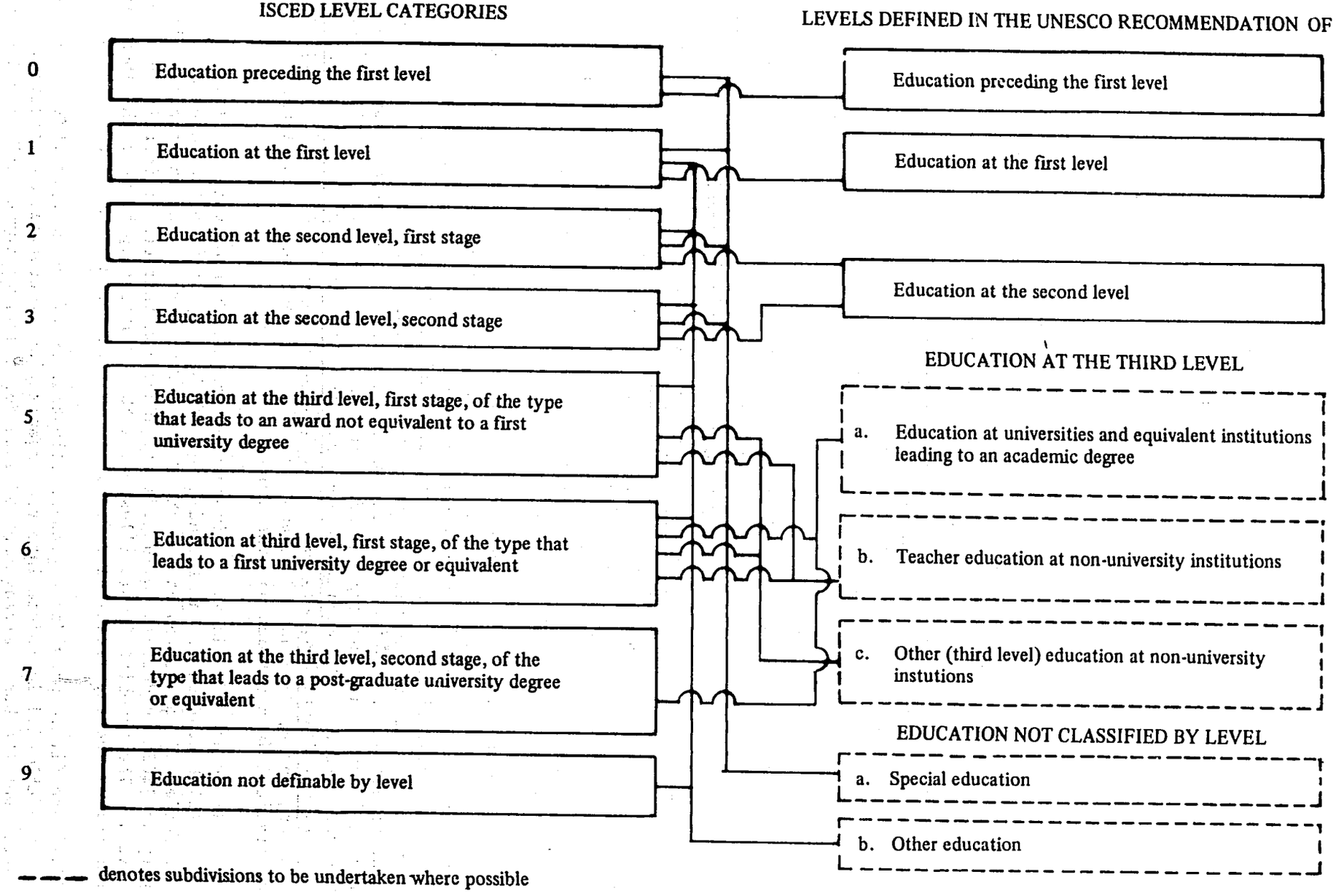
72. Enough examples have been given to indicate the role of ISCED in statistical surveys. Its main function is to provide a consistent structure to classify data on education according to level category, field, and programme. Such data are, however, assembled to be used. Thus, the format of ISCED has been designed to provide statistics based on its structure that will be useful in making international comparisons and in educational planning. This primary purpose will be served most advantageously when ISCED is used to obtain, on a standard format, data on educational events from different sources. It is important to remember, however, that international comparability depends not only on the ISCED categories but also on obtaining comparable counts of pupils, teaching staff, etc., these being problems that ISCED does not solve.

73. The concept of levels in education and their reflection in education statistics is not new. The sequential nature of many educational processes naturally leads to their organization and description in terms of a system of levels in a hierarchical relationship; completion of one level by a student ordinarily being a prerequisite to entry into the next highest level along a particular educational path. Different paths within a country's educational system often result in more than one type of education at a given level. A system of levels was recognized in the Recommendation concerning the International Standardization of Educational Statistics, adopted by the General Conference of Unesco at its tenth session, Paris, December 1958, and this plan has been the basis of Unesco's statistical data collection ever since.

74. ISCED now introduces two innovations to the Unesco system of levels: (a) Education at the second level has been split into two separate level categories and education at the third level into three; and (b) each level category in ISCED is defined to include all education that can be identified as at that level. The opposite figure illustrates the relationship between the ISCED level categories and the levels as defined in the Unesco Recommendation of 1958.

75. The figure provides a graphic illustration of the changes that the use of ISCED will introduce into the organization of education statistics. It is clear that the basic arrangement of data for the first three ISCED level categories is very similar to that in the earlier Recommendation. The differences are as follows: the former "Education at the second level" has been split into two

RELATIONSHIPS BETWEEN ISCED LEVEL CATEGORIES AND THE LEVELS AS DEFINED IN THE UNESCO RECOMMENDATION OF 1958



categories for the first and second stages of that level, a split that is becoming more and more apparent in the organization of secondary education in many countries; and segments of the former "Education not classified by level" are now included in all the ISCED level categories. These segments are as follows: special education for the handicapped and other exceptional students which is deemed to be present in many of the fields and programmes grouped in ISCED at level categories 0, 1, 2, 3 and 9, and adult and out-of-school education, which is taken to be present in ISCED in most of the fields and programme groups at all level categories except 0 (although level category 7 will have few programmes so designated).

76. An examination of the 1958 Recommendation makes it clear that the levels of education proposed at that time were to be applied only to statistics of educational institutions (1). Thus, each of the three main levels represented principally a type of institution or school, i.e. pre-school or kindergarten, primary school, secondary school, and post-secondary institutions subdivided between universities and others. The final category was "Education not classified by level," i.e. no attempt was to be made to classify by level except for the typical institutions that constitute the regular school and university system in most countries.

77. ISCED, on the other hand, does not accept the educational institution as the principal statistical unit for which educational data are to be collected (although, of course, the institution or school is often the unit from which the statistics may be secured), on the grounds that the range of levels of education provided in particular types of institutions varies so much from country to country and even within some countries. "A principal objective of ISCED is to promote the development of comparable data on education at various level categories from different countries. Such nationally disparate factors as types of educational institutions, legal provisions governing the period of compulsory education, and practices respecting awards, diplomas or degrees granted for successful completion of a programme cannot be used internationally as criteria for determining educational level." (2) Thus, in ISCED, the educational level of a programme is determined not by the kind of school in which it is given or the educational backgrounds of those enrolled, but on the basis of the minimum prior education required to undertake the programme.

Procedure to be used in determining educational level

(a) Core and non-core programmes

78. The introduction to the ISCED volume contains a short examination of what is called an educational core that exists in all countries. This is the system found in the regular school and university programmes of countries, designed (usually by a public authority) for the education of children and youth. The system is organized in a number of sequential stages frequently with paths branching off at particular points. Although the time usually spent by students in particular stages varies from country to country, the overall sequence is found to be quite uniform and the total time (i.e. full-time equivalent) spent by a typical student from original school entry to university graduation is quite consistent around the world. Thus, if the disparate stages in national systems imposed by the national pattern of educational institutions can be ignored, it is found that an internationally applicable set of ISCED level categories for the universal educational core can be described very briefly as follows:

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(1) Manual of Educational Statistics, Unesco, Paris, 1961, pp. 236-238.

(2) Introduction to this volume, paragraph 13.

0 Education preceding the first level, where it is provided, usually begins at age three, four, or five (sometimes earlier) and lasts from one to three years.

1 Education at the first level usually begins, therefore, at age 5, 6 or 7 and lasts for about five or six years.

2 Education at the second level, first stage, begins at about age 11 or 12 and lasts for about three years.

3 Education at the second level, second stage, begins at about age 14 or 15 and lasts for about three years.

5 Education at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, begins at about age 17 or 18 and lasts for about three years. Thus, at about age 20 or 21, students who have progressed through the regular school system to complete these programmes are usually ready to enter employment.

6 Education at the third level, first stage, of the type that leads to a first university degree or equivalent, also begins at about age 17 or 18 and lasts for about four years. Thus, students who have progressed through the school system to complete their first degree are usually ready for employment or for postgraduate study at about age 21 or 22.

7 Education at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, includes all education beyond level 6.

79. The above is a formalized sketch of the core intended simply to identify it for the purpose of international definition. The summary merely provides a scale or measuring rod that can be used to identify corresponding stages in any national system.

80. The core, however, does not contain all the educational programmes that can be classified by level. Many programmes of out-of-school and vocational education or training (often lumped under the heading of adult education) deal with subject matter requiring previous formal education on the part of those who undertake them. The actual educational histories of those enrolled for many non-core programmes is likely to be very mixed, so the level category into which such programmes can be fitted depends upon the minimum prior education required. It is the programme that is being analysed, not the individual histories of the enrollees. The philosophy behind this practice is expressed in the introduction to ISCED as follows:

81. "The decision to combine out-of-school education with the more structured school and university systems and to include adult as well as child education in a single classification system may complicate the task of data collection inasmuch as out-of-school and adult education are provided by a multiplicity of agencies. It is, however, in harmony with modern developments in educational policy and planning. It recognizes that education is not an instructional 'package' provided to children and young persons in schools and universities, but is a continuing process providing opportunities for enlarging experience, understanding and skill throughout the life of the individual."

82. Programmes of out-of-school education are classified by level category in ISCED, then, through their associations with the school and university programmes that constitute the educational core. Even if the subject content of an out-of-school programme is not identical with that of any programme in the core, it can often be identified as requiring at least a given minimum of core education for admission. Most programmes of non-core education are of this type because of

the essentially sequential nature of the educational process. Only if a programme is such that no particular minimum educational prerequisite can be determined, should it be placed in category 9, Education not definable by level. Note again the basic difference between the residual category in the 1958 Recommendation, i.e. "Education not classified by level" and that of ISCED, i.e. "Education not definable by level."

83. Referring again to the figure on page 24, note the heavy concentration of lines indicating transfer of educational components from the 1958 categories under Education not classified by level to ISCED level categories 1, 2, and 3, in particular, and to a lesser extent to 5, 6 and 9. Apart from "special education," which is included with the relevant programmes in categories 0, 1, 2, 3 and 9 in ISCED, these transfers relate mainly to adult education.

84. The following figure (page 28) illustrates the composition of the ISCED level categories in terms of core and non-core components. Distances shown on the vertical axis are roughly proportional to the number of years spent at each level by a full-time student in a core programme. This is, of course, merely illustrative. Distances on the horizontal axis are assigned arbitrarily except that the whole figure is given a pyramidal shape, indicating a falling-off in total registration, etc., at each successive level category (except from level 0-1). This shape results from the characteristics of the core and its predominance in the whole system. Note that the non-core part does not exhibit overall reduction at successive levels. In fact, it is likely that most countries will record a higher incidence of non-core programmes in categories 2, 3, 5 and 9 than in the others, i.e. adult education programmes are likely to be concentrated mainly in categories 2, 3, 5 and 9 except for the large enrolment in literacy programmes in category 1 in some countries.

85. Non-core programmes are shown at both horizontal extremes of the relevant level categories merely to indicate their relationship to the core, i.e. they "surround" it in the sense that their subject content may contain any of the subjects typically found in the corresponding core programmes and even some that are not typical of the core. Subject content is not in itself a criterion for determining level.

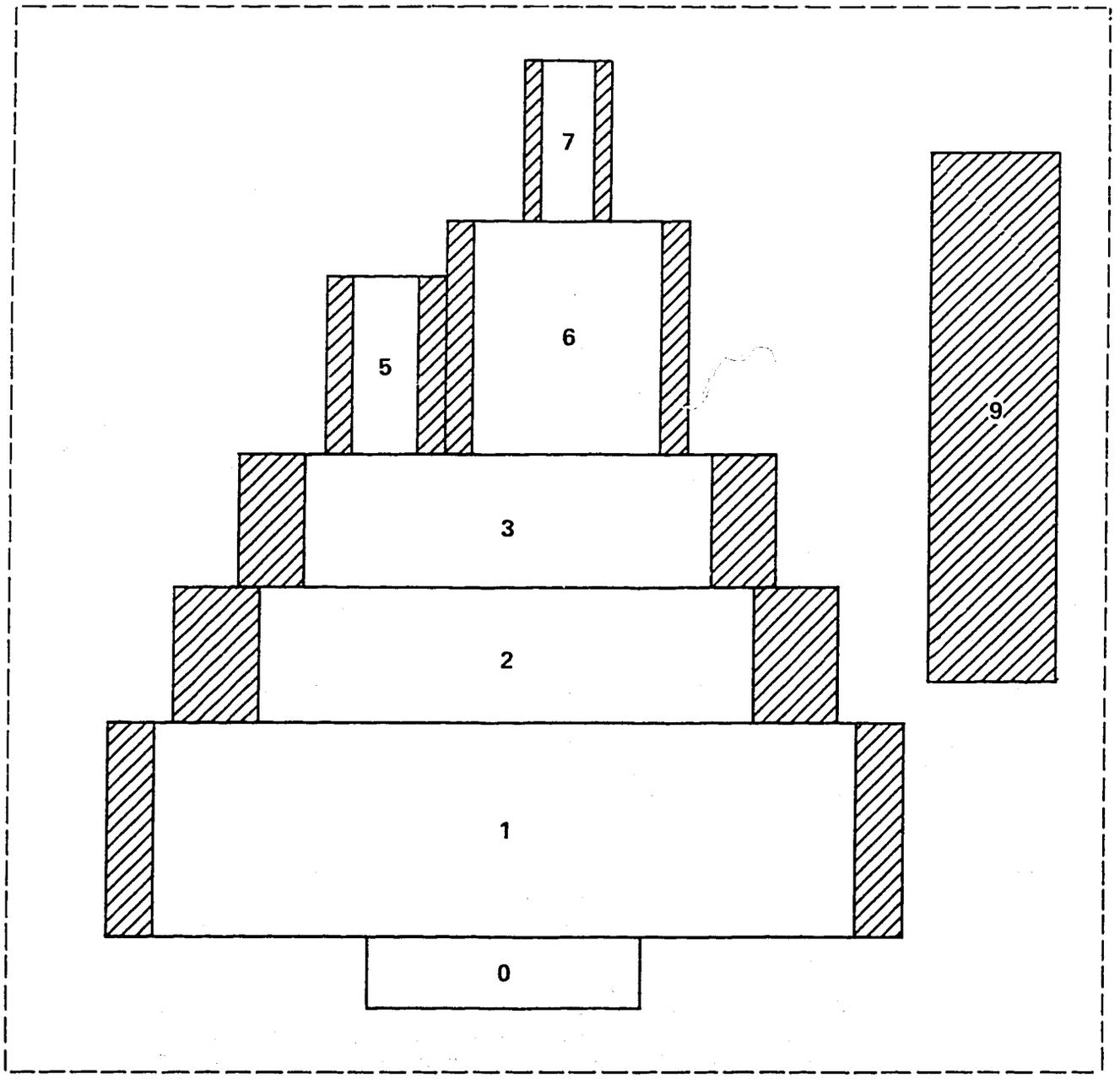
86. Note that level categories 5 and 6 share space on the vertical axis to indicate their hierarchical relationship, i.e. they are alternatives for students in core programmes who have completed category 3. Category 7 is related vertically only to category 6.

87. Category 9 is shown off by itself because it is unrelated to the hierarchical system underlying the others and is, of course, completely non-core. At the same time it comes within the "universe" of education covered by ISCED.

88. Some non-core programmes are virtually identical with some in the core while others are very different from core programmes. For example, programmes organized in many countries for those who have been out of school and who desire to obtain a qualification permitting them to return to school or university, though often accelerated, are very close in content to core programmes. Other non-core programmes, such as some vocational programmes, are very different from those in the core, yet they often require of the students knowledge of subjects such as mathematics, natural sciences, social sciences or special reading and writing abilities that can be assessed as equivalent to the knowledge required to undertake certain core programmes (which, of course, have known levels). By means such as these, the appropriate levels of many, if not most, non-core programmes can be determined. The degree of certainty that can be attached to such determination will vary from very strong to very doubtful cases. Nonetheless, if any grounds at all can be found to determine the level of a programme, it is suggested that they be applied and that the programme be assigned to the indicated level category. Only

A representation of the ISCED level categories showing the relationship between "core" and "non-core" programmes in each

(The numbers are those of the ISCED level categories)



LEGEND core non-core the universe of education covered by ISCED

if no indication of level can be discovered should a programme be placed in category 9. (1) This rule is applied because any other approach is likely to result in category 9 becoming a repository for all difficult cases as well as truly undefinable cases. If that were to happen the reporting of statistics from different countries and for particular countries at different times would tend to be subject to undesirable differences of interpretation regarding level for particular out-of-school programmes.

(b) Level is a characteristic of an educational programme

89. The characteristics of the students enrolled in a programme, the kind of agency sponsoring it, or the nature of the institution providing it are not decisive in the determination of the programme's level. ISCED is a classification of programmes of education, not a classification of people, sponsoring agencies, or institutions. As explained earlier, the personal characteristics of those enrolled, or of the teaching staff involved, the characteristics of the programmes, and the types of sponsors or of institutions providing the programmes can be recorded as distributions on another axis of the totals assigned to ISCED categories. All these facts (and others) are important to statistics of education but they do not fit into the ISCED hierarchy.

Reporting on statistical units that overlap ISCED categories

(a) Enrolment

90. Enrolment in programmes that contain material appropriate to more than one ISCED level category should be assigned to the category in which most of the material fits (i.e. most in terms of the time spent in classroom, correspondence, or other instruction). For example, a programme in which students are enrolled may combine some elements equivalent to those found in the final phases of level category 1 and the beginning phases of category 2; or a programme may combine elements equivalent to those in the final phases of category 3 and the beginning phases of category 6; or a programme may cover two level categories, e.g. categories 2 and 3. If the instruction time involved in the different level categories can be determined and if one predominates, the assignment can be made on that basis. If the relative instruction times are indeterminate or if they are equally divided between level categories, then the enrolment should be assigned to the higher level category. When such an assignment is made an appropriate footnote should be given in the statistical return. For a discussion of the general problem of measuring enrolment, see paragraph 71, above, under "Some Things ISCED Does Not Do."

(b) Institutions

91. Many educational institutions or groups of institutions under common management offer programmes of education falling within more than one ISCED level category. When reporting data for programmes from such overlapping institutions, the programmes should be assembled into the appropriate ISCED categories. This

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(1) Note, however, that the ability merely to read and write is a requirement for admission to almost all programmes of adult or out-of-school education except literacy programmes. If this were taken to be a criterion for determination of level, many programmes having no other indication of level would be placed in level category 1 in which the ability to simply read and write is usually a prerequisite for admission to the second and subsequent years of full-time schooling in the core. If no other indication of level than the ability to comprehend written material and to copy written instructions, etc., can be found, the programme in question should be placed in level category 9.

can be done either on the basis of the number of years of full-time instruction preceding entry into the programme in question or on the prior educational attainment required to handle the material in the programme. In any case, programmes should be considered according to their "levels" as defined for ISCED purposes and not on the basis of the kind of institution providing them - e.g. primary schools, secondary schools, universities, etc.

92. If, as in the case of some financial items, or certain teaching staff, the institution is the smallest unit for which data can be reported, each institution should be assigned as a whole to the level category into which the principal part of its enrolment fits. If the enrolment is equally divided the institution should be assigned to the higher level category (with an appropriate footnote in the statistical return).

(c) Teaching staff

93. Although the majority of teachers are connected with programmes that fall into a particular ISCED level category, some are involved in teaching a programme that overlaps the categories or in more than one programme in more than one level category. Each teacher should be assigned to one category, where possible on the basis of the time spent in teaching at each level. If the time spent at each level is equal or indeterminate, the teacher should be assigned to the higher level (with a footnote indicating the number of such cases). For some purposes, however, the most useful measure of teaching staff is in terms of full-time equivalents.

94. The above examples of types of statistical units that overlap ISCED level categories are intended to be illustrative. The convention for handling cases of overlap given in the illustrations should be applied to cases of overlap encountered in reporting on other statistical units such as diplomas and awards granted, revenue and expenditure items, etc.

Subject matter

95. Within each ISCED level category, subdivisions by subject-matter content of programmes are made at two stages, i.e. broad subject fields within which narrower subject categories are specified for groups of programmes. For example, in level category 3, Education at the second level, second stage, broad subject fields such as general programmes containing little or no technical education, teacher-training programmes, religion and theology programmes, commercial and business programmes, etc., are shown. Within these broad fields, categories for groups of programmes such as general teacher-training programmes, teacher training for pre-school and kindergarten teachers, general commercial programmes, secretarial programmes, etc., are specified.

96. Altogether, 22 categories of broad subject fields are used in ISCED, being applied consistently throughout the various level categories wherever they are applicable. Within fields, the subject-matter groupings of programmes are presented in as consistent a form as the differences in subject content at different levels permit. Consistency in subject-matter group content at different levels has obvious advantages, but it is less important for a classification like ISCED than conformity to the actual pattern of subject content found in programmes in most countries. The Appendix to this volume provides a tabular presentation of the level, field and programme group categories. It shows very clearly the increasing subject specialization of programmes in the higher level categories. The concentration of "practical" subject matter in categories 1, 2, 3 and 5 is also significant, e.g. transport and communication programmes, and trade, craft, and industrial programmes.

Programmes that overlap subject-matter categories

97. In most countries the subject content of programmes in education is constantly under scrutiny and is frequently revised. This fluidity is important if the programmes are to reflect changing social and economic conditions, plans and objectives. It is to be expected, therefore, that no set of subject-matter categories can accommodate all existing programmes with no overlap. Thus, the field and programme group categories in ISCED should be interpreted as referring to programmes primarily consisting of the subject-matter content specified. Of course, the ISCED groupings have been designed on the basis of common subject combinations and therefore many (if not most) programmes will fall into one field and often into one programme group within the field.

98. Programmes that do not fall entirely within one field should be assigned to the field within which the principal part of the programme falls from the viewpoint of classroom or similar instructional (including laboratory and field work) time involved. If the instructional time is equally divided between two fields (e.g. mathematics and physics, or social science and religion), the programme should be assigned to the first-named field in its title. This rule assumes that the major field is named first and the minor second, and although this assumption may not be universally correct, a definite rule is required to handle the relatively few cases involved. The same rule should be applied to the assignment of programmes that overlap categories for programme groups within a field - for example, a programme in music and drama in field 518, or a programme in agricultural economics and animal husbandry in field 562.

Use of the ISCED structure in assembling data

99. In the introduction to this volume (page 1) it is pointed out that ISCED "is designed for assembling data on current educational phenomena such as enrolment, teaching staff and finances as well as for statistics of the 'stock' of educated people as obtained, for example, by a census of population. In this sense it is a multi-purpose system within which comparable data can be assembled on various features of educational systems and programmes." But data cannot be obtained to the same degree of detail on all kinds of phenomena, nor from all sourses. Thus, ISCED's hierarchical structure may be used at whatever stage is appropriate for a particular survey or tabulation and it is expected that the steps or stages in the hierarchy will meet most needs.

100. Surveys of some types, however, will need even more detail than is provided by the ISCED programme groups - e.g. special surveys of higher education collecting information on detailed subject categories. ISCED fields and programme groups can be subdivided and the blank spaces in the three-digit and five-digit code system used. Other surveys or tabulations may require levels of detail falling between the steps in the ISCED hierarchy. A likely example of this kind will be statistical analyses of data derived from sample surveys and requiring cross-classifications of educational factors with personal or other non-educational characteristics. The eight ISCED "level" categories are likely to be too broad for meaningful analysis, while the "levels and fields" comprising some 100 groups may be too detailed for tables involving cross-classification. An intermediate grouping having something less than 20 groups like the following could be useful:

1. Level 0 - Education preceding the first level
2. Level 1 - General education at the first level except literacy programmes (101)
3. Level 1 - Other programmes of education at the first level (126, 134, 150, 152, 162, 166, 178, 189)
4. Level 1 - Literacy programmes (108)

5. Level 2 - Programmes of general education (201)

6. Level 2 - Teacher-training programmes (214)

7. Level 2 - Other programmes of education at the second level, first stage (226, 234, 250, 252, 262, 266, 270, 278, 289)

8. Level 3 - Programmes of general education (301)

9. Level 3 - Teacher-training programmes (314)

10. Level 3 - Other programmes of education at the second level, second stage (318, 326, 334, 350, 352, 354, 362, 366, 370, 378, 389)

11. Level 5 - Cultural, law, and social science programmes (518, 522, 526, 530, 534, 538, 584)

12. Level 5 - Teacher-training programmes (514)

13. Level 5 - Other education at the third level, first stage, of the type that leads to an award not equivalent to a first university degree (542, 546, 550, 552, 554, 558, 562, 566, 570, 578, 589)

14. Level 6 - General, cultural, law, and social science programmes (601, 618, 622, 626, 630, 634, 638, 684)

15. Level 6 - Programmes in education science and teacher training (614)

16. Level 6 - Other education at the third level, first stage, of the type that leads to a first university degree or equivalent (642, 646, 650, 654, 658, 662, 666, 689)

17. Level 7 - Education at the third level, second stage, of the type that leads to a postgraduate university degree or equivalent (all codes beginning with 7)

18. Level 9 - Education not definable by level (all codes beginning with 9).

101. Level categories 5, 6, and, particularly, 7 tend to have much smaller enrolments than level categories 1, 2, and 3. Further subdivision would depend, therefore, on the sample size used for a survey. In any case, combinations made to achieve a short list should not combine elements from more than one ISCED level category.

Conclusion

102. The existence of a standard classification system does not, in itself, ensure comparable statistics from different sources. Of greater importance is uniform application of the standard system in the collection and tabulation of data. This guide to the use of ISCED is intended to assist in obtaining more uniform application of the system. As experience is gained in the use of ISCED in many countries, leading to additions and improvements in the guide over the years, its value should increase. Comments and suggestions for improvement will be appreciated. Another valuable aid to uniform application of ISCED is an index of terms used to describe educational programmes in different countries and showing the ISCED code for each term. The present index represents an expansion over previous lists but it is hoped that it can be built up even further through experience as ISCED is used by educational statisticians in different countries.

0 Education preceding the first level

001 General programmes for children of pre-primary age

1 Education at the first level

101 General elementary programmes

108 Literacy programmes

126 Religion and theology programmes

134 Commercial programmes

150 Elementary public health programmes

152 Trade, craft, and industrial programmes, n.e.c.

162 Agricultural, forestry, and fishery programmes

166 Home economics (domestic science) programmes

178 Service trades programmes

189 Other programmes of education at the first level

2 Education at the second level, first stage

201 General programmes containing little or no technical education

214 Teacher-training programmes

226 Religion and theology programmes

234 Commercial programmes

250 Health-related auxiliary programmes

252 Trade, craft, and industrial programmes, n.e.c.

262 Agricultural, forestry, and fishery programmes

266 Home economics (domestic science) programmes

270 Transport programmes

278 Service trades programmes

289 Other programmes of education at the second level, first stage

3 Education at the second level, second stage

301 General programmes containing little or no technical education

314 Teacher-training programmes

318 Fine and applied arts programmes

326 Religion and theology programmes

334 Commercial and business programmes

350 Health-related auxiliary programmes

352 Trade, craft, and industrial programmes, n.e.c.

354 Engineering programmes

362 Agricultural, forestry, and fishery programmes

366 Home economics (domestic science) programmes

370 Transport and communications programmes

378 Service trades programmes

389 Other programmes of education at the second level, second stage

5 Education at the third level, first stage, of the type that leads to an award not equivalent to a first university degree

514 Teacher-training programmes

518 Fine and applied arts programmes

522 Humanities programmes

526 Religion and theology programmes

530 Social and behavioural science programmes

534 Commercial and business administration programmes

538 Law and jurisprudence programmes

542 Natural science programmes

546 Mathematics and computer science programmes

550 Medical diagnostic and treatment programmes

552 Trade, craft, and industrial programmes, n.e.c.

554 Engineering programmes

558 Architectural and town-planning programmes

562 Agricultural, forestry, and fishery programmes

566 Home economics (domestic science) programmes

570 Transport and communications programmes

578 Service trades programmes

584 Programmes in mass communication and documentation

589 Other programmes of education at the third level, first stage, of the type that leads to an award not equivalent to a first university degree

6 Education at the third level, first stage, of the type that leads to a first university degree or equivalent

601 General programmes

614 Programmes in education science and teacher training

618 Fine and applied arts programmes

622 Humanities programmes

626 Religion and theology programmes

630 Social and behavioural science programmes

634 Business administration and related programmes

638 Law and jurisprudence programmes

642 Natural science programmes

646 Mathematics and computer science programmes

650 Medical diagnostic and treatment programmes

654 Engineering programmes

658 Architectural and town-planning programmes

662 Agricultural, forestry, and fishery programmes

666 Home economics (domestic science) programmes

684 Programmes in mass communication and documentation

689 Other education at the third level, first stage, of the type that leads to a first university degree or equivalent

7 Education at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent

714 Programmes in education science and teacher training

718 Fine and applied arts programmes

722 Humanities programmes

726 Religion and theology programmes

730 Social and behavioural science programmes

734 Business administration and related programmes

738 Law and jurisprudence programmes

742 Natural science programmes

746 Mathematics and computer science programmes

750 Medical science programmes

754 Engineering programmes

758 Architectural and town-planning programmes

762 Agricultural, forestry, and fishery programmes

766 Home economics (domestic science) programmes

784 Programmes in mass communication and documentation

789 Other programmes of education at the third level, second stage, of the type that leads to a postgraduate university degree or equivalent

9 Education not definable by level

901 General programmes

914 Programmes in education and teacher training, including training for extension and other fields of non-formal education

918 Fine and applied arts programmes

922 Humanities programmes, n.e.c.

926 Religion and theology programmes

930 Social and behavioural science programmes

934 Commercial, clerical, business and public administration programmes

938 Programmes in law

942 Natural science programmes

946 Programmes in computer science

950 Health-related programmes

952 Trade, craft, and industrial programmes, n.e.c.

954 Engineering programmes

958 Architectural and town-planning programmes

962 Agricultural, forestry, and fishery programmes

966 Home economics programmes

970 Transport and communications programmes

978 Service trades programmes

984 Programmes in mass communication and documentation

989 Other education not definable by level

0 Education preceding the first level

001 General programmes for children of pre-primary age

00100 General programmes for children of pre-primary age

1 Education at the first level

101 General elementary programmes

10100 General elementary programmes

108 Literacy programmes

10811 Simple literacy programmes

10821 Functional literacy programmes

126 Religion and theology programmes

12600 Religion and theology programmes

134 Commercial programmes

13401 General commercial programmes

13411 Specialized commercial programmes

150 Elementary public health programmes

15000 Elementary public health programmes

152 Trade, craft, and industrial programmes, n.e.c.

15201 General trade and crafts programmes

15212 Food and drink processing trades programmes

15216 Building trades programmes, n.e.c.

15222 Electrical trades programmes

15232 Metal trades programmes

15242 Mechanical and mechanical repair trades programmes

15262 Woodworking trades programmes

15272 Leather trades programmes

15274 Textile trades programmes

15276 Clothing and related trades programmes

15299 Other trade, craft, and industrial programmes, n.e.c.

162 Agricultural, forestry, and fishery programmes

16202 Agricultural programmes

16262 Forestry programmes

16272 Fishery programmes

166 Home economics (domestic science) programmes

16601 General home economics programmes

16604 Home economics programmes with emphasis on dressmaking and sewing

16608 Home economics programmes with emphasis on cooking, food preparation, and nutrition

16622 Home economics programmes with emphasis on child care

16699 Other home economics programmes

178 Service trades programmes

17812 Barbering and beauty culture programmes

17822 Hotel and restaurant trades programmes

17842 Laundry and dry-cleaning trades programmes

17899 Other service trades programmes

189 Other programmes of education at the first level

18900 Other programmes of education at the first level

2 Education at the second level, first stage

201 General programmes containing little or no technical education

20100 General programmes containing little or no technical education

214 Teacher-training programmes

21401 General teacher training for elementary school teaching

21408 Teacher training for specialists such as those in vocational or adult education programmes

226 Religion and theology programmes

22600 Religion and theology programmes

234 Commercial programmes

23401 General commercial programmes

23404 Typing and shorthand programmes

23499 Other commercial programmes

250 Health-related auxiliary programmes

25002 General medical auxiliary programmes

25012 Nursing programmes

25015 Midwifery programmes

25099 Other health-related auxiliary programmes

252 Trade, craft, and industrial programmes, n.e.c.

25201 General trade and craft programmes

25212 Food and drink processing trades programmes

25216 Building trades programmes, n.e.c.

25222 Electrical trades programmes

25232 Metal trades programmes

25242 Mechanical and mechanical repair trades programmes

25262 Woodworking trades programmes

25266 Materials handling and earth-moving equipment operating programmes

25272 Leather trades programmes

25274 Textile trades programmes

25276 Clothing and related trades programmes

25278 Printing and bookbinding trades programmes

25299 Other trade, craft, and industrial programmes, n.e.c.

262 Agricultural, forestry, and fishery programmes

26202 Agricultural programmes

26262 Forestry programmes

26272 Fishery programmes

266 Home economics (domestic science) programmes

26601 General home economics programmes

26604 Home economics programmes with emphasis on dressmaking and sewing

26608 Home economics programmes with emphasis on cooking and food preservation

26699 Other home economics programmes

270 Transport programmes

27004 Seamen's programmes

27006 Railway operation programmes

27008 Road motor vehicle operation programmes

278 Service trades programmes

27812 Barbering and beauty culture programmes

27822 Hotel and restaurant trades programmes

27842 Laundry and dry-cleaning trades programmes

27862 Retailing programmes

27899 Other service trades programmes

289 Other programmes of education at the second level, first stage

28900 Other programmes of education at the second level, first stage

3 Education at the second level, second stage

301 General programmes containing little or no technical education

30101 General programmes with no special subject emphasis

30104 General programmes with special emphasis on the humanities and social sciences

30108 General programmes with special emphasis on mathematics and natural or applied sciences

30199 General programmes with special emphasis on other non-technical subjects

314 Teacher-training programmes

31401 General teacher-training programmes

31408 Teacher training with specialization in a specific vocational or practical subject

31412 Teacher training for pre-school and kindergarten teachers

31416 Teacher training for teachers in adult education

31422 Teacher training for teachers of handicapped children

31499 Other specialized teacher-training programmes

318 Fine and applied arts programmes

31804 Programmes in drawing and painting

31812 Programmes in handicrafts

31822 Programmes in music

	31899	Other programmes in fine and applied arts
326	Religion and theology programmes	
	32600	Religion and theology programmes
334	Commercial and business programmes	
	33401	General commercial programmes
	33404	Shorthand-typing (secretarial) programmes
	33408	Clerical-typist programmes
	33422	Programmes in the operation of office machines
	33432	Bookkeeping programmes
	33439	Other commercial and business programmes
	33452	Programmes in local public administration
350	Health-related auxiliary programmes	
	35002	General medical auxiliary programmes
	35012	Nursing programmes
	35015	Midwifery programmes
	35099	Other health-related auxiliary programmes
352	Trade, craft, and industrial programmes, n.e.c.	
	35201	General programmes with a trade, craft, or industrial emphasis
	35212	Food and drink processing trades programmes
	35216	Building trades programmes, n.e.c.
	35222	Electrical and electronics trades programmes
	35232	Metal trades programmes
	35242	Mechanical and mechanical repair trades programmes
	35262	Woodworking trades programmes
	35264	Heating, air-conditioning, and refrigeration trades programmes
	35266	Materials handling and earth-moving equipment operating programmes
	35272	Leather trades programmes
	35274	Textile trades programmes
	35276	Clothing and related trades programmes

35278 Graphic arts and bookbinding trades programmes

35282 Laboratory assistant programmes

35299 Other trade, craft, and industrial programmes, n.e.c.

354 Engineering programmes

35402 Programmes in surveying

35406 Programmes in engineering drawing

35416 Civil engineering technician programmes

35422 Electrical and electronics engineering technician programmes

35426 Industrial engineering technician programmes

35436 Mining engineering technician programmes

35452 Agricultural, forestry, and fishery engineering technician programmes

35499 Other engineering programmes

362 Agricultural, forestry, and fishery programmes

36201 General agricultural programmes

36203 Animal husbandry programmes

36206 Horticultural and gardening programmes

36208 Crop husbandry programmes

36249 Other programmes in agriculture

36262 Forestry programmes

36272 Fishery programmes

366 Home economics (domestic science) programmes

36601 General programmes in home economics

36612 Programmes with emphasis on nutrition

36622 Programmes with emphasis on child care

36699 Other home economics programmes

370 Transport and communications programmes

37004 Seaman's certificate programmes

37006 Railway operating trades programmes

37008 Road motor vehicle operation programmes

37026 Postal service programmes, except electronics equipment installation and servicing

37029 Other communications programmes

378 Service trades programmes

37812 Barbering and beauty culture programmes

37822 Hotel and restaurant trades programmes

37862 Retailing programmes

37872 Tourist trades programmes

37899 Other service trades programmes

389 Other programmes of education at the second level, second stage

38900 Other programmes of education at the second level, second stage

5 Education at the third level, first stage, of the type that leads to an award not equivalent to a first university degree

514 Teacher-training programmes

51401 General teacher-training programmes

51404 Teacher-training programmes with specialization in a non-vocational subject

51408 Teacher-training programmes for teachers of vocational subjects

51412 Teacher-training programmes for pre-school and kindergarten teachers

51416 Teacher-training programmes for teachers in adult education, n.e.c.

51422 Teacher-training programmes for teachers of handicapped children

51499 Other specialized teacher-training programmes

518 Fine and applied arts programmes

51801 General programmes of art studies

51804 Programmes in drawing and painting

51808 Programmes in sculpturing

51812 Programmes in handicrafts

51822 Programmes in music

51832 Programmes in the drama

51842 Programmes in photography and cinematography

51899 Other fine and applied arts programmes

522	Humanities programmes	
	52202	Programmes for interpreters and translators
	52208	Other programmes in languages, except the current or vernacular language
	52211	Programmes in the current or vernacular language and its literature
	52299	Other humanities programmes
526	Religion and theology programmes	
	52600	Religion and theology programmes
530	Social and behavioural science programmes	
	53012	Programmes in economics
	53022	Programmes in political science
	53032	Programmes in sociology
	53052	Programmes in psychology
	53099	Other programmes in social and behavioural science
534	Commercial and business administration programmes	
	53401	General commercial programmes
	53404	Secretarial programmes
	53422	Programmes in business machine operation except electronic data processing
	53426	Programmes in electronic data processing
	53432	Accountancy programmes
	53434	Business administration, marketing and sales programmes
	53436	Programmes in financial management and investment analysis
	53439	Other commercial and business programmes
	53452	Programmes in public administration
	53462	Programmes in institutional administration
538	Law and jurisprudence programmes	
	53800	Programmes for local magistrates
542	Natural science programmes	
	54202	Biological science programmes
	54212	Chemistry programmes

	54222	Geological science programmes
	54232	Physics programmes
	54299	Other natural science programmes
546		Mathematics and computer science programmes
	54601	General programmes in mathematics
	54611	Programmes in statistics
	54621	Programmes in actuarial science
	54639	Other programmes in applied mathematics
	54641	Programmes in computer science
550		Medical diagnostic and treatment programmes
	55002	Public health inspection programmes
	55008	Physiotherapy and occupational therapy programmes
	55012	Nursing programmes
	55015	Midwifery programmes
	55017	Programmes in medical x-ray techniques
	55019	Other programmes in medical diagnostic and treatment techniques except dental techniques
	55042	Dental practitioner programmes
	55046	Other programmes in dental techniques
	55052	Pharmacy programmes
	55062	Optometry programmes
	55099	Other medical diagnostic and treatment programmes
552		Trade, craft, and industrial programmes, n.e.c.
	55212	Food processing programmes
	55222	Electrical and electronics trades programmes
	55232	Metal trades programmes
	55242	Mechanical and mechanical repair trades programmes
	55264	Heating, air-conditioning, and refrigeration trades programmes
	55274	Programmes in textile techniques
	55278	Graphic arts programmes
	55284	Laboratory technician programmes

	55286	Optical lens making programmes
	55299	Other trade, craft, and industrial programmes, n.e.c.
554	Engineering programmes	
	55402	Programmes in surveying
	55406	Programmes in drafting and design
	55412	Programmes in chemical engineering and materials techniques
	55416	Programmes in civil engineering techniques
	55422	Programmes in electrical and electronics engineering techniques
	55426	Programmes in industrial engineering techniques
	55432	Programmes in metallurgical engineering techniques
	55436	Programmes in mining engineering techniques
	55442	Programmes in mechanical engineering techniques
	55452	Programmes in agricultural, forestry, and fishery engineering techniques
	55499	Other engineering programmes
558	Architectural and town-planning programmes	
	55801	General programmes in architecture and town planning
	55802	Programmes in structural architecture
	55812	Programmes in landscape architecture
	55822	Programmes in town or community planning
562	Agricultural, forestry, and fishery programmes	
	56201	General programmes in agriculture
	56203	Animal husbandry programmes
	56206	Horticulture programmes
	56208	Crop husbandry programmes
	56212	Agricultural economics programmes
	56226	Soil and water technician programmes
	56232	Veterinarian technician programmes
	56249	Other programmes in agriculture
	56262	Programmes in forestry and forest product techniques
	56272	Fishery technician programmes

566 Home economics (domestic science) programmes

56601 General programmes in home economics

56612 Programmes with emphasis on household food management and nutrition

56622 Programmes with emphasis on child care

56632 Programmes with emphasis on household arts

56699 Other home economics programmes

570 Transport and communications programmes

57002 Air crew programmes

57004 Ships' officer programmes

57006 Railway operating trades programmes

57008 Road motor vehicle operating programmes

57026 Postal service programmes except electronics equipment installation and servicing

57029 Other communications programmes

578 Service trades programmes

57826 Programmes in cooking (restaurant- and hotel-type)

57862 Retailing programmes

57872 Tourist trades programmes

57899 Other service trades programmes

584 Programmes in mass communication and documentation

58402 Programmes in journalism

58404 Programmes in radio and television broadcasting

58407 Public relations programmes

58409 Other programmes in communications arts

58422 Library technician programmes

58425 Programmes for technicians in museums and similar repositories

58429 Programmes in documentation techniques, n.e.c.

589 Other programmes of education at the third level, first stage, of the type that leads to an award not equivalent to a first university degree

58912 Programmes in police work and related law enforcement

58915 Fire-protection and fire-fighting programmes

58917 Military programmes

58919 Other programmes in civil security

58932 Programmes in social work

58942 Programmes in vocational counselling

58952 Programmes in environmental studies

58962 Programmes in physical education

58999 Other programmes of education at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, n.e.c.

6 Education at the third level, first stage, of the type that leads to a first university degree or equivalent

601 General programmes

60100 General programmes

614 Programmes in education science and teacher training

61401 General teacher-training programmes

61404 Teacher-training programmes with specialization in a non-vocational subject

61408 Teacher-training programmes for teaching practical or vocational subjects

61412 Teacher-training programmes for teaching pre-school or kindergarten

61416 Teacher training for teachers in adult education

61422 Teacher training for teaching handicapped children

61432 Teacher training for teacher trainers

61499 Other programmes in education science and teacher training

618 Fine and applied arts programmes

61801 General programmes of art studies

61804 Programmes in drawing and painting

61808 Programmes in sculpturing

61822 Programmes in music

61832 Programmes in the drama

61852 Programmes in interior design

61899 Other fine and applied arts programmes

622 Humanities programmes

	62201	General programmes in the humanities
	62211	Programmes in the current or vernacular language and its literature
	62215	Programmes in other living languages and their literature
	62221	Programmes in "dead" languages and their literature
	62231	Programmes in linguistics
	62241	Programmes in comparative literature
	62251	Programmes in history
	62261	Programmes in archaeology
	62271	Programmes in philosophy
	62299	Other programmes in the humanities
626	Religion and theology programmes	
	62600	Religion and theology programmes
630	Social and behavioural science programmes	
	63001	General programmes in the social and behavioural sciences
	63012	Economics programmes
	63022	Political science programmes
	63032	Sociology programmes
	63042	Anthropology programmes
	63052	Psychology programmes
	63062	Geography programmes
	63072	Studies of regional cultures
	63099	Other social and behavioural science programmes
634	Business administration and related programmes	
	63401	General programmes in business administration (commerce)
	63432	Programmes in business administration with specialization in accountancy
	63439	Programmes in business administration with other specialization
	63452	Programmes in public administration
	63462	Programmes in institutional administration

638 Law and jurisprudence programmes

63801 General programmes in law

63812 Programmes for "notaires"

642 Natural science programmes

64202 Biological science programmes

64212 Chemistry programmes

64222 Geological science programmes

64232 Physics programmes

64242 Astronomy programmes

64252 Meteorology programmes

64262 Oceanography programmes

64299 Other natural science programmes

646 Mathematics and computer science programmes

64601 General programmes in mathematics

64611 Programmes in statistics

64621 Programmes in actuarial science

64639 Other programmes in mathematics

64641 Programmes in computer science

650 Medical diagnostic and treatment programmes

65002 Programmes in hygiene

65006 Programmes in medicine and surgery

65008 Rehabilitation medicine programmes

65012 Programmes in nursing

65030 Medical technology programmes

65042 Programmes in dentistry, stomatology, odontology

65052 Programmes in pharmacy

65099 Other medical diagnostic and treatment programmes

654 Engineering programmes

65412 Chemical engineering programmes

65416 Civil engineering programmes

65422 Electrical and electronics engineering programmes

	65426	Industrial engineering programmes
	65432	Metallurgical engineering programmes
	65436	Mining engineering programmes
	65442	Mechanical engineering programmes
	65453	Agricultural engineering programmes
	65463	Forestry engineering programmes
	65499	Other engineering programmes
658	Architectural and town-planning programmes	
	65801	General programmes in architecture and town planning
	65802	Programmes in structural architecture
	65812	Programmes in landscape architecture
	65822	Programmes in town planning
662	Agricultural, forestry, and fishery programmes	
	66201	General programmes in agriculture
	66203	Animal husbandry programmes
	66206	Horticulture programmes
	66208	Crop husbandry programmes
	66212	Agricultural economics programmes
	66222	Food sciences and technology programmes
	66226	Soil and water sciences programmes
	66232	Programmes in veterinary medicine
	66249	Other programmes in agriculture
	66262	Forestry programmes
	66272	Programmes in fishery science and technology
666	Home economics (domestic science) programmes	
	66601	General programmes in home economics
	66612	Programmes in home economics with emphasis on household and consumer food research; nutrition
	66632	Programmes in home economics with emphasis on household arts
	66699	Other home economics programmes

684 Programmes in mass communication and documentation

68402 Journalism programmes

68404 Programmes in radio and television broadcasting

68407 Public relations programmes

68409 Other programmes in communications arts

68422 Library science programmes

689 Other education at the third level, first stage, of the type that leads to a first university degree or equivalent

68913 Programmes in criminology

68919 Other civil security and military programmes

68932 Social welfare programmes

68942 Programmes in vocational counselling

68952 Programmes in environmental studies

68962 Programmes in physical education

68972 Programmes in nautical science

68999 Other programmes of education at the third level, first stage, of the type that leads to a first university degree or equivalent, n.e.c.

7 Education at the third level, second stage, of the type that leads to a postgraduate university degree or equivalent

714 Programmes in education science and teacher training

71401 General programmes in education science

71404 Programmes in education with specialization in curriculum development in non-vocational subjects

71408 Programmes in education with specialization in curriculum development in vocational subjects

71412 Programmes with specialization in early childhood education

71416 Programmes with specialization in adult education

71422 Programmes with specialization in the education of the handicapped

71432 Programmes in education for teacher trainers

71472 Programmes in education science without teacher training

71499 Other programmes in education science and teacher training

718 Fine and applied arts programmes

	71802	Programmes in the history and philosophy of art
	71804	Programmes in drawing and painting
	71808	Programmes in sculpturing
	71822	Programmes in music
	71832	Programmes in the drama
	71852	Programmes in interior design
	71899	Other fine and applied arts programmes
722	Humanities programmes	
	72211	Programmes in the current or vernacular language and its literature
	72215	Programmes in other living languages and their literature
	72221	Programmes in "dead" languages and their literature
	72231	Programmes in linguistics
	72241	Programmes in comparative literature
	72251	Programmes in history
	72261	Programmes in archaeology
	72271	Programmes in philosophy
	72299	Other humanities programmes
726	Religion and theology programmes	
	72600	Religion and theology programmes
730	Social and behavioural science programmes	
	73012	Economics programmes
	73022	Political science programmes
	73033	Programmes in demography
	73035	Programmes in sociology except demography
	73042	Anthropology programmes
	73052	Programmes in psychology
	73062	Geography programmes
	73072	Studies of regional cultures
	73099	Other social and behavioural science programmes

734 Business administration and related programmes

73432 Programmes in business administration with specialization in accountancy

73434 Programmes in business administration with specialization in marketing

73436 Programmes in business administration with specialization in finance and investment

73439 Programmes in business administration with other specialization

73452 Programmes in public administration

73462 Programmes in institutional administration

738 Law and jurisprudence programmes

73802 Programmes in jurisprudence and history of law

73804 Programmes in international law

73806 Programmes in labour law

73808 Programmes in maritime law

73899 Other law and jurisprudence programmes

742 Natural science programmes

74202 Biological science programmes

74212 Chemistry programmes

74222 Geological science programmes

74232 Physics programmes

74242 Astronomy programmes

74252 Meteorology programmes

74262 Oceanography programmes

74299 Other natural science programmes

746 Mathematics and computer science programmes

74611 Programmes in statistics

74621 Programmes in actuarial science

74639 Other programmes in mathematics

74641 Programmes in computer science

750 Medical science programmes

75006 Programmes in medical specialities

	75042	Programmes in dental and stomatological specialities
	75052	Programmes in pharmacy
	75099	Other medical science programmes
754	Engineering programmes	
	75412	Chemical engineering programmes
	75416	Civil engineering programmes
	75422	Electrical and electronics engineering programmes
	75426	Industrial engineering programmes
	75432	Metallurgical engineering programmes
	75436	Mining engineering programmes
	75442	Mechanical engineering programmes
	75453	Agricultural engineering programmes
	75463	Forestry engineering programmes
	75499	Other engineering programmes
758	Architectural and town-planning programmes	
	75802	Programmes in structural architecture
	75812	Programmes in landscape architecture
	75822	Programmes in town planning
762	Agricultural, forestry, and fishery programmes	
	76203	Animal husbandry programmes
	76206	Horticulture programmes
	76208	Crop husbandry programmes
	76212	Agricultural economics programmes
	76222	Food sciences and technology programmes
	76226	Soil and water sciences programmes
	76232	Programmes in veterinary medicine
	76249	Other programmes in agriculture
	76262	Forestry programmes
	76272	Programmes in fishery science and technology
766	Home economics (domestic science) programmes	
	76612	Programmes in household and consumer food research; nutrition

76632 Programmes in household arts

76699 Other home economics programmes

784 Programmes in mass communication and documentation

78402 Programmes in journalism

78404 Programmes in radio and television broadcasting

78407 Public relations programmes

78409 Other programmes in communications arts

78422 Library science programmes

789 Other programmes of education at the third level, second stage, of the type that leads to a postgraduate university degree or equivalent

78913 Programmes in criminology

78919 Other civil security and military programmes

78932 Social welfare programmes

78942 Programmes in vocational counselling

78952 Programmes in environmental studies

78999 Other programmes of education at the third level, second stage, of the type that leads to a postgraduate university degree or equivalent, n.e.c.

9 Education not definable by level

901 General programmes

90100 General programmes

914 Programmes in teacher training, including training for extension and other fields of non-formal education

91416 Education science and teacher training for work in adult education

91499 Other programmes in teacher training

918 Fine and applied arts programmes

91810 Programmes in visual and plastic arts

91812 Programmes in handicrafts

91822 Programmes in music

91832 Programmes in drama

91899 Other fine and applied arts programmes

922 Humanities programmes

92215 Programmes in a "foreign" or second language and its literature

92221 Programmes in "dead" languages and their literature

92251 Programmes in history

92261 Programmes in archaeology

92299 Other humanities programmes

926 Religion and theology programmes

92600 Religion and theology programmes

930 Social and behavioural science programmes

93012 Programmes in economics

93022 Programmes in political science

93032 Programmes in sociology

93052 Programmes in psychology

93062 Programmes in geography

93099 Other programmes in social and behavioural science

934 Commercial, clerical, business and public administration programmes

93404 Shorthand-typing (secretarial) programmes

93408 Clerical programmes

93438 Programmes in labour studies, including personnel administration

93499 Other commercial, clerical, business and public administration programmes

938 Programmes in law

93800 Programmes in law

942 Natural science programmes

94202 Biological science programmes

94222 Geological science programmes

94232 Physics programmes

94242 Astronomy programmes

94299 Other natural science programmes

946 Programmes in computer science

94600 Programmes in computer science

950 Health-related programmes

95018 Nursing and other medical auxiliary programmes

95099 Other health-related programmes

952 Trade, craft, and industrial programmes, n.e.c.

95200 Trade, craft, and industrial programmes, n.e.c.

954 Engineering programmes

95400 Engineering programmes

958 Architectural and town-planning programmes

95810 Architectural programmes

95822 Town or community planning programmes

962 Agricultural, forestry, and fishery programmes

96202 Programmes in agriculture

96262 Forestry and forest products technology programmes

96272 Fishery programmes

966 Home economics (domestic science) programmes

96604 Programmes with emphasis on dressmaking and needlecrafts

96612 Programmes with emphasis on household food management and nutrition

96622 Programmes with emphasis on child care

96699 Other home economics programmes

970 Transport and communications programmes

97000 Transport and communications programmes

978 Service trades programmes

97800 Service trades programmes

984 Programmes in mass communication and documentation

98400 Programmes in mass communication and documentation

989 Other education not definable by level

98962 Programmes in physical education

98999 Other education not definable by level, n.e.c.

0. EDUCATION PRECEDING THE FIRST LEVEL

The initial stages of organized instruction as defined for purposes of ISCED. The educational programmes included here therefore do not include play groups, day nurseries, crèches, child-care centres, or similar organizations that have no sustained educational purpose. The age of entry to education preceding the first level varies in different countries and in areas within some countries. The upper age limit in this level category depends in each case on the usual age for entry into primary education.

Programmes at this level place little emphasis on literacy or general education, the activities being directed mainly toward the children becoming accustomed to group activities such as singing, dancing, participation in rhythm groups and group games to promote healthy and socially desirable habits. Also stressed is the development of skills in handling colouring, moulding, lettering and similar materials as well as simple tools. The programmes are designed primarily to introduce very young children to anticipated school-type environment, i.e. to provide a bridge between a home and school atmosphere.

In addition, these programmes cover the initial stages of organized instruction for exceptional children including those who, due to mental or physical handicaps, are unable to participate in the same groups along with unhandicapped children. Programmes for the handicapped have the same objectives as the core programmes, but the pupils generally require more individual attention. No age limits can be specified for exceptional children including the handicapped at this level.

Programmes of education preceding the first level are usually given in nursery schools, kindergartens, or similar institutions, although some are found in special sections attached to primary schools. Programmes for the handicapped may be given in hospitals or in special schools or training centres. Upon completion of these programmes, children continue their education at the first level.

001. General programmes for children of pre-primary age

Programmes are known variously as early childhood education, infant education, nursery education, or pre-school education. They are more concerned with the social, mental and physical development of the young child than with his acquisition of specific knowledge and skill, although they may include activities designed to prepare children for the learning of reading, writing and mathematics.

These programmes are usually optional and should be distinguished from facilities such as day nurseries where the objective is simply to take care of young children outside their homes. The programmes are designed for young children before they are admitted to regular primary schools, although in some countries they may be considered as the first stage of regular primary education. Extensive use is made of play methods, the toys provided often being carefully designed to promote learning, for example, of numbers, spatial relations or reading. Special classes are provided in many countries for exceptional children including those who, due to mental or physical handicap, require special attention and do not participate in the activities of the regular classes.

Programmes are given in nursery schools, kindergartens, and similar institutions, or in special sections attached to primary schools. Children completing programmes preceding the first level usually go on to education at the first level, and for many children this pre-school stage is omitted altogether.

00100. General programmes for children of pre-primary age (see definition under 001)

1. EDUCATION AT THE FIRST LEVEL

The core at this level consists of education provided for children in all countries, the customary or legal age of entrance being not younger than five years or older than seven years. This level then covers five or six years of full-time schooling. Programmes are designed to give the students a sound basic education in reading, writing and arithmetic along with an elementary understanding of other subjects such as national history, geography, natural science, social science, art and music, and in some cases religious instruction is featured, especially in programmes run by religious organizations. The programmes are rarely specialized by subject, but are usually organized on a unit- or project basis. In a few countries, education at this level is divided into two stages, usually a first stage of four years and a second stage of two years, which may be combined with the first stage of the second level.

This level category also includes special classes suited to the needs of exceptional students including the mentally or physically handicapped, many of whom will have made slower progress in education than the average. These classes are specially organized for the pupils and the usual order of subject matter is not necessarily followed. For many of these pupils, emphasis is given to vocational training along with general education, but for others the general programmes are accelerated.

Throughout this level the programmes are organized in units or projects rather than by subjects. This is a principal characteristic differentiating programmes at this level in most countries from those at the lower stage of the second level.

Programmes with a vocational emphasis are found at this level, especially in areas where opportunities for second-level education are currently limited or non-existent. These programmes may cover some of the traditional elementary programme, but give less attention to general subjects, and instead devote the time to vocational instruction suited to the needs of the area served, along with basic reading, writing, and arithmetic. Many of them are part-time, short-term and intensive.

Literacy programmes outside the school system for those considered too old to enter elementary schools (or for whom no school places are available) are also included at this level because they require no previous formal education. Because these programmes are designed for illiterate adults they are of a different type from those in elementary school in terms of content. They are usually part-time, voluntary and of relatively short duration (say, up to a year).

101. General elementary programmes

The ordinary first-level elementary or primary programmes usually have a duration of five years (i.e. designed for children between six and eleven years of age), although they may last for only three years or extend to eight years. In some countries adolescents or adults may enrol, usually in special adult classes, to make up schooling missed in childhood. These differ from literacy programmes designed for adults (108) in that they follow more closely the regular primary school curriculum.

The programmes stress the mental, social, and physical development of the individual and often include religious instruction. They do not generally aim at imparting knowledge or skills of a vocational or specialized kind. It is expected that the pupils will be taught to read and gradually master writing and simple mathematics, while improving their command of the mother tongue and/or another current language. They will also frequently have the opportunity of learning a little simple science and some of the history and geography of their own and other countries; and aspects of manual, social and physical fitness and co-ordination. In most countries, special classes or schools are designed to provide these programmes to exceptional students including those afflicted with physical or mental handicaps and who cannot therefore follow the programme in the regular classes. Special teaching aids are used, but the programme has the same objectives.

Attendance is compulsory for children in most countries, Certificates are often awarded upon completion of the programme, sometimes after an examination or other evaluation (or test).

10100. General elementary programmes (see definition under 101)

108. Literacy programmes

Programmes for illiterate adults, sometimes also provided for children who have no opportunity to attend school, designed to teach basic reading, writing, and sometimes arithmetic. These programmes vary in length from a few weeks to as long as a year. They are often part-time, and are conducted in a wide variety of locations, including village halls or other premises and sometimes out of doors.

Literacy programmes may be intended simply to impart literacy (see 10811, following), or may be designed to impart functional literacy, i.e. to enable the student to attain a type of reading, writing, and calculation ability that he can use for his own and his community's benefit (see 10821, below).

10811. Simple literacy programmes

Programmes designed to impart the basic skills of reading, writing and sometimes arithmetic to illiterate adults who have no previous education or have regressed into illiteracy, and sometimes to children who have no access to regular schooling. They generally aim to enable the learner to read with understanding and to write simple messages related to his everyday life, and sometimes to do simple calculations.

They do not integrate literacy with general education or with technical and vocational training. In this respect, they differ from functional literacy programmes. Programmes involve organized courses that are usually part time. They last up to a year or more, and cover at least 100 hours of study. The language of instruction is generally the learner's mother tongue, but may be a second (local, national, or world) language. In the latter case programmes may be longer, involving the element of second language teaching. Note, however, that programmes primarily designed to teach a national language to linguistic minorities or immigrants with varying levels of previous education (or none at all) are included in category 920 - Language ("foreign" or second language) programmes.

Programmes are generally organized by whatever government department or service is responsible for adult literacy (e.g. mass education, social education services, agricultural extension, labour, community development, or animation (Fr.)); by non-governmental organizations (e.g. co-operatives, trade unions, women's organizations); by industry; by co-operative arrangements between two or more of these.

Learners are generally organized into classes or study groups; often meeting at night or during off-work hours. Programmes are usually given in organized classes in available buildings, including schools, temples, churches, farms, factories and other work premises, residential centres (e.g. community development, animation, co-operative or farmers' training centres), private homes, or occasionally in the open air. Programmes may also be given with the help of radio or television.

Certificates may be awarded, often after the passing of a simple test in reading, writing and arithmetic. Adults usually continue in the same occupation but may sometimes continue regular education at the first level.

10821. Functional literacy programmes

Programmes designed for illiterate adults and young people not enrolled in the regular school system. Semi-literate students who have had an incomplete elementary schooling or who have followed an elementary adult literacy programme are sometimes admitted. The programmes aim to impart functional literacy "enabling a person to engage in all those activities in which literacy is required for effective functioning of his group and community and also enabling him to continue to use reading, writing and calculation for his own and the community's development." (1) Some programmes integrate literacy teaching with the acquisition of knowledge useful in the learner's everyday life; others, of a "work-oriented" kind, integrate it with elementary vocational training in fields appropriate to the learner's occupation (e.g. agriculture, crafts, industry, or home economics). They will generally impart the ability to read written instructions at work, popular literature and newspapers, and to keep simple accounts.

These programmes differ from non-general programmes in other fields at level 1 in that they are designed for adults and are outside the regular school system, and from Simple literacy (108) in that they include elements of general education in such fields as elementary science; health and hygiene; nutrition; civics; religion; and, in the case of "work-oriented" programmes, training for work. They also differ in the level of literacy to be attained. This level may be measured by comparison with the standard reached by children after four to six years of school, or by the number of hours of study required, e.g. not less than 300 hours for students beginning

(1) Definition of "functional literacy" adopted by the International Committee of Experts on Literacy, Unesco, Paris, June 1962.

a programme as total illiterates compared with 100 hours considered a minimum for elementary literacy programmes. Programmes involve organized courses which are usually part time and generally last a year or more.

Content in "work-oriented" programmes is generally based on a study of the existing skills of the learners and the requirements of the job. Content also includes ideas, knowledge, practices and skills appropriate to the urban and industrial environment. It may further include elements of education for health, family life, family planning, and other subjects relevant to social and individual development.

The language of instruction is generally the learner's mother tongue, but may be a second (local, national, or world) language. Programmes are usually organized by whatever government department or service is responsible for literacy (e.g. agricultural extension, labour, community development, animation (Fr.), mass education or social education services); by the armed forces; by non-governmental organizations (e.g. co-operatives, trade unions, women's organizations); by industry; or by co-operative arrangements between two or more of these. Learners may be organized in study groups with a common focus of interest, e.g. members of a co-operative, workers in a particular job, mothers, housewives, etc., often meeting at night or in off-work hours, or, sometimes, in the case of "work-oriented" programmes, in the work place and during working hours. Teaching may take place in any available buildings, including schools, community training centres, private homes, or occasionally out of doors. Classes or groups of workers may receive training both in literacy and in the skills required for work, from instructors or literate workers, and classroom sessions may alternate with practical training in the work place. In other programmes the teaching of reading, writing, and calculation may be done by literacy teachers and integrated with vocational training and the acquisition of useful knowledge. Programmes may be given through or supported by radio or television and special courses may be organized for women.

126. Religion and theology programmes

Programmes directed chiefly toward young children and designed to convey to them in a simple way the basic tenets of their religion. These programmes are not primarily aimed at the attainment of literacy. However, the pupils are often required to memorize sacred texts, and a proportion of them may, by this means, acquire some reading knowledge in the language of the text.

Programmes of this kind are usually organized by religious authorities who often carry out the teaching on a part-time basis, in a local or village context. This instruction is undertaken apart from the literacy programmes in the State or other primary schools. The content of the programmes is governed by the particular religion concerned, so that the schools are variously called Koranic, Talmudic, catechismal, Biblical, or scriptural schools. This list is not intended to be exhaustive, but is merely illustrative.

In general, programmes of this kind are included in educational statistics of only those areas in which the type of programme included in field 101 is either absent or available to only part of the population in the relevant age group.

No special certificate or diploma is generally awarded to students completing these programmes.

12600. Religion and theology programmes (see definition under 126)

134. Commercial programmes

This field includes a number of programmes, some of which combine general education at the first level with some training in commercial, clerical, and related procedures, while others are aimed at vocational training with little if any basic education.

Principal course content for those programmes combining general education with commercial training may be about one half general education at the first level. The commercial part of the programmes consists of elementary training in record keeping, including bookkeeping; general clerical procedures; marketing and sales; operation of co-operative organizations; and other elementary procedures such as making bank deposits and issuing cheques, balancing a bank account, maintaining personnel records, payrolls, etc.

Being at the first level, these programmes are designed to meet the needs of illiterate or newly literate students. The programmes that combine commercial training with basic education are intended primarily to provide simple vocational skills appropriate to the kind of work available in the local community. Those that do not provide basic education are related mainly to the needs of young people or adults employed or about to be employed in the kind of work covered in the programme.

Programmes are sponsored by a variety of agencies, including government departments, educational authorities, co-operatives, trade unions, private schools, business concerns. Instruction may be on-the-job, in classes, through broadcasts, by correspondence, or by any suitable means.

Programmes may be full-time or part-time, and may last for a few weeks or as long as a year or two.

13401. General commercial programmes

These are programmes which may combine some general education at the first level with training in simple commercial, clerical and related procedures, or which may be confined to commercial, clerical and similar training.

The principal subject-matter content of programmes involving basic education consists of reading, writing, and basic mathematics, which may occupy up to one half of the total time, along with simple training in commercial and office procedures such as record keeping and bookkeeping, filing, and other clerical procedures, marketing and sales techniques, operation of a co-operative, simple banking procedures, and stock control. The programmes that are concerned only with commercial and related training concentrate on the above commercial and clerical procedures in which the students will obtain some practice in reading, writing, and arithmetic, although these are not studied as such.

The above course content is illustrative only, the actual subjects included being determined by the kind of employment available in the local community. Students may be preparing themselves for employment or may already be employed. In general, the programmes containing some basic education are designed for those who will be seeking employment, while the more specialized programmes are designed to upgrade the skills of those already employed.

Many kinds of agencies provide programmes of this kind. Instruction may be in classes, on-the-job, through broadcasts, correspondence, or any method. Many of these programmes are part-time; they vary in length from a few weeks to more than a year, some of the short-term ones being intensive.

13411. Specialized commercial programmes

Included are programmes which may combine some general education at the first level with training in a particular commercial, clerical, or related procedure such as clerical work, record keeping, bookkeeping, marketing and sales, operation of a co-operative, methods of cash handling, operation of a bank account, etc. Also included are programmes that are specialized in one or a few of the above commercial, clerical, and related procedures and that do not include general education. This list of specialities is illustrative only.

The principal course content will depend upon the particular speciality being taught, and the subjects chosen will be related to the kind of employment available in the local community. These programmes are designed to train illiterate or newly literate people for employment or to upgrade the performance of those already employed.

Programmes are sponsored by a wide variety of agencies; they may be full-time or part-time, and vary in duration from a few weeks to more than a year. Many are short but intensive. The teaching may take place in classes, through broadcasts, by correspondence, or by any suitable method. Some are on-the-job programmes.

150. Elementary public health programmes

Programmes at this level are not directed toward training in health treatment of individuals, but toward training in public health procedures such as the operation of national or local campaigns aimed at raising public health standards, particularly in areas where such facilities as clinics, hospitals, and treatment centres are either lacking or scarce. The programmes use broadcasts, recorded material, and visual aids which can be directed toward groups of people organized by a group leader. In some cases, a village dispensary may be the centre point for this action. In all cases, the organizer of the programme tends to be a local health worker.

Programmes are designed to meet current local needs, being focused on prevalent diseases, with a view to dispelling misunderstandings and myths. The emphasis is usually on the development of a strong community effort involving preventive measures such as improvement in the water supply, elimination of centres of infection, etc. Other preventive measures such as vaccination and inoculation may also be taught.

These programmes are generally of short duration but may be repeated frequently in order to build up a community awareness of the need for adequate public health measures.

15000. Elementary public health programmes (see definition under 150)

152. Trade, craft, and industrial programmes, n.e.c.

This field includes a variety of programmes at the first level which may combine general education with instruction and practice in technical or vocational subjects, or which may concentrate on instruction in a particular vocation with no general education content. Being at the first level, these programmes are designed for illiterate or newly literate young people or adults.

Principal course content for those programmes that combine general education with trade or craft training may consist of about one half general education. The trade or craft component consists in elementary training of a very practical nature with a strong vocational emphasis. Some of the trades included are food and drink processing, electrical work, metal trades, mechanical and mechanical repair trades,

woodworking, leather working, textile trades, clothing and related trades.

Students completing programmes with a content of basic education may go on to further schooling, or may leave school for further training on the job. Their school experience is not considered as preparation for a specific vocation. Programmes of a purely vocational nature, however, are designed to upgrade the skills of those who are already employed or about to become employed either as small artisans or as employees of larger organizations.

Programmes are sponsored by a variety of agencies including government departments, co-operatives, trade unions, and employers. School programmes may have a duration of up to two years or more, but those given to adults or school leavers are generally of short duration, i.e. less than three months, and are often part-time. The use of audiovisual material, including broadcasts, with a group leader is widespread because of the relatively low-scale literacy of the students, and the visual instruction is accompanied by practice in a work setting.

No award is generally given for completion of this kind of programme.

15201. General trade and crafts programmes

Programmes at the first level, designed for illiterate or newly literate young people or adults, one half or more of which may consist of general education or which may be designed solely to provide training in a number of different trades and crafts that will develop simple vocational skills appropriate to the working life of the local community. These programmes are not intended to prepare students for a particular job, although they may provide a basis for on-the-job training in subsequent employment. In all cases, the vocational component is very practical, consisting of demonstration and practice work, often accompanied by audiovisual material.

Students completing programmes with a general education component may go on to further schooling, but in the main they go for further training on the job. Most programmes of this kind are intended to lead to employment. Programmes may be full- or part-time, and although some may have a duration of up to two years, most are of relatively short duration, i.e. six months or less.

15212. Food and drink processing trades programmes

Programmes at the first level designed for illiterate or newly literate young people or adults, which may devote one half or more of the time to general education or which may be designed solely to provide vocational training in some aspect of food or drink processing or food preservation. Included are such trades as milling, baking, slaughtering and meat cutting, fish curing and preservation, fruit and vegetable preserving, milk processing, sugar processing, and beverage processing. Some of those who complete the programmes go on to education at the second level.

Some of the students will become self-employed in their own shops or stands, but others are preparing for work in a local enterprise. Programmes may be full-time, but many are part-time and of relatively short duration, i.e. six months or less. Because of their very practical nature, the programmes are conducted on the basis of demonstrations and practice work, with broadcasts and audiovisual aids.

15216. Building trades programmes, n.e.c.

Programmes at the first level designed for illiterate or newly literate young people or adults, which may devote one half or more of the time to general education or which may be designed solely to provide vocational training in one of the building trades not included in other programme groups, such as bricklaying, plastering, tile-setting, and cement work. Some of those who complete the programmes go on to education at the second level.

Some of the students will become self-employed and their training will be mainly directed toward the use of local materials. These programmes may be part-time or full-time, are extremely practical in approach, and many are of relatively short duration, i.e. six months or less. They are conducted through demonstration and practice work, often with audiovisual aids, and some may be interspersed with actual work on the job.

15222 Electrical trades programmes

Programmes at the first level designed for illiterate or newly literate young people or adults, which may devote one half or more of the time to general education or which may be designed solely to provide vocational training in electrical work, such as electric wiring, electrical repairs, and electrical equipment repairing.

Some of the students will become self-employed. The programmes may be full- or part-time, are very practical in approach, and many are of relatively short duration, i.e. six months or less. They are conducted through demonstration and practice work, often with audiovisual aids, and some may be interspersed with actual work on the job.

15232. Metal trades programmes

Programmes at the first level designed for illiterate or newly literate young people or adults, which may devote one half or more of the time to general education or which may be designed solely to provide vocational training in one of the metal trades, such as metal casting, sheet-metal work, plumbing or pipe-fitting, forging, welding, or soldering.

Some of the students will become self-employed, and their training will be directed mainly toward uses of local materials. The programmes may be full- or part-time, are very practical in approach, and many are of relatively short duration, i.e. six months or less. They are conducted through demonstrations and practice work, often with audiovisual aids, and some may be interspersed with actual work on the job.

15242. Mechanical and mechanical repair trades programmes

Programmes at the first level designed for illiterate or newly literate young people or adults, which may devote one half or more of the time to general education or which may be designed solely to provide vocational training in one of the mechanical or mechanical repair trades, such as machine shop, internal combustion engine repair and maintenance, other machine and mechanical equipment repair and maintenance, motor vehicle repair of all kinds, except electrical equipment.

These programmes may be part-time or full-time, are extremely practical in approach, and many are of relatively short duration, i.e. six months or less. They are conducted mainly through demonstrations and practice work, often with audiovisual aids, and some may be interspersed with actual work on the job.

15262. Woodworking trades programmes

Programmes at the first level, designed for illiterate or newly literate young people or adults, which may devote one half or more of the time to general education or which may be designed solely to provide vocational training in one of the woodworking trades, such as carpentry, cabinet making, sawmill operations, planing-mill operations, or veneer and plywood or other wood-panel making operations.

The training will be directed mainly toward the use of local materials to provide woodwork required in the surrounding community, although some may involve techniques of a more general application. Programmes may be full-time or part-time, are extremely practical in approach, and many are of relatively short duration, i.e. six months or less. They are conducted through demonstrations and practice work, often with audiovisual aids, and some may be interspersed with actual work on the job.

15272. Leather trades programmes

Programmes at the first level, designed for illiterate or newly literate young people or adults, which may devote one half of the time or more to general education or which may be designed solely to provide vocational training in a leather trade, such as the tanning and other curing of leather, leather finishing, making of leather footwear, and other leather goods. Leather tooling and other decorative techniques may be included.

The training will be directed mainly toward the use of local materials and the designs may reflect local traditions, although some programmes directed toward employment in an enterprise may be related to the use of modern leather-working machinery. Programmes may be full-time or part-time, are extremely practical in approach, and many are of relatively short duration, i.e. six months or less. They are conducted through demonstration and practice work, often with audiovisual aids, and some may be interspersed with actual work on the job.

15274. Textile trades programmes

Programmes at the first level designed for illiterate or newly literate young people or adults, which may devote one half of the time or more to general education or which may be designed solely to provide vocational training in a textile trade, such as cleaning natural fibres, combing, winding, spinning, twisting, weaving, knitting, etc., and printing and finishing of textiles.

The training will be directed mainly toward the use of local materials, although some programmes for work in a local enterprise may use imported fibres or yarns. Programmes may be full-time or part-time, are extremely practical in approach, and many are of relatively short duration, i.e. six months or less. They are conducted through demonstrations and practice work, often with audiovisual aids, and some may be interspersed with actual work on the job.

15276. Clothing and related trades programmes

Programmes at the first level designed for illiterate or newly literate young people or adults, which may devote one half of the time or more to general education or which may be designed solely to provide vocational training in a clothing or related trade, such as tailoring, dressmaking, upholstering, making canvas goods or other textile products.

The training will be directed mainly toward the use of local materials, although some programmes for work in a local enterprise may use imported material. Programmes may be full-time or part-time, are extremely practical in approach, and many are of relatively short duration, i.e. six months or less. They are conducted through demonstration and practice work, often with audiovisual aids, and some may be interspersed with actual work on the job.

15299. Other trade, craft, and industrial programmes, n.e.c.

Programmes at the first level designed for illiterate or newly literate young people or adults, which may devote one half of the time or more to general education or which may be designed solely to provide vocational training in a trade or craft not included in the above programme groups. Examples are the printing trades, bookbinding, ceramics and glass trades, paper and paperboard trades.

The training will depend upon the particular trade, but most are directed mainly toward the use of local materials. Although many will be concerned with providing articles for local use, some directed toward employment in a local enterprise may involve techniques of a more general application. Programmes may be full-time or part-time, are extremely practical in approach, and many are of relatively short duration, i.e. six months or less. They are conducted through demonstrations and practice work, often with audiovisual aids, and some may be interspersed with actual work on the job.

162. Agricultural, forestry, and fishery programmes

This field includes a variety of programmes which may combine education at the first level with some training in agricultural, forestry, or fishery operations, or which may concentrate on a particular technique or method in agricultural, forestry, or fishery operations alone.

These programmes tend to emphasize practical aspects of farming, forestry, or fishery activities. They are commonly provided to small farmers of any age who are illiterate or newly literate. The programmes are intended to disseminate information that will help to increase production and to eliminate losses due to traditional production methods or methods of handling the product. The instruction is focused on prevention of diseases in animals or crops, often through the use of pesticides, herbicides, and medicines. Crop planning and management, crop rotation, livestock feeding, and other livestock protective techniques may be emphasized. Programmes of this kind often accompany the introduction of new crops, new varieties, or livestock into an area. Other subjects covered can relate to advantages and methods of co-operative organization, rural credit facilities, etc. Other possible subjects are related to animal breeding, maintenance of farm equipment, product processing, soil and water conservation, fishery operations, and forestry operations. Instruction may be full- or part-time, and may last for one or two years or for only a few weeks of intensive training.

Programmes may take place in demonstration fields or with herds, in rural training centres, community education centres, village meeting places, nomadic camps, or in any location where a number of prospective clients can be brought together over a sufficient period of time. Teaching techniques such as radio broadcasts, with explanations provided by a group leader, may be used, or printed materials may be distributed when suitable.

Programmes of this kind are sponsored by government departments, co-operatives, businesses that supply materials to farmers, fishermen, and forestry workers, or by any other interested agency.

16202. Agricultural programmes

Programmes that may combine some education at the first level with training in agricultural methods, or which may concentrate on a particular technique or method in agriculture.

These programmes are usually very practical, and are intended for small farmers, agricultural workers, or prospective workers of any age who are either illiterate or newly literate, although some who complete a programme may go on to education at the second level. The kinds of courses provided are those outlined in the second paragraph of the definition under 162. Where relevant, the agricultural programmes may also include some training in fishery or forestry methods.

16262. Forestry programmes

Programmes that may combine some education at the first level with training in forestry methods or which may concentrate on a particular technique or method in forestry.

These programmes are usually very practical and are intended for those engaged in forestry operations or prospective forestry workers of any age who are either illiterate or newly literate, although some who complete a programme may go on to education at the second level. The emphasis is on methods that will improve production and eliminate waste in forestry operations, while assisting to maintain the forest resources. Included are such subjects as the maintenance and repair of simple tools and equipment, selection of trees to be felled, gathering and handling of minor forest products, forest protection, and methods for increasing the growth of trees and other forest crops. Where relevant, these programmes may also contain some instruction in agricultural or fishery methods.

Instruction may be full-time or part-time, and may last for some weeks or be intensive over a shorter period. It may include work projects in the forest, or in demonstration centres, but can occur in any suitable location.

Programmes of this kind are sponsored by government departments, co-operatives, or any interested agency.

16272. Fishery programmes

Programmes which may combine some education at the first level with training in fishery methods or which may concentrate on a particular technique or method in the fishery.

These programmes are usually very practical and are intended for those engaged in fishery operations or for prospective workers in the fishery of any age who are illiterate or newly literate, although some who complete a programme may go on to second-level education. The emphasis is on methods that will improve production and eliminate waste in fishery operations, while assisting in maintaining the fishery resource. They are often used to assist in the introduction of new methods or new equipment. Instruction is focused on the care of nets and other gear, methods for improving the catch, methods of preservation and processing of fish and other aquatic

products, and methods for protecting immature fish stock. Where relevant, these programmes may also contain some instruction in agricultural or forestry methods.

Instruction may be full-time or part-time, and may last for some weeks or be intensive over a shorter period. It may include work projects and demonstration sessions, and can occur in any suitable location.

Programmes of this kind are sponsored by government departments, co-operatives, or any interested agency.

166. Home economics (domestic science) programmes

This field includes a variety of programmes that may combine some education at the first level with training in elementary home economics to assist homemakers in the performance of their tasks. Some programmes concentrate entirely on home economics to the exclusion of general first-level education. Home economics subjects include family cooking and nutrition, personal and family hygiene, household food management, family sewing and dressmaking, child care, and family planning. These programmes emphasize the practical aspects of homemaking and are commonly designed for newly literate or illiterate adults and young people, although some who complete a programme may go on to secondary education.

Instruction may be full- or part-time, and may take place in elementary schools or education centres, village halls, or other convenient meeting places. Many programmes have a relatively short duration, but they may last for as long as a year or more. The programmes are usually sponsored by government departments, but may be offered by social welfare agencies, community development groups, or any interested agency.

16601. General home economics programmes (These programmes are as defined in 166)

16604. Home economics programmes with emphasis on dressmaking and sewing

These programmes are as described under 166, except that emphasis is placed on techniques of dressmaking and other household and family sewing, with little or no attention being paid to cooking, nutrition, child care, or other home economics subjects.

16608. Home economics programmes with emphasis on cooking, food preservation, and nutrition

These programmes are as described under 166, except that the emphasis is placed on techniques of cooking, food preservation, and nutrition, with little or no attention being paid to sewing, child care, or other home economics subjects.

16622. Home economics programmes with emphasis on child care

These programmes are as described under 166, except that the emphasis is placed on techniques of child care, with little or no attention being paid to sewing, cooking, nutrition, or other home economics subjects.

16699. Other home economics programmes

These programmes are as described under 166, except that the emphasis is placed on such techniques as family sanitation, family budgeting, and the like, with little attention being paid to the subjects emphasized in 16604, 16608, or 16622.

178. Service trades programmes

This field includes a variety of programmes at the first level with training in a particular service trade such as barbering and beauty culture, hotel and restaurant trades, laundry and dry-cleaning trades, etc. Some of these programmes may combine general education at the first level with the vocational training. In any case, the programmes are designed for illiterate or newly literate young people or adults, and they are extremely practical in approach.

Principal subject-matter content of programmes that contain some general first-level education includes reading, writing, and simple mathematics, along with vocational training, including some practice in the particular trade concerned. Programmes that do not contain general first-level education concentrate entirely on trade training, sometimes including actual work experience.

These programmes vary greatly in duration, some containing elementary education lasting as long as two years, while those concentrating on vocational training tend to be quite short. They may be full-time or part-time, and may be held in elementary schools or education centres, or in any convenient location. The programmes are often sponsored by government departments, but may be offered by community agencies, prospective employers, or any interested agency.

17812. Barbering and beauty culture programmes

Programmes that may combine some general education at the first level with instruction and practice in barbering or beauty culture. At this level, they are designed for illiterate or newly literate adults or young people, and those containing some elementary general education may in some cases lead to second-level education. Many of these programmes are purely vocational, however, and they tend to be very practical in their approach.

When general first-level education is included, it tends to be concentrated on reading, writing, and simple mathematics. The vocational subjects include care of the hair, face, and scalp, cutting and styling of hair, care of the skin, use of make-up, manicuring, etc.

The programmes may be full-time or part-time, and those containing general education may last for up to two years, but the purely vocational programmes tend to be of short duration, usually less than six months.

17822. Hotel and restaurant trades programmes

Programmes that may combine some general education at the first level with instruction and practice in hotel and restaurant trades such as cook, waiter or waitress, chambermaid, porter, etc. At this level, they are designed for illiterate or newly literate adults or young people, but for waiter or waitress training, literacy enabling the recording of orders and preparation of bills is essential in most cases. Programmes containing some elementary general education may, in some cases, lead to education at the second level, but many do not, and the purely

vocational programmes are usually terminal. In any case, the vocational training in these programmes tends to be very practical and job-oriented.

When general first-level education is included, it tends to be concentrated on reading, writing, and simple mathematics. The vocational subjects include selection and buying of food, preparation of food for cooking, cooking and serving food and drinks, table setting, table service, menu preparation, making of beds, cleaning and care of rooms, care and handling of guests' baggage, etc. In many cases the vocational training includes some practice or actual work experience.

The programmes may be full-time or part-time, and those containing general education may last for as long as two years, but the purely vocational programmes tend to be of short duration, usually less than six months.

17842. Laundry and dry-cleaning trades programmes

Programmes that may combine some general education at the first level with instruction and practice in laundry and dry-cleaning trades such as launderer, laundry-machine operator, dry-cleaner, presser, fur cleaner, hat cleaner and blocker, glove cleaner, leather cleaner, carpet cleaner, etc. At this level, programmes are designed for illiterate or newly literate adults or young people, and while some containing elementary general education may lead to second-level education, those that are purely vocational are usually terminal and tend to be very practical in their approach.

When general first-level education is included, it tends to be concentrated on reading, writing, and simple mathematics. The vocational subjects include the characteristics of laundry supplies including soaps, detergents, etc., operation of laundry equipment such as washing machines, drying machines, pressing machines; listing, marking, and identifying of customers' laundry or dry-cleaning; spotting; use of dry-cleaning equipment; leather cleaning; fur cleaning and fur glazing, hat cleaning and blocking, etc. In many cases the vocational training includes some practice or actual work experience.

Programmes may be full-time or part-time, and those containing general education may last for as long as two years, but the purely vocational programmes tend to be of short duration, usually less than six months.

17899. Other service trades programmes

Programmes that may combine some general education at the first level with instruction and practice in a service trade not included in the above groups 17812 to 17842, such as retailing trades, service-station attendant, bartender, guide, disinfector or exterminator, etc. At this level, programmes are designed for illiterate or newly literate adults or young people, and, while some, containing elementary general education, may lead to second-level education, those that are purely vocational are usually terminal and tend to be very practical in their approach.

The general first-level education component, if present, tends to be concentrated on reading, writing, and simple mathematics. The vocational component will depend upon the students' interests and usually includes some practice or actual work experience.

Programmes may be full-time or part-time, and those containing general education may last for as long as two years, but the purely vocational programmes tend to be of short duration, usually less than six months.

189. Other programmes of education at the first level

This group includes programmes at the first level not included in the programme group definitions above, i.e. 101 to 178. The programmes included are at the first level of education in the sense that admission to them does not require either literacy or previous formal education. It is not likely that many countries have programmes of this kind, all the usual programmes being included in 101 to 178.

In some countries, young people of primary school age attend classes in such activities as learning to play a musical instrument, dancing, etc., outside the usual school day. In some cases, especially talented children are enrolled in special classes in music, drama, the dance, or other artistic activities in addition to the usual primary school curriculum, with the object of becoming professional artists. The above are merely examples of programmes that would be included here.

18900. Other programmes of education at the first level (see definition under 189)

2. EDUCATION AT THE SECOND LEVEL, FIRST STAGE

The core at this level consists of education continuing the basic programmes constituting the first level but usually on a more subject-oriented pattern. Some small beginnings of specialization may be seen at this level with some students having the opportunity to direct their attention more particularly to certain types of subjects, e.g. commercial or technical subjects. This level consists of three or four years of full-time schooling. Programmes are composed of the subjects mentioned under level 1 with a broader approach to mathematics, more attention to literature and composition in the mother tongue, other modern languages, and a beginning at specialization in some natural sciences such as chemistry, botany and physical geography. In many countries this level of education is carried on in the same institutions as levels 1 and 0, in some it occurs in "secondary schools" along with level 3, while in some cases separate institutions are provided for approximately the 6th to the 9th years of schooling.

In addition to the above for the core, this level covers a wide variety of programmes consisting of subject matter usually having a specific vocational emphasis. The common feature of all these programmes is their entrance requirement, i.e. a minimum of first-level education (some five to six years of schooling) completed or demonstrable ability to handle the programme through a combination of basic education of something less than five years and vocational experience.

Many of the vocational programmes at this level designed to train for a specific occupation (in contrast to the more general commercial or technical school programmes) are associated with relatively unskilled jobs. Typical cases are domestic science programmes intended to train domestic help; agricultural programmes for farm or plantation hands; elementary commercial programmes for typists and for operators of simple office machines. Programmes for medical auxiliaries such as assistant nurses and assistant technicians are offered in some countries as are teacher-training programmes for teachers of elementary school or teachers' aides.

Those apprenticeship programmes for skilled trades and crafts that provide further education as part of the programme are also included, e.g. building trades, mechanical repair trades, metal trades and printing trades. Such apprenticeship programmes take from three to five years for completion in contrast to the other vocational programmes at this level which last usually from a few weeks to one year.

Also included in most of the constituent fields is special education for exceptional students including the mentally and physically handicapped which are similar to those at the first level but more advanced in terms of subject matter.

201. General programmes containing little or no technical education

These general programmes account for the great majority of the school population at this level in many countries. They are usually part of compulsory education and often cover two to four years from the age of about 11 or 12 to 15 or 16 years.

The general programmes are designed to extend education at the first level on a broader and more theoretical basis and to stress the intellectual and social development of students. Subject specialization is rare, and no special attention is paid to future vocational intention.

Programmes for adults at this level who have completed primary education are often more specialized, and may give greater emphasis to the problems of everyday life and to social responsibilities such as citizenship and leadership. They are generally part-time.

Opportunities are sometimes provided for discovering interests and aptitudes. Students may be divided into "streams," some of which devote more time to manual and practical activities, while others spend more time on theoretical instruction. General education based on the work of the first level takes up most of the study time. It usually includes study of the mother tongue or another current language and its literature; science; mathematics; a foreign language; history; geography; manual training; music; art; moral, civic and sometimes religious education and physical education.

Programmes are usually given in schools that are not concerned with vocational training (e.g. general secondary schools, special grammar schools), or are given as a general section or "stream" in schools also providing vocational training (e.g. comprehensive schools, composite schools or technical schools). Programmes for adults are given in evening classes in schools; in special institutions providing for adults; and by correspondence. Broadcasts (television and radio) may also be used to supplement other teaching methods.

A diploma or certificate is frequently awarded upon completion of the programme, usually after an examination, either by the schools themselves or by a public authority.

20100. General programmes containing little or no technical education (see definition under 201)

214. Teacher-training programmes

This field includes programmes that combine the extension of general education through the second level, first stage, with teacher training designed to equip students who complete the programmes to teach in schools at the first level of education. It includes also programmes for the training of staff for adult education and adult literacy of extension and community development workers and of vocational and craft instructors. These programmes do not exist at this level in all countries. They are found in countries and areas where a marked shortage of elementary school teachers exists or where adult education extension, community development, vocational and craft training employ instructors and field workers at local community level.

In programmes for elementary school teachers at least half of the subject-matter in a programme usually consists of general education at the second level, first stage. This includes such subject matter as the grammar and literature of the mother tongue or another current language; general science; mathematics; history; geography; often a foreign language; and sometimes hygiene, manual training, music, art, moral or religious training, and physical education. The teacher training part consists of the history and principles of education, teaching methods, classroom management, and lesson planning. In addition, some time is spent in practice teaching and in observing experienced teachers. In programmes for adult education, extension and related activities, subject matter consists partly of the knowledge and skill to be imparted by the trainee in his future job (e.g. agriculture, bricklaying, etc.) and partly skills of communication and teaching.

These programmes are most commonly taken by adults and young people who have left school, but to handle the subject matter adequately, all candidates must have completed at least education at the first level. In the main, these programmes are of relatively short duration, i.e. one year or less, and often part time. The programmes forming part of the regular second level, first stage, curriculum are usually full-time and last from two to five years.

In some countries, programmes for "teacher aides" train assistants to participate in classroom and other activities, helping the teacher with routine duties. They do not take full charge of a class.

Usual award for successful completion is a diploma or certificate issued either by the school or by a public authority.

21401. General teacher training for elementary school teaching

Programmes that combine the extension of general education at the first level with preparation for teaching in elementary schools, the students having usually completed four years of education at the first level. The specialized teaching part of the programme is devoted to very simple instruction in teaching practice.

These programmes are found mainly in "developing" countries faced with a marked teacher shortage. Elementary instruction is given in the methodology of teaching, based on the first-level school curriculum, class management, elementary child psychology, and the history and principles of educational ideas. Students do practise teaching under supervision.

General education based on the work of the first level takes up at least half the total study time. It usually includes study of the mother tongue or another current language and its literature; science; mathematics; a foreign language; history; geography; hygiene; manual training; music; art; moral, civil and sometimes religious education; and physical education. Limited subject emphasis may be allowed.

Usually full-time, most programmes last two to five years, but some consist of shorter training courses. Programmes of the latter type may train adults and young people out of school who have completed education at the first level. Such programmes usually contain little or no general education, and concentrate on methods of teaching. They last from a few weeks to one year or more.

Some "developed" countries provide programmes of training for "teacher aides," who participate in classroom teaching at a non-professional level, helping the teacher with routine duties. Such programmes may be classified here as 21401.

A diploma or certificate of competence is frequently awarded upon completion of the programmes, usually after an examination.

21408. Teacher training for specialists such as those in vocational or adult education programmes

Programmes of this kind at the second level of education, first stage, are found chiefly in the "developing" countries. They are designed for craftsmen and technicians who, having first-level and perhaps some second-level education, are being prepared to teach their own special craft or skill, either in a school or out of school. Included also are programmes for those who will become adult literacy teachers, agricultural aides, demonstrators, village-level workers in community development, youth leaders, sanitary aides, and similar types of workers in a wide variety of services of non-formal education. In some "developed" countries, programmes at this level are designed to train "teacher aides" who assist in classroom or shop work in schools without taking full charge of a class.

Stress is laid chiefly on teaching practice under the supervision of skilled teachers and on group discussion of problems under the leadership of a teacher or college lecturer. In addition, courses usually include school management, elementary psychology and the history and principles of education. General education may also be included, e.g. study of the mother tongue, mathematics, national or world history. For programmes in non-formal education the techniques of teaching and of group leadership are supplemented with training in the use of audiovisual media, demonstration, etc.

Programmes, usually full-time, last from a few weeks to a year. Some first-level education is required for admission to the programme, usually supplemented by an interview.

A diploma or certificate of competence is frequently awarded upon completion of the programmes, often after an examination.

226. Religion and theology programmes

Programmes which combine general education at the second level, first stage, with special instruction in the religious and philosophical beliefs and doctrines of a religion or of a particular denomination or sect within a religion. These programmes should not be confused with the general programmes in field 201, which may contain religious instruction but do not emphasize it or lead to a religious vocation. The aim of the programmes included here is to develop in the students an interest in the tenets of their religion and sufficient familiarity with its philosophy to assist in the propagation of their faith. Programmes for young people may be full-time and may last for a period of up to two years, but those for adults are usually accelerated and intensive, having a duration of only a few weeks or months.

The programmes that provide general education at this level tend to concentrate on the mother tongue, literature, history, and the language of the relevant religious texts. The religious part of the instruction tends to emphasize doctrine, religious liturgy, and ritual.

Programmes are usually given in religious schools or seminaries, in monasteries, etc.

22600. Religion and theology programmes (see definition under 226)

234. Commercial programmes

This field includes a number of programmes, many of which combine education at the second level, first stage, with some training in commercial, clerical, and stenographic skills as well as an understanding of general office routine.

Principal course content often consists of about one half general education at the second level, first stage, the other half being either general commercial training, training in typing and shorthand, or training in some other commercial programme such as bookkeeping, business machine operation, office clerical operations, etc. The general education part of the programme includes, inter alia, study of the mother tongue or another current language and its literature, mathematics, a foreign language, history, geography, civic and sometimes religious education, and physical education. The commercial part of the programme varies according to the particular subject emphasis. The list of subjects includes commercial correspondence, typing, shorthand, bookkeeping, business law, filing, operation of office equipment and machines.

Other programmes are confined to the commercial component, and many are specialized in a particular operation such as typing and shorthand, bookkeeping, co-operative administration, marketing and sales, local public administration, etc. These specialized programmes are often part-time and short-term, being directed toward the needs of those seeking work or already employed.

Programmes are sponsored by a wide variety of agencies, including State schools and private business or secretarial schools or colleges, business machine companies, private employers, government departments, etc. The programmes forming part of the regular school programme at the second level, first stage, are usually full-time and last from three to five years. Many of the other programmes have a duration of one year or less, and some of them (for example, training courses provided by vendors of particular machines) may last for only a few weeks.

Usual minimum educational prerequisite is completion of education at the first level. Admission to some programmes, particularly those that do not form part of the regular secondary school system at the second level, first stage, may be granted primarily on the basis of interest and aptitude as indicated by experience and maturity rather than on the basis of educational attainment.

Usual award for successful completion of a programme is a certificate or diploma.

23401. General commercial programmes

Programmes that combine the extension of general education at the first level with a knowledge of simple commercial, clerical, and secretarial activities. The programmes are not intended to provide vocational training in the sense of the skills, knowledge, and abilities required for a specific occupation but simply to provide a general background in office work. Those enrolled have completed at least four years of education at the first level, and these programmes usually last two to five years, full time. These programmes are sometimes attended by adults or by young people who have been out of school for a time; for such students, the programmes may be offered part-time and may be of shorter duration (e.g. one year). In most cases the general education component is important, but it may be diminished in the part-time programmes.

The commercial part of the programmes deals with subjects such as commercial correspondence, simple bookkeeping, filing, typing, shorthand, the use of office equipment.

General education at the second level, first stage, may account for as much as half of the total study time. It includes study of the mother tongue and/or another

current language, simple science and mathematics, history, geography, and sometimes civics, religious education, and physical education.

Programmes may be given as a special section or "stream" in a general (secondary) school or in special institutions, public or private, such as commercial colleges, technical schools, business colleges, or secretarial schools.

Usual award for successful completion of a programme is a certificate or diploma, usually issued by the school or college.

23404. Typing and shorthand programmes

These programmes are similar to those in 23401, the distinction being that within the commercial component particular stress is placed on the acquisition of skill in typing and shorthand. The general education component is often diminished to a third or less of the total time, one-third or more being allotted to shorthand and typing, and the remainder to learning about general office routine.

The definition in 23401 applies in all other respects.

23499. Other commercial programmes

Programmes that often combine the extension of general education at the first level with training in an aspect of commercial or office work other than typing and shorthand. The chief aim is to provide background in some aspect of office work and routine while extending the student's general education. These enrolled have completed at least four years of schooling at the first level, and most are engaged in full-time education in a programme to last for two or three years. Some may be adults or young people who have left school, and, in this case, the programmes often omit general education, and may last only a few months or weeks, part-time or full-time.

The commercial part of these programmes usually stresses one aspect of office or related work, such as bookkeeping, business machine operation, marketing and sales, co-operative operation, local public administration, etc.; but they may also include some training in general office routine, filing, typing, and business correspondence.

The general education component varies in relative importance according to the kind of institution providing the programmes and the kind of student enrolled. It usually includes study of the mother tongue and/or another current language, geography, current affairs, history, mathematics, and science.

Programmes may be given in secondary schools, public or private commercial colleges, business or secretarial schools or colleges, co-operatives, local government offices, or other employing establishments. Occasionally they are offered by business machine companies or private institutions concerned with promoting the use of a particular type of machine. They may be brief in-service or retraining courses.

A diploma or certificate of competence is usually awarded by the schools or colleges themselves.

250. Health-related auxiliary programmes

This field includes a variety of programmes that usually combine education at the second level, first stage, with some simple training in general health-related procedures. The programmes are designed to prepare students for employment as assistants to public health auxiliaries. At this level the programmes are typically directed towards the application of techniques in relevant procedures rather than towards the theoretical and scientific principles involved.

Important subject matter included in these programmes often consists of study of background subjects such as chemistry, biology, basic human anatomy and physiology, hygiene, and first aid.

Programmes may be either full-time or part-time, day or evening, and usually include practical demonstration and student participation in the relevant operations, either in practice sessions or as employees. They are often conducted in hospitals, clinics, or special schools.

Usual minimum educational prerequisite is completion of education at the first level, but mature students, especially those with relevant work experience, may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma.

25002. General medical auxiliary programmes

Programmes that may combine the extension of general education at the first level with classroom instruction and practical demonstration of general public health problems and the administrative procedures used in handling them. Included also is study of medical terminology and medical record-keeping practices.

The medical part of the programmes usually includes the principles of public health, first aid, medical terminology, maintenance of health records, hygiene, and general office procedures.

A general education component may include study of the mother tongue and/or another current language, simple mathematics, science (often related to health and hygiene), social studies, civic and/or religious education, art, music and physical education.

Students have usually completed at least four years of first-level education. When full-time, the programmes last from one to four years. Programmes for adults are usually more specialized, often part-time and may last for less than a year.

Programmes may be given in special sections or "streams" of general schools. Programmes for adults at this level are often held in adult education centres, technical colleges, or other institutions.

Usual award for successful completion is a diploma or certificate issued by the school or by a public authority.

25012. Nursing programmes

Programmes that often combine the extension of general education at the first level with classroom instruction and practical demonstration of basic nursing procedures.

The nursing part of the programmes usually includes nursing theory; nursing practice; basic human anatomy and physiology; hygiene; first aid; nutrition; and elementary sociology.

The general education component usually includes study of the mother tongue and/or another current language; simple mathematics; science (often related to health and hygiene); social studies; civics and/or religious education; art; music and physical education.

Pupils are usually between 11 and 16 years of age, and have usually completed at least four years of first-level education. The programmes, mainly full-time, last from two to five years. Programmes for adults usually contain less general education, are often part-time, and may last for one year or less.

Programmes may be given in special sections or "streams" of general schools. Programmes for adults at this level are often held in adult education centres, technical colleges, or other institutions.

Usual award for successful completion is a diploma or certificate issued by the school or by a public authority.

25015. Midwifery programmes

Programmes that often combine the extension of general education at the first level with classroom instruction and practical demonstration of pre- and post-natal care of the mother and child.

The midwifery part of the programmes usually includes the principles of obstetrics and gynaecology; basic human anatomy and physiology; midwifery practice; hygiene; first aid; care of mother and child; nutrition; and elementary sociology.

The general education component usually includes study of the mother tongue and/or another current language; simple mathematics; science (often related to health and hygiene); social studies; civics and/or religious education; art; music; and physical education.

Pupils are usually between 11 and 16 years of age, and have completed first-level education. The programmes, mainly full-time, last from two to five years. Programmes for adults usually contain less general education, are often part-time, and may last for one year or less.

Programmes are usually given in special sections or "streams" of general schools. Programmes for adults at this level are often held in adult education centres, technical colleges, or other institutions.

Usual award for successful completion is a diploma or certificate issued by the school or by a public authority.

25099. Other health-related auxiliary programmes

Programmes that often combine the extension of general education at the first level with classroom instruction and practical demonstration in the practice of medical techniques in diagnostic and treatment procedure.

The health-related part of the programmes usually includes the principles or techniques of elementary medical technology; basic human anatomy and physiology; laboratory safety; collection and handling of specimens; shipment of specimens; instrumentation; sterilization and disinfection; laboratory glass and plastic ware; and first aid. Stress may be laid on some of these and some may be omitted.

The general education component usually includes study of the mother tongue and/or another current language; simple mathematics; science (often related to health and hygiene); social studies; civic and/or religious studies; art; music; and physical education.

Pupils are usually between 11 and 16 years of age, and have completed first-level education. The programmes, mainly full-time, last from two to five years. Programmes for adults usually contain less general education, are often part-time, and may last for one year or less.

Programmes are usually given in special sections or "streams" of general schools. Programmes for adults at this level are often held in adult education centres, technical colleges, or other institutions.

Usual award for successful completion is a diploma or certificate issued by the school or by a public authority.

252. Trade, craft, and industrial programmes, n.e.c.

This field includes a variety of programmes at the second level, first stage, which often combine general education with instruction and workshop experience in technical or vocational subjects. When given in general secondary schools, these programmes are not designed to provide vocational education of the type that results in qualification for a specific type of job, but are intended to provide a general education with a vocational emphasis enabling the student to sample various vocational fields and to acquire some familiarity with workshop methods. Other programmes are designed for school leavers and for adults, and these tend to be more intensive with little or no general second-level education content.

The principal subject-matter content of these programmes may include much of the regular school curriculum at this level, with somewhat less emphasis on language, literature, and social studies, but with more attention to mathematics, science, elementary drafting, blueprint reading, and a range of technical subjects depending on the student's interest.

In addition to the general technical programmes described immediately above, this field includes programmes that are devoted entirely to vocational preparation for a trade in such categories as metal trades, woodworking trades, electrical trades, other construction trades, mechanical repair trades, printing and bookbinding trades, food and drink processing trades.

Usual minimum educational prerequisite is completion of first-level education. In programmes for school leavers and adults, however, vocational interest and relevant experience may be given some weight and be substituted to some extent for previous education.

Usual award for successful completion of a programme is a certificate or diploma.

25201. General trade and craft programmes

Programmes that combine general education at the second level, first stage, with instruction and workshop experience providing a general education suitable as preparation for more advanced vocational programmes or for on-the-job training, including apprenticeship.

Principal course content usually includes some basic instruction and shop practice in such subjects as hand and machine tool operation, welding and soldering, metal work, woodwork, electrical wiring and basic circuitry, cement work, plastering, bricklaying, tile setting, internal combustion engine maintenance and repair, other mechanical repairs, drafting, blueprint reading, plane geometry, etc. The general education component usually includes mathematics, literature, science, and physical education, with little attention paid to foreign languages, history, geography, or social studies.

These programmes are usually given in general secondary schools or in technical schools. As general programmes, they form part of the secondary school curriculum in many countries.

Usual minimum educational prerequisite is completion of first-level education.

Usual award for successful completion of a programme is a certificate or diploma.

25212. Food and drink processing trades programmes

Programmes that often combine general education at the second level, first stage, with instruction and workshop experience in food and drink processing trades, such as milling, baking, confectionery making, slaughtering and meat cutting, fish curing, canning and preserving, fruit and vegetable canning and preserving, milk processing, sugar processing, and beverage processing. These school programmes provide a general education suitable as preparation for a range of more advanced vocational programmes or for on-the-job training, including apprenticeship. They are not designed to give specific vocational education for any particular occupation. Adult programmes tend to be more vocationally oriented.

Principal course content varies with the student's particular speciality but normally includes, inter alia, general shop work to familiarize him with shop work routines, along with study of the particular materials used in his speciality, their properties, uses, and the processes required for their transportation, storage, handling, and processing. In addition to the specialized subjects included in a given programme, the general education component, which occupies at least one-half of the total study time, usually includes literature, mathematics, science, and physical education.

Usual minimum educational prerequisite is completion of first-level education. However, in programmes for school leavers and adults, outside the usual secondary school programmes, vocational interest and relevant experience may be given some weight and be substituted to some extent for previous education.

Usual award for successful completion of a programme is a certificate or diploma.

25216. Building trades programmes, n.e.c.

Programmes that often combine general education at the second level, first stage, with instruction and workshop experience in building trades not included in 25201 or 25212. These programmes provide a general education suitable as preparation for a range of more advanced vocational programmes or for on-the-job training, including apprenticeship. They are not designed to give specific vocational education for any particular occupation. Adult programmes tend to be more vocationally oriented.

Principal course content varies with the student's particular interest, but usually includes general shop work to familiarize him with shop work routines, blueprint reading, use of hand and machine tools, drafting, study of local building codes, and vocational hazards and safety. Examples of the trades included are cement work, bricklaying, tile setting, plastering, roofing, insulation work, heating and ventilating. In addition to the particular subjects of these trades, the general education component, which occupies at least one-half of the study time, usually includes literature, mathematics, science, and physical education.

Usual minimum educational prerequisite is completion of first-level education. However, in programmes for school leavers and adults, outside the usual secondary school programmes, vocational interest and relevant experience may be given some weight and be substituted to some extent for previous education.

Usual award for successful completion of a programme is a certificate or diploma.

25222. Electrical trades programmes

Programmes that often combine general education at the second level, first stage, with instruction and workshop experience in electrical trades. These school programmes provide a general education suitable as preparation for a range of more advanced vocational programmes or for on-the-job training, including apprenticeship. They are not designed to give specific vocational education for any particular occupation. Adult programmes tend to be more vocationally oriented.

Principal course content usually includes, inter alia, bench work, electrical circuit design, use of electrical switch gear, use of electrical test equipment, diagnosis of faults, repair and maintenance of electrical appliances and equipment, basic electricity and the principle of electro-magnets, operation of simple electric motors, blueprint reading, drafting, and study of occupational hazards and safety. In addition, the general education component, which occupies at least one-half of the study time, usually includes literature, mathematics, science, and physical education.

Usual minimum educational prerequisite is completion of first-level education. However, in programmes for school leavers and adults, outside the usual secondary school programmes, vocational interest and relevant experience may be given some weight and be substituted to some extent for previous education.

Usual award for successful completion of a programme is a certificate or diploma.

25232. Metal trades programmes

Programmes that often combine general education at the second level, first stage, with instruction and workshop experience in metal trades. Such programmes provide a general education suitable as preparation for a range of more advanced vocational

programmes or for on-the-job training, including apprenticeship. They are not designed to give specific vocational education for any particular occupation. Other programmes at this level tend to be entirely vocationally oriented, and often concentrate on a particular metal trade such as metal casting, sheet-metal work, or welding.

Principal course content varies with the particular subject emphasis, but usually includes, inter alia, bench work, use of hand and machine tools, welding and soldering, blueprint reading, metal casting, sheet-metal work, heat treatment, structural metal work, forging, and study of occupational hazards and safety. In addition, there may be a general education component, which would occupy at least one half of the study time, and would include literature, mathematics, science, and physical education.

Usual minimum educational prerequisite is completion of first-level education. However, in programmes for school leavers and adults, outside the usual secondary school programmes, vocational interest and relevant experience may be given some weight and be substituted to some extent for previous education.

Usual award for successful completion of a programme is a certificate or diploma.

25242. Mechanical and mechanical repair trades programmes

Programmes that often combine general education at the second level, first stage, with instruction and workshop instruction in mechanical trades or mechanical repair trades. Such programmes provide a general education suitable as preparation for a range of more advanced vocational programmes, or for on-the-job training, including apprenticeship. They are not designed to give specific vocational education for any particular occupation. Other programmes at this level tend to be entirely vocationally oriented, and often concentrate on a particular mechanical or mechanical repair trade, such as diesel mechanic, heavy equipment mechanic, machine fitter, motor vehicle mechanic.

Principal course content varies with the particular trade, but usually includes, i.a., bench work, use of hand and machine tools, welding, blueprint reading, internal combustion engine repair and maintenance, other machine and mechanical equipment repair and maintenance, machine assembly, study of occupational hazards and safety. If there is a general education component, it may occupy at least one half of the study time and include subjects such as literature, mathematics, natural science, and physical education.

Usual minimum educational prerequisite is completion of first-level education. However, in programmes for school leavers and adults outside the usual secondary school programmes, vocational interest and relevant experience may be substituted to some extent for prior education.

Usual award for successful completion of a programme is a certificate or diploma.

25262. Woodworking trades programmes

Programmes that often combine general education at the second level, first stage, with instruction and workshop experience in woodworking trades. Such school programmes provide a general education suitable as preparation for a range of more advanced vocational programmes or for on-the-job training, including apprenticeship. They are not designed to give specific vocational education for any particular occupation. Other programmes at this level tend to be entirely vocationally oriented, and often concentrate on a particular trade such as carpentry or cabinet-making.

Principal course content varies with the particular subject emphasis, but usually includes, inter alia, bench work, use of hand and machine tools, methods of joining wood, basic carpentry, cabinet-making, wood finishing, varieties of wood and their characteristics, blueprint reading, and study of occupational hazards and safety. In addition, if there is a general education component, it can occupy at least one half of the study time, and usually includes literature, mathematics, science, and physical education.

Usual minimum educational prerequisite is completion of first-level education. However, in programmes for school leavers and adults outside the usual secondary school programmes, vocational interest and relevant experience may be given some weight and be substituted to some extent for previous education.

Usual award for successful completion of a programme is a certificate or diploma.

25266. Materials-handling and earth-moving equipment operating programmes

Programmes which may combine general education at the second level, first stage, with instruction in the operation of materials handling and earth moving equipment, but which are usually devoted exclusively to the vocational instruction.

The principal content of these programmes consists of demonstration and practice in the operation of the particular equipment concerned, which may include cranes, derricks, power shovels such as back hoes, industrial or similar tractors, lumber carriers or other special materials handling equipment, loaders, bulldozers, etc. Generally, the operation of such equipment requires a knowledge of maintenance procedures and simple repairs, so the programmes cover these aspects, along with study of the occupational hazards and safety measures.

Usual minimum educational prerequisite is completion of first-level education, but in programmes for school leavers or adults vocational interest and relevant experience may be substituted to some extent for previous education.

A certificate of competence may be awarded for successful completion of the programme.

25272. Leather trades programmes

Programmes which may combine general education at the second level, first stage, with instruction and workshop experience in leather trades, such as glove making, luggage and other leather goods making, shoemaking and shoe repairing. These school programmes provide a general education suitable as preparation for a range of more advanced vocational programmes or for on-the-job training, including apprenticeship. They are not designed to give specific vocational education for any particular occupation. Adult programmes tend to be more vocationally oriented.

Principal course content varies with the student's particular interest. It usually includes, inter alia, general shop work to familiarize the student with shop work routines, simple pattern making, techniques of cutting, sewing and other stitching, riveting, gluing and other methods of fastening materials, leather tooling, etc. In addition to the particular subjects of these trades, the general education component, which occupies at least one half of the study time, usually includes literature, mathematics, science, and physical education.

Usual minimum educational prerequisite is completion of first-level education. However, in programmes for school leavers and adults, outside the usual secondary

school programmes, vocational interest and relevant experience may be given some weight and be substituted to some extent for previous education.

Usual award for successful completion of a programme is a certificate or diploma.

25274. Textile trades programmes

Programmes that often combine general education at the second level, first stage, with instruction and workshop experience in textile trades, such as combing, spinning, weaving, dyeing, and finishing. Such school programmes provide a general education suitable as a preparation for a range of more advanced vocational programmes or for on-the-job training, including apprenticeship. They are not designed to give specific vocational education for any particular occupation. Other programmes at this level tend to be entirely vocationally oriented, and often concentrate on a particular trade such as weaving or textile dyeing.

Principal course content varies with the student's particular interest. It usually includes, inter alia, the properties of different textile fibres, mixing of fibres to obtain suitable blends or fabrics, preparation of fibres for spinning, operation of spinning equipment, various kinds of looms and their operation, textile dyeing, textile printing, and textile finishing. These programmes usually include also workshop experience and instruction in occupational hazards and safety. Programmes having a general education component, which may occupy at least one half of the study time, usually include literature, mathematics, science, and physical education.

Usual minimum educational prerequisite is completion of first-level education. However, in programmes for school leavers or adults outside the usual secondary school programme, vocational interest and relevant experience may be given some weight and be substituted to some extent for prior education.

Usual award for successful completion of a programme is a certificate or diploma.

25276. Clothing and related trades programmes

Programmes that often combine general education at the second level, first stage, with instruction and workshop experience in clothing trades, such as tailoring, dressmaking, upholstering, hat and cap making (millinery), fur working. Such programmes provide a general education suitable as preparation for a range of more advanced vocational programmes or for on-the-job training, including apprenticeship. They are not designed to give specific vocational education for any particular occupation. Other programmes at this level tend to be entirely vocationally oriented, and often concentrate on a particular clothing or related trade, such as tailor, upholsterer, dressmaker, furrier.

Principal course content varies with the particular trade, but usually includes, inter alia, general shop work to familiarize the student with shop work routines, simple pattern making, techniques of cutting, sewing, and other stitching, measuring, fitting, pressing, and other garment finishing, preparation of fur plates, and other techniques for making fur articles, including garments, hat blocking, and other techniques of millinery. If there is a general education component, it may occupy at least one half of the study time and include subjects such as literature, mathematics, natural science, and physical education.

Usual minimum educational prerequisite is completion of first-level education. However, in programmes for school leavers and adults outside the usual secondary school programmes, vocational interest and relevant experience may be substituted to some extent for prior education.

Usual award for successful completion of a programme is a certificate or diploma.

25278. Printing and bookbinding trades programmes

Programmes that often combine general education at the second level, first stage, with instruction and workshop experience in printing and bookbinding trades. These school programmes provide a general education suitable as preparation for a range of more advanced vocational programmes or for on-the-job training, including apprenticeship. They are not designed to give a specific vocational education for any particular occupation. Adult programmes tend to be more vocationally oriented.

Principal course content usually includes, inter alia, printing techniques, press operation, typesetting and plate making, photo-engraving, kinds of paper and their uses, types of printing ink, bindery processes, layout make-up, and study of occupational hazards and safety. In addition, the general education component, which occupies at least one-half of the study time, usually includes literature, mathematics, science, and physical education.

Usual minimum educational prerequisite is completion of first-level education. However, in programmes for school leavers and adults, outside the usual secondary school programmes, vocational interest and relevant experience may be given some weight and be substituted to some extent for previous education.

Usual award for successful completion of a programme is a certificate or diploma.

25299. Other trade, craft, and industrial programmes, n.e.c.

Programmes that often combine general education at the second level, first stage, with instruction and workshop experience in a trade or craft not included in the above list of programme groups (i.e. 25201 to 25278). These school programmes provide a general education suitable as preparation for a range of more advanced vocational programmes or for on-the-job training, including apprenticeship. They are not designed to give specific vocational education for any particular occupation.

Principal course content varies with the student's particular interest, but these programmes usually include instruction and shop work practice in subjects such as the use of tools and machines, study of the materials and supplies associated with the speciality, occupational hazards and safety. In addition to the particular subjects included in a given programme, the general education component, which occupies at least one-half of the total study time, usually includes literature, mathematics, science, and physical education.

Usual minimum educational prerequisite is completion of first-level education. However, in programmes for school leavers and adults, outside the usual secondary school programmes, vocational interest and relevant experience may be given some weight and be substituted to some extent for previous education.

Usual award for successful completion of a programme is a certificate or diploma.

262. Agricultural, forestry, and fishery programmes

This field includes a variety of programmes that often combine education at the second level, first stage, with some training in agricultural, forestry, or fishery operations, or that concentrate on agricultural, forestry, or fishery operations with no reference to general education.

These programmes tend to emphasize practical aspects of farming, forestry, or fishery activities. These usually consist in part of work undertaken on special farms, in woodlands or in fisheries. Such practical work is combined with lecture and discussion periods covering some basic principles of agricultural, forestry or fishery operations. The general education component covers such subjects as study of the mother tongue or of another current language and its literature, mathematics, history, geography, and sometimes physical education. Programmes may be general, or they may have a particular subject emphasis. Subject emphasis at this level usually accords with the particular structure of the agricultural, forestry, or fishery industry in the area.

Programmes vary in duration, i.e. they may be for as long as two or three years, with some lasting only a few weeks. They are usually given in agricultural, forestry, or fishery schools or as special sections in general schools. Programmes for adults may be given in special institutions for adults, or in night classes in schools and technical training institutions.

Usual minimum educational prerequisite is completion of education at the first level. Admission to some programmes, particularly those that do not form part of the regular secondary school system at the second level, first stage, may be granted primarily on the basis of interest and aptitude as indicated by experience and maturity rather than on the basis of educational attainment.

Usual award for successful completion of a programme is a certificate or diploma.

26202. Agricultural programmes

Programmes that often combine general education at the second level, first stage, with elementary agricultural training, but that may concentrate entirely on agriculture. The main aim of these programmes is to meet the needs of pupils in areas in which agriculture is the principal economic activity.

The agricultural part of the programmes usually includes work in a school garden or a farm, and practical instruction in the maintenance and repair of simple farm machinery. Principal course content usually includes subjects such as animal husbandry, crop husbandry, horticulture, soil and water preservation, the use and application of fertilizers and insecticides, drainage and irrigation, treatment of waste, composition and treatment of soil, and the preservation and processing of foodstuffs. A general education component may include study of the mother tongue and/or the current language, simple mathematics, science (often related to crop and livestock technology), social studies, art and music, civic and/or religious education, and physical education.

Pupils are usually between 11 and 16 years of age, and have usually completed at least four years of first-level education. The programmes, mainly full-time, last from two to five years. Programmes for adults usually contain less general education, are often part-time, and may last for one year or less.

Programmes are usually given in special sections or "streams" of general schools or in agricultural schools. Programmes for adults at this level are often held in adult education centres, technical colleges, or other institutions.

Usual award for successful completion is a certificate or diploma issued by the school or by a public authority.

26262. Forestry programmes

Programmes that may combine general education at the second level, first stage, with elementary training in forestry, but that may concentrate entirely on forestry. The main aim of these programmes is to meet the needs of pupils in areas where forestry is an important (or the principal) economic activity.

The forestry part of the programmes usually includes work projects in the forest and on the maintenance and repair of simple tools and equipment. The principal course content usually includes the ecology of woodlands; growth of trees; chemistry and physics of wood; logging and logging methods; and forest protection. A general education component may include study of the mother tongue and/or another current language; simple mathematics; science (often related to forestry applications); social studies; art; music; civic and/or religious education; and physical education.

Pupils are usually between 11 and 16 years of age and have completed at least four years of first-level education. The programmes for pupils are mainly full-time and last from two to five years. Adult programmes tend to be shorter in duration.

Programmes are usually given in special schools. Programmes for adults at this level are often held in adult education centres, technical colleges, or other institutions.

Usual award is a certificate or diploma issued by the school or a public authority.

26272. Fishery programmes

Programmes that often combine general education at the second level, first stage, with elementary training in fishery methods, but that may concentrate entirely on fishery methods. The main aim of these programmes is to meet the needs of pupils in areas where fishery is an important (or the principal) economic activity.

The fishery part of the programmes usually includes work projects in fishing, the construction and care of nets and other gear, the operation, simple maintenance and repair of boats and engines; courses in subjects such as pisciculture; the food of fish, crustacea, and molluscs; the identification and classification of fish; the handling, preservation and processing of fish and other sea food; fishing methods; and oceanography. A general education component may include study of the mother tongue and/or another current language; simple mathematics; science (often related to fishery applications); social studies; art; music; civic and/or religious education; and physical education.

Pupils are usually between 11 and 16 years of age and have completed at least four years of first-level education. The programmes for pupils are mainly full-time and last from two to five years. Adult programmes tend to be shorter in duration.

Programmes are usually given in special schools. Programmes for adults at this level are often held in adult education centres, technical colleges, or other institutions.

Usual award for successful completion is a certificate or diploma issued by the school or by a public authority.

266. Home economics (domestic science) programmes

This field includes a number of programmes that often combine education at the second level, first stage, with some training in domestic science, including general household arts.

These programmes may consist of at least one-half of the study time devoted to general education at this level, the other half being either general home economics training, home economics with emphasis on basic principles, elementary cooking and food preservation, home economics with emphasis on dressmaking and sewing, or home economics with other subject emphasis, such as household decoration, furniture selection, or child care. The general education part of such a programme usually consists of study of the mother tongue and/or another current language and its literature, mathematics, science, history, geography, and sometimes civics, religious education, and physical education.

These school programmes are not designed to provide complete vocational education but are intended to introduce the student to the field of domestic science education which will be supplemented later by experience in operating a home, on the job, or by further education.

Most programmes of this kind are given in general secondary schools, often in special classes or sections. Some programmes are designed for adults; these are likely to be held in institutions or community centres, and are often of short duration.

Usual minimum educational prerequisite is completion of first-level education. Admission to some programmes designed for adults may be granted with lower educational qualifications to those having relevant experience.

Usual award for successful completion of a programme is a certificate or diploma.

26601. General home economics programmes

Programmes that often combine general education at the second level, first stage, with some training in home economics, i.e. basic housekeeping, sewing, cooking, nutrition education and other household arts. These programmes are not designed to provide complete vocational education but are intended to supplement the basic part of education at this level with a general background in domestic or household science. Many countries do not have these programmes at this level of education.

The home economics part of the programmes deals with such subjects as elementary cooking and food preservation, dressmaking and other sewing required for household or family purposes, home decoration and the choice of furniture, and basic principles of nutrition. General education at the second level, first stage, which usually accounts for at least one-half of the total study time, includes study of the mother tongue and/or another current language and its

literature, elementary science, elementary mathematics, history, geography, and sometimes civics, religious education, and physical education.

Programmes are given in special sections or classes in a general secondary school. In some cases, programmes of this kind are designed for adults, and may be held in technical institutes or community centres. The latter type of programme is often of short duration (up to six months), and may be provided on a part-time basis.

Usual minimum educational prerequisite is completion of first-level education. Admission to some programmes designed for adults may be granted with lower educational qualifications to those having relevant experience.

Usual award for successful completion of a programme is a certificate or diploma.

26604. Home economics programmes with emphasis on dressmaking and sewing

Programmes that often combine general education at the second level, first stage, with some training in home economics and emphasis on dressmaking and sewing. These programmes are not designed to provide complete vocational education, but are intended to supplement education at this level with some basic household science and especially dressmaking and sewing. Many countries do not have these programmes at this level of education.

The home economics part of the programmes deals with such subjects as elementary cooking and baking, home decoration and the choice of furniture, family nutrition, and especially dressmaking, including simple pattern making, and other sewing required for household or family purposes. General education at the second level, first stage, which may account for at least one-half of the total study time, includes study of the mother tongue and/or another current language and its literature, elementary science, elementary mathematics, history, geography, and sometimes civics, religious education and physical education.

Programmes are given in special sections or classes in a general secondary school. In some cases, programmes of this kind are designed for adults, and may be held in technical institutes or community centres. This latter type of programme is often of short duration (up to six months), and may be provided on a part-time basis.

Usual minimum educational prerequisite is completion of first-level education. Admission to some programmes designed for adults may be granted with lower educational qualifications to those having relevant experience.

Usual award for successful completion of a programme is a certificate or diploma.

26608. Home economics programmes with emphasis on cooking and food preservation

Programmes that often combine general education at the second level, first stage, with some training in home economics and emphasis on cooking and food preservation. These programmes are not designed to provide complete vocational education, but are intended to supplement education at this level with some basic household science and especially cooking and food preservation. Many countries do not have these programmes at this level of education.

The home economics part of the programmes deals with such subjects as sewing, family nutrition, and elementary techniques in the home preparation of food, especially cooking and baking, including basic sauces, the use of condiments, canning and preserving of fruits and vegetables, including making pickles, jams, etc. General education at the second level, first stage, which may account for at least one-half of the total study time, includes study of the mother tongue and/or another current language and its literature; elementary science; elementary mathematics; history; geography; and sometimes civics, religious education, and physical education.

Programmes are given in special sections or classes in a general secondary school. In some cases, programmes of this kind are designed for adults, and may be held in technical institutes or community centres. This latter type of programme is often of short duration (up to six months), and may be provided on a part-time basis.

Usual minimum educational prerequisite is completion of first-level education. Admission to some programmes designed for adults may be granted with lower educational qualifications to those having relevant experience.

Usual award for successful completion of a programme is a certificate or diploma.

26699. Other home economics programmes

Programmes that often combine general education at the second level, first stage, with some training in home economics and emphasis on a home economics subject not covered by the above groups, i.e. 26604 or 26608. Some examples of the subjects that may be emphasized are household decoration, furniture selection, child care. These programmes are not designed to provide complete vocational education but are intended to supplement education at this level with some basic household science. Many countries do not have these programmes at this level of education.

The home economics part of the programmes deals with such subjects as elementary cooking and baking, dressmaking, and other household sewing for the family, with emphasis on the student's particular interest. General education at the second level, first stage, which may account for at least one-half of the total study time, includes study of the mother tongue and/or another current language and its literature, elementary science, elementary mathematics, history, geography, and sometimes civics, religious education, and physical education.

Programmes are given in special sections or classes in a general secondary school. In some cases, programmes of this kind are designed for adults, and may be held in technical institutes or community centres. This latter type of programme is often of short duration (up to six months), and may be provided on a part-time basis.

Usual minimum educational prerequisite is completion of first-level education. Admission to some programmes designed for adults may be granted with lower educational qualifications to those having relevant experience.

Usual award for successful completion of a programme is a certificate or diploma.

270. Transport programmes

This field includes a number of programmes that may combine some education at the second level, first stage, with training in the procedures required for the operation and maintenance of means of transport. Included are programmes in transport operation and maintenance only.

Programmes of this kind are very practical in their approach, and if they include some general education, it is intended simply to provide the reading, writing, and arithmetic necessary to understand the practical material being taught. Thus, the principal course content consists of techniques required to operate railway rolling stock and to carry out its routine maintenance, but does not include repair procedures, the operation and routine maintenance of motor vehicles, some of the operating and routine maintenance procedures for ships. The kinds of programmes included at this level are those that require only elementary education. More complicated programmes requiring mathematics, sciences, etc., being classified in 370 or 570. Most of the programmes included here are mainly concerned with practice in the procedures being taught rather than classroom discussion sessions.

Usual minimum educational prerequisite is completion of first-level education, but mature students are often admitted with lower educational qualifications; especially to work-related programmes. The programmes are relatively short in duration, few of them lasting as long as a year. A certificate or similar award may be given for satisfactory completion of a programme.

27004. Seamen's programmes

Programmes that may combine some general education at the second level, first stage, with practical training for deck or engine room crews of vessels. Some programmes do not include a general education component and all programmes at this level are intended for those who either are or will become deck or engine room crew members at a trainee or beginning level.

The principal course content will include procedures required to carry out deck or engine room tasks involved in the operation and routine maintenance of vessels and of the structures or other equipment used in their operation.

Usual minimum educational prerequisite is completion of first-level education, but mature students may be admitted with somewhat lower educational qualifications. Many programmes of this kind are of very short duration, and a certificate may be awarded upon completion of a programme.

27006. Railway operation programmes

Programmes that may combine some education at the second level, first stage, with practical training in the operation and routine maintenance of railway running stock. Some programmes do not include a general education component, and all programmes at this level emphasize the practical operations involved.

The subject-matter content is designed for the elementary instruction of those who are or intend to become members of railway or similar running crews at a trainee or beginning level.

Usual minimum educational prerequisite is completion of first-level education, but mature students may be admitted with somewhat lower educational qualifications. A certificate may be awarded upon completion of the programme.

27008. Road motor vehicle operation programmes

Programmes that may combine some education at the second level, first stage, with practical training in the operation and routine maintenance of a road motor vehicle. Some programmes do not include a general education component, all programmes at this level emphasize the practical operations involved, and some are designed to train members of the general public in the operation of a private motor vehicle.

The subject-matter content is designed for the elementary instruction of those who are or intend to become operators of motor vehicles either as a vocation or for personal purposes. The subject matter includes the relevant legal code and instruction in the local patterns of traffic circulation. Programmes for non-vocational operators need not include the maintenance components.

Usual minimum educational prerequisite is completion of first-level education, but for many of these programmes, literacy sufficient for understanding the material is all that is required. In most jurisdictions, it is necessary to pass an examination to obtain an operator's permit.

278. Service trades programmes

This field includes a variety of programmes at the second level, first stage, which combine general education with instruction and practice in service trades such as barbering and beauty culture, waiter-waitress training, hotel trades, laundry trades, dry cleaning and pressing, etc. When given in general secondary schools, these programmes are not designed to provide vocational education of the type that results in qualification for a specific type of job, but are intended to provide a general education with a vocational emphasis enabling the student to sample various vocational fields and to acquire some familiarity with the techniques and methods used. In most cases, facilities are available also for the students to acquire some practice in the various trades covered. Some programmes are designed for school leavers and for adults, and these tend to be more intensive vocationally, with little or no emphasis on general second-level education.

The principal subject-matter content of programmes in the secondary schools includes much of the regular school curriculum at this level, with somewhat less emphasis on language, literature, and social studies; however, coverage of the regular subjects is less intensive, while some time is spent on subjects of more concern for trades training such as personal relations, dealing with the public, simple commercial procedures such as preparation of accounts, handling cash, business correspondence, the use of business forms such as purchasing forms and sales books, simple banking procedures such as deposit, withdrawal, and the writing of cheques, etc. The subject-matter content of programmes for adults and those out of school is composed primarily of procedures and techniques, including practice, in the particular trade concerned.

Usual minimum educational prerequisite is completion of first-level education. In programmes for school leavers and adults, however, vocational interests and relevant experience may be given some weight as a substitute for previous formal education.

Usual award for successful completion of a programme is a certificate or diploma.

27812. Barbering and beauty culture programmes

Programmes that combine general education at the second level, first stage, with instruction and practice in barbering and beauty culture. When given in secondary schools, these programmes provide a general education as preparation for more advanced vocational programmes or for on-the-job training, including apprenticeship. At this level, they are not designed usually to give specific vocational education leading to a particular qualification. Some programmes carried on outside of the secondary school system may provide specific vocational education in barbering and beauty culture without reference to general second-level education at the first stage.

Principal course content for programmes containing general second-level education includes literature, mathematics, science, physical education, etc., in addition to vocational subjects such as care of the hair, face, and scalp, cutting and styling of hair, care of the skin, use of make-up, manicuring, methods and standards of customer service, etc. The course content for programmes outside secondary schools is concentrated on the vocational subjects and often includes practice combined with assessment of the work being done.

Usual minimum educational prerequisite is completion of first-level education. In the case of adults and others outside the regular school system, vocational interest and relevant experience may be substituted to some extent for prior education.

Usual award for successful completion of a programme is a certificate or diploma.

27822. Hotel and restaurant trades programmes

Programmes that combine general education at the second level, first stage, with instruction and practice in hotel and restaurant trades such as cook, waiter or waitress, chamber maid, porter, etc. When given in secondary schools, these programmes provide a general education as preparation for more advanced vocational programmes or on-the-job training, including apprenticeship. At this level, they are not designed usually to give specific vocational education leading to a particular qualification. Some programmes at this level provided outside the secondary school system may give specific vocational education by concentrating on the vocational aspects without reference to general education.

Principal course content for programmes containing general second-level education includes literature, mathematics, science, physical education, etc., in addition to vocational subjects such as selection and buying of food, food preparation, cooking and serving of food, table setting, fundamentals of good table service, menu preparation, food hygiene, making of beds, cleaning and care of rooms, care and handling of guests' baggage, etc. The course content for programmes outside secondary schools is concentrated on vocational subjects and often includes practice combined with assessment of the work done.

Usual minimum educational prerequisite is completion of first-level education. In the case of adults and others outside the regular school system, vocational interest and relevant experience may be substituted to some extent for prior education.

Usual award for successful completion of a programme is a certificate or diploma.

27842. Laundry and dry-cleaning trades programmes

Programmes that combine general education at the second level, first stage, with instruction and practice in laundry and dry-cleaning trades such as launderer, laundry-machine operator, dry-cleaner, presser, fur cleaner, hat cleaner and blocker, glove cleaner, leather cleaner, carpet cleaner, etc. When given in secondary schools, these programmes provide a general education as preparation for more advanced vocational programmes or on-the-job training, including apprenticeship. At this level, they are not designed usually to give specific vocational education leading to a particular qualification. Some programmes provided outside the secondary school system may give specific vocational education by concentrating on the vocational aspects without reference to general education.

Principal course content for programmes containing general second-level education includes literature, mathematics, science, physical education, etc., in addition to vocational subjects such as characteristics of laundry materials including soaps, detergents, etc., laundry equipment such as washing machines, extractors, drying machines, pressing equipment, the cleaning and washing characteristics of textile materials, the use of starch and other fillers, listing, marking and identification of customers' laundry, dry-cleaning solvents, spotting, dry-cleaning processes, pressing, leather cleaning, fur cleaning and fur glazing, hat cleaning and blocking, etc. The course content for programmes outside secondary schools is concentrated on vocational subjects and often includes practice combined with assessment of the work done.

Usual minimum educational prerequisite is completion of first-level education. In the case of adults and others outside the regular school system, vocational interests and relevant experience may be substituted to some extent for prior education.

Usual award for successful completion of a programme is a certificate or diploma.

27862. Retailing programmes

Programmes that combine general education at the second level, first stage, with instruction in a branch of retailing such as grocery or other food retailing, hardware, apparel, footwear, etc. When given in secondary schools, these programmes provide a general education as preparation for more advanced vocational programmes or on-the-job training, including apprenticeship. At this level, they are not designed usually to give specific vocational education leading to a particular qualification. Some programmes at this level provided outside the secondary school system may give specific vocational education by concentrating on the vocational aspects without reference to general education.

Principal course content for programmes containing general second-level education includes literature, mathematics, science, social studies, physical education, etc., in addition to vocational subjects such as purchasing procedures including the relevant documentation, storage characteristics of the merchandise concerned, stock control, salesmanship, recording of sales, merchandise display, delivery procedures, etc. The course content for programmes outside secondary schools is concentrated on vocational subjects and often includes practice or work sessions combined with assessment of the work done.

Usual minimum educational prerequisite is completion of first-level education. In the case of adults and others outside the regular school system, vocational interest and relevant experience may be substituted to some extent for prior education.

Usual award for successful completion of a programme is a certificate or diploma.

27899. Other service trades programmes

Programmes that combine general education at the second level, first stage, with instruction in a service trade not included in 27812, 27822, 27842, or 27862, such as service-station attendant, bartender, guide, disinfector and exterminator, etc. When given in secondary schools, these programmes provide a general education as preparation for more advanced vocational programmes or on-the-job training, including apprenticeship. At this level, they are not designed usually to give specific vocational education leading to a particular qualification. Some programmes at this level provided outside the secondary school system may give specific vocational education by concentrating on the vocational aspects without reference to general education.

Principal course content for programmes containing general second-level education includes literature, mathematics, science, social studies, physical education, etc., in addition to relevant vocational subjects depending upon the student's vocational interest. The course content for programmes outside secondary schools is concentrated on vocational subjects and often includes practice or work sessions combined with assessment of the work done.

Usual minimum educational prerequisite is completion of first-level education. In the case of adults and others outside the regular school system, vocational interest and relevant experience may be substituted to some extent for prior education.

Usual award for successful completion of a programme is a certificate or diploma.

289. Other programmes of education at the second level, first stage

Programmes of education at the second level, first stage, not included in the other programme groups, i.e. 201 to 278. The programmes included are at the second level, first stage, in the sense that admission to them usually requires completion of education at the first level or equivalent experience. It is not likely that many countries have programmes of this kind, since the coverage of the other programme groups at this level is quite comprehensive.

In some countries, young people attending school full-time take instruction in playing a musical instrument, dancing, etc., outside the usual school day. In some cases, especially talented young people are enrolled in special schools or special classes in music, drama, the dance, or other artistic pursuits in addition to the usual school curriculum at this level. Many of these young people who have shown particular aptitude are studying with the objective of becoming professional artists. The above are merely examples of some programmes that would be included here.

28900. Other programmes of education at the second level, first stage (see definition under 289)

3. EDUCATION AT THE SECOND LEVEL, SECOND STAGE

The core at this level consists of education for thosewho have completed the second level, first stage. General education is still an important constituent, but separate subject presentation and more specialization are found at this level. Many students will have moved over to particular sets of programmes such as commercial, trade or technical, while others following the general programmes will be given more leeway in their choice of subject courses. This level consists of three or four years of full-time education.

Additional choice of subjects at this level may include such subjects as physics, biology and geology; classics; some social science; and the fine arts. The general programmes are often designed to provide the subject-matter credits required for university entrance or to prepare students for examinations of the university-entrance type.

In addition to the above for the core, this level covers an even wider variety of programmes than those at the first stage, consisting of subject matter mainly having a specific vocational emphasis. The educational programmes included here are those requiring at least the equivalent of some eight years' full-time education for admission or a combination of basic education and vocational experience that demonstrates ability to handle subject matter of that educational level.

Some apprenticeship programmes for skilled trades require at least eight years of education for entry because of the need for basic mathematics, ability to read and interpret plans (blueprints), to work with technical manuals, and to understand and handle complicated tools, machinery and equipment. Such programmes are classified here because of their entrance requirements. Other apprenticeship programmes which themselves provide for the additional educational background required and therefore on entry require only first-level education, are included at the second level, first stage.

Other programmes for manual and production types of vocation at this level are those containing subject matter consistent with training semi-skilled or skilled operatives. These are associated generally with such factors as the operation of expensive and intricate machines and equipment in extracting, manufacturing and transport operations; learning to handle materials of various kinds involved in complicated industrial processes; packing and handling products; and learning the skills and knowledge required for assembling and repairing machinery and apparatus. Obviously the educational background required is varied but not less than the equivalent of eight years.

Programmes for education in wholesale or retail trade and in-service operations, include retail food, hardware, etc., trades, as well as hotel and restaurant trades such as those of waiter, housekeeper, house steward and matron and require some second-level education for admission in some countries and therefore are found here. Education programmes for personal service work such as that of barbers, beauticians, and morticians are also found at this level in some countries.

Home economics programmes at this level are those containing natural science, health, food preparation and household finance courses suitable for qualifying graduates for employment in skilled work. Such graduates are capable of under-

taking careers in which experience will lead to responsible work in dietetics, the management of large households or small institutions, etc.

Similarly, office work programmes at this level provide full secretarial skills, knowledge of the operation of complicated office machines, etc. In some countries the medical auxiliary programmes at this level provide full nursing education, instruction in midwifery and prepare a range of medical technicians. Other jurisdictions require complete second-level education for admission to such programmes.

Agricultural, forestry and fishery programmes requiring at least eight full years of schooling are obviously designed for the training of skilled agricultural, forestry and fishery personnel or farm operators. They include theory as well as practical application.

Many of the programmes at this level are designed for adults, many are part-time and include retraining and sandwich courses. Thus the duration of the programmes varies widely, from a few weeks to three years. The important criterion for the determination of level is the educational (or education + experience) prerequisite, but of course the level will be reflected in the complexity, depth, level of abstraction and density of the content.

301. General programmes containing little or no technical education

This field includes programmes in education at the second level, second stage, each of which covers a range of subject matter designed to further the general education provided at the second level, first stage. These programmes stress the theoretical, philosophical, scientific or mathematical aspects of the subjects covered, with little time spent on technical subjects dealing with practical skills.

The principal subject-matter content of these programmes usually includes the mother tongue or another current language and its literature, other modern languages and literature, classical languages and literature, social studies, including history, geography, economics and sociology; natural sciences, including physics, chemistry, biology and geology; mathematics, both pure and applied; the fine and applied arts; and physical education. Although these are general programmes and include most or all of the above subjects, students may specialize to the extent of emphasizing one or another broad category of subject matter. For example, a general programme may emphasize the humanities, or the social sciences, or mathematics and natural sciences, or some other broad subject area, although many students follow a general programme with no such subject emphasis.

Programmes are generally given in secondary schools and many are of the type that lead to qualification for university entrance. They are usually full-time and take from two to four years. Programmes of this kind for adults may be part-time and given in the evening in schools or colleges or in adult education centres. Some of these programmes are given by correspondence or through radio and television broadcasts.

Usual minimum educational prerequisite is completion of education at the second level, first stage. Mature applicants are sometimes admitted with lower educational qualifications on demonstration of ability to handle the subject matter at this level.

Usual award for successful completion is a certificate or diploma.

30101. General programmes with no special subject emphasis

Programmes of general education offered in most countries as the second level of the complete "secondary" school or (senior) high school. They usually stress ideas and understanding rather than the acquisition of practical skills. Studies cover a wide field of knowledge. Programmes, usually full-time, last two to four years. Admission to the programmes may be open to all who have completed a minimum number of years of schooling or only to those who succeed in a selective examination.

Programmes are often organized under subject headings. A set of basic subjects is usually prescribed while other subjects are optional. The subjects offered usually include the mother tongue or another current language and its literature; one or more foreign languages, modern or classical; social studies, including history, geography, and economics; mathematics; natural sciences. During a three- or four-year course, students may study as many as ten subjects.

In some countries and systems, the subject organization of the programmes may be replaced by "integrated" schemes where problems or projects are studied in "units of work."

Programmes are generally given in secondary schools or upper secondary schools. In some cases they may be given in universities as preparatory classes. Adults taking the programmes usually study in evening classes in schools or colleges or adult centres, or by correspondence. Broadcasts (television and radio) may be used to supplement other teaching methods.

A certificate or diploma is usually awarded by either the school or a public authority to those who complete the programmes successfully. This certificate or diploma may be required for admission to universities or colleges.

30104. General programmes with special emphasis on the humanities and social sciences

These are programmes alternative to 30101, which permit some concentration on the humanities and social sciences without neglecting other fields of knowledge. Students are generally between 15 and 19 years of age and have completed seven to nine years of schooling. Programmes, usually full-time, last two to four years. Admission to the programmes may be open to all who have completed a minimum number of years of schooling or only to those who succeed in a selective examination.

Programmes are usually organized under subject headings but may be otherwise grouped, for example as "projects." The subjects offered usually include the mother tongue or another current language and its literature; one or more foreign languages, modern or classical; philosophy and sometimes religion or comparative religion; the history of culture and of the arts; world history; national history; geography; economics; sociology; and sometimes political science. Students may concentrate on two or three of these subjects, for example, they may choose two or three languages, history and philosophy or some social science, although most cover a wider field.

In addition to the humanities and social sciences, students usually spend between a tenth and a fifth of their time on other subject areas - for example, on "general knowledge," science, and mathematics, the treatment being broad and stressing ideas rather than techniques.

Programmes are generally given in secondary schools or upper secondary schools. In some cases they may be given in universities as preparatory classes. Adults taking the programmes usually study in evening classes in schools or colleges or adult centres, or by correspondence. Broadcasts (television and radio) may be used to supplement other teaching methods.

A certificate or diploma is usually awarded by either the school or a public authority to those who complete the programmes successfully. This certificate or diploma may be required for admission to universities or colleges.

30108. General programmes with special emphasis on mathematics and natural or applied science

These are programmes alternative to 30101, which permit some concentration on mathematics or science, without neglecting other fields of knowledge. Students are generally between 15 and 19 years of age and have completed seven to nine years of schooling. Programmes, usually full-time, last two to four years. Admission to the programmes may be open to all who have completed a minimum number of years of schooling or only to those who succeed in a selective examination.

Programmes are usually organized under subject headings; but may be otherwise grouped, for example as "projects," as particular problems such as "science and society," or around centres of interest. The subjects offered usually include pure and applied mathematics, physics, chemistry, and biology. Astronomy, geology, human anatomy, and engineering may sometimes be available. Stress is usually laid on theory and on ideas, although industrial applications may be considered. Students may concentrate on two or three of the subjects - for example, mathematics, physics and chemistry, or mathematics and biology - although most programmes cover a wider field.

In addition to the sciences and mathematics, students usually spend between one tenth and one fifth of their time on other subject areas - for example, on "general knowledge," history or a foreign language.

Programmes are generally given in secondary schools or upper secondary schools. In some cases they may be given in universities as preparatory classes. Adults taking the programmes usually study in evening classes in schools, colleges or adult centres, or by correspondence. Broadcasts (television and radio) may be used to supplement other teaching methods.

A certificate or diploma is usually awarded by either the school or a public authority to those who successfully complete the programmes. This certificate or diploma may be required for admission to universities or colleges.

30199. General programmes with special emphasis on other non-technical subjects

These programmes are alternatives to 30101, with special emphasis on subject areas not covered in 30104 or 30108. The areas of study may, for example, deal with life and culture in Asia, international problems, citizenship and leadership, the ancient world, government or commerce and production. In all cases the area of study is non-technical, i.e. it is not directly connected to the production, distribution, and exchange of material goods or services. At least three quarters of the total study time is devoted to the special area, the remainder being devoted to studies covering other important areas and often labelled "general knowledge."

The descriptions given in 30101 to 30108 apply here, apart from the description of programme content.

314. Teacher-training programmes

This field includes a variety of programmes in education at the second level, second stage, dealing with the principles and practice of school teaching and with the training of instructors, extension workers and personnel for out-of-school and adult education, both formal and non-formal. In programmes designed particularly to prepare students for teaching at the first level of education, considerable attention is paid to the techniques of teaching (teaching methods), including lesson planning and preparation, classroom management, methods for developing group activities, and the history of education. Typically, these programmes also devote equal time to furthering the student's general education.

Important kinds of programmes included are general teacher-training programmes with no particular subject-matter specialization, or specialization in the type of student to be taught; teacher training with specialization in a specific vocational or practical subject, such as music, art, physical education, metal work, or commercial subjects; teacher training for pre-school and kindergarten teachers. Different kinds of programmes are designed for the training of teachers in adult education,

i.e. the supervisors and instructors of adult education classes of a more formal kind and for extension and community development, health education of the public and other types of non-formal adult education.

Programmes may be followed full-time or part-time, but most of the programmes at this level are full-time and the students are still in the process of acquiring second-level education. Some programmes, however, are attended mainly by adults (e.g. programmes for teachers of adult education, programmes for teachers of pre-school and kindergarten children) and these are often part-time and evening programmes. The full-time programmes last for one to three years, while the part-time are generally for one year or less.

Usual minimum educational prerequisite is completion of second-level education, first stage, but mature students with related work experience may be admitted with lower educational qualifications, particularly in programmes for teachers of vocational subjects and for teachers of adult education.

Usual award for successful completion of a programme is a diploma or certificate issued by a college or school, or by a public authority.

31401. General teacher-training programmes

Programmes that combine general education at the second level, second stage, with teacher training. Educational theory and subject specialization are stressed less than in teacher-training courses at the third level of education.

The teacher-training component of the programmes usually involves study of the methods and principles of teaching and class management; elementary child psychology; and the history of education. Programmes also include practice teaching and observation of lessons given by experienced teachers. General education at the second level, second stage, usually accounts for about one-half of the total study time. It includes study of some or all of the following: the mother tongue and/or another current language and its literature; science; mathematics; social studies; art and music; manual training; dramatics; civic, moral, and sometimes religious education; and often a foreign language.

Programmes are usually given in special institutions such as normal schools or teacher-training colleges.

Usual minimum educational prerequisite for admission is completion of education at the second level, first stage. Programmes, usually full-time, last from one to three years. When designed for adults, these programmes are usually accelerated and often last for one year.

Usual award for successful completion of a programme is a diploma or certificate issued by the college or school, or by a public authority.

31408. Teacher training with specialization in a specific vocational or practical subject

Programmes at the second level, second stage, designed to provide teacher training with specialization in subjects such as music, art, physical education, metal work, or commercial subjects. These programmes are intended principally for those who will teach or give instruction at the first level of education or at the second level, first stage, either in a formal school atmosphere or out of school. In many cases, the programmes are also designed to further the student's general education.

The teacher-training component of the programmes usually involves study of teaching methodology and class discipline; special requirements for teaching the particular speciality for example the organization of a school workshop; techniques of teaching skills requiring tools and machines; methods of handling groups in gymnasium and sports activities, etc. Courses in child psychology, educational psychology, and the principles and history of education are often included. The programmes also include practice teaching and the observation of classroom, shop, and other instruction by experienced teachers or instructors. For young students, these programmes may continue and extend earlier school experience both in general education and in the special subject. Components of general education included are often directed toward a student's speciality: for example, physical education specialists may study human anatomy and general hygiene; music specialists may study appropriate branches of mathematics and acoustics, etc.

Programmes are usually given in special institutions such as normal schools or teacher-training colleges, but may be held in community centres, vocational training centres, etc.

Usual minimum educational requirement for admission is completion of education at the second level, first stage. Programmes, usually full-time, last from one to three years. Programmes designed for adults, particularly those having work experience in the subject they intend to teach, are often accelerated in the sense that less time is devoted to general education, and therefore usually last one year or less.

Usual award for successful completion of a programme is a diploma or certificate issued by the college or school, or by a public authority.

31412. Teacher training for pre-school and kindergarten teachers

Programmes at the second level, second stage, designed to provide teacher training for prospective teachers in education preceding the first level. In most cases these programmes are also designed to further the student's general education.

The teacher-training component of the programmes usually stresses study of child psychology and child development to assist the student in the understanding and guidance of pre-school and kindergarten children; study of the theory of play methods; and other group activities for young children. Courses in the history and aims of education are often included. Programmes also include practice in pre-school institutions under the supervision of experienced teachers. The general education component of these programmes usually includes study of the mother tongue and/or another current language; literature; history; mathematics; science; arts; music; and physical education.

Programmes are usually given in special institutions such as normal schools and teacher-training colleges.

Usually the minimum educational requirement for admission is completion of education at the second level, first stage. Programmes, usually full-time, last from one to three years. Programmes designed for adults (often women whose children are of school age) are usually accelerated and therefore may last one year or less.

Usual award for successful completion of a programme is a diploma or certificate issued by the college or school, or by a public authority.

31416. Teacher training for teachers in adult education

Programmes at the second level second stage, in teacher training for prospective supervisors, teachers and instructors of adult education classes including adult literacy, or for organizers, demonstrators, educators, etc., in extension or community development programmes. The programmes are sometimes designed also to further the student's general education.

The teacher-training component of the programmes is usually oriented toward the requirements of field work and the practical problems encountered in adult education, including the principles and methods of adult education, programme planning, and subject-matter selection in adult education, and/or the organization, management and teaching of adult literacy classes. The programmes often include practice sessions and observation in adult education classes under the supervision of experienced teachers. The general education part of these programmes is not a major component, and it includes study of the mother tongue or another current language; literature; current events; social studies; and often art, music, manual training, and physical education.

Programmes are sometimes given in special institutions such as normal schools or teacher-training colleges, in adult education centres, community centres, etc.

Usual minimum educational requirement for admission is completion of education at the second level, first stage. Many students in these programmes, however, are adults who may not have attended school for many years. Most should have completed education at the first level, and many should have some second-level education. For these mature students, experience, interest and aptitude may be substituted for formal educational requirements as criteria for admission. Teachers and instructors in work-oriented functional literacy programmes may require qualifications or experience in vocational fields such as agriculture, home economics or a relevant sector of industry, enabling them to combine the teaching of literacy with vocational information. The duration of programmes varies, being up to two years for younger students, but for mature students, or those having essential basic qualifications, being shorter in some cases two or three months or less.

Usual award for successful completion of a programme is a diploma or certificate issued by the college or school, or by a public authority.

31422. Teacher training for teachers of handicapped children

Programmes at the second level, second stage, in teacher training for prospective teachers of children affected by physical and/or mental handicaps. The programmes are usually designed also to further the student's general education.

The teacher-training component of the programmes usually includes such subjects as teaching methodology, the history of education, lesson planning, class management, child psychology, and child development. In addition, special attention is directed toward the problems of teaching handicapped children such as the blind, the deaf, and the mentally retarded, and the history of teaching the handicapped. Some students specialize in teaching children with a particular handicap, and may learn special skills such as braille or finger language. The programmes also include practice teaching in schools for the handicapped and observation of experienced teachers. The general education part of these programmes includes study of the mother tongue or another current language; literature; history; mathematics; art; music; and physical education.

Programmes are usually given in special institutions such as normal schools or teacher-training colleges, but for teaching handicapped children they may be given in hospitals or other institutions for the handicapped.

Usual minimum educational requirement for admission is completion of education at the second level, first stage.

Programmes, usually full-time, last from one to three years. When designed for adults, these programmes are usually accelerated and often last for one year.

Usual award for successful completion of a programme is a diploma or certificate issued by the college or school, or by a public authority.

31499. Other specialized teacher-training programmes

Programmes at the second level, second stage, in teacher training for prospective teachers in specialities not included in the above definitions of programme groups. They would include, inter alia, programmes for teacher training for prospective teachers in military schools, police schools, religious schools, etc. The programmes are usually designed also to further the student's general education.

The teacher-training component of a programme is geared to the speciality area and would include the general courses listed under categories 31401 to 31422 and, in addition, special courses appropriate to the particular aims of the programme. Programmes of this kind also include practice teaching and the observation of experienced teachers. The general education component is that appropriate to furthering a student's education at the second level, second stage.

Duration of programmes, usual minimum educational requirements for admission, and usual award for successful completion are as described in the definitions of categories 31401 to 31422.

318. Fine and applied arts programmes

This field includes a variety of programmes in education at the second level, second stage, dealing with the techniques, performance and production in the fine and applied arts. At this level, the programmes contain little theory, but they aim at introducing students to an appreciation of art generally, and to some elementary theory, and they concentrate mainly on performance designed to lead the student to select his particular art form.

The principal kinds of programmes included are those concerned with drawing and painting, handicrafts, music, photography, etc. These programmes usually include courses in general academic subjects such as history, literature, languages, mathematics, and sciences when they form part of the general secondary school curriculum. Other programmes for students not enrolled in general secondary schools are more concentrated and specialized in the fine and applied arts.

Programmes may be full-time or part-time, day or evening. Many are of relatively short duration, i.e. one year. In some cases, periods of study alternate with periods of work or practice in the relevant subject. These programmes are sponsored by many agencies in addition to the general secondary school system, including community organizations, individual artists, and groups of artists.

Usual minimum educational prerequisite is completion of second-level education, first stage. In many cases, however, particularly for programmes outside the general secondary school system, students applying for entry need only display an interest in the subject. Some programmes may require applicants to demonstrate some aptitude or skill in the chosen subject.

Usual award for successful completion is a certificate or diploma.

31804. Programmes in drawing and painting

Programmes at the second level, second stage, primarily consisting of student exercises supplemented with lectures, demonstrations and criticism, designed to provide the student with basic understanding and skills in the techniques of drawing and painting, mainly through the use of examples from the past and present. These programmes are usually designed to lead the student from a study of the most basic and fundamental skills, techniques and materials toward an encounter with more complex skills and techniques and a greater array of materials. The earlier stages of the programmes are usually characterized by instructor-directed activity, with the student gaining increasing freedom to direct his own activities as he moves through the programme.

The content of these programmes includes the study of the expressive qualities of line, shape, colour and texture, also perspective, composition, and the particular techniques peculiar to such media as pencil, charcoal, pen and ink, crayon, water-paints and oil-paints. In some programmes, particular courses may be organized around specific subject-matter, e.g. figure drawing or painting, landscape drawing or painting, sign writing, poster design, silk-screen work, etc.

Usual minimum educational prerequisite is completion of second-level education, first stage. In many cases, however, the student applying for entry to such a programme need only express an interest in the subject, but to proceed to more advanced levels within the programme he must usually demonstrate sufficient aptitude or skill at the introductory levels. The length of these programmes varies depending on the institution providing them. However, being often a part of a general fine arts programme, they are seldom longer than two years in duration.

Usual award for successful completion is a certificate or diploma.

31812. Programmes in handicrafts

Programmes at the second level, second stage, primarily consisting of demonstrations and student exercises, often supplemented with lectures, discussion, and criticism, designed to provide the student with basic understanding and skills in the design and production of handicraft products and an appreciation of their historical and cultural background. These programmes are usually designed to lead the student from the simple to the complex in techniques: in some of the crafts, this would mean from the making of objects that are completely hand crafted, through those utilizing simple tools, to those utilizing fairly complicated equipment. It is unlikely, however, that programmes at this level would include much complicated equipment.

The content of these programmes usually includes instruction in such skills as weaving, pottery, leather work, metal work (jewelry), wood carving, macramé (knot tying), origami (paper folding), bead work, etc. They often include an emphasis on the design and decoration appropriate to the specific craft, and something of the history of the techniques involved.

Usual minimum educational prerequisite is completion of second-level education, first stage. In many cases, however, the applicant for admission to such a programme need only express an interest in the crafts. On the other hand, in some areas, a student wishing to pursue formal handicraft training must demonstrate some degree of aptitude before being allowed to enter such a programme.

31822. Programmes in music

Programmes at the second level of education, second stage, in musical performance and theory, primarily consisting of demonstrations, student exercises, and practice, often supplemented by lectures and concerts. These programmes are designed to provide students with a general appreciation of music in a wide range of forms.

These programmes usually include instruction in musical performance on a variety of instruments as well as in vocal expression (solo, small group, and choral). In addition, they often include study of the history and appreciation of music, harmony, musical notation, and introduction to music theory and composition.

Usual minimum educational prerequisite is completion of second-level education, first stage. At this level, however, these programmes are often open to students who express an interest in music, but to remain in a programme a student is required to demonstrate sufficient aptitude and skill as the programme progresses. Auditions are often required for vocal programmes.

Programmes vary greatly in length, but most are from two to four years in duration.

Usual award for successful completion is a certificate or diploma.

31899. Other programmes in the fine and applied arts

Programmes at the second level, second stage, in fine and applied arts not included in the above programme groups (e.g. the dance), primarily consisting of student exercises and practice, supplemented with lectures and demonstrations. These programmes are usually general in nature, designed to provide the student with an understanding and appreciation of the visual and plastic arts and their history, as well as an opportunity to develop his ability to express himself in non-verbal forms. The personal expression portion of these programmes is usually designed to lead the student from experiences and insights in a wide variety of materials to a greater concentration of his time and efforts in certain selected materials. At the same time, the student acquires increasing skills and techniques in his chosen media.

The content of these programmes is very broad in terms of the artistic fields included. They usually involve some experience in and inquiry into many, if not most, of the media and processes involved in the visual arts, as well as courses dealing with the history and appreciation of art. Also included are programmes in photography and cinematography.

Usual minimum educational prerequisite is completion of education at the second level, first stage. In many cases, an applicant need only express an interest in appropriate subjects; however, in order to proceed to more advanced levels within the programme, he must usually demonstrate sufficient aptitude or skill at the introductory levels.

The length of these programmes varies depending on the sponsoring institution. In general, however, they form part of a general fine arts programme lasting for at least two years.

Usual award for successful completion is a certificate or diploma.

326. Religion and theology programmes

Programmes which may combine some general education at the second level, second stage, with instruction and practice in the religious and philosophical beliefs and doctrines of a religion or of a particular denomination or sect within a religion. The aim of the religious instruction is chiefly to develop in the student an appreciation of the particular religion, its philosophy or creed, and its rituals or offices. Many of the students may be prepared to proceed to further education of a religious type. Many students are between 15 and 19 years of age, but some are older. The programmes for young people tend to be full-time and to last from two to four years, but those for adults may be accelerated and intensive, and have a duration of only a few weeks or months. These programmes should not be confused with those which include mainly general education at this level but with some religious component and which are included in 301.

Programmes usually include the study of the mother tongue and/or a current language and its literature, one or two classical languages such as Pali, Sanskrit, Greek, Hebrew, Latin; social studies; and philosophy. The religious part of the programme tends to concentrate on the metaphysics and doctrines of a religion as well as on its liturgy and rituals.

Most programmes of this kind are given in special schools such as religious schools or seminaries or in religious institutions such as monasteries, etc.

32600. Religion and theology programmes

Programmes which may combine some general education at the second level, second stage, with special courses in the religious and philosophical beliefs and doctrines of one of the world's religions and/or a particular denomination or sect within that religion. See general description 326. Programmes of this kind are found in many parts of the world, e.g. Bible colleges in the U.S.A., traditional schools in Muslim countries; Buddhist monasteries in Asia. They may last from two to four years, full-time, but with adults may last only a few months or weeks.

Principal course content consists of lectures, discussions and tutorials on subjects such as detailed study of sacred books and texts; study of classical languages; textual analysis and criticism; church history; theology; history of worship and liturgy. The general education component may include study of the mother tongue and/or a current language; philosophy; logic; social problems. Normally, attention is paid to ritual, liturgy, and religious music.

Usual minimum educational prerequisite is the completion of second-level education, first stage.

Usual award is a diploma awarded by the school or by a religious authority.

334. Commercial and business programmes

This field includes a number of programmes at the second level, second stage, that combine general education with instruction and practice in commercial, stenographic, and clerical subjects, including an understanding of general office routine. These programmes usually consist of about one-half general education, the other half being devoted to a general commercial programme, a secretarial programme, or some other type of commercial speciality. Other programmes in this group are concentrated on commercial subjects to the exclusion of general second-level education.

The principal course content depends on the student's speciality, but most programmes include commercial subjects such as typing and shorthand, bookkeeping, commercial law, business machine operation, commercial correspondence, and general office procedures such as filing, etc. The general education part of the programme includes mathematics, study of the mother tongue or another current language and its literature, history, geography, civics, and sometimes a foreign language, religious education, and physical education. Little emphasis is usually placed on natural sciences or social sciences, with the possible exception of an elementary course in economics.

Programmes that concentrate on commercial subjects to the exclusion of general education are often specialized in one area such as shorthand-typing, clerical-typing, operation of an office machine, bookkeeping, marketing and sales, co-operative administration, local public administration, etc.

Programmes are sponsored by a wide variety of schools, including ordinary secondary schools, special schools, special public secretarial schools, private secretarial schools, correspondence schools, employers such as governments and large private employers, business machine companies, etc. The programmes in the regular secondary schools are usually full-time and last from one to three years. Most of the other programmes have a duration of one year or less, and some of them - those that concentrate on one or two subjects - may have a duration of only a few weeks.

Usual minimum educational prerequisite is completion of second-level education, first stage. For some short, intensive programmes, candidates with some second-level education but who have not completed the first stage, may be admitted.

Usual award for successful completion of a programme is a certificate or diploma.

33401. General commercial programmes

Programmes that often combine general education at the second level, second stage, with classroom study and practice in commercial, stenographic, and general office routines. These programmes are usually sufficiently advanced to qualify successful candidates for employment in office work.

Principal course content in commercial subjects usually includes typing and shorthand, bookkeeping, commercial law, business correspondence, filing, and office machine operation. The general education component, which can occupy at least one-half of the student's time, usually includes mathematics, history, geography, the mother tongue, or another current language and its literature, and sometimes civics, a foreign language, religious education, and physical education.

These programmes are often given in general secondary schools or special secondary schools, in which case they are usually full-time and last for three years or more. Similar programmes provided in business or commercial colleges, either public or private, usually for adults or young people who have left school, tend to be more specialized with little time devoted to general education and to last for one year or less.

Usual minimum educational prerequisite is completion of second-level education, first stage. Admission to the more intensive programmes for adults and young people who have left school may be granted with somewhat lower educational qualifications to those having relevant experience and aptitude for office work.

Usual award for successful completion of a programme is a certificate or diploma.

33404. Shorthand-typing (secretarial) programmes

Programmes that often combine general education at the second level, second stage, with classroom study and practice in typing and shorthand along with some study of other commercial subjects. These programmes are sufficiently advanced to qualify successful candidates for employment as stenographers or secretaries.

Principal course content in commercial subjects is concentrated in typing, shorthand, business correspondence, and general office routine, with some attention to filing, bookkeeping, etc. The general education component, which occupies at least one-half the time devoted to the programme, usually includes mathematics, history, geography, and the mother tongue or another current language and its literature, and sometimes a foreign language, religious education, and physical education.

When given in general secondary schools or special secondary schools, these programmes usually last for three years or more. Similar programmes given in business or commercial colleges, either public or private, usually for adults or young people who have left school, tend to be more specialized in commercial education and to have a duration of one year or less.

Usual minimum educational prerequisite is completion of second-level education, first stage. In some cases, however, admission to the more specialized, shorter programmes may be granted with somewhat lower educational qualifications to those having relevant experience and aptitude for office work.

Usual award for successful completion of a programme is a certificate or diploma.

33408. Clerical-typist programmes

Programmes in education at the second level, second stage, primarily consisting of classroom study and practice in typing and general clerical procedures. Some of these programmes may include study of other commercial subjects, and of subjects from the general second level, second stage, school curriculum. In most cases, however, the programmes are specialized in terms of subject content.

Principal course content is usually concentrated in typing, business correspondence, filing, business machine operation, and other general clerical procedures. Some programmes may include shorthand, bookkeeping, commercial law, etc.

Programmes of this type are usually given in business or commercial schools, either public or private, and the majority are designed for adults or young people who have left school. In general, they are of relatively short duration, i.e. one year or less, although the less specialized programmes often last for more than one year.

Usual minimum educational prerequisite is completion of second-level education, first stage, but some applicants with relevant experience and aptitude for office work may be admitted with somewhat lower educational qualifications.

Usual award for successful completion of a programme is a certificate or diploma.

33422. Programmes in the operation of office machines

Programmes in education at the second level, second stage, primarily consisting of classroom study and practice in the operation of office machines such as calculating machines, bookkeeping machines, duplicating machines, tape and card-punching machines, computer programming, etc. Some of these programmes may include the study of other commercial subjects and of subjects from the general second-level, second stage, curriculum. Many of the programmes, however, are specialized in subject content.

Principal course content depends on the student's speciality but is usually concentrated in the operation of one or two types of office machines, in tape or card-punching, or computer programming. Other subjects included in a programme tend to be chosen in accordance with the speciality - for example, computer programmers would study the various computer languages, elementary systems analysis, programme documentation, and programme library organization, etc. Programmes in business machine operation often include some study of the machine's functioning, including the ordinary care and maintenance of the machine. Some of these programmes contain other commercial subjects such as typing, bookkeeping, business correspondence, filing, and other general clerical procedures. General secondary education subjects, if included, would consist of literature, mathematics, history, geography, and perhaps a foreign language, religious education, and physical education.

Programmes of this type are usually given in business or commercial schools, either public or private, and the majority are designed for adults or young people who have left school. The programmes are generally of relatively short duration, i.e. one year or less, although the less specialized ones often last for more than a year.

Usual minimum educational prerequisite is completion of second-level education, first stage, but applicants with relevant experience and aptitude for office work may be admitted with somewhat lower educational qualifications.

Usual award for successful completion of a programme is a certificate or diploma.

33432. Bookkeeping programmes

Programmes in education at the second level, second stage, primarily consisting of classroom study and practice in bookkeeping and accounting. Some of these programmes may include study of other commercial subjects and of subjects from the general second level, second stage, school curriculum. Many are of a more practical vocationally-oriented character, and these are designed to provide sufficient skill in bookkeeping and the preparation of financial statements to lead to employment.

Principal course content usually includes general bookkeeping, preparation of financial statements, and of other operational statements required by business management, maintenance of inventory records, records of purchases and sales, preparation of customers' accounts, preparation of payrolls and of other financial records. Other commercial subjects studied may include typing, business correspondence, filing, and other general clerical procedures. General secondary education subjects, if included, may consist of literature, mathematics, history, geography, a foreign language, and physical education.

Programmes of this type are usually given in business or commercial schools, either public or private, and many are designed for adults or young people who have left school. The programmes for school leavers are of relatively short duration, i.e. one year or less, although the programmes given in school may last for up to three years.

Usual minimum educational prerequisite is completion of second-level education, first stage. In some cases, however, admission to the more specialiwed, shorter programmes may be granted with somewhat lower educational qualifications, particularly to those having relevant experience and vocational interest.

Usual award for successful completion of a programme is a certificate or diploma.

33439. Other commercial and business programmes

Programmes in education at the second level, second stage, primarily consisting of classroom study and practice in a commercial or business speciality not included in the above programme groups (i.e. 33401 to 33432), e.g. marketing, sales, co-operative administration. Some of these programmes may include the study of other commercial subjects and of subjects from the general second-level, second stage, school curriculum. Many of the programmes, however, are specialized in subject content.

Principal course content depends on the student's speciality, but is usually concentrated in subjects closely related to that speciality. For example, a programme in bookkeeping would feature general bookkeeping, preparation of financial statements and other statements required for business management, maintenance of effective records of purchases, sales, inventories, etc., commercial correspondence, and the operation of simple office machines such as adding machines and calculating machines. Other commercial subjects may sometimes be included - for example, typing, filing, and other clerical procedures. General secondary education subjects, if included, would consist of literature, mathematics, history, geography, and perhaps a foreign language, religious education, and physical education.

Programmes of this type are usually given in business or commercial schools, either public or private, and many are designed for adults and for young people who have left school. The programmes are usually of relatively short duration, i.e. one year or less, but the less specialized ones may last for as long as three years.

Usual minimum educational prerequisite is completion of second-level education, first stage, but applicants with relevant experience and aptitude for office work may be admitted with somewhat lower educational qualifications.

Usual award for successful completion of a programme is a certificate or diploma.

33452. Programmes in local public administration

Programmes at the second level, second stage, primarily consisting of classroom study and practice, on an aspect of public administration, particularly at the local level. Some of these programmes will include study of subjects from the general second-level, second stage, school curriculum, but many of them are specialized in subject content and directed toward employment in the local government administration.

Principal course content usually includes some of the following: objectives of local government policy, local taxation procedures, the structure of local government, local ordinances, relations with other levels of government, property assessment procedures, the administration of local public works, the administration of local social programmes, etc. In addition, most programmes include study of some commercial subjects such as bookkeeping, correspondence, filing, and other clerical procedures. A general education component, if present, may include mathematics, history, geography, literature, and physical education.

Programmes of this type may be given in business or commercial schools, either public or private, or in schools of administration. Most such programmes are of relatively short duration, i.e. one year or less, but those including some general education may last up to three years.

Usual minimum educational prerequisite is completion of second-level education, first stage. In some cases, however, admission to the more specialized, shorter programmes may be granted with somewhat lower educational qualifications, particularly to those having relevant experience and vocational interest.

Usual award for successful completion of a programme is a certificate or diploma.

350. Health-related auxiliary programmes

This field includes a variety of programmes at the second level, second stage, dealing with the principles and practices of medical diagnostic and treatment procedures and of general public health problems. The programmes are designed to prepare students for careers as general public health auxiliaries or administrative assistants in nursing, midwifery, and other medical auxiliaries, usually under the direction of qualified professionals. At this level the programmes are typically directed toward the application of techniques in the relevant procedures rather than the theoretical and scientific principles involved.

Important subject matter included in these programmes consists of study of background subjects such as chemistry, microbiology, anatomy, hygiene, mathematics, and psychology, in addition to specialized subject matter of the particular speciality concerned. Many of these programmes also include part of the regular second-level, second stage, curriculum.

Programmes may be either full-time or part-time, day or evening, and usually include practical demonstration and student participation in the relevant operations either in practice sessions or as employees. Programmes of this kind at this level ire not found in all countries. They are usually conducted in hospitals, clinics, or special schools.

Usual minimum educational prerequisite is completion of second-level education, first stage, but mature students, especially those with relevant work experience, may be admitted with lower educational qualifications.

Usual award for successful completion of a programme is a certificate or diploma.

35002. General medical auxiliary programmes

Programmes at the second level, second stage, primarily consisting of classroom instruction, discussion, and practical demonstration of general public health problems and the administrative procedures used in handling them. Included also is study of medical terminology and medical record-keeping practices.

Principal course content usually includes, inter alia, the principles of public health, simple medical treatment procedures, including first aid; medical terminology; maintenance of medical records; health legislation; hygiene; and clinical administration. Background courses often provided are bookkeeping, sociology, psychology, typewriting, and general office procedures.

Usual minimum educational prerequisite is completion of second-level education, first stage.

Usual award for successful completion is a certificate.

35012. Nursing programmes

Programmes at the second level, second stage, primarily consisting of hospital training and classroom instruction, dealing with the principles and practices of nursing, including dental nursing.

Principal course content usually includes some of the following: nursing theory; nursing practice; anatomy and physiology; nursing care in common diseases; hygiene, including dental hygiene; first aid; geriatrics; nursing care of children; care of mother and child; administering drugs and medicines; care of dental and medical instruments, etc.; nutrition; language and communications; basic sociology.

Usual minimum educational prerequisite is completion of second-level education, first stage.

Usual award for successful completion of a programme is a certificate or diploma in nursing.

35015. Midwifery programmes

Programmes at the second level, second stage, primarily consisting of hospital training and classroom instruction, dealing with the pre- and post-natal care of the mother and child.

Principal course content usually includes some of the following: basic human anatomy and physiology; principles of obstetrics and gynaecology; midwifing practice; hygiene; care of mother and child; nursing care of children; administering drugs and medicines; nutrition; basic psychology; first aid; language and communication; basic sociology.

Usual minimum educational prerequisite is completion of second-level education, first stage.

Usual award for successful completion is a certificate in midwifery.

35099. Other health-related auxiliary programmes

Programmes at the second level, second stage, primarily consisting of hospital training and classroom instruction dealing with the principles and practices of medical or dental techniques in one of the many skills required for medical or dental diagnosis and treatment, including the making and fitting of prostheses.

Principal course content usually includes some of the following: basic anatomy and physiology; laboratory safety; collection and handling of specimens; shipment of specimens; instrumentation (centrifuges, microscopes, photometers, ovens, baths, incubators, microtomes, dental instruments and equipment); sterilization and disinfection; laboratory glass and plastic ware; basic chemistry; clinical microbiology; blook banking; haematology; clinical chemistry; and histology.

Usual minimum educational prerequisite is completion of second-level education, first stage.

Usual award for successful completion is a certificate in medical science technology.

352. Trade, craft, and industrial programmes, n.e.c.

This field includes a variety of programmes at the second level, second stage, which often combine general education with instruction and workshop experience in technical or vocational subjects. Many of these programmes are designed to provide a general education having vocational emphasis suitable as preparation for a range of specialized, more advanced, vocational programmes or for on-the-job training (e.g. apprenticeship). Although such programmes are specialized in terms of vocational content, they are not intended as training for a specific occupation, but are designed to impart general information and experience in workshop methods and practices that prepare the student for further vocational education, either in school or on the job. Other programmes are more vocationally oriented.

The principal subject-matter content of these programmes may include much of the regular school curriculum at this level, with somewhat less emphasis on the humanities, foreign languages, and social sciences. Thus they stress mathematics, natural sciences, the mother tongue and/or a current language and its literature, as well as general subjects such as engineering drawing, blueprint reading, elementary engineering, and a range of practical subjects depending on the student's speciality.

Usual minimum educational prerequisite is completion of second-level education, first stage. For programmes outside the regular secondary school system, candidates with lower educational qualifications but having relevant work experience may be admitted.

Usual award for successful completion of a programme is a certificate or diploma.

35201. General programmes with a trade, craft, or industrial emphasis

Programmes that combine general education at the second level, second stage, with instruction and workshop experience, providing a general education suitable as preparation for a range of specialized, more advanced, vocational programmes or for on-the-job training (including apprenticeship).

Principal course content usually includes some basic instruction and shop practice in such subjects as machine shop practice; welding; sheet metal and internal combustion engine repair and maintenance; carpentry; plumbing; electrical work; electronics equipment repair and servicing; drafting, blueprint reading; engineering drawing. The importance of practical skills is emphasized. The general education component usually includes mathematics, natural sciences, the mother tongue and/or a current language and its literature, with little stress on the humanities, foreign languages, history, or social sciences.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to short programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more, typically given in a secondary comprehensive school or technical or vocational school is a certificate of successful completion. For short courses, sometimes sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given by the sponsoring agency.

35212. Food and drink processing trades programmes

Programmes that often combine general education at the second level, second stage, with instruction and workshop experience in food and drink processing trades, such as baking; confectionery making; slaughtering and meat cutting; fish curing, canning, and preserving; fruit and vegetable canning and preserving, milk processing; sugar processing; and beverage processing.

Principal course content varies with the student's specific trade but usually includes, inter alia, general shop work to familiarize students with shop-work routines, along with study of the particular materials used in the speciality, their properties, uses, and the processes required for their transportation, handling, and processing; storage and refrigeration of food and drink; personal hygiene and sanitation; pricing; business management; and public relations.

A general education component may include mathematics, physical science, the mother tongue and/or a current language and its literature; with little stress on the humanities, foreign languages, history, and social sciences.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature students, especially those with related work experience, may be admitted with lower educational qualifications to short programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more, typically given in a secondary comprehensive school or technical or vocational school, is a certificate of successful completion. For short courses, sometimes sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given by the sponsoring agency.

35216. Building trades programmes, n.e.c.

Programmes that often combine general education at the second level, second stage, with instruction and workshop experience providing a general education suitable as preparation for specialized, more advanced, vocational programmes, on-the-job training, or apprenticeship in construction trades such as carpentry, plumbing,

electrical work, brick and tile laying, heating and ventilating. The pre-vocational component may take up to half the time allotted to the programme. Other programmes are more specialized vocationally.

Principal course content varies with the specific trade but usually includes, inter alia, the principles and practices of construction and installation; building codes; blueprint reading; the use of machine tools and hand tools; occupational hazards and safety. The importance of practical skills is emphasized.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to other programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more, typically given in a secondary comprehensive school or technical or vocational school, is a certificate of successful completion. For short courses, sometimes sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given by the sponsoring agency.

35222. Electrical and electronics trades programmes

Programmes that often combine general education at the second level, second stage, with instruction and workshop experience providing a general education suitable as preparation for more advanced vocational programmes, for on-the-job training, or apprenticeship in electrical and electronics trades. The pre-vocational component may take up to half the time allotted to the programme. Other programmes may be more specialized vocationally.

Principal course content varies with the specific trades but usually includes, inter alia, bench work; electrical and electronics theory and practices; armature winding for motors and generators; test equipment; testing circuits and components; diagnosis of faults; theory and operation of radio and television equipment; repair and maintenance of stereo high fidelity equipment; navigation aids; repair, adjustment and installation of electronic devices; and work hazards and safety. The importance of practical skills is emphasized.

A general education component may include mathematics, natural sciences, the mother tongue and/or a current language and its literature, with little stress on the humanities, foreign languages, history, or social sciences.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to short programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more, typically given in a secondary comprehensive school or technical or vocational school, is a certificate of successful completion. For short courses, sometimes sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given by the sponsoring agency.

35232. Metal trades programmes

Programmes that often combine general education at the second level, second stage, with instruction and workshop experience providing a general education suitable as

preparation for more advanced vocational programmes, on-the-job training, or apprenticeship in metal trades such as machine shop, welding, sheet metal work, foundry work, and others. The pre-vocational component may take up to half the time allotted to the programme. Other programmes are more vocationally oriented.

Principal course content varies with the specific trade but usually includes, inter alia, bench work; the use of machine tools; welding (oxy-acetylene, electric arc MIG, TIG); strength of metals; mechanics of solids, liquids, and gases; blueprint reading; pattern making; casting; and occupational hazards and safety. The importance of practical skills is emphasized.

A general education component may include mathematics, physical science, the mother tongue and/or a current language and its literature, with little stress on the humanities, foreign languages, history, and social sciences.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to short programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more, typically given in a secondary comprehensive school or technical or vocational school, is a certificate of successful completion. For short courses, sometimes sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given by the sponsoring agency.

35242. Mechanical and mechanical repair trades programmes

Programmes that often combine general education at the second level, second stage, with instruction and workshop experience providing a general education suitable as preparation for more advanced vocational programmes, on-the-job training or apprenticeship in mechanical and mechanical repair trades such as machinist, motor vehicle mechanic, machinery assembler and fitter, machinery repairer, etc. The pre-vocational component may take up to half the time allotted to the programme. Other programmes are more vocationally oriented.

Principal course content varies with the specific trade but usually includes, inter alia, bench work, use of hand and machine tools, machine shop practice, welding, blueprint reading, internal combustion engine repair and maintenance, repair and maintenance of attachments such as carburetors, fuel pumps, etc., repair and maintenance of mechanical assemblies such as transmissions, differentials, and other drive-train components, repair and maintenance of other mechanical equipment such as agricultural implements, industrial and commercial machinery, materials handling equipment, etc., assembling and fitting of any of the above. Occupational hazards and safety are usually emphasized and, in programmes that do not have a considerable component of general education, practical skills and actual workshop practice are emphasized.

A general education component may involve mathematics, physical science, language, literature, and other subjects, but generally there is little stress on the humanities, foreign languages, history, or social studies.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to short programmes or courses, especially those designed to upgrade skills.

Usual award for completion of programmes lasting one year or more, many of which are given in a secondary school or technical or vocational school, is a certificate. For short courses, many of which are accompanied by actual work experience, a certificate of satisfactory completion may be given.

35262. Woodworking trades programmes

Programmes that often combine general education at the second level, second stage, with instruction and workshop experience providing a general education preparatory to more advanced vocational programmes, on-the-job training, or apprenticeship in woodworking trades, including, inter alia, sawmill technician.

Principal course content, in line with a student's speciality, usually includes some of the following: the study of fundamental principles of shop practice; kiln drying; traffic management; sawmill repairs; cabinet making; stock billing; method of layout; types, grades and measurement of wood; adhesives; standards of construction; layout of windows, sashes, doors and stairs; building layout; concrete forms; wall and floor framing and sheathing; blueprint reading; and safety. The importance of practical skills is emphasized.

A general education component may include mathematics, physical science, the mother tongue and/or a current language and its literature, with little stress on the humanities, foreign languages, history, and social sciences.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to short programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more, typically given in a secondary comprehensive school or technical or vocational school, is a certificate of successful completion. For short courses, sometimes sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given by the sponsoring agency.

35264. Heating, air conditioning, and refrigeration trades programmes

Programmes that often combine general education at the second level, second stage, with instruction and workshop experience providing a general education suitable as preparation for more advanced vocational programmes, on-the-job training or apprenticeship in the assembly, adjustment, installation, and repair of heating, air-conditioning and refrigeration equipment. The pre-vocational component may take up to half the time allotted to the programme. Other programmes are more vocationally oriented.

Principal course content varies with the specific trade, but usually includes, inter alia, bench work, the use of hand and power tools, metal work such as operation of some machine tools, welding, etc.; the functioning and adjustment of controls such as switch gear, including thermostats and humidistats; principles of temperature and humidity controls, including the functioning of heat pumps; repair and maintenance of all kinds of heating, air-conditioning and refrigeration equipment; and the installation of such equipment in all kinds of buildings, transport equipment, etc. Occupational hazards and safety are usually emphasized, and in programmes that do not have a considerable general educational component, practical skills and actual workshop practice are emphasized.

A general education component may involve mathematics, physical science, language, literature and other subjects, but usually there is little stress on the humanities, foreign languages, history, or social science.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to short programmes or courses, especially those designed to upgrade skills.

Usual award for completion of programmes lasting one year or more, many of which are given in secondary schools or technical schools, is a certificate. For short courses, which are often accompanied by actual work experience, a certificate of satisfactory completion is given.

35266. Materials-handling and earth-moving equipment operating programmes

Programmes which may combine general education at the second level, second stage, with instruction in the operation of materials-handling and earth-moving equipment, but which are usually devoted exclusively to the vocational component.

Principal content of these programmes consists of demonstration and practice in the operation of the equipment concerned, which includes such machines as cranes, derricks, power shovels, and special materials-handling equipment such as lumber carriers, etc., as well as highway and similar construction equipment such as packers, asphalt layers, etc., loaders, bulldozers, and a great variety of specialized machines. Programmes at this level that would involve the operation of complicated machines may include the study of mechanical principles and machine maintenance, including the properties of lubricants, fuels, and other necessary materials. Occupational hazards and safety measures form an important part of the material covered.

Although the material covered by these programmes may assume prior education equivalent to completion of second level, first stage, those with demonstrated vocational interest, mechanical aptitude and relevant experience may be admitted with lower educational qualifications.

Usual award for successful completion of a programme is a certificate of competence.

35272. Leather trades programmes

Programmes that often combine general education at the second level, second stage, with instruction and workshop experience providing a general education preparatory to more advanced vocational programmes, on-the-job training or apprenticeship in leather trades. Other programmes are more specialized vocationally.

Principal course content usually includes some of the following: hide and skin preparation, leather tanning and finishing; chemistry of dyeing; dyeing techniques; simple pattern making; techniques of cutting, sewing, and other stitching; riveting; gluing and other methods of fastening materials; shoemaking, glovemaking, and other leather-products making; and leather tooling. The importance of practical skills is emphasized.

A general education component may include mathematics, physical science, the mother tongue and/or a current language and its literature, with little stress on the humanities, foreign languages, history, and sccial sciences.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to short programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more, typically given in a secondary comprehensive school or technical or vocational school, is a certificate of successful completion. For short courses, sometimes sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given by the sponsoring agency.

35274. Textile trades programmes

Programmes that often combine general education at the second level, second stage, with instruction and workshop experience providing a general education preparatory to more advanced vocational programmes, on-the-job training, or apprenticeship in textile trades such as the operation of textile machinery for fibre preparation, spinning, weaving, dyeing, printing, and finishing. Some of these programmes are more specialized vocationally, and may omit the general education component.

Principal course content usually includes some of the following: fibre characteristics, fibre preparation such as cleaning and combing, spinning and twisting techniques appropriate to various fibres and mixtures; knitting, weaving, and similar processes involving the methods of achieving particular designs and textures; the chemistry of fibres and of dyes and the techniques of dyeing; textile testing, pre-shrinking and other finishing processes. Practical skills and workshop experience are emphasized in all these programmes, but they are given special emphasis in those that do not include a general education component.

The general education component, if present, may include mathematics, physical science, literature, etc., but generally does not emphasize foreign languages, history, or social science.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications, usually to short programmes or courses, especially those designed to upgrade skills.

Usual award for completion of programmes of one year or longer, typically given in a secondary school or vocational school, is a certificate. For short programmes of a more strictly vocational kind, a certificate of satisfactory completion may be given.

35276. Clothing and related trades programmes

Programmes that often combine general education at the second level, second stage, with instruction and workshop experience in clothing trades such as clothing design, tailoring or dressmaking, or in related trades such as upholstering, hat-making, millinery, glove-making, fur-working, etc. Some of these programmes are more specialized vocationally and may omit the general education component.

Principal course content usually includes the design of clothing or similar articles such as gloves, headgear, etc., or upholstery design; pattern making; methods of cutting, sewing, and other stitching; measuring, fitting, and other finishing techniques; preparation of fur plates and fur articles including clothing;

millinery and hat-making techniques such as blocking, assembling, lining, and decorating; glove-making, etc. The properties of the relevant materials, including their evaluation and testing, along with general shop work to familiarize students with shop-work routines and equipment, are an important element, together with study of vocational hazards and safety.

A general education component may include mathematics, physical science, record-keeping and other business management and literature.

Usual minimum educational prerequisite is completion of second-level education, first stage. However, in programmes for school leavers and adults outside the usual secondary school programmes, vocational interest and relevant experience may be substituted for prior education.

Usual award for programmes of one year or more, typically given in a secondary school or vocational school, is a certificate. For short programmes of a more strictly vocational kind, a certificate of satisfactory completion may be given.

35278. Graphic arts and bookbinding trades programmes

Programmes that often combine general education at the second level, second stage, with instruction and workshop (laboratory) experience, providing a general education suitable as preparation for specialized, more advanced, vocational programmes or for on-the-job training, in the printing trades. The pre-vocational component may take up to half the time allotted to the programmes. Other programmes are more specialized vocationally.

Principal course content usually includes some of the following: printing processes; letterpress; lithography; rotogravure; typography; photoengraving; types of paper and uses; printing equipment; bindery process; layout makeup; methods of colour reproduction; and photographic techniques in printing. The importance of practical skills is emphasized.

A general education component may include mathematics, natural sciences, the mother tongue and/or a current language and its literature with little stress on the humanities, foreign languages, history, or social sciences.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to short programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more, typically given in a secondary comprehensive school or technical or vocational school, is a certificate of successful completion. For short courses, sometimes sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given by the sponsoring agency.

35282. Laboratory assistant programmes

Programmes that often combine general education at the second level, second stage, with instruction and practical experience in the principles and practices of service in laboratories.

Principal course content usually includes some of the following: basic sciences; basic electronics; laboratory safety; collection, handling, preser-

vation, disposal and shipment of specimens; instrumentation (ovens, centrifuge, microscope, photometry, baths and incubators); sterilization and disinfection; measurement and reagents; and laboratory glass and plastic ware.

A general education component may include mathematics, the mother tongue and/or a current language and its literature, with little stress on the humanities, foreign languages, history, and social sciences.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to short programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more, typically given in a secondary comprehensive school or technical or vocational school, is a certificate of successful completion. For short courses, sometimes sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given by the sponsoring agency.

35299. Other trade, craft, and industrial programmes, n.e.c.

Programmes that often combine general education at the second level, second stage, with instruction and workshop experience providing a general education suitable as preparation for a range of specialized, more advanced, vocational programmes or for on-the-job training (including apprenticeship). This group of programmes covers specialities not included in the above group definitions (i.e. 35201 to 35282), examples of the specialities being: surveying, civil engineering techniques, topography, geology, training of technicians for mines and quarries, plastics techniques, chemical industry techniques, agricultural engineering techniques.

Principal course content for these programmes includes instruction and shop practice in subjects related to the student's speciality and general vocational subjects such as the use of hand and machine tools, workshop practice, blueprint reading, work hazards and safety precautions. In addition, much of the general education curriculum at this level may be included with emphasis on mathematics, natural sciences, the mother tongue and/or a current language and its literature, but with little stress on the humanities, foreign languages, history, or social sciences.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to short programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more, typically given in a secondary comprehensive school or technical or vocational school, is a certificate of successful completion. For short courses, sometimes sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given by the sponsoring agency.

354. Engineering programmes

Programmes at the second level, second stage, primarily consisting of classroom, laboratory instruction, and practice projects dealing with elementary engineering techniques required for qualification as assistant engineers or technicians. These programmes are generally given outside regular secondary schools, are

of relatively short duration, i.e. less than two years, and are very practical in approach.

Principal kinds of programmes included are those dealing with land surveying, engineering drawing, civil engineering, electrical and electronics engineering, industrial engineering, mining engineering, and agricultural, forestry and fishery engineering. Background courses required to supplement and to assist in understanding the engineering subjects are usually included, the principal ones being mathematics, natural science, business practice, and computer techniques.

Programmes may be full-time or part-time, day or evening. In the main, these programmes are intensive, and are directed toward employment of a particular kind. The relatively short programmes, i.e. less than one year, include retraining, refresher, and sandwich courses. Practical demonstrations, field work, and shop work are commonly included. The programmes are usually conducted in special schools or technical colleges and are sponsored by a variety of agencies. Instruction may be by any method, including the use of audiovisual aids, broadcasts, correspondence, etc.

Usual minimum educational prerequisite is completion of second-level education, first stage, but mature students, especially those with work experience or demonstrated vocational interest, are often admitted with lower educational qualifications.

Usual award for successful completion of a programme is a certificate.

35402. Programmes in surveying

Programmes at the second level, second stage, dealing with the principles and practices of land surveying, with a view to qualification as an assistant surveyor or surveyor technician. These programmes are of a very practical nature, and are generally given outside the regular secondary schools.

The principal subject-matter content includes surveying techniques; mathematics, especially trigonometry and geometry; the use of surveying instruments, including their care and maintenance; air-photo interpretation; and sometimes the use of drawing and drafting instruments.

Programmes are usually of relatively short duration, i.e. less than two years, and many of them are less than one year. Usual minimum educational prerequisite is completion of second-level education, first stage, but experienced students, especially those demonstrating vocational interest, may be admitted with lower qualifications.

Usual award for successful completion is a certificate.

35406. Programmes is engineering drawing

Programmes at the second level, second stage, primarily consisting of classroom and practice sessions dealing with the principles and practices of drawing for blueprints of buildings, machinery, and other types of equipment; plans for layouts of streets, public works, community development, etc. The programmes are usually of one year's duration or less, but some may be of longer duration.

Principal course content usually includes mechanical drawing, the use of equipment such as the pantograph, drawing instruments, etc., mathematics -- especially plane geometry -- some basic principles of construction processes, mechanical

operations, electrical circuitry, etc. Other subjects may include photography and the preparation of photographic copies.

Usual minimum educational prerequisite is completion of first-level education, but in programmes for adults, or programmes designed to improve the level of those already employed, vocational interests and relevant experience may be substituted to some extent for prior education.

Usual award for successful completion of a programme is a certificate or diploma.

35416. Civil engineering technician programmes

Programmes at the second level, second stage, primarily consisting of classroom, laboratory, and practice projects, dealing with elementary engineering techniques required for qualification as an assistant or technician in civil engineering, i.e. the various phases involved in the design and construction of buildings and structures or construction projects such as municipal services, drainage, land reclamation, etc.

Principal subject-matter content includes elementary physics, mathematics, applied mechanics, engineering graphics, surveying, construction methods, qualities of construction materials, use and maintenance of construction equipment, etc. Background courses intended to supplement and assist in the understanding of the engineering subjects may include other physical sciences, business practices including contracts and specifications, local building ordinances, etc.

Programmes are usually of relatively short duration, i.e. less than two years, and many may be less than one year. They are very practical in orientation, many being designed for qualification in a particular kind of work. Usual minimum educational prerequisite is completion of second-level education, first stage, but experienced students, especially those with demonstrated vocational interest, may be admitted with lower qualifications.

Usual award for successful completion is a certificate.

35422. Electrical and electronics engineering technician programmes

Programmes at the second level, second stage, primarily consisting of classroom, laboratory, and practice projects dealing with elementary engineering techniques required for qualification as an assistant or technician in electrical or electronics engineering, i.e. in various phases concerning the generation, control, distribution, and utilization of electrical energy, with electronic circuit design and the application of electronic equipment in the control of industrial processes or machinery and apparatus, in broadcasting or sound reproduction, in computer equipment, etc.

Principal subject-matter content includes some of the following, which are common to both electrical and electronic studies; elementary physics, mathematics, electrical measurement, circuit analysis, construction of electronic circuits and devices, electrical circuitry and control devices, transmission of electric energy, etc. Background courses intended to supplement and assist in the understanding of the electrical and electronics subjects may include other physical sciences; shop practice, including specification and assembling of materials; local ordinances governing electrical and electronic installations; etc.

Programmes are usually of relatively short duration, i.e. less than two years, and many may be less than one year. They are very practical in orientation, many being designed for qualification in a particular kind of work. Usual minimum educational prerequisite is completion of second-level education, first stage, but experienced students, especially those with demonstrated vocational interest, may be admitted with lower qualifications.

Usual award for successful completion is a certificate.

35426. Industrial engineering technician programmes

Programmes at the second level, second stage, primarily consisting of classroom, laboratory, and practice projects dealing with elementary engineering techniques required for qualification as an assistant or technician in industrial engineering, i.e. techniques of organizing, supervising, scheduling, and materials handling in industrial operations. These programmes are concerned particularly with ensuring effectiveness and efficiency in the operation of complex automated production systems.

Principal subject-matter content usually includes some of the following: elementary physics, elementary chemistry, mathematics, dynamics, properties of materials, production management, work study, engineering principles, computer techniques and operation, principles of quality control, principles of operations research, principles of plant layout and materials handling, principles of business and technical communication, etc.

Programmes are usually of relatively short duration, i.e. less than two years, and many may be less than one year. They are very practical in orientation, many being designed for qualification in a particular kind of work. Usual minimum educational prerequisite is completion of second-level education, first stage, but experienced students, especially those with demonstrated vocational interest, may be admitted with lower qualifications.

Usual award for successful completion is a certificate.

35436. Mining engineering technician programmes

Programmes at the second level, second stage, ordinarily consisting of classroom, laboratory, and practice projects dealing with elementary engineering techniques required for qualification as an assistant or technician in mining engineering, i.e. with various phases involved in exploration for mineral deposits, mine development, mine production, mine plant engineering, petroleum-well drilling and petroleum- and gas-extraction techniques, etc.

Principal subject-matter content includes some of the following: elementary physics, elementary chemistry, elementary geology, mathematics, principles of petroleum extraction, properties of materials, mine and quarry surveying, principles of metallurgy, mining and quarrying methods, mine organization and operation, mine ventilation and dust control, work study, rock mechanics including elementary seismology, etc.

Programmes are usually of relatively short duration, i.e. less than two years, and many may be less than one year. They are very practical in orientation, many being designed for qualification in a particular kind of work. Usual minimum educational prerequisite is completion of second-level education, first stage, but experienced students, especially those with demonstrated vocational interest, may be admitted with lower qualifications.

Usual award for successful completion is a certificate.

35452. Agricultural, forestry, and fishery engineering technician programmes

Programmes at the second level, second stage, ordinarily consisting of classroom, laboratory, and practice projects dealing with elementary engineering techniques required for qualification as an assistant or a technician in agricultural, forestry, or fishery engineering. Agricultural engineering is concerned with the application of mechanization to the development of farm land, soil and water conservation, irrigation, crop production, harvesting, handling, storage and processing of agricultural products, design of farm structures and machinery. Forestry engineering is concerned with the application of engineering principles to the management of forest areas, development of forest products with emphasis on logging operations, the protection of forest resources, and protection of the forest environment including watersheds and wildlife. Fishery engineering is concerned with applying engineering principles to fishery operations.

Principal subject-matter content usually includes some of the following: the design and structure of farm equipment and its practical applications to agriculture, soil and water conservation, irrigation and drainage systems, analysis of farm production systems, production planning and control in logging, logging techniques, logging transportation, forest mensuration, reforestation, etc., and design and construction of fishing gear including equipment for hatcheries and other fishery protection facilities. Background courses intended to supplement and assist in the understanding of the engineering principles are such subjects as mathematics, natural sciences, agricultural or forestry economics, soil science, etc.

Programmes are usually of relatively short duration, i.e. less than two years, and many may be less than one year. They are very practical in orientation, many being designed for qualification in a particular kind of work. Usual minimum educational prerequisite is completion of second-level education, first stage, but experienced students, especially those with demonstrated vocational interest, may be admitted with lower qualifications.

Usual award for successful completion is a certificate.

35499. Other engineering technician programmes

Programmes at the second level, second stage, ordinarily consisting of classroom, laboratory, and practice projects dealing with elementary engineering techniques required for qualification as an assistant or a technician in a branch of engineering not included in the above programme groups. Examples of the engineering programmes included are mechanical engineering, metallurgical engineering, and chemical engineering.

Principal subject-matter content will be related to the student's field of interest, which may be a relatively narrow area within the branch of engineering. All these programmes, however, include such basic subject-matter as elementary physics, elementary chemistry, mathematics, properties of materials, production management of the relevant kind, work study, and engineering principles, along with the specific engineering techniques required for the student's programme.

Programmes are usually of relatively short duration, i.e. less than two years, and many may be less than one year. They are very practical in orientation, many being designed for qualification in a particular kind of work. Usual minimum educational prerequisite is completion of second-level education, first stage, but experienced students, especially those who have demonstrated vocational interest, may be admitted with lower qualifications.

Usual award for successful completion is a certificate.

362. Agricultural, forestry, and fishery programmes

This field includes a number of programmes that combine education at the second level, second stage, with studies in agriculture, forestry and fishery. The programmes are not all designed to train farmers, foresters, or fishermen to operate enterprises; in many the purpose is to teach the production of food and of materials from growing things as a science, and to acquaint students with the place of agriculture, forestry, and fishery in human life, culture, and civilization.

The specialized part of these programmes usually takes up at least half the total study time, and includes periods of supervised practical work on farms, in forests and orchards, or on boats, involving training in the use of tools and machine maintenance. Management studies are often included, e.g. bookkeeping, the finance of enterprises, legal aspects, etc. The general education part of the programmes includes study of the mother tongue and/or another current language, mathematics, science, social studies, etc. Course subject-matter may be vocationally oriented, e.g. science study may stress the ecological aspects of biology.

These programmes may be given in general secondary schools or in other institutions such as agricultural colleges, technical schools, farmers' training centres, extension institutes, etc. The programmes, usually full-time, last for two to four years.

Usual minimum educational prerequisite is completion of second-level education, first stage. Admission to programmes for adults may be granted to applicants with lower educational qualifications who, through experience or otherwise, demonstrate ability to master the subject matter.

Usual award for successful completion of a programme is a certificate or diploma.

36201. General agricultural programmes

Programmes that often combine general education at the second level, second stage, with classroom, laboratory, and workshop sessions designed to provide training in the production of food and materials from growing crops, and general farm work.

Principal course content usually includes, inter alia, feed and food crops; livestock improvement, animal anatomy and physiology; soil science; crop management and weed control; animal feeds and production; commercial handling; farm management and record keeping. Practical work in school workshops includes the operation and maintenance of farm equipment. Time may be spent in actual work on farms or in agricultural enterprises. The general education component includes study of the mother tongue and/or another current language, mathematics, science, social studies, etc. Course subject-matter may be vocationally oriented, e.g. science study may stress ecology, the laws of heredity, the manufacture of fertilizers, etc.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature applicants, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate issued by the school or institute.

36203. Animal husbandry programmes

Programmes that often combine general education at the second level, second stage, with classroom, laboratory, and workshop sessions designed to provide basic training in the principles and practices of animal husbandry.

Principal course content usually includes, inter alia, animal anatomy and physiology; soil science; the breeds of farm animals; livestock production and animal breeding; animal nutrition; animal pathology; diseases of farm animals; animal product processing. Practical work in school workshops includes the operation and maintenance of farm equipment. Time may be spent in actual work on farms or in agricultural enterprises. The general education component includes study of the mother tongue and/or another current language; mathematics; science; social studies, etc. Course subject-matter may be vocationally oriented, e.g. science study may stress ecology, the laws of heredity, the manufacture of fertilizers, etc.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate issued by the school or institute.

36206. Horticultural and gardening programmes

Programmes that often combine general education at the second level, second stage, with classroom, laboratory, and field work sessions designed to provide basic training in the principles and practice of horticulture and gardening.

Principal course content usually includes, inter alia, soil science, pest control, soil preparation, plant preparation, plant pathology, greenhouse crop production, vegetable and fruit production, harvesting of horticultural and garden crops, floriculture, production of ornamental plants, harvesting and marketing of horticultural crops, etc. The general education component may include study of the mother tongue and/or another current language, mathematics, science, social studies, etc. Course subject-matter may be vocationally oriented to eliminate the general education component and stress subjects such as ecology, heredity, fertilizer techniques, etc.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate issued by the school or institute.

36208. Crop husbandry programmes

Programmes that often combine general education at the second level, second stage, with classroom, laboratory, and field work sessions designed to provide basic training in the principles and practices of crop husbandry.

Principal course content usually includes, inter alia, soil science; agricultural mechanics; pest control; plant preparation; plant pathology; forage crops; grain crops; cropping systems; and farm management. Practical work on the

operation and maintenance of farm equipment is often provided in school workshops. The general education component includes study of the mother tongue and/or another current language; mathematics; science; social studies, etc. Course subject-matter may be vocationally oriented, e.g. science study may stress ecology, the laws of heredity, the manufacture of fertilizers, etc.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate issued by the school or institute.

36249. Other programmes in agriculture

Programmes that often combine general education at the second level, second stage, with classroom, laboratory, and field work sessions designed to provide basic training in the principles and practices of an agricultural speciality not included in 36201, 36203, 36206, 36208. Examples of such farm specialities include sericulture, apiculture, fur farming, mushroom growing, rubber production, maple-sugar production, etc.

Principal course content will depend upon the student's interest, but most programmes include general agricultural subjects such as farm management, soil preparation, operation and maintenance of farm equipment, cropping and harvesting methods, marketing, pest control, etc. A general education component may include study of the mother tongue and/or another current language, mathematics, science, social studies, etc.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate issued by the school or institute.

36262. Forestry programmes

Programmes that often combine general education at the second level, second stage, with classroom, laboratory, and field work sessions designed to provide basic training in the principles and practices of forestry.

Principal course content usually includes, inter alia, general forestry; wood technology; scaling; logging; milling; lumber grading; silviculture; forest improvement; woodlot management; wildlife management; bookkeeping and business writing. Practical work on the operation and maintenance of equipment is often done in school workshops. The general education component includes study of the mother tongue and/or another current language; mathematics; science; social studies, etc. Course subject-matter may be vocationally oriented, e.g. science courses may stress ecology, the food of plants, the classification of trees, etc. Field sessions may include actual work in woods and forests.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate issued by the school or institute.

36272. Fishery programmes

Programmes that often combine general education at the second level, second stage, with classroom, laboratory, and field work sessions designed to provide basic training in the principles and practices of fishing and the fishing industries.

Principal course content usually includes, inter alia, oceanography; marine biology; the classification of fish and other sea food; fish finding and catching; fish handling and processing; deep-sea fishing and in-shore fishing; simple seamanship and navigation. Practical work on the operation and maintenance of boats and gear is often provided in school workshops. The general education component includes study of the mother tongue and/or another current language; mathematics; science; social studies, etc. Course subject-matter may be vocationally oriented, e.g. science courses may emphasize marine pollution and ecology; the food of fishes; the reproduction of fish and other sea animals and plants. Time may be spent working aboard boats and ships.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate issued by the school or institute.

366. Home economics (domestic science) programmes

This field includes a number of programmes that often combine education at the second level, second stage, with studies in domestic science, including food preparation and food preservation, sewing, dressmaking, etc., and general household arts.

These programmes may consist of at least one half the study time devoted to general education at this level, the rest being either general domestic science training, domestic science with emphasis on cooking, principles of food preparation and nutrition, domestic science with emphasis on child care, or other specialities in domestic science, including dressmaking, clothing design, pattern making, or other domestic sewing, household decoration, furniture selection, family budgeting, etc. The general education part of the programme is broadly based to provide a background for the wide range of subject-matter required in domestic science. Programmes therefore usually include a range of natural sciences such as chemistry and biology; social sciences such as elementary economics and social studies; literature, languages, mathematics, and often physical education.

Programmes of this type, when given in a special stream of the regular secondary school curriculum, are not intended to provide complete vocational education, but are designed to give the student a sufficient background in general education and domestic science so that he can proceed to further vocational education or to on-the-job training. Some of these programmes are preparatory to third-level education, especially in domestic science.

These programmes may be given in general secondary schools or in other institutions such as community centres, co-operative societies, etc. Programmes given outside the general secondary school curriculum are often of short duration (a few months) and more highly specialized in subject-matter.

Usual minimum educational prerequisite is completion of second-level education, first stage. Admission to some programmes designed for adults may be granted with lower qualifications to those who, through experience or otherwise, can demonstrate ability to master the subject-matter.

Usual award for successful completion of a programme is a certificate or diploma.

36601. General programmes in home economics

Programmes that often combine general education at the second level, second stage, with classroom, laboratory, and workshop sessions designed to provide training in running a home, caring for a family, operating a small restaurant or bakery, etc. The home economics component may consume as much as half the total learning time.

Principal course content usually includes, inter alia, cooking, nutrition, sewing, home furnishings, child care, laundering, budgeting, home safety and hygiene. Emphasis is placed on the acquisition of skills. The general education component usually includes mathematics, physical and biological science, and study of the mother tongue and/or of a current language. Little stress is laid on the humanities, literature, or history.

Programmes are typically given in secondary comprehensive schools or in technical or vocational schools, or institutes.

Usual minimum educational prerequisite is completion of second-level education, first stage. However, mature applicants with lower educational qualifications but having relevant experience may be admitted to short programmes and courses designed to improve skills.

Usual award for successful completion of a programme is a certificate issued by the school or institute.

36612. Programmes with emphasis on nutrition

Programmes that often combine general education at the second level, second stage, with classroom, laboratory and workshop sessions designed to provide basic training in the science and practice of nutrition, largely at the family or smaller institutional level. The special component may consume one third of the total learning time, and visits may be included to hospitals, factory canteens, schools, etc.

Principal course content usually includes cooking and baking; the preparation and serving of food; food purchasing; food storage; basic nutrition; nutrition for children and expectant mothers, etc. The general education component usually includes mathematics, physical and biological science, social science, and study of the mother tongue and/or another current language. Programmes are typically given in secondary comprehensive schools or in technical or vocational schools.

Usual minimum educational prerequisite is completion of second-level education, first stage. However, mature applicants with lower educational qualifications but who have relevant work experience may be admitted to short programmes and courses designed to improve skills.

Usual award for successful completion of a programme is a certificate issued by the school.

36622. Programmes with emphasis on child care

Programmes that often combine general education at the second level, second stage, with classroom, laboratory and workshop experience designed to provide basic training in the care of infants and young children. The special component may consume as much as one half of the total learning time. Programmes may include visits and brief working periods in nursery schools, crèches, and kindergartens.

Principal course content usually includes child development, child guidance, child care, nutrition, hygiene, and creative arts and crafts. The general education component usually includes mathematics, physical and biological science, and study of the mother tongue and/or another current language. Little stress is laid on the humanities, literature or history. Programmes are typically given in a secondary comprehensive school or a technical or vocational school.

Usual minimum educational prerequisite is completion of second-level education, first stage. However, mature applicants with lower educational qualifications who have relevant experience may be admitted to short programmes and courses, especially those designed to improve skills.

Usual award for successful completion of a programme is a certificate issued by the school.

36699. Other home economics programmes

Programmes at the second level, second stage, in home economics not included in the above programme groups (i.e. 36601 to 36622), primarily consisting of classroom, laboratory and workshop sessions possibly supplemented by lectures and demonstrations in various aspects of domestic science.

These programmes may lay specific stress on some aspect of home economics not covered by the foregoing programmes, or may combine the courses in some unusual way. For example, the emphasis in a nutrition programme might be on the presentation of meals (as in Japan), while another programme might emphasize family life, etc. Principal course content usually includes child care and development; housekeeping and household skills; family budgeting; home safety; and hygiene. The general education component usually includes mathematics, physical and biological science, and study of the mother tongue and/or another current language, with but little stress on the humanities, literature or history. Programmes are typically given in a secondary comprehensive school or a technical or vocational school.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature applicants with lower educational qualifications but who have relevant experience are often admitted to short programmes, especially those designed to improve skills.

Usual award for successful completion of a programme is a certificate.

370. Transport and communications programmes

This field includes a variety of programmes at the second level, second stage, which may combine general education with instruction and workshop experience in technical or vocational subjects related to transport and communications operations. These programmes are often designed to provide a general education having vocational emphasis relevant to a range of specialized, more advanced, vocational programmes or for on-the-job training, (e.g. apprenticeship). Although these programmes are

specialized in terms of vocational content, they are not necessarily intended as training for a specific occupation, but may be designed to impart general information and experience in workshop methods and practices that prepare the student for further vocational education, either in school or on the job. Some programmes are more vocationally oriented.

The general education component of these programmes includes some of the regular school curriculum at this level, with less emphasis on the humanities, foreign languages, and social sciences. They usually stress mathematics, natural sciences, the mother tongue and/or a current language and its literature, as well as subjects such as engineering drawing, blueprint reading, elementary engineering, and a range of practical subjects depending on the student's speciality.

37004. Seaman's certificate programmes

Programmes that combine general education at the second level, second stage, with instruction and ship experience for the preparation of practising officers and seamen to work as Master Home Trade, Master Ferry, Master Small Craft, Master Pleasure Yacht, Fishing Mate, Tug Master, etc.

Principal course content usually includes some of the following: navigation, chartwork, ship construction, stability, shipmaster's business, magnetic and gyro compass, electronic and other aids to navigation, rule of the road, signals, meteorology, cargo work and maintenance, pilotage, radar observation, marine law.

A general education component may include mathematics, natural sciences, the mother tongue and/or a current language and its literature, with little stress on the humanities, foreign languages, history, or social sciences.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to short programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more, typically given in a secondary comprehensive school or technical or vocational school, is a certificate of successful completion. For short courses, sometimes sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given by the sponsoring agency.

37006. Railway operating trades programmes

Programmes at the second level, second stage, consisting of classroom instruction and on-the-job experience to provide training for railway operating personnel.

Principal course content varies with the specific trade but usually includes diesel mechanics, dynamics, communications, signals, physics, mathematics, and electronics.

A general education component may include mathematics, natural science, the mother tongue and/or a current language and its literature, with little stress on the humanities, foreign languages, history, or social sciences.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature students, especially those with relevant work experience, may

be admitted with lower educational qualifications to short programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more is a certificate of successful completion. For short courses, a certificate of satisfactory completion is usually given by the sponsoring agency.

37008. Road motor vehicle operation programmes

Programmes that may combine general education at the second level, second stage, with classroom instruction and on-the-job experience to provide training in road motor vehicle operation. The main emphasis is on the practical skills and knowledge required for road motor vehicle operators.

Principal course content varies with the specific trade but usually includes such subjects as highway regulations, safety rules, basic vehicle maintenance, simple repairs, vehicle control, vehicle insurance, highway conditions, etc.

A general education component may include mathematics, natural sciences, the mother tongue and/or a current language and its literature, with little stress on the humanities, foreign languages, history, or social sciences.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to short programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more is a certificate of successful completion. For short courses, sometimes sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given by the sponsoring agency.

37026. Postal service programmes except electronics equipment installation and servicing

Programmes that combine general education at the second level, second stage, providing instruction and on-the-job training in post-office operations. The main emphasis is on practical skills and knowledge.

Principal course content varies with the specific trade but usually includes such subjects as basic management, accounting, sorting, public relations, business management, communications, etc.

A general education component may include mathematics, natural sciences, the mother tongue and/or a current language and its literature, with little stress on the humanities, foreign languages, history, or social sciences.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to short programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more is a certificate of successful completion. For short courses, usually sponsored by the employer, a certificate of satisfactory completion is usually given by the sponsoring agency.

37029. Other communications programmes

Programmes at the second level, second stage, with classroom instruction and on-the-job training in communications trades other than those defined elsewhere in 370. Although some consideration is given to the theoretical aspects of communications technology, the main emphasis of the programmes will be on basic practical skills and knowledge.

Principal course content usually includes the study of the various aspects of a particular trade with special emphasis on such subjects as communications systems; control systems; and public relations.

A general educational component may include mathematics, natural sciences, the mother tongue and/or a current language and its literature, with little stress on the humanities, foreign languages, history, or social sciences.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications to short programmes and courses, especially those designed to upgrade skills.

Usual award for programmes of one year or more is a certificate of successful completion. For short courses, sometimes sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given by the sponsoring agency.

378. Service trades programmes

This field includes a variety of programmes at the second level, second stage, which combine general education with instruction and practice in service trades such as barbering and beauty culture, waiter-waitress training, restaurant and hotel-type cooking, other hotel trades, retailing, tourist trades, etc. When given in secondary schools, these programmes are designed to provide a general education having vocational emphasis suitable as preparation for a range of specialized more advanced vocational preparation or for on-the-job training. In some cases, facilities are available to enable the student to acquire some practical experience in one or more of the vocational fields covered. When given outside the regular secondary school system, programmes of this type tend to be more intensive vocationally, with little or no emphasis on general second-level education.

The principal subject-matter content of these programmes, when given in secondary schools, includes much of the regular school curriculum at this level, with somewhat less emphasis on general cultural subjects and more time spent on subjects related to the vocational fields concerned such as personal relations, dealing with the public, preparation of bills and accounts, the use of business records such as purchasing forms, reservation procedures, etc. The subject-matter content of programmes for adults and others out of school is made up largely of procedures and techniques required for the chosen vocation.

Usual minimum educational prerequisite is completion of second-level education, first stage. For programmes outside the regular secondary school system, candidates having relevant work experience or special interests may be admitted with lower educational qualifications.

Usual award for successful completion of the programme is a certificate or diploma.

37812. Barbering and beauty culture programmes

Programmes that combine general education at the second level, second stage, with instruction and practice in barbering and beauty culture. When given in secondary schools, these programmes are designed to provide a general education having vocational emphasis but usually do not give specific vocational training leading to a particular qualification. Some programmes given outside the secondary school system may provide such specific vocational training by concentrating on the vocational aspects to the exclusion of general secondary education.

Principal course content for programmes given in the secondary schools usually includes science, the mother tongue and/or another current language, social studies, literature, physical education, etc., in addition to vocational subjects such as hair cutting and styling, care of the hair and scalp, shampooing, hair setting, skin care, cosmetology, electrology, manicuring, etc. When given outside the regular secondary school system, programmes of this kind may be concentrated on vocational subjects and may include practice or work sessions leading to specific vocational qualification.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature students or those who have left school, and particularly those with relevant work experience or vocational interests, may be admitted with lower educational qualifications, especially to programmes outside the regular secondary school system.

Usual award for programmes of one year or more, typically given in a secondary school, is a certificate of successful completion. For programmes outside the regular school system, a certificate or diploma is usually awarded for successful completion.

37822. Hotel and restaurant trades programmes

Programmes that combine general education at the second level, second stage, with instruction and practice in hotel and restaurant trades, such as cooking and kitchen management, dining-room management, reservation or desk clerk, hotel housekeeper, etc. When given in secondary schools, these programmes are designed to provide a general education having vocational emphasis, but usually do not give specific vocational training leading to a particular qualification. Some programmes given outside the secondary school system may provide such specific vocational training by concentrating on the vocational aspects to the exclusion of general secondary education.

Principal course content for programmes given in the secondary schools usually includes science, the mother tongue and/or another current language, social studies, one or more foreign languages, physical education, etc., in addition to vocational subjects such as food technology, food purchasing, preparation and cooking, menu preparation and terminology, food serving, kitchen management, special sauces and condiments, reservation procedures and record keeping, guest reception and registration, preparation of bills and accounts, purchase, care, and handling of linens, supervision of hotel housekeeping, etc. When given outside the regular secondary school system, programmes of this kind may be concentrated on vocational subjects and may include practice or work sessions leading to specific vocational qualification.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature students or those who have left school, and particularly those with relevant work experience or vocational interests, may be admitted with lower educational qualifications, especially to programmes outside the regular secondary school system.

Usual award for programmes of one year or more, typically given in a secondary school, is a certificate of successful completion. For programmes outside the ordinary school system, a certificate or diploma is usually awarded for successful completion.

37862. Retailing programmes

Programmes that combine general education at the second level, second stage, with instruction and sometimes practice in a branch of retailing such as food, apparel, footwear, hardware, general retailing, e.g. department store, variety store, etc. When given in secondary schools, these programmes are designed to provide a general education having vocational emphasis but usually do not give specific vocational training leading to a particular qualification. Some programmes given outside the secondary school system may provide such specific vocational training by concentrating on the vocational aspects to the exclusion of general secondary education.

Principal course content for programmes given in the secondary schools usually includes science, the mother tongue and/or another current language, social studies, literature, physical education, etc., in addition to vocational subjects such as principles of buying for resale, the design and maintenance of purchasing records, storage characteristics and other characteristics of the relevant commodities, principles of stock control, merchandise display, effective shop layout, principles of salesmanship, etc. The course content for programmes outside secondary schools is concentrated on the vocational subjects, is usually more specialized and often includes practice or work sessions combined with assessment of the work done.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature students, or those who have left school and particularly those with relevant work experience or vocational interests, may be admitted with lower educational qualifications, especially to programmes outside the regular secondary school system.

Usual award for programmes of one year or more, typically given in a secondary school, is a certificate of successful completion. For programmes outside the ordinary school system, a certificate or diploma is usually awarded for successful completion.

37872. Tourist trades programmes

Programmes that combine general education at the second level, second stage, with instruction and practice in tourist trades such as tour supervisor, tourist guide, travel consultant, passenger agent, etc. When given in secondary schools, these programmes are designed to provide a general education having vocational emphasis but usually do not give specific vocational training leading to a particular qualification. Some programmes given outside the secondary school system may provide such specific vocational training by concentrating on the vocational aspects, to the exclusion of general secondary education.

Principal course content for programmes given in the secondary schools usually includes the mother tongue and/or another current language, at least one foreign language, geography, social studies, literature, physical education, etc., in addition to vocational subjects such as customer relations, modes of travel, the history and characteristics of local points of interest, fare structures and schedules in transport and their documentation, types of accommodation and reservation procedures, etc.

When given outside the regular secondary school system, programmes of this kind may be concentrated on vocational subjects, and may include practice or work sessions leading to specific vocational qualifications.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature students or those who have left school, and particularly those with relevant work experience or vocational interests, may be admitted with lower educational qualifications, especially to programmes outside the regular secondary school system.

Usual award for programmes of one year or more, typically given in a secondary school, is a certificate of successful completion. For programmes outside the regular school system, a certificate or diploma is usually awarded for successful completion.

37899. Other service trades programmes

Programmes that combine general education at the second level, second stage, with instruction and practice in service trades except those included in 37812, 37822, 37862, and 37872. When given in secondary schools, these programmes are designed to provide a general education having vocational emphasis, but they usually do not give specific vocational training leading to a particular qualification. Some programmes given outside the secondary school system may provide such specific vocational training by concentrating on the vocational aspects to the exclusion of general secondary education.

Principal course content for programmes given in the secondary schools usually includes science, the mother tongue and/or another current language, mathematics, social studies, literature, physical education, etc., in addition to vocational subjects relevant to the student's vocational interest. The course content for programmes outside the regular secondary school system tends to be more specialized vocationally; is often concentrated on vocational subjects, and may include practice or work sessions leading to specific vocational qualification.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature students or those who have left school, and particulary those having relevant work experience or vocational interests, may be admitted with lower educational qualifications, especially to programmes outside the regular secondary school system.

Usual award for programmes of one year or more typically given in a secondary school is a certificate of successful completion. For programmes outside the ordinary school system a certificate or diploma is usually awarded for successful completion.

389. Other programmes of education at the second level, second stage

Programmes of education at the second level, second stage, not included in the above fields (i.e. 301 to 378). Some examples of programmes that might be included if encountered at this level are those in natural science; social science; civil security such as police work or fire protection; social work; physical education. These are offered merely as illustrations.

Principal course content depends upon the speciality but usually includes, in addition to the student's principal interest, some study of general subject-matter at this level, e.g. basic natural science, mathematics, social science, humanities. Programmes for adults are likely to be more highly specialized and may omit the general education content.

Usual minimum educational prerequisite is completion of second-level education, first stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications, particularly to short programmes and courses.

Usual award for successful completion of a programme is a certificate.

38900. Other programmes of education at the second level, second stage (see definition under 389)

5. EDUCATION AT THE THIRD LEVEL, FIRST STAGE, OF THE TYPE THAT LEADS TO AN AWARD NOT EQUIVALENT TO A FIRST UNIVERSITY DEGREE

The core at this level consists of education for those who have completed requisite programmes at the second level, second stage, and who continue their education in a type of programme that generally does not lead to the awarding of a university degree. Typically in these programmes, less time and attention are paid to the theoretical, general, and scientific principles of the subjects studied, attention being concentrated more on application to particular vocations. Thus, the programmes here are typically shorter in duration than the corresponding university degree types, i.e. characteristically shorter than four years. A programme's type (e.g. university degree- or non-university degree type) is not determined by the kind of institution that provides it. Thus, quite apart from their "degree" prorammes, many universities provide extension programmes or general-interest programmes that would be classified here or in level 9. Conversely, non-university degree programmes (e.g. junior college or community college in the United States or programmes given in secondary schools in some countries beyond the level for university entrance) that are recognized as the equivalent of the first year or first two years of the university degree programme when a student transfers to the university, would be classified at level 6, although other programmes of junior colleges, etc., would be included here at level 5. The important criterion is the "level" of the education provided in terms of the educational preparation required for entry into a programme, and usually a different preparation -- in terms either of range of subject-matter or of examination results, or other achievement criteria -- is required for entry into a degree programme than for entry into a non-degree programme.

The core programmes at this level tend to parallel those for which university degrees are granted in terms of subject-matter categories, but are usually shorter and more "practical" in orientation. Programmes of equivalent level to be associated with this core are of very great variety in most countries, and are provided through many organizations of very different types. The programmes are typically specialized in subject-matter; many are part-time; evening courses are common. Refresher courses and general-interest courses are important segments of this level of education.

The sponsoring organizations are too numerous to list, but a selection will indicate their nature. They include -- in addition to educational institutions operated by national, provincial, or local educational authorities -- business concerns, associations of employers (e.g. bankers' associations), labour organizations, the armed forces, professional associations, co-operative societies, religious bodies, universities (non-degree programmes), private schools, hospitals, and other institutions.

The unifying criterion for all these programmes is the prerequisite that enrollees have completed the second stage of second-level education or have at least some education at that level plus appropriate vocational experience to indicate ability to handle the subject-matter. In other words, the subject-matter is such that its mastery requires the equivalent of full second-level education.

The range of subjects is very wide, as indicated by the detailed categories in ISCED. To avoid a long listing, it is sufficient to point out that the level of instruction is aimed at developing highly-skilled technicians, teachers, artists, office staff, transport personnel, production supervisors, journalists, police and fire protection staff, and the like.

514. Teacher-training programmes

This field includes a variety of programmes in education at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, dealing with the principles and practice of school teaching, as well as the training of instructors, extension workers and personnel for out-of-school and adult education, both formal and non-formal.

The programmes, designed particularly to prepare students for teaching in the regular school system at the first level and at the first stage of the second level of education, stress the techniques of teaching (teaching methods), including lesson planning and preparation, classroom management, methods for developing group activities, organization and administration of the school system, along with sessions of practice teaching and observation of experienced teachers, with relatively little time spent on the history and philosophy of education (education theory). Courses in the techniques of education, including programmed learning, are often included.

Programmes for the training of instructors, extension workers and others to be engaged in out-of-school activities place more emphasis on knowledge of the basic subject matter to be taught as well as special techniques required such as organization and guidance of discussion groups, demonstration, communication and the use of audiovisual media, radio forums, village development committees, young farmers' clubs, etc.

Important kinds of programmes included are: general teacher training with no particular emphasis on the subject matter or type of student to be taught: those emphasizing particular subject matters to be taught such as science, mathematics, social studies and physical education; those emphasizing particular vocational subjects to be taught including fine arts (music, drawing, etc.), metal trades, woodworking, mechanical repair trades, printing trades, etc.; those emphasizing the techniques for teaching pre-school-age children; those concerned particularly with teaching in adult education, both in school and out of school, and those concerned particularly with teaching handicapped children. In most programmes some time is spent on general academic subjects such as mathematics, history, philosophy, psychology, geography and social studies.

Programmes may be followed full-time or part-time, day or evening, and many are given during school vacations (particularly programmes designed to improve the qualifications of employed teachers). Refresher courses are common.

Usual minimum educational prerequisite is completion of second-level education, second stage, but mature students with valuable related work experience may be admitted with lower educational qualifications, particularly to programmes for teachers of vocational subjects and for teachers of adult education.

Usual award for successful completion of a programme is a teaching certificate approved by an educational authority.

51401. General teacher-training programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of lectures

and practice teaching, designed to train school-teachers chiefly for the first level or the first stage of the second level of education. Various facets of the rôle of the classroom teacher are studied, with emphasis on teaching practice rather than on the theory of education.

Principal course content usually includes the philosophy, history, psychology and sociology of education; teaching methods, both general and specific; lesson planning; audiovisual aids; school administration; and some general academic subjects such as mathematics, history, languages and science. In addition, time is devoted to observing experienced teachers and to supervised practice teaching.

Usual minimum educational prerequisite is completion of second-level education, second stage, although some programmes may be restricted to those who have completed a preparatory post-second-level programme in another subject area. Mature students with related work experience may be admitted with lower educational qualifications. In short programmes, especially those designed to improve the qualifications of those already employed, work experience is usually given greater weight than educational qualifications. Programmes are usually full-time, and last from one to three years; they are given in a teachers' college, normal school, community college or university.

Usual award for successful completion is a certificate or diploma.

51404. Teacher-training programmes with specialization in a non-vocational subject

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of lectures and practical activities designed to train teachers of non-vocational subjects (such as mathematics, social studies, languages, physical education, etc.) to teach at the first level or at the first stage of the second level of education. Various facets of the rôle of the classroom teacher are studied, with emphasis on teaching practice rather than on the theory of education.

Principal course content usually includes the history, philosophy, psychology and sociology of education; teaching methods; lesson planning; audiovisual aids; school administration; courses in the subject to be taught; and often some courses in general academic subjects. In addition, time is devoted to observing experienced teachers and to supervised practice teaching.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students with related work experience may be admitted with lower educational qualifications. For short or emergency programmes, especially those designed to improve the qualifications of teachers, experience is often given greater weight than educational qualifications.

Programmes are generally full-time and last from one to three years; they are given in a teachers' college, normal school, community college or university.

51408. Teacher-training programmes for teachers of vocational subjects

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of lectures and practica teaching designed to train teachers of specific vocational subjects (including, inter alia, music, art, industrial arts) primarily to teach at the first

stage of the second level of education, either in a formal school atmosphere or out of school. Various facets of the rôle of the classroom teacher and the out-of-school instructor are studied, with emphasis on teaching practice rather than on the theory of education.

Principal course content for those intending to teach school usually includes the history, philosophy, psychology and sociology of education; teaching methods; lesson planning; audio-visual aids; school administration; and courses in various aspects of the subject to be taught. In addition, time is devoted to observing experienced teachers and to supervised practice teaching.

Programmes for training of instrucotrs for out-of-school activities place more emphasis upon the subject-matter to be taught and techniques such as demonstration, the use of audio-visual aids, problems of communication with adolescent and adult learners, etc.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students with related work experience may be admitted with lower educational qualifications. For short or emergency programmes, especially those designed to qualify as an instructor in out-of-school activities, experience is often given greater weight than educational qualifications. Programmes for school-teachers are generally full time and last one or two years in a teachers' college, community college or special vocational school; those for out-of-school instructors tend to be shorter - from a few weeks up to a year and often part-time.

Usual award for successful completion is a certificate or diploma.

51412. Teacher-training programmes for pre-school and kindergarten teachers

Programmes at third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of lectures and practice teaching designed to train students to teach pre-school or kindergarten classes. Various facets of the rôle of the pre-school teacher are studied, with emphasis on teaching practice rather than on the theory of education.

Principal course content usually includes the philosophy, history, psychology and sociology of education; courses specifically related to the teaching and directing of children at pre-school and kindergarten ages; audiovisual aids; school administration; and sometimes general academic subjects. In addition, time is devoted to observing experienced teachers and to supervised practice teaching.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students with related work experience may be admitted with lower educational qualifications. For short or emergency programmes, especially those designed to improve the qualifications of teachers, work experience is usually given greater weight than educational qualifications. Programmes are generally full-time and last from one to three years in a teachers' college, normal school or community college.

Usual award for successful completion is a certificate or diploma.

51416. Teacher-training programmes for teachers in adult education, n.e.c.

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of lectures and

practice teaching designed to train students as teachers or instructors in adult education, including adult literacy and extension and other types of adult out-of-school education. Emphasis is placed on practice teaching and on the practical aspects of adult education rather than on the theory of education.

Principal course content is geared to the problems of the adults to be educated, but usually includes the history, philosophy, psychology and sociology of education; specific courses related to problems of the teaching and retraining of adults; relevant vocational or academic subjects; lesson planning; audio-visual aids; and school administration. In addition, time is devoted to observing experienced teachers and to supervised practice teaching.

For staff of extension and other types of non-formal education, emphasis is given to sociology related to development, adult and adolescent psychology, learning theory and the study of attitude change, methods of demonstration and the practical use of communication methods and media.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students with related work experience are often admitted with lower educational qualifications. For short programmes, especially those designed to improve the qualifications of teachers or for out-of-school instructors, related work experience is usually given greater weight than educational qualifications. Programmes for school-teachers are generally full-time and last two to four years in a teachers' college or special adult education training institution; those for instructors, etc., tend to be shorter (one year or less) and are often part time.

Usual award for successful completion is a certificate or diploma.

51422. Teacher-training programmes for teachers of handicapped children

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, usually consisting of lectures and practice teaching designed to train teachers of handicapped children. Emphasis is given to practice teaching and to the practical procedures involved in teaching handicapped children rather than to the theory of education.

Principal course content is linked to the handicaps in question and usually includes educational foundations; procedures for teaching handicapped children; courses leading to a basic understanding of the physical, mental, social, emotional problems of handicapped children; basic understanding of the psychological implications of the disabling conditions; lesson planning; audio-visual aids; and school administration. In addition, time is devoted to observation of experienced teachers and to practice teaching.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students with related work experience may be admitted with lower educational qualifications. For short programmes, especially those designed to improve the qualifications of teachers, work experience is usually given greater weight than educational qualifications. Programmes are generally full-time, lasting from two to three years in a teachers' college, community college, university or teaching hospital.

Usual award for successful completion is a certificate or diploma.

51499. Other specialized teacher-training programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, designed to train teachers with specialities other than those defined above. Emphasis is given to problems of the classroom teacher rather than to the theory of education.

Principal course content is geared to the speciality in question and usually includes the philosophy, history, psychology and sociology of education; courses specifically related to teaching within the particular area of specialization; lesson planning; audio-visual aids; school administration; and general academic subjects. In addition, time is devoted to observing experienced teachers and to practice teaching.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students with related work experience may be admitted with lower educational qualifications. Programmes are generally full-time and last from one to three years in a teachers' college or specialized educational training school.

Usual award for successful completion is a certificate or diploma.

518. Fine and applied arts programmes

This field includes a variety of programmes in education at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, dealing with principles, techniques, performance, and production in the fine and applied arts. In the programmes at this level, more emphasis is placed on the techniques, performance methods, and related practical aspects of the subjects than on underlying theory or general principles.

The principal kinds of programmes included, which aim at the development of artistic creativeness and of skill in performance, are concerned with drawing, painting, sculpturing, dancing, musical performance, dramatic performance, production of handicrafts, photography (including cinematography, television camera work and press photography) and applied or commercial art, etc. Programmes in any of these areas usually include courses in related fine or applied arts as well as courses in related subjects such as the humanities, social and behavioural sciences and natural sciences. (Note that programmes in architecture and town planning are not included here but in 558.)

Programmes may be full-time or part-time, day or evening. Many are of relatively short duration - i.e. less than one year - and they include retraining, refresher and sandwich courses. In many cases, periods of study alternate with periods of practice or work in the relevant field. Programmes are usually conducted in special institutions such as colleges of art, conservatories of music, schools of dramatic art, of dancing, or other art specialities. In some cases, programmes are provided in institutes of technology, technical colleges or community colleges. Programmes are sponsored by many kinds of agencies which, along with the types of institutions mentioned above, include musical organizations, organizations in the drama, dance companies, etc.

Usual minimum educational prerequisite is completion of second-level education, second stage. Applicants with experience or talent but with lower educational qualifications may be admitted to a programme after demonstrating satisfactory performance in the subject concerned.

Usual award for successful completion of a programme is a certificate or diploma indicating the kind of programme involved.

51801. General programmes of art studies

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, designed to develop skill in design and in the visual and plastic arts, for professional, cultural or recreational purposes. Programmes consist of lectures, group discussion and studio practice sessions with applied vocational content taking up most of the programme time.

Students are not expected to concentrate on particular areas. They are encouraged to draw and paint; to make pots and ceramics; to design and weave textiles; to shape wood and stone; to design stage settings, etc.

Programmes normally are given on a full- or part-time basis in a college of art and last the equivalent of from one to three years' full-time study. The chief aim of the programme is the development of creativeness and skill in a number of media, so a variety of subjects constitutes the programme, including drawing and painting, design, freehand drawing, history of art, lettering or calligraphy, theory of colour and silk-screen printing, history of the theatre; sculpture; bronze casting; dancing; music; handicrafts; drama; photography, etc. Of course, not all programmes include the full range of subjects.

Usual minimum educational prerequisite is completion of second-level education, second stage, and/or demonstrated skill or talent in relevant artistic pursuits.

Generally, certificates of competence are awarded on completion of the programme, either by the institution itself or by a public authority. Successful students may become professional artists.

51804. Programmes in drawing and painting

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, designed to develop skill in drawing and painting for professional, cultural or recreational purposes. Programmes consist of lectures, group discussion and studio practice sessions with applied vocational content taking up most of the programme time.

Programmes normally are given on a full- or part-time basis in a college of art and last the equivalent of from one to three years' full-time study. The chief aim of the programme is the development of creativeness and skill in drawing and painting, but related prescribed courses may be included in such subjects as design, freehand drawing, history of art, lettering or calligraphy, theory of colour and silk-screen printing.

Usual minimum educational prerequisite is completion of second-level education, second stage, and/or demonstrated skill or talent in drawing or painting.

Generally, certificates of competence are awarded on completion of the programme, either by the institution itself or by a public authority. Successful students may become professional artists.

51808. Programmes in sculpturing

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, designed to develop skill in sculpturing, for professional, cultural or recreational purposes. Programmes consist of lectures, group discussion and studio practice sessions with applied vocational content taking up most of the programme time.

Programmes normally are given on a full- or part-time basis in a college of art and last the equivalent of from one to three years' full time study. The chief aim of the programme is the development of creativeness and skill in sculpturing, but related prescribed courses may be included in such things as the history of sculpture, basic form and design, visual and spatial relationships, commercial applications of sculpture, etc.

Usual minimum educational prerequisite is completion of second-level education, second stage, andør demonstrated skill or talent in sculpturing.

Generally, certificates of comptence are awarded on completion of the programme, either by the institution itself or by a public authority. Successful students may become professional sculptors.

51812. Programmes in handicrafts

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, designed to develop skill in handicrafts for professional, cultural or recreational purposes. Programmes consist of lectures, group discussion and studio practice sessions with applied vocational content taking up most of the programme time. Students normally devote themselves to one aspect of handicrafts such as jewellery, pottery, weaving or woodcarving.

Programmes normally are given on a full- or part-time basis in a college of art and last the equivalent of from one to three years' full-time study. The chief aim of the programme is the development of creativeness and skill in the chosen field of study, but related prescribed courses may be included in such things as centrifugal casting, common hand and machine tools, kilns, soldering torches, colour, history of art.

Usual minimum educational prerequisite is completion of second-level education, second stage, and/or demonstrated skill or talent in doing handicrafts.

Generally, certificates of competence are awarded on completion of the programme, either by the institution itself or by a public authority. Successful students may become professional potters, woodcarvers, etc.

51822. Programmes in music

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, designed to develop skill in music for professional, cultural or recreational purposes. Programmes consist of lectures, group discussion and studio practice sessions with applied vocational content taking up most of the programme time. Students normally devote themselves to one aspect of music such as singing, playing an instrument, arranging or conducting.

Programmes normally are given on a full- or part-time basis in a music school and last the equivalent of from one to three years' full-time study; The chief aim

of the programme is the development of creativeness and skill in the chosen field of study, but related prescribed courses may be included in such subjects as music history, harmony, counterpoint, aural theory, orchestration, arranging and composition.

Usual minimum educational prerequisite is completion of second-level education, second stage, and/or demonstrated skill or talent in the chosen field of study.

Generally, certificates of competence are awarded on completion of the programme, either by the institution itself or by a public authority. Successful students may become professional musicians.

51832. Programmes in the drama

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, designed to develop skill in drama for professional, cultural or recreational purposes. Programmes consist of lectures, group discussion and studio practice sessions with applied vocational content taking up most of the programme time. Students normally devote themselves to one aspect of drama such as acting, stagecraft, make-up or direction.

Programmes normally are given on a full- or part-time basis in a drama school and last the equivalent of from one to three years' full-time study. The chief aim of the programme is the development of creativeness and skill in the chosen field of study, but related prescribed courses may be included in such subjects as acting, voice and diction, stagecraft, history of the theatre, oral interpretation, rehersal and production.

Usual minimum educational prerequisite is completion of second-level education, second stage, and/or demonstrated skills or talent in the chosen field of drama.

Generally, certificates of competence are awarded on completion of the programme, either by the institution itself or by a public authority. Successful students may become professional actors, stage managers, make-up artists, directors, etc.

51842. Programmes in photography and cinematography

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, designed to develop skill in photography or cinematography for professional, cultural or recreational purposes. Programmes consist of lectures, group discussion and studio practice sessions, with applied vocational content taking up most of the programme time. Students normally devote themselves to one aspect of photography or cinematography.

Programmes normally are given on a full- or part-time basis in a college of art or technical institute, and last the equivalent of from one to three years' full-time study. The chief aim of the programme is the development of creativeness and skill in the chosen field of study, but related prescribed courses may be included in such things as art history, animation, design, visual fundamentals, colour and the camera.

Usual minimum educational prerequisite is completion of second-level education, second stage, and/or demonstrated skill or talent in the chosen field.

Generally, certificates of competence are awarded on completion of the programme, either by the institution itself or by a public authority. Successful students may become professional photographers or cameramen.

51899. Other fine and applied arts programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, designed to develop skill in fine arts programmes not previously defined, for professional, cultural or recreational purposes. Programes consist of lectures, group discussion and studio practice sessions with applied vocational content taking up most of the programme time. Students may devote themselves to one particular fine art, e.g. the dance, but most programmes are more general in content.

Programmes normally are given on a full- or part-time basis in an appropriate college or institute and last the equivalent of from one to three years' full-time study. The chief aim of the programme is the development of creativeness and skill in the chosen field of study, but related prescribed courses may be included.

Usual minimum educational prerequisite is completion of second-level education, second stage, and/or demonstrated skill or talent in the chosen field of study.

Generally, certificates of competence are awarded on completion of the programme, either by the institution itself or by a public authority. Successful students may become professionals in their field.

522. Humanities programmes

This field includes a variety of programmes in education at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, dealing with the principles and practices of subjects in the humanities. In these programmes, attention is directed typically toward the practical application of languages and other branches of the humanities rather than to underlying principles or philosophies.

Principal kinds of programmes included are those dealing with languages such as translation, interpretation, etc.; programmes in the literature of the current or vernacular language, including programmes in creative writing, and programmes in history, etc. A programme in any of these subjects usually contains some background courses in related humanities subjects designed to supplement and assist in mastering a major subject. Other background courses often include a selection from the social and behavioural sciences, natural sciences, commercial and business administration, and mathematics.

Programmes may be full-time or part-time, day or evening. Many are of relatively short duration - i.e. less than one year - and they include retraining, refresher and sandwich courses. Programmes are usually conducted in institutes of technology, technical colleges or community colleges, special schools. Many different kinds of agencies sponsor these programmes, some examples being government departments and other government agencies, armed services, professional societies, trade unions, employers and employers' associations, etc.

Usual minimum educational prerequisite is completion of second-level education, second stage, but mature students, especially those with relevant work experience, may be admitted with lower educational qualifications. However, these programmes require at least some second-level education, supplemented by experience, to enable students to master the subject-matter.

Usual award for successful completion of a programme is a certificate or diploma indicating the kind of programme involved.

52202. Programmes for interpreters and translators

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of lectures, group discussions, laboratory work, and practice sessions dealing with the principles and methods of language translation and interpretation.

Principal course content usually includes some of the following; language instruction appropriate to the requirements of the student; philology, including etymology, grammar, criticism, literary and linguistic history. These programmes involve laboratory and practice sessions using tape recorders and other equipment, including the development of techniques for rapid note-taking and accurate deciphering. Background courses often included are oral expression, literature, creative writing, and appropriate specialities in the other humanities, social and behavioural sciences, and natural sciences.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a language programme. For admission to most programmes for interpreters and translators, the language skills required imply educational qualifications that include some university education.

Usual award for successful completion of the programme is a certificate or diploma.

52208. Other programmes in languages, except the current or vernacular language

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom sessions and oral practice in one or more foreign languages. The latter may be classical - for example, Sanskrit - but they are usually languages in current use. The ones most frequently studied have currency throughout large areas - for example, English, Russian, Mandarin and Hindi. The emphasis is usually on the use of and proficiency in a language rather than on its literature or history.

These programmes are typically given in commercial or technical colleges or institutes, often in private business colleges or language schools. They usually last one year or more.

Principal course content includes simple grammar and syntax; composition in the language; translation from the language; elementary study of its modern literature; practice in conversation; letter-writing in the language. In some instances, programmes may focus on the needs of commercial correspondents, of representatives in offices, or of air personnel. Language laboratories are frequently available. A required feature may be periods of study abroad, in the countries in which the language being studied is in current usage.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature applicants with relevant experience may be admitted with lower educational qualifications. Admission may be subject to the passing of a special language test.

Usual award for successful completion is a certificate or diploma.

52211. Programmes in the current or vernacular language and its literature

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom sessions and oral practice in the language currently spoken and used. Language laboratories, tape recorders and other devices are employed.

These programmes are typically given in commercial or technical colleges or institutes, often in private business colleges or language schools. They usually last one year or more. Participants fall into two main categories, i.e. immigrants seeking to improve their command of the vernacular, and natives interested in deepening their knowledge and understanding of their mother tongue.

Principal course content usually includes grammar and syntax; general linguistics; principles of literary criticism; history of literature; and sometimes the philosophy, phonology and morphology of the language. Stress may be laid on the writing of essays, which in some cases become short theses. Students may be encouraged to write poetry.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature applicants with relevant experience may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma.

52299. Other humanities programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of instruction and practice in the humanities but not classifiable under 52202, 52208 or 52211. Such programmes may stress comparative literature, history, archaeology, philosophy, etc.

Principal course content depends on the subject of principal interest, and programmes of this kind usually also include a selection of courses in related subjects such as other humanities, social and behavioural sciences, religion, fine and applied arts, etc., depending on the student's speciality.

Usual minimum educational prerequisite is completion of second-level education, second stage, but mature students, especially those with relevant work experience, may be admitted with lower educational qualifications.

Usual award for successful completion of a programme is a certificate or diploma indicating the kind of programme involved.

526. Religion and theology programmes

Programmes in education at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, concerned with the study of religious doctrine, the performance of religious rites and offices, and the propagation of religious beliefs. Theological scholarship is stressed less than in programmes leading to university degrees, with greater emphasis in study being placed on the practical rôle of ministers of religion, priests, or other religious workers.

Principal course content usually includes study of relevant classical languages (e.g. Pali, Sanskrit, Hebrew, Greek, Latin, etc.), courses in religious history, the relevant theology, comparative religion, preaching, singing, worship and ritual. In addition, for those planning to become ministers of religion, time is devoted to

practical work among people and to assisting qualified ministers of religion in the performance of religious services and offices in places of worship.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students with appropriate motivation may be admitted with lower educational qualifications.

Usual award for completion of a programme leading to ordination as a minister of religion is the ordination ceremony. For other programmes a certificate or diploma is usually awarded.

52600. Religion and theology programmes (see definition under 526)

530. Social and behavioural science programmes

This field includes a variety of programmes in education at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, dealing with the principles and practices of social and behavioural sciences. Although theory is not ignored, typically in these programmes attention is directed toward the practical, technological and factual aspects of the subjects studied, and relatively little time spent on theoretical principles and research projects.

The principal kinds of programmes are those dealing with economics, political science, sociology, psychology, geography, anthropology, etc. A programme in any of these subjects usually contains some background courses in related social and behavioural sciences designed to supplement and assist in mastering the major subject. Other background courses usually include some from humanities, natural science, commercial and business administration, mathematics, computer science and statistics.

Programmes may be full-time or part-time, day or evening. Many are of relatively short duration - i.e. less than one year - and they include retraining, refresher and sandwich courses. The programmes are usually conducted in technical institutes, technical colleges, or community colleges, and they include programmes sponsored by many different kinds of agencies, including employers' associations, trade unions, co-operative societies, professional societies, institutions, etc.

Usual minimum educational prerequisite is completion of second-level education, second stage, but mature students, especially those with relevant work experience, may be admitted with lower educational qualifications. Work experience is likely to be given more weight for retraining and refresher courses, but in all cases some second-level education will be essential to permit the student to master the subject-matter in these programmes.

Usual award for successful completion of a programme is a certificate or diploma indicating the kind of programme involved.

53012. Programmes in economics

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of instruction and group discussion dealing with the fundamental principles of economics and the functioning of economic institutions.

Principal course content usually includes some of the following: basic concepts and terminology of economics, economic activities and institutions, analysis of

economic problems, standards of living, problems of the consumer, operations of business, business costs and prices, competition and monopoly, corporations, anti-trust laws, public utilities, government and business, money and credit, effects of inflation and deflation, monetary standards, natural resources and the farm problems, problems of the worker, labour-management relations, international economic relations, government and taxation, business cycles.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a general programme.

Usual award for programmes of one year or more, typically given in a technical or similar institution, is a certificate or diploma. For short courses, many of which are sponsored by employers, employers' associations, or trade unions, a certificate of satisfactory completion is usually given.

53022. Programmes in political science

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of instruction and group discussion dealing with the principles of political science and with the functions of government.

Principal course content usually includes some of the following: basic concepts and terminology of political science, political institutions, history of politics, government organization, comparative government, international intergovernmental organizations, public administration, political parties and movements, principles of governmental planning, civics and political awareness.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a general programme.

Usual award, for programmes of one year or more typically given in a technical or similar institution, is a certificate or diploma. For short courses, many of which are sponsored by employers, employers' associations or trade unions, a certificate of satisfactory completion is usually given.

53032. Programmes in sociology

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of instruction and group discussion dealing with the principles of sociology and with social institutions.

Principal course content usually includes some of the following: principles of sociology, sociological theory and methodology, social organization, social change, social control, the family as a social institution, problems of delinquency, and sociological research methods.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a general programme.

Usual award, for programmes of one year or more typically given in technical or similar institutions, is a certificate or diploma. For short courses, many of which are sponsored by employers, employers' associations, or trade unions, a certificate of satisfactory completion is usually given.

53052. Programmes in psychology

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of instruction and group discussion dealing with the principles and applications of psychology.

Principal course content usually includes some of the following: principles of psychology; history of psychology; applications of psychology, e.g. educational, vocational, clinical, industrial; use of psychological tests; and abnormal psychology. Background courses often included are statistics, computer science, principles of economics, principles of sociology, principles of biology, and research methodology.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a general programme.

Usual award, for programmes of one year or more typically given in technical or similar institutions, is a certificate or diploma. For short courses, many of which are sponsored by employers, employers' associations, or trade unions, a certificate of satisfactory completion is usually given.

53099. Other programmes in social and behavioural science

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of instruction and group discussion dealing with the principles and applications of social and behavioural sciences not included in the above programme groups, e.g. geography, anthropology, etc.

Principal course content usually includes some of the following: physical geography, economic geography, geographical mapping, urban geography, ecological geography, principles of anthropology, identification of archaeological specimens, applied anthropology, cultural and social evolution. Background courses often included are geology, sociology, anthropology, biology, photogrammetry, statistics, research methodology, history, human ecology, methods of exhibiting specimens.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a general programme.

Usual award, for programmes of one year or more typically given in technical or similar institutions, is a certificate or diploma. For short courses, many of which are sponsored by employers, employers' associations, or trade unions, a certificate of satisfactory completion is usually given.

534. Commercial and business administration programmes

This field includes a variety of programmes in education at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, dealing with business practices, office procedure, record keeping and management, and business and institutional administration. Although theory is not ignored, these programmes emphasize the practical, technological and factual aspects of the subjects studied, spending relatively little time on historical, theoretical, and general aspects.

The principal kinds of programmes are those dealing with stenographic and secretarial skills, accountancy, business-machine operation, data-processing operations such as those involving card punching and computer operation, financial operations

such as those concerned with stock market and investment analysis, public administration, institutional administration (including hospital and school administration); business administration, marketing, sales promotion, hotel and restaurant administration, etc. These programmes usually include background courses which supplement the major subject and assist students in mastering the subject-matter of the programme, including courses in the social and behavioural sciences, humanities, law and jurisprudence, natural sciences, mathematics, and statistics.

Programmes may be full time or part time, day or evening. Many are of relatively short duration - i.e. less than a year - and they include retraining, refresher and sandwich courses. The programmes are usually conducted in technical institutions, technical colleges or community colleges. They are sponsored by a wide variety of agencies, including employers, employers' associations, trade unions, co-operative societies, professional societies, government departments and government agencies, etc.

Usual minimum educational prerequisite is completion of second-level education, second stage, but mature students, especially those with relevant work experience, may be admitted with lower educational qualifications. Work experience is likely to be given more weight for retraining and refresher courses, but in all cases some second-level education will be required to ensure that the student has sufficient educational background to master the subject-matter.

Usual award for successful completion of a programme is a certificate or diploma indicating the kind of programme involved.

53401. General commercial programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree. These programmes are mainly concerned with the general study of business administration, business practices and office procedures, rather than with the achievement of a high degree of skill in special areas such as typing or accounting, though some knowledge of such subjects will be involved.

Principal course content usually includes the theory and general principles of office management, accountancy, data-processing operations; financial operations, marketing and sales promotion. The programmes usually include background courses in subjects such as sociology, economics, statistics, commercial law. Students will usually be expected to acquire skill in shorthand and typewriting.

Programmes of this type are usually given in a technical college, community college, business college, or similar institution. They are usually full time and last for more than one year. The majority of students admitted to such a programme have completed education at the second level, second stage, but those with relevant work experience and aptitude may be admitted with somewhat lower educational qualifications.

Usual award for successful completion of a programme is a certificate or diploma.

53404. Secretarial programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of study and practice

in secretarial procedures. These programmes are mainly concerned with the practical aspects of secretarial work, including typing, shorthand, and general office procedures, and relatively little time is spent on the theory or general principles of office management.

Principal course content usually includes typing and shorthand, commercial correspondence, the design and operation of filing and other record-keeping systems, office management procedures, personnel records, etc. In general, this part of the programme is designed to provide the secretarial skills required to assist an executive in handling his appointments and general management duties. Some programmes include other commercial subjects such as bookkeeping, commercial law, the operation of office machines, etc., and in some cases, general subjects such as mathematics, literature, and foreign languages may be included.

Programmes at this level are usually designed for adults and for young people who have completed education at the second level, second stage. The programmes are intensive and usually have a duration of one year or less. Applicants for admission having relevant experience and aptitude are sometimes admitted with lower educational qualifications. The programmes are given in community colleges, technical colleges, and business colleges, and are sponsored by a wide variety of agencies including governments, business firms, the armed services, etc.

Usual award for successful completion is a certificate or diploma.

53422. Programmes in business machine operation, except electronic data processing

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of study and practice in the operation of business machines, except electronic computers and their ancillary equipment. Examples of the kinds of machines involved are bookkeeping machines, calculating machines except electronic computers, mailing machines, duplicating machines, etc.

Principal course content depends on the particular kind of machine involved, but these programmes generally include the study of the operating principles of the machine and the procedures required to maintain it in good operating condition such as cleaning, lubricating, and normal maintenance. In addition, many of these programmes include other related commercial subjects such as accountancy, commercial correspondence, typing, and record keeping. Some programmes of this kind may include the study of general subjects such as mathematics or literature.

Programmes of this type are usually given in a technical college, community college, business college, or similar institution. They may be full time or part time, and vary in duration from a month or two to more than a year. The majority of the students admitted to these programmes have completed education at the second level, second stage, but those with relevant work experience and aptitude may be admitted with somewhat lower educational qualifications, particularly to the shorter programmes.

Usual award for successful completion is a certificate or diploma.

53426. Programmes in electronic data processing

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom sessions

and practice in the use of computers, their ancillary equipment and related software systems. These programmes are mainly concerned with the application of computers as distinguished from computer science programmes (54641, which include programmes dealing with the theory and practice of computer functioning, new applications for computers and the related systems analysis).

Principal course content usually includes, inter alia, computer programming, storage devices, access methods, software systems, systems design, and developments in computer types. Background courses usually include mathematics, statistics, linear programming, and elementary systems analysis.

Programmes of this kind are given by a wide variety of agencies, including technical schools and colleges, manufacturers and sellers of computers, government agencies, and other large users of computers. A complete programme takes one year or more, but many organizations that use computers arrange short programmes for a relatively high proportion of their employees to make them familiar with basic computer functioning. Between these extremes are programmes and courses of intermediate length and intensity.

Usual minimum educational prerequisite is completion of second-level education, second stage. For short courses, the educational prerequisite may be less stringently enforced, giving way to the need for employees to be familiar with the role of the computer in their work setting.

Usual award for successful completion is a certificate or diploma.

53432. Accountancy programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of study and practice in accountancy. These programmes are mainly concerned with the practical aspects of keeping accounts and preparing financial and other statements, with relatively little time spent on accountancy theory or the general principles of record keeping. Note that programmes leading to a qualification such as that of chartered accountant or certified public accountant are not included here but are found in 53432.

Principal course content usually includes general accountancy, preparation of financial statements, and other operational statements required for business management, maintenance of inventory records, records of purchases, sales, and cost records; valuation of assets; preparation of a corporation income tax return, preparation of statistical returns, etc. Some programmes of this kind may include the study of relevant commercial law, tax law, business correspondence, office machine operation, and computer operation.

Programmes of this type are usually given in a technical college, community college, business college, or similar institution. They are usually full-time and last for more than one year. The majority of students admitted to such a programme have completed education at the second level, second stage, but those with relevant work experience and aptitude may be admitted with somewhat lower educational qualifications.

Usual award for successful completion of a programme is a certificate or diploma.

53434. Business administration, marketing and sales programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of instruction, group discussion and practice sessions dealing with the principles and practices of business administration, marketing, sales promotion and salesmanship, usually through the analysis of case histories. Many of the programmes are specialized in one or two subjects, and many are of short duration (i.e. three or four weeks).

Principal course content usually includes some of the following: principles of economics; statistical methods; general accountancy; cost accountancy; elementary systems analysis and computer programming; elementary commercial law; purchasing and inventory control; production scheduling expediting; programme budgeting and cost control; personnel administration; job analysis and wage determination (including collective bargaining); mathematics of investment; market analysis; sales promotion and advertising; salesmanship.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications. For short courses, sandwich courses and courses designed to improve the qualifications of those already employed work experience is usually given greater weight than educational qualifications.

Usual award for successful completion of a programme of one year or more, typically given in technological or similar institutes, is a certificate or diploma in business administration.

53436. Programmes in financial management and investment analysis

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of study and practice in the theory of investment analysis and the operation of the financial markets. Principal areas of study include portfolio management, understanding the stock market system, and the examination of investment institutions.

Principal course content usually includes some of the following: analysis of company financial reports, analysis of shares, bonds, and other types of securities, procedures for securities, market transactions; estate and trust management; portfolio balance; principles of life underwriting; and company law. Background courses often included are economic theory, money and banking, corporate finance, and statistics.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those who have relevant work experience, are often admitted with lower educational qualifications. Financial institutions and professional associations offer specially-designed programmes in this field for their employees.

Usual award for successful completion of a programme is a certificate or diploma.

53439. Other commercial and business programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of instruction and practice in the theory and application of specific commercial or business procedures

and techniques not included in the above groups of programmes (i.e. 53401 to 53436) and including labour studies.

Principal course content depends on the particular speciality, but most courses include subjects such as office work measurement; secretarial science; bookkeeping; record systems; work planning and scheduling; staff supervision; labour studies including personnel or labour relations; and purchasing methods, in addition to the special subjects.

Usual minimum educational prerequisite is completion of second-level education, second stage, although in some cases admission to programmes of this kind depends on relevant work experience as much as on educational qualifications, particularly for mature candidates.

Usual award for programmes of one year or more is a certificate or diploma in a specific field of specialization.

53452. Programmes in public administration

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of instruction and group discussion, dealing with the principles and practices of public administration.

Principal course content usually includes some of the following: objectives of public policy, the theory of taxation, economic stabilization, the structure of government, the civil service, government and the community, cultural influences in government, regionalism, nationalism, and intergovernmental relations. Background courses usually include economics, sociology, political science, foreign languages, and history.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a certificate or diploma.

53462. Programmes in institutional administration

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of instruction, exercises and group discussion, dealing with the principles and practices of institutional management.

Principal course content depends on the type of institution relevant to the student's speciality, but all courses are likely to include some accounting, financial management, purchasing policy, principles of interior maintenance of buildings, personnel administration, and principle of management. In addition, special courses for the administration of hospitals, schools, institutions for the aged, etc., are included. Background studies usually include appropriate natural sciences, social sciences, mathematics, etc.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion of a programme is a certificate or diploma.

538. Law and jurisprudence programmes

This field includes programmes in education at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, dealing with principles of law and particularly the legal knowledge required by a local magistrate who is not a lawyer. Emphasis is placed on general topics, court procedures, and the law relating to the jurisdiction and functions of magistrates or similar officials who preside over local courts.

These programmes vary in subject matter because they are related to the particular procedures and competence of the courts in a particular area. Such topics as the following will be found in many programmes: the theory, philosophy, and history of law; the law in society; aspects of civil law; law enforcement procedures; legal guarantees to persons, etc.; legal requirements for contracts, and for transactions such as property transfers, inheritance, etc.; and criminal law.

Programmes are organized primarily by government departments but in some places they may be the responsibility of a law society or other body connected with the legal profession.

53800. Programmes for local magistrates (see definition under 538)

542. Natural science programmes

This field includes a variety of programmes in education at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, dealing with principles, and laboratory and field work methods in the natural sciences. The programmes are designed to prepare students for careers as relatively high-level technicians in various branches of science, emphasizing the practical, technical aspects of the subjects included with relatively little time spent on the more general, theoretical principles involved.

The principal kinds of programmes included are those dealing with biological sciences (e.g. general biology, botany, zoology, limnology, microbiology, entomology); chemistry (e.g. inorganic chemistry, organic chemistry, industrial chemistry); physics (e.g. general physics, thermal physics, spectroscopy, X-ray and radiation physics); geological sciences (e.g. geology, geophysics, physical geography, mineralogy, palaeontology); astronomy; meteorology; oceanography; metallurgy. Background courses designed to supplement and assist in mastering the major subject in these programmes include natural science courses in other subjects related to the major one, and in most cases mathematics, computer science, statistical analysis, social sciences and humanities.

Programmes may be full time or part time, day or evening. Many are of relatively short duration - i.e. less than one year - and they include retraining, refresher and sandwich courses. Practical demonstrations, field work and shop work (including periods of employment) are commonly included in these programmes. The programmes are often conducted in technical institutes or technical colleges but many different kinds of agencies sponsor them, including professional societies, employers, employers' associations, trade unions, research institutes (both public and private), etc.

Usual minimum educational prerequisite is completion of second-level education, second stage, but mature students, especially those with relevant work experience,

are often admitted with lower educational qualifications. Work experience is likely to be given more weight for retraining and refresher courses but in all cases some second-level education will be essential to permit the student to master the subject matter in these programmes.

Usual award for successful completion of a programme is a certificate or diploma indicating the kind of programme involved.

54202. Biological science programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of biological technology.

Principal course content usually includes some of the following: general botany, general zoology, microbiology, plant physiology, taxonomic botany, mammalian anatomy, ecology, limnology, animal physiology, entomology, radiation biology, wildlife biology, biochemistry, breeding and reproductive physiology. Background courses often included are animal and plant pathology; organic chemistry, inorganic chemistry, analytical chemistry; electronics, electronic measurements instruments, instrumental analysis; graphics and photography.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those with relevant work experience, are sometimes admitted with lower educational qualifications.

Usual award for successful completion is a diploma or certificate in biological science techniques.

54212. Chemistry programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of chemistry.

Principal course content usually includes some of the following: inorganic qualitative chemistry, inorganic qualitative analysis, the chemical bond, sample preparation, oil chemistry, inorganic quantitative chemistry, inorganic quantitative analysis, petroleum testing, organic chemistry (aliphatic compounds), organic chemistry (aromatic compounds), industrial organic chemistry, industrial inorganic chemistry, gas and water analysis, physical chemistry, and electrochemistry. Background courses often included are mathematics, mechanics, electronics photometry, general physics, computer programming, instrumental analysis, mineralogy, light, materials testing, biochemistry, and glass blowing.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those with relevant work experience, are sometimes admitted with lower educational qualifications.

Usual award for successful completion is a diploma or certificate in chemical techniques.

54222. Geological science programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of geological sciences.

Principal course content usually includes some of the following: geophysics, physical geology, mineralogy, petrology, field geology, mining, geological drafting, structural geology, economic geology. Background courses often included are physics, chemistry, mathematics, forestry, surveying and mapping, plotter operation and compilation, language and communication, computer programming, and instrumental analysis.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those with relevant work experience, are admitted with lower educational qualifications.

Usual award for successful completion is a diploma or certificate in geological techniques.

54232. Physics programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of physics.

Principal course content usually includes some of the following: evolution of modern physics, physical measurements, geometrical optics, wave theory, heat, statics, light, electrostatic and electromagnetic forces, thermodynamics, thermo-electricity, spectrometry, quantum mechanics, relativity, solid-state physics, and nucleonics. Background courses often included are geophysics, metrology, logic circuits, control systems, mathematics, chemistry, applied mechanics, drafting, photography, computer programming, and instrumental analysis.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those with relevant work experience, are sometimes admitted with lower educational qualifications.

Usual award for successful completion is a diploma or certificate in physics techniques.

54299. Other natural science programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction dealing with the principles of natural sciences not included in the above groups of programmes. Examples of the kinds of programmes included are those in astronomy, meteorology, oceanography, metallurgy.

Principal course content usually includes some of the following: basic astronomy, astronomical observation techniques, introductory astrophysics, astrometry, stellar classification, galactic structure; synoptic meteorology, synoptic meteorological laboratory methods, physical meteorology, meteorological instrumentation; elements of oceanography; instrumentation and methods in oceanography, physical oceanography.

Background courses often included are general biology, general physics, general chemistry, geology, mathematics, statistics, computer science.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those with relevant work experience, are sometimes admitted with lower educational qualifications.

Usual award for successful completion is a diploma or certificate which often specifies the kind of programme.

546. Mathematics and computer science programmes

This field includes a variety of programmes in education at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, dealing with the principles and practices of mathematics and computer science. Although theory is not ignored, programmes at this level emphasize the practical, technical and factual aspects of the subjects studied, spending relatively little time on the basic theoretical and general aspects.

The principal kinds of programmes included are those dealing with general mathematics, statistical methods, methods of actuarial mathematics, other applications of mathematics such as those in the field of biology, medicine, physics, astronomy, engineering, etc., and computer science including computer systems analysis, the technical aspects of computer functioning, and design of computers. The particular subject-matter of a programme depends of course on a student's speciality, but all programmes of this kind include the study of basic mathematics at this level (e.g. differential and integral calculus, analytical geometry, trigonometry, algebra, and usually probability); some courses in related subjects such as natural sciences, social sciences, or engineering; and sometimes courses in the humanities such as foreign languages, literature, philosophy.

Programmes may be full-time or part-time, day or evening. Many are of relatively short duration - i.e. less than a year - and they include retraining, refresher and sandwich courses. The programmes are usually conducted in technical institutes, technical colleges, or community colleges. They are sponsored by a wide variety of agencies, including governments, employers, employers' associations, trade unions, professional societies, etc.

Usual minimum educational prerequisite is completion of second-level education, second stage. For short courses and refresher courses, in particular, mature students with relevant work experience may be admitted with somewhat lower educational qualifications, but ability to handle the material requires at least some education at the second level, second stage.

Usual award for successful completion of a programme is a certificate or diploma usually indicating the kind of programme involved.

54601. General programmes in mathematics

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and problem sessions dealing with mathematical principles and practice. These programmes emphasize mathematical practice rather than the underlying theory.

Principal course content usually includes, i.a., differential and integral calculus, analytical geometry, trigonometry, linear algebra, and probability theory. Additional work may be taken in some cases in such subjects as mathematical logic, the theory of numbers, mathematical statistics, and differential equations. Background courses often taken in association with mathematics include surveying, general physics, general biology, astronomy, and psychology.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those having relevant work experience, are sometimes admitted with lower qualifications.

Usual award for successful completion is a diploma or certificate.

54611. Programmes in statistics

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory sessions dealing with the principles and practices of statistical analysis. These programmes emphasize the measurement techniques of the subject rather than the underlying theory.

Principal course content usually includes, i.a., general statistical methods, the theory of probability and sampling methods, measures of variance and dispersion, normal distributions, time series analysis, etc. These programmes also include basic mathematics such as differential and integral calculus, analytical geometry, and algebra. Background courses often included are chosen from the social sciences, natural sciences, and humanities.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those having relevant work experience, are sometimes admitted with lower qualifications.

Usual award for successful completion is a diploma or certificate.

54621. Programmes in actuarial science

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and problem sessions dealing with the principles and practices of actuarial science. These programmes emphasize actuarial practices rather than the underlying principles of insurance or mathematics.

Principal course content usually includes, i.a., the mathematics of investment, the construction of life tables, principles of actuarial data collection, experience rating, and usually basic mathematics such as probability theory, calculus, analytical geometry and algebra. Background courses usually include insurance law, investment policy, risk theory, principles of economics, and principles of accountancy.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those having relevant work experience, are sometimes admitted with lower qualifications.

Usual award for successful completion is a diploma or certificate.

54639. Other programmes in applied mathematics

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and problem sessions dealing with the principles and practices of applied mathematics not included in the above programme groups (i.e. 54611 or 54621). These programmes include applications of mathematics in such fields as economic analysis, biological and health sciences, physics, astronomy, engineering, etc. They are practical in orientation and designed to provide an education suitable for mathematical assistants in these areas.

Principal course content usually includes general mathematics, calculus, and analytical geometry and algebra, along with special courses suited to the student's major subject. In addition, most programmes of this type include courses in statistical analysis as well as background courses in the field of specialization chosen from the natural sciences, social sciences, humanities, engineering, computer-applied mathematics.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those having relevant work experience, are sometimes admitted with lower qualifications.

Usual award for successful completion is a diploma or certificate.

54641. Programmes in computer science

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and practice sessions in systems analysis, the theory and practice of computer functioning, new applications for computers, etc. These programmes emphasize the practical technological aspects of the subjects rather than the underlying theory.

Principal course content usually includes, i.a., general mathematics, calculus, probability theory, etc. Specialized courses in computer science tend to include the various computer languages, machine codes, programme documentation, the structure and design of the principal kinds of computer hardware, systems analysis including charting, computer applications including systems of programming, information science and programme library organization, etc. Some programmes of this kind include background courses in natural sciences, social sciences, engineering, computer-applied mathematics, etc.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those having relevant work experience, are sometimes admitted with lower qualifications.

Usual award for successful completion is a diploma or certificate.

550. Medical diagnostic and treatment programmes

This field includes a variety of programmes in education at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, dealing with theoretical and practical aspects of medicine and health. The programmes are designed to prepare students for careers in such medical and health activities as public health, nursing, midwifery, physio- and occupational therapy,

medical X-ray techniques, respiratory techniques, medical isotope techniques, biomedical electronic techniques, dental techniques, pharmacy, optometry, osteopathy, chiropractic, podiatry and orthopaedic techniques. Although theory is not ignored, these programmes are typically directed toward courses stressing the application of techniques in relevant procedures rather than the theoretical, general, and scientific principles of the subjects studied.

Important kinds of programmes included are those covering aspects of the activities mentioned above and similar kinds of activity. Background courses designed to supplement the major subject in these programmes include relevant specialities in the biological sciences (e.g. general biology, zoology, anatomy, microbiology); chemistry (e.g. organic chemistry, analytical chemistry); physics (e.g. X-rays, properties and uses of radioactive isotopes, optics); social sciences (e.g. economics, accounting, business management, sociology, psychology); often some options in the humanities. (Note that the medical technician programmes included here are those primarily concerned with assisting in medical and dental diagnostic and treatment procedures. Natural science technician programmes in the biological and other natural sciences are included in field 542).

Programmes may be either full-time or part-time, day or evening; and usually include practical demonstration and student participation in the relevant operations either as an employee or in practice sessions. Refresher courses are common. The programmes are sponsored by many kinds of agencies including, e.g., technical institutes, specialized training centres, specialized schools (e.g. schools of nursing, many of which are connected with teaching hospitals), universities and colleges.

Usual minimum educational prerequisite is completion of second-level education, second stage, but mature students, especially those with relevant work experience, are often admitted with lower educational qualifications. In all cases, however, some second-level education will be considered essential to enable the student to master the varied subject-matter content of programmes at this level.

Usual award for successful completion of a programme is a certificate or diploma indicating the kind of programme involved.

55002. Public health inspection programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction dealing with items that affect public health such as communicable diseases; standards of sanitation in the food and water supply; disposal of garbage, sewage, etc.

Principal course content usually includes subjects such as human anatomy and physiology, communicable diseases, public health organization, sanitation, food hygiene, and law and jurisprudence relating to public health. Background courses often included are biology, microbiology, chemistry, physics, mathematics, food techniques and water techniques.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a science programme. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma in sanitary inspection.

55008. Physiotherapy and occupational therapy programmes

Programmes at the third level, first stage, fo the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, laboratory and hospital instruction dealing with the treatment of the sick, using measures such as movement, application of heat, cold and ultra sound, vocational rehabilitation and physical retraining.

Principal course content usually includes courses such as basic human anatomy and physiology, body mechanics and kinesiology, electro-medical techniques, nursing orientation, clinical psychology, rehabilitation techniques, and principles of occupational therapy. Background courses often included are physical education, sociology, psychology and vocational guidance.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a science programme. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma in physiotherapy and occupational therapy.

55012. Nursing programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, hospital and laboratory instruction dealing with the care of the sick. Equal emphasis is placed on theory and practice in a hospital situation.

Principal course content usually includes subjects such as human anatomy and physiology, pharmaceutical chemistry, biochemistry, microbiology, social sciences and nursing techniques. Clinical experience in subjects such as surgery, medicine, obstetrics, gynaecology and psychology forms an indispensable part of the programme. Background courses often included are general biology, general physics, general chemistry, mathematics and humanities.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma in nursing.

55015. Midwifery programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, hospital and laboratory instruction dealing with the pre- and post-natal care of the mother and child.

Principal course content usually includes courses such as basic human anatomy and physiology, principles of obstetrics and gynaecology, midwifery practice, neonatal and infant care, expectant parent education, family organization and health behaviour, public health organization.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma in midwifery.

55017. Programmes in medical x-ray techniques

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, hospital and laboratory instruction dealing with the operation and care of X-ray equipment used for medical diagnosis.

Principal course content usually includes subjects such as basic human anatomy and physiology, diagnostic radiologic techniques, radioscope techniques, radiotherapeutic techniques, radiographic positioning, radiation protection, darkroom chemistry and nursing procedures. Background courses often included are general physics, general chemistry, mathematics, medical ethics and department administration.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma in medical X-ray technology.

55019. Other programmes in medical diagnostic and treatment techniques except dental techniques

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, hospital and laboratory instruction, dealing with diagnostic and therapeutic techniques such as respiratory techniques, medical isotope techniques, haematological, biochemical, and biomedical electronic techniques.

Principal course content usually includes subjects such as oxygen administration and therapy, humidification therapy, ventilation therapy, lung physiotherapy and resuscitation, spirometry; isotopes and their production; medical isotope techniques and radiation safety; haematological electronic analysis (electrocardiograph operation); biochemical and biomedical electronic analysis (electroencephalograph techniques). Background courses usually included are basic human anatomy and physiology, physics, chemistry, mathematics, microbiology (Note: Research laboratory techniques programmes in the natural sciences such as those in biology, chemistry and physics are classified in 542 - Natural science programmes. The programmes included here, in 550, are technology programmes concerned with diagnostic and treatment procedures).

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma in medical techniques.

55042. Dental practitioner programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction dealing with principles and practices of dental care. Students completing these programmes are qualified in some countries to practise dentistry.

Principal course content usually includes such subjects as oral anatomy and physiology, oral pathology, local anaesthesia, oral surgical procedures, dental X-ray techniques, and oral hygiene. Background courses usually include biology, chemistry, physics, dental ethics and practice management.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a dental practitioner certificate or diploma.

55046. Other programmes in dental techniques

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, hospital, and laboratory instruction dealing with the techniques of dental care, including a limited range of diagnostic, preventive, and curative services, and of assisting a dentist; dental laboratory techniques; and dental hygiene techniques.

Principal course content usually includes dental assistant subjects such as dental anatomy and physiology, oral pathology, dental materials, preventive dentistry, dental instrument care and dental hygiene; dental laboratory techniques subjects such as oral anatomy, investments and casting procedures, impression materials, dental waxes, synthetic resin materials, amalgams, dental ceramics, dental metallurgy; dental hygiene subjects such as dental health education, oral therapeutics, clinical and community dental services; operating dental auxiliary subjects such as curative dental procedures, treatment of teeth affected by dental decay, tooth extraction. Background courses often included are dental terminology, oral histology, sterilization and disinfection procedures, general chemistry, general physics, mathematics, psychology, sociology, dental law and ethics.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma in dental techniques.

55052. Pharmacy programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of drug dispensing.

Principal course content usually includes specialized pharmacy subjects such as pharmaceutical calculations, pharmaceutical preparations, biopharmaceutics,

physical pharmacy and pharmacognosy. Background courses often included are basic human anatomy and physiology, biochemistry, organic chemistry, and pharmacy management.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a science programme. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma in pharmacy.

55062. Optometry programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction dealing with testing and measuring the refraction power and visual range of the eye.

Principal course content usually includes specialized optometry subjects such as visual anatomy and physiology, optics and other principles of physics, visual defects and their correction, vision and occupation, laws of optical dispensing. Background courses often included are general biology, general chemistry, mathematics, eye exercises, and shop management.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a science programme. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma in optometry.

55099. Other medical diagnostic and treatment programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, laboratory and hospital instruction dealing with medical and health programmes not included in the above programme groups. Examples of the types of programmes included are those in osteopathic, chiropractic, and similar disciplines; orthopaedic technician; podiatric programmes.

Principal course content usually includes subjects such as general human anatomy and physiology, body mechanics and kinetics, and other aspects of human anatomy and physiology particularly related to the speciality concerned. Background courses usually included are such subjects as general biology, biochemistry, microbiology, general chemistry, general physics, psychology, mathematics, and practice management.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma.

552. Trade, craft, and industrial programmes, n.e.c.

This field includes a variety of programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, dealing with the principles and the laboratory and workshop methods in trades, crafts, and industrial processes not elsewhere classified. These programmes are designed to prepare students for careers as relatively high-level technicians in construction operations, industrial operations of various kinds, installation and repair activities, and in a variety of craft or trade operations.

The principal kinds of subject-matter usually included depend to some extent on the particular speciality of the student, but some basic subject-matter is common to this kind of programme, e.g. natural sciences such as physics and chemistry, mathematics, shop practice, hand- and machine-tool operation, and work hazards and safety. In general, the practical aspects and applications of the subjects studied are stressed rather than their theoretical, scientific or general bases. Programmes of this kind are often of the "sandwich" type, i.e. periods of study are alternated with periods of work in industrial or other enterprises.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students with relevant work experience may be admitted with lower educational qualifications, especially to relatively short-term programmes. Practical demonstration, field work and shop work form an essential part of these programmes, which are usually conducted in technical institutes or colleges and which are sponsored by a wide variety of agencies.

Usual award for successful completion of a programme is a certificate or diploma indicating the kind of programme involved.

55212. Food processing programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, laboratory and workshop study and practice, dealing with the industrial, commercial and similar processing of food.

Principal course content usually includes some of the following: biology, chemistry, theory and principles of food processing, sanitation, quantity food preparation and processing, food handling, food purchasing, test cooking, food preservation, business management, human relations, merchandising, and the techniques of industrial cooking equipment. Emphasis is placed on the achievement of practical competence and skill. Programmes often consist of alternating periods of study and work in industrial and other enterprises (sandwich courses).

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students with relevant work experience may be admitted with lower qualifications, especially into programmes designed to upgrade the performance of those already employed.

Usual award for programmes of one year or more, typically given in technical or similar institutes, is a certificate or diploma. For short courses, many of which are sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given.

55222. Electrical and electronics trades programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, laboratory and workshop study and practice dealing with the applications of electricity and electronics; the installation, operation, and maintenance of electrical equipment, machinery and appliances in factories, buildings, and homes; the installation and servicing of electronic equipment such as radio and television apparatus, electronic controls, electronic computers, and electronic navigation aids.

Principal course content usually includes some of the following: fundamentals of electricity, principles of electronics, industrial electronics, shop practice, electric power and illumination, electrical test equipment, installation, repair and maintenance of electrical machines, transmission and distribution of electric power, special electronic circuitry, electronic components, electronic test equipment, physics, mathematics. Emphasis is given to the achievement of practical competence and skill. Programmes often consist of alternating periods of study and work in industrial and other enterprises (sandwich courses).

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students with relevant work experience may be admitted with lower qualifications, especially into programmes designed to upgrade the performance of those already employed.

Usual award for programmes of one year or more typically given in technical or similar institutions is a certificate or diploma from the institution or from the examining board of a professional or technical organization. For short courses, many of which are sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given.

55232. Metal trades programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, laboratory and workshop study and practice, dealing with the shaping, treating, cutting, testing, etc., of metals as done in machine shops, sheet metal shops, welding shops and foundries.

Principal course content usually includes some of the following: fundamentals of metallurgy, blueprint reading, strength of metals, use of testing equipment, elementary physics, work programming, machine shop practice, layout of work, foundry practice, sheet metal work, tool and diemaking, mechanics of solids, liquids, and gases, internal combustion engine repair and maintenance, pneumatics, hydraulics. Emphasis is placed on the achievement of practical competence and skill. Programmes often consist of alternating periods of study and work in industrial and other enterprises (sandwich courses).

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students with relevant work experience may be admitted with lower qualifications, especially into programmes designed to upgrade the performance of those already employed.

Usual award for programmes of one year or more, typically given in technical or similar institutes, is a certificate or diploma issued by the institution or by the examining board of a professional or technical organization. For short courses,

many of which are sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given.

55242. Mechanical and mechanical repair trades programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, laboratory and workshop study and practice, dealing with mechanical and mechanical repair trades involving the assembly, fitting, repair, and maintenance of such equipment as industrial and commercial machinery; agricultural, mining, and construction machinery; transport equipment, including motor vehicles.

Principal course content usually includes some of the following: blueprint reading, physical qualities of metals, use of testing equipment, elementary physics, chemistry, work programming, operation of machine tools, layout work, adjusting and testing of machines and mechanical equipment, internal combustion engine repair and maintenance, repair and maintenance of attachments such as carburetters, fuel pumps, etc., repair and maintenance of mechanical assemblies such as transmission, differentials, and drive-train components, legal provisions governing the use, repair, and maintenance of mechanical equipment and vehicles, installation, repair, and maintenance of elevating and hoisting equipment and the legal provisions governing their use and maintenance, occupational hazards and safety. Emphasis is placed on the achievement of practical competence and skill. Programmes often consist of alternating periods of study and work in industrial and other enterprises (sandwich courses).

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students with relevant work experience may be admitted with lower qualifications, especially into programmes designed to upgrade the performance of those already employed.

Usual award for programmes of one year or more, typically given in technical or similar institutes, is a certificate or diploma issued by the institution or by the examining board of a professional or technical organization. For short courses, many of which are sponsored by employers or by employers' associations, a certificate of satisfactory completion is usually given.

55264. Heating, air-conditioning, and refrigeration trades programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, laboratory and workshop study and practice, dealing with the assembling, fitting, adjusting, installing, and maintaining of equipment for controlling the temperature and humidity of an enclosed air space.

Principal course content usually includes some of the following: principles of refrigeration and of various refrigeration systems, characteristics of refrigerants, operation of refrigerators of different design, unit air conditioners, central air-conditioning systems, central heating systems, hot-air heating systems, hot-water heating systems, steam heating systems, measures of capacity for heating and air-conditioning systems, elementary physics, thermodynamics, properties of metals and other materials used in heating, refrigerating, and air-conditioning systems, principles of temperature and humidity controls including thermostats, humidistats, etc. Most programmes at this level also include study of physical science, mathematics, and subjects related to temperature and humidity control such as insulation, types of building construction, etc. Emphasis is placed on the achievement of practical competence and skill. Programmes often consist of alternating

periods of study and work in industrial and other enterprises (sandwich courses).

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students with relevant work experience may be admitted with lower qualifications, especially into programmes designed to upgrade the performance of those already employed.

Usual award for programmes of one year or more, typically given in technical or similar institutes, is a certificate or diploma issued by the institution or by the examining board of a professional or technical organization. For short courses, many of which are sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given.

55274. Programmes in textile techniques

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, laboratory and workshop study and practice, dealing with the properties and uses of natural and man-made textile fibres, and the production of materials and other products from natural and man-made fibres.

Principal course content usually includes some of the following: characteristics and classification of natural and man-made fibres and filaments; textile dyeing; production of man-made filaments and fibres; preparation of natural fibres for processing; operation and maintenance of spinning or twisting and of weaving machinery; filament and textile testing; weaving techniques, including jacquard and other methods; quality control in textiles; organic chemistry; and mathematics. Emphasis is given to the achievement of practical competence and skill. Programmes often consist of alternating periods of study and work in industrial and other enterprises (sandwich courses).

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students with relevant work experience may be admitted with lower qualifications, especially into programmes designed to upgrade the performance of those already employed.

Usual award for programmes of one year or more, typically given in technical or similar institutes, is a certificate or diploma issued by the institution or by the examining board of a professional or technical organization. For short courses, many of which are sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given.

55278. Graphic arts programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, laboratory and workshop study and practice, dealing with the principles and practices of printing and photography.

Principal course content usually includes some of the following: printing processes; letterpress; lithography; rotogravure; silk-screen process; typography; photoengraving; types of paper and uses; printing materials; colour vision and methods of colour reproduction; camera and other photographic techniques in the preparation of printed plates. Emphasis is given to the achievement of practical competence and skill. Programmes often consist of alternating periods of study and work in industrial and other enterprises (sandwich courses).

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students with relevant work experience may be admitted with lower qualifications, especially into programmes designed to upgrade the performance of those already employed.

Usual award for programmes of one year or more, typically given in technical or similar institutes, is a certificate or diploma issued by the institution or by the examining board of a professional or technical organization. For short courses, many of which are sponsored by employers or employers' associations, a certificate of satisfactory completion is usually awarded.

55284. Laboratory technician programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, laboratory and workshop study and practice, dealing with principles and practices involved in making, setting up and repairing scientific laboratory equipment, instruments and machines.

Principal course content usually includes some of the following: basic natural sciences; machining, shaping and other fine mechanical processing in metal, wood, plastics, glass, etc.; calibrating of instruments; instrument repair; laboratory safety; collection, handling, preservation, disposal and shipment of specimens; instrumentation; sterilization and disinfection; manipulation of laboratory glass and plastic ware. Emphasis is given to the achievement of practical competence and skill in the laboratory. Programmes often involve alternating periods of study and work in scientific laboratories to develop the required competence.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students with laboratory experience and demonstrated aptitude may be admitted with lower educational qualifications.

Usual award for the completion of programmes of one year or more, typically given in technical or similar institutes, is a certificate or diploma issued by the institution or by an examining board. For short courses, a certificate of satisfactory completion is often given.

55286. Optical-lens-making programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, laboratory and workshop study and practice, dealing with the techniques of optical-lens-making.

Principal course content usually includes some of the following: light dispersion, interference, polarization, refraction and diffraction; properties of materials used for lens-making; geometrical optics; materials used for lens-grinding; methods and equipment used for lens-grinding; centreing, edging, mounting, and testing of lenses; nature and function of optical equipment; lens systems; compounding lenses; elementary physics; and mathematics. Emphasis is placed on the achievement of practical competence and skill. Programmes often consist of alternating periods of study and work in industrial and other enterprises (sandwich courses).

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students with relevant work experience may be admitted with lower qualifications, especially into programmes designed to upgrade the performance of those already employed.

Usual award for successful completion of programmes of one year or more, typically given in technical or similar institutes, is a certificate or diploma issued by the institution or by the examining board of a professional or technical organization. For short courses, many of which are sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given.

55299. Other trade, craft, and industrial programmes, n.e.c.

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, laboratory and workshop study and practice, dealing with the principles and practices of trade, craft and industrial processes not covered by the above group definitions (i.e. 55212 to 55286).

Principal course content includes some background subjects common to programmes of this kind, e.g. natural sciences including physics and chemistry; mathematics; shop practice; hand- and machine-tool operation; and work hazards and safety. Other subjects depend on the student's speciality and in all cases the practical aspects and applications of the subject are stressed. Programmes dealing with industrial processes often include some courses in production methods, quality control, record-keeping methods, and industrial management.

Many programmes are of the sandwich type, i.e. they consist of alternating periods of study and of work in industrial and other enterprises.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students with relevant work experience may be admitted with lower qualifications.

Usual award for programmes of one year or more, typically given in technical or similar institutes, is a certificate or diploma issued by the institution or by the examining board of a professional or technical organization. For short courses, many of which are sponsored by employers or employers' associations, a certificate of satisfactory completion is usually given.

554. Engineering programmes

This field includes a variety of programmes in education at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, dealing with principles and laboratory and field work methods in engineering techniques. The programmes are designed to prepare students for careers as relatively high-level technicians in various branches of engineering, emphasizing the practical, technical aspects of the subject included with relatively little time spent on the more general, theoretical principles involved.

The principal kinds of programmes included are those dealing with land surveying (including photogrammetry), engineering drafting and design, chemical engineering techniques (including materials techniques), industrial engineering techniques (including petroleum- and gas-extraction techniques), metallurgical engineering techniques, mining engineering techniques, mechanical engineering techniques

(including techniques in the design and development of space vehicles, aeronautical engineering techniques, and marine engineering techniques), agricultural, forestry, and fishery engineering techniques, etc. Background courses designed to supplement and assist in mastering the major subject in these programmes include engineering techniques, subjects from programmes related to the major one, and appropriate subjects selected from related fields such as mathematics, natural sciences, social sciences, commercial and business administration, statistics and computer science.

Programmes may be full-time or part-time, day or evening. Many are of relatively short duration -- i.e. less than one year -- and they include retraining, refresher, and sandwich courses. Practical demonstrations, field work, and shop work (including periods of employment) are commonly included in these programmes. The programmes are often conducted in technical institutions or technical colleges, but many different kinds of agencies sponsor them, including professional societies, employers, employers' associations, government agencies (including the armed forces), research institutes, etc.

Usual minimum educational prerequisite is completion of second-level education, second stage, but mature students, especially those with relevant work experience, are often admitted with lower educational qualifications. Work experience is likely to be given more weight for retraining and refresher courses, but in all cases some second-level education will be essential to permit the student to master the subject matter in these programmes.

Usual award for successful completion of a programme is a certificate or diploma indicating the kind of programme involved.

55402. Programmes in surveying

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom instruction and field work dealing with the principles and practices of surveying. The programmes normally last three years, full-time.

Principal course content usually includes some of the following: mathematics, physics, computer science, survey drafting mensuration, plane surveying, legal surveying, advanced plane surveying, municipal engineering, spherical trigonometry, astronomy, town planning, photogrammetry, geodetic surveying, airphoto interpretation, optics and optical tooling, modern survey methods.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a certificate or diploma in surveying.

55406. Programmes in drafting and design

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and practice sessions dealing with the principles and practices of drawing for blueprints of buildings, machinery, and other subjects; plans for layouts of streets, public works, community development, etc. The programmes may last from one to three years.

Principal course content usually includes mechanical drawing, engineering drawing, the use of equipment such as pantograph, drawing instruments, etc.; mathematics including plane geometry, trigonometry, and algebra; basic engineering subjects such as applied mechanics, engineering graphics, theory of structures, electrical circuitry, etc.; and usually some related subjects such as surveying, principles of architecture, town planning, photogrammetry, etc.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a certificate or diploma.

55412. Programmes in chemical engineering and materials techniques

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of chemical engineering techniques. Generally these programmes emphasize the application of mathematics, physics and chemistry to problems in the chemical process industries. The programmes usually last three years, full-time.

Principal course content usually includes some of the following: mathematics, physics, basic electronics, analytical chemistry, organic chemistry, inorganic chemistry, industrial chemistry, engineering economics, chemical instrumentation, physical chemistry, X-rays and radio chemistry, organic analysis, unit operations, engineering materials.

Usual minimum educational prerequisite is completion of second-level education, second stage, with emphasis on science subjects.

Usual award for successful completion is a certificate or diploma in chemical engineering techniques.

55416. Programmes in civil engineering techniques

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of civil engineering techniques. These programmes provide training for careers in the many phases of the design and construction of structural projects such as buildings, bridges, dams, highways, techniques, etc., and in the planning, construction, inspection, and maintenance of municipal services. The programmes usually last three years, full-time.

Principal course content usually includes some of the following: physics, chemistry, mathematics, applied mechanics, computer science, engineering graphics, electrical circuits, surveying, construction methods, strength of materials, theory of structures, design of structures, mechanics of fluids, highway technology, reinforced concrete, structural steel design, hydraulics, sanitary technology, contracts and specifications, hydrology, foundations.

Usual minimum educational prerequisite is completion of second-level education, second stage, with emphasis on science subjects.

Usual award for successful completion is a certificate or diploma in civil engineering techniques.

55422. Programmes in electrical and electronics engineering techniques

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of the principles and practices of electrical and electronics engineering techniques. These programmes are concerned with the generation, control, distribution and utilization of electrical energy, with electronic circuit design and analysis, and the application of electronic equipment to the control of industrial processes and electrical apparatus. The programmes usually last three years, full-time.

Principal course content usually includes some of the following common to both electrical and electronic techniques : physics, chemistry, mathematics, applied mechanics, computer programming, electrical measurements, circuit analysis, electronic devices, electronics, communications, introduction to electrical machines, logic circuits, control systems.

For electrical technology: electrical machines, power systems, pulse circuits, electrical design, instrumentation and telemetry.

For electronic technology: linear electronics, integrated circuits, communications, electronic systems, microwaves and radar, television systems.

Usual minimum educational prerequisite is completion of second-level education, second stage, with emphasis on science subjects.

Usual award for successful completion is a certificate or diploma in electrical or electronics engineering technology.

55426. Programmes in industrial engineering techniques

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of industrial engineering techniques. These programmes are concerned with the problems of organization, supervision, scheduling and materials handling. Emphasis is placed on effectiveness and efficiency in the design and operation of complex automated production systems. The programmes usually last three years, full-time.

Principal course content usually includes some of the following: physics, chemistry, mathematics, basic electricity, dynamics, mechanics of materials, production management, work study, engineering economy, computer programming, business and technical communication, statistical quality control, operations research, plant layout and materials handling, industrial psychology, production control, manufacturing processes.

Usual minimum educational prerequisite is completion of second-level education, second stage, with emphasis on science subjects.

Usual award for successful completion is a certificate or diploma in industrial engineering techniques.

55432. Programmes in metallurgical engineering techniques

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and

laboratory instruction dealing with the principles and practices of metallurgical engineering techniques. These programmes are concerned with the theoretical and practical study of the chemical and physical nature of metallic materials, the recovery of metals from their ores, the structure and properties of metals and their alloys and how these properties are utilized in engineering applications. The programmes usually last three years, full-time.

Principal course content usually includes some of the following: mathematics, chemistry, physics, electricity and magnetism, engineering graphics, mechanics of materials, industrial instrumentation, electrical machines, physical metallurgy, mechanical metallurgy and foundry, non-metallic materials, metal fabrication, computer programming, physical chemistry, heat treatment, extractive metallurgy, electrochemistry, analysis of metals, flotation, metallurgical calculations.

Usual minimum educational prerequisite is completion of second-level education, second stage, with emphasis on science subjects.

Usual award for successful completion is a certificate or diploma in metallurgical engineering techniques.

55436. Programmes in mining engineering techniques

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction and field trips dealing with the principles and practices of mining techniques. These programmes are concerned with the exploration for mineral deposits, mine development, mine production, mine plant engineering and design, and petroleum-well drilling and petroleum- and gas-extraction techniques. The programmes usually last three years full-time, occasionally two years.

Principal course content usually includes some of the following: mathematics, physics, chemistry, mechanics, basic geology, history and economics of mining, including petroleum extraction, strength of materials, mine surveying, mining geology, metallurgy, mining methods, mine organization and operation, mine ventilation and dust control, developments in mining methods, petroleum-extraction techniques, work study, introduction to operations research, rock mechanics techniques, statistics, economic geology.

Usual minimum educational prerequisite is completion of second-level education, second stage, with emphasis on science subjects.

Usual award for successful completion is a certificate or diploma in mining engineering techniques or mining techniques.

55442. Programmes in mechanical engineering techniques

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of mechanical engineering techniques, including marine engineering and aeronautical engineering. These programmes are concerned with energy conversion and with the design, manufacture, installation, operation, and maintenance of all kinds of mechanical devices. The programmes usually last three years, full-time.

Principal course content usually includes some of the following: physics, chemistry, mathematics, engineering graphics, electrical circuits, electrical machines, mechanics of machines, strength of materials, engineering drawing and design, applied thermodynamics, materials science, aerodynamics, aircraft stability and control, fluid mechanics, machine design, manufacturing processes, electrical equipment applications, instrumentation, cybernetics servo-mechanisms, production engineering, computer programming, metallurgy and welding, thermal systems, engineering economy.

Usual minimum educational prerequisite is completion of second-level education, second stage, with emphasis on science subjects.

Usual award for successful completion is a certificate or diploma in mechanical engineering techniques.

55452. Programmes in agricultural, forestry, and fishery engineering techniques

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom, laboratory instruction and field work, dealing with the principles and practices of agricultural, forestry, and fishery engineering. Agricultural engineering is concerned with the application of mechanization for the development of farm land, soil and water conservation, irrigation, crop production, harvesting, handling, storage and processing of agricultural products, the design of farm structures and machinery; while forestry engineering is concerned with the application of engineering principles to forestry problems, with emphasis on logging operations, and fishery engineering with applying engineering principles to fishery problems. These programmes emphasize mainly the practical and technological aspects of the subjects studied rather than their theoretical principles.

Principal course content usually includes some of the following: the design and construction of farm equipment and its practical application to agriculture, soil and water conservation, irrigation and drainage systems, analysis of farm production systems, production planning and control in logging, logging techniques, logging transportation, forest mensuration, the design and construction of fishing gear including equipment for hatcheries and other fishery protection facilities, etc. These programmes usually include related subjects such as mathematics, natural sciences, agricultural economics and forestry economics, drafting, and perhaps some social sciences.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a certificate or diploma.

55499. Other engineering programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of engineering techniques. This group includes programmes in engineering techniques not elsewhere classified, such as welding techniques, techniques of plastics. The programmes usually last three years, full-time.

For welding techniques (as an example), principal course content usually includes some of the following: physics, chemistry, mathematics, applied mechanics, engineering graphics, electrical circuits, computer programming, mechanics of machines, mechanics of materials, engineering drawing and design, manufacturing processes, fundamental electronics, welding analysis, metallurgy, electrical and electronics control systems, machine design, non-destructive testing, welding processes, fluid mechanics, structural design.

Usual minimum educational prerequisite is completion of second-level education, second stage, with emphasis on science subjects.

Usual award for successful completion is a certificate or diploma in the appropriate engineering technique.

558. Architectural and town-planning programmes

This field includes a variety of programmes in education at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, dealing with the principles and methods of structural architecture, landscape architecture, and town or community planning, through classroom instruction, projects and, where applicable, field work. The programmes are designed to prepare students for careers as relatively high-level technicians, and therefore stress the practical and technical aspects of the subjects included, with relatively little time spent on the more general, theoretical, and historical principles.

The principal kinds of programmes included are those dealing with structural architecture (building techniques, draughtsmanship, building materials, building services, measurement, surveying and design procedures); landscape architecture (planting design, earth grading, drainage and irrigation systems, etc.), and town or community planning (urban planning projects, urban redevelopment, urban transit systems in relation to community planning, etc.). Programmes of this type usually include background courses designed to supplement and to assist in mastering the major subject. These usually include some courses in architectural and town-planning programmes other than the one being followed by the student, courses in relevant engineering areas, courses in related agricultural subjects for students in surveying, cartography, and other landscape architecture, and courses in fields such as mathematics, statistics, natural sciences, social sciences, and the humanities.

Programmes may be full-time or part-time, day or evening. Many are of relatively short duration, and include retraining, refresher, and sandwich courses. Practical demonstrations, field work, and projects designed to enhance the student's appreciation of the subjects form an important part of these programmes. Programmes are usually conducted at technical institutes or technical colleges, although they may be sponsored by a variety of agencies.

Usual minimum educational prerequisite is completion of second-level education, second stage, but mature students, especially those with relevant work experience, are often admitted with lower educational qualifications. Work experience is likely to be given more weight for retraining and refresher courses, but in all cases some second-level education will be essential to permit the student to master the subject matter in these programmes.

Usual award for successful completion of a programme is a certificate or diploma indicating the kind of programme involved.

55801. General programmes in architecture and town planning

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction, dealing with the principles and practices of architecture and town planning. These are general programmes in the sense that they cover the whole field with no particular specialization in any aspect of it. They deal primarily with the technical and practical aspects rather than with the theoretical and scientific principles involved.

Principal course content usually includes, inter alia, the history of architecture, architectural drawing, building methods, materials, and assemblies, mechanical equipment of buildings, general landscape architecture, earth grading, draining, and planting techniques, some courses in arboriculture, floriculture, etc., including fertilizer and pest control techniques, urban development, urban planning, social and institutional factors involved in physical urban planning, urban transportation systems, etc. Background courses usually include some study of civil engineering techniques, selected natural sciences, social sciences, and commercial or business subjects, mathematics, and geography.

Usual minimum educational prerequisite is completion of second-level education, second stage, but mature applicants with relevant work experience may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma in architecture and town planning.

55802. Programmes in structural architecture

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of architecture. These programmes deal primarily with the technical and practical aspects of architecture rather than with the theoretical and scientific principles involved.

Principal course content usually includes, i.a., the history of architecture, architectural drawing, building methods, materials, and assemblies, mechanical equipment of buildings. Background courses usually include basic civil engineering, relevant courses from the natural sciences, social sciences, humanities, fine arts, and law (local ordinances).

Usual minimum educational prerequisite is completion of second-level education, second stage, but mature applicants with relevant work experience may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma in architectural techniques.

55812. Programmes in landscape architecture

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, consisting of classroom, laboratory and practical demonstrations dealing with the principles and practices of landscape architecture. These programmes emphasize the technological and practical aspects of landscape architecture rather than the theoretical and scientific principles involved.

Principal course content usually includes, i.a., the history of landscape architecture, landscape graphics and drafting, earth grading, drainage, planting techniques, and selected courses in agricultural techniques such as soil chemistry, fertilizer techniques, arboriculture, floriculture, etc. Background courses usually include some study of town-planning techniques, civil engineering techniques, selected natural sciences, social sciences, and commercial or business subjects.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature applicants with relevant work experience may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma in landscape architecture.

55822. Programmes in town or community planning

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, consisting of classroom, laboratory and practical demonstrations dealing with the principles and practices of town or community planning. These programmes deal primarily with the technical and practical aspects of community planning rather than with the underlying theoretical and scientific principles.

Principal course content usually includes, i.a., the history of modern urban development, typical urban planning projects, social and institutional factors involved in physical urban planning, the rôle of urban transportation systems, construction of models using various materials, the graphics of community development. Most programmes of this kind also involve study of relevant specialities in sociology, economics, psychology, structural architecture, mathematics, civil engineering, and geography. Some programmes also include statistics, computer programming and systems design.

Usual minimum educational prerequisite is completion of second-level education, second stage, but mature applicants with relevant work experience may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma in town or community planning.

562. Agricultural, forestry, and fishery programmes

This field includes a variety of programmes in education at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, designed to impart theoretical and practical knowledge of the agricultural, forestry or fishery operations required to engage in such operations as owner or manager of a medium- or small-scale enterprise or for employment as a technician. Although theory is not ignored, typically in these programmes attention is directed toward courses stressing the application of techniques in relevant operations rather than the theoretical, general and scientific principles of the subjects studied.

Important kinds of programmes included are those dealing with animal husbandry, crop husbandry, horticulture, soil and water techniques, agricultural economics and farm management, health of animals, food techniques (e.g. dairying, fruit processing);

management and utilization of forest resources including watersheds, wildlife and recreational areas; management, utilization and conservation of fishery resources. Background courses usually required include some natural sciences such as biology and chemistry; some social sciences such as economics and sociology; some mathematics and statistics. (Note that programmes in agricultural, forestry and fishery engineering techniques are included in field 554 - Engineering programmes).

Programmes and courses may be full-time or part-time, and usually include practical demonstration as well as student participation in relevant operations either as an employee or in practice sessions. (Refresher courses are common). These programmes are sponsored and conducted by many kinds of agencies - both public and private - including technical institutes, specialized training centres, research and development agencies, co-operative societies, etc.

Usual minimum educational prerequisite is completion of second-level education, second stage, but mature students, especially those with relevant work experience, are often admitted with lower educational qualifications. In all cases, however, some second-level education will be found essential, the important factor being ability to master the varied subject-matter content at this level.

Usual award for successful completion of a programme is a diploma or certificate indicating the kind of programme involved.

56201. General programmes in agriculture

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and field instruction dealing with the principles and practices of agriculture at the production level.

Principal course content usually includes some of the following: hay and pasture crops, grain and miscellaneous crops, vegetable and fruit crops, ornamental horticulture, agricultural botany, agricultural zoology, agricultural microbiology, livestock improvement, animal feeds, weed control, pest control, farm management. Background courses often included are zoology, chemistry, animal diseases, botany, marketing, and agricultural engineering.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a diploma or certificate in agricultural techniques.

56203. Animal husbandry programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and field instruction dealing with the principles and practices of animal husbandry.

Principal course content usually includes some of the following: animal anatomy and physiology, animal breeding, livestock production, animal pathology, animal nutrition, poultry breeding and poultry products techniques. Background courses usually include zoology, microbiology, chemistry, marketing and farm management.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a diploma or certificate in agricultural techniques.

56206. Horticulture programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and field instruction dealing with the principles and practices of horticulture.

Principal course content usually includes some of the following: principles of horticulture, greenhouse methods, landscape gardening, crop growth and culture, plant pathology, floriculture, pest control, orchard planning and management, truck gardening, nursery management, etc. Many of these programmes include background courses designed to assist in the understanding and development of the horticultural subjects, some examples being marketing, biological sciences such as entomology, botany, chemistry, and farm management.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a diploma or certificate in agricultural techniques.

56208. Crop husbandry programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and field instruction dealing with the principles and practices of crop husbandry.

Principal course content usually includes some of the following: field crop production, forage crops, grain crops, cropping systems, pest contol, weed control, soil science and soil preparation. Background courses usually include marketing, entomology, chemistry, botany, plant pathology and farm management.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a diploma or certificate in agricultural techniques.

56212. Agricultural economics programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and field instruction dealing with the principles and practices of agricultural economics.

Principal course content usually includes some of the following: principles of agricultural economics, principles of marketing, farming systems, farm management and

production economics, accounting and financial records, agricultural policy, and farm credit policy. Background courses usually include mathematics, principles of economics, crop husbandry, animal husbandry and agricultural engineering.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma in agricultural economics.

56226. Soil and water technician programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and field instruction dealing with the principles and practices of soil and water techniques.

Principal course content usually includes some of the following: principles of soil science, soil classification, soil analysis, soil management systems, soil and water conservation. Background courses usually include forest soils management, hydrology, hydrogeology, water purification, water transportation, mathematics, economics and chemistry.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a diploma or certificate in soil and water techniques.

56232. Veterinarian technician programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and field instruction dealing with the principles and practices of animal health and the diagnosis and treatment of disease in animals.

Principal course content usually includes some of the following: principles of veterinary medicine, veterinary anatomy, veterinary pathology, pharmacology and parasitology, elements of veterinary surgery and veterinary public health. Background courses usually include: animal science, animal breeding, animal selection and evaluation, genetics, livestock nutrition, chemistry, mathematics, and general biology.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a diploma or certificate in animal health.

56249. Other programmes in agriculture

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and

field instruction dealing with the principles and practices of an agricultural programme not covered by any of the above programme groups.

Principal course content will be related to the speciality, for example, apiculture, sericulture, and other insect cultures; fur farming; mushroom growing; growing of trees for their sap, as rubber production or maple sugar production. In all these programmes, general agricultural courses are included along with background courses such as biology, botany, entomology, chemistry, marketing, business management and accountancy.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those with relevant work experience, may be admitted with lower educational qualifications.

Usual award for successful completion is a diploma or certificate in agricultural techniques.

56262. Programmes in forestry and forest-product techniques

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and field instruction dealing with the principles and practices of forestry and forest product techniques.

Principal course content usually includes some of the following: general forestry, silviculture, wood technology, forest scaling, forest entomology, fire control, forest improvement, forest cropping, woodlot management, and wildlife management. Background courses usually include: general botany, surveying, photogrammetry, lumber grading, forest road techniques, bookkeeping and marketing of forest products.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a diploma or certificate in forestry.

56272. Fishery technician programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and field instruction dealing with the principles and practices of the fishery.

Principal course content usually includes some of the following: elements of fishery techniques, fish culture, fish propagation, fishing gear techniques, fish detection, and fishery aspects of water pollution. Background courses usually include: aquatic biology, oceanography, ichthyology, seamanship, marine law; fishing vessels machinery and fishery law and regulation.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a diploma or certificate in fisheries techniques.

566. Home economics (domestic science) programmes

This field includes a variety of programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily concerned with studies in home economics, including household arts. In these programmes, attention is directed toward the practical application of the subjects included rather than to the underlying theory or general principles involved.

Principal kinds of programmes include those dealing with general home economics, those emphasizing household food management and nutrition, those emphasizing child care and family well-being, those emphasizing household arts such as interior decoration, clothing design and dressmaking, household management and budgeting, etc. These programmes cover a variety of subject-matter in the natural sciences, social and behavioural sciences, the fine arts and humanities, the subjects being chosen in accordance with the various specialities included.

Programmes may be full-time or part-time, day or evening. The full-time programmes are generally conducted in technical institutes, technical colleges, or community colleges, as are some of the part-time programmes. Other part-time programmes may be held in community centres, co-operatives, and the like. The programmes are sponsored by a wide variety of agencies.

Usual minimum educational prerequisite is completion of second-level education, second stage. Particularly for the shorter programmes, mature applicants having relevant experience may be admitted with somewhat lower educational qualifications.

Usual award for successful completion of a programme is a certificate or diploma.

56601. General programmes in home economics

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory sessions dealing with the applications of science to problems connected with the running of homes and institutions and home economics extension programmes.

Principal course content usually includes, i.a., foods, nutrition, and diet; child development and psychology; clothing and textiles; family life and home and institutional management. Background courses often included are psychology, economics, sociology, mathematics, and biology, chemistry and organic chemistry.

Periods of practical work in institutions and in working with families are often emphasized. Greater weight is assigned to practical results than to the pursuit of theory. Programmes are typically given in colleges or in technical or similar institutes, and last one year or more. However, many of the programmes are specialized in one or two subjects and may last only three or four weeks.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature applicants, especially those with relevant work experience, are often admitted with lower qualifications, particularly to sandwich courses designed to upgrade the qualifications of those already employed.

Usual award for successful completion of a programme is a certificate or diploma.

56612. Programmes with emphasis on household food management and nutrition

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory sessions dealing with the applications of science to problems connected with the running of homes and institutions.

Principal course content usually includes specialized subjects such as foods, nutrition, and diet; experimental foods; food service; food chemistry; and general home and institutional management. Background courses often included are chemistry, organic chemistry, biology, sociology, economics, mathematics, and physics.

Periods of practical work in institutions are often emphasized. Greater weight is assigned to practical results than to the pursuit of theory. Programmes are typically given in colleges or in technical or similar institutes, and last one year or more. However, many of the programmes are specialized in one or two subjects and may last only three or four weeks.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature applicants, especially those with relevant work experience, are often admitted with lower qualifications, particularly to sandwich courses and courses designed to upgrade the qualifications of those already employed.

Usual award for successful completion of a programme is a certificate or diploma.

56622. Programmes with emphasis on child care

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and laboratory sessions dealing with the applications of science to problems connected with the running of homes and institutions.

Principal course content usually includes, i.a., specialized courses in child psychology and development; nursery equipment and activities; pre-school education methods; nursery education practice; parent education; and foods and nutrition. Background courses often included are psychology, sociology, biology and chemistry.

Periods of practical work in institutions are often emphasized. Greater weight is assigned to practical results than to the pursuit of theory. Programmes are typically given in colleges or in technical or similar institutes, and last one year or more. However, many of the programmes are specialized in one or two subjects and may last only three or four weeks.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature applicants, especially those with relevant work experience, are often admitted with lower qualifications, particularly to sandwich courses and courses designed to upgrade the qualifications of those already employed.

Usual award for successful completion of a programme is a certificate or diploma.

56632. Programmes with emphasis on household arts

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom and

laboratory sessions dealing with the applications of science to problems connected with the running of homes and institutions.

Principal course content usually includes specialized courses in art and design; dress design, flat pattern making, and dressmaking; home furnishing; house planning, and home management. Background courses often included are mathematics, sociology, economics, history and languages. Periods of practical work in institutions are often emphasized. Practical results are considered more important than the pursuit of theory. Programmes are typically given in colleges or in technical or similar institutes and last one year or more. However, many of the programmes are specialized in one or two subjects and may last only three or four weeks.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature applicants, especially those with relevant work experience, are often admitted with lower educational qualifications, particularly to sandwich courses and courses designed to upgrade the qualifications of those already employed.

Usual award for successful completion of a programme is a certificate or diploma.

56699. Other home economics programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, not included in the preceding home economics programme groups (i.e. 56601 to 56632), primarily consisting of classroom and laboratory sessions dealing with the applications of science to problems connected with the running of homes and institutions and home economics extension programmes.

Principal course content depends on the particular area of specialization or courses may be combined in some unusual way to reflect a specialized programme. In addition, courses in chemistry, biology and physics are often included.

Periods of practical work in institutions are often emphasized. Practical results are considered more important than the pursuit of theory. Programmes are typically given in colleges or in technical or similar institutes, and last one year or more. However, many of the programmes are specialized and may last only three or four weeks.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature applicants, especially those with relevant work experience, are often admitted with lower educational qualifications, particularly to sandwich courses and courses designed to upgrade the qualifications of those already employed.

Usual award for successful completion of a programme is a certificate or diploma.

570. Transport and communications programmes

This field includes a variety of programmes in education at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, dealing with the principles and practices of subjects in the technology of transport and communications operations. In these programmes, attention is directed

mainly toward the practical application and technological aspects of the subjects included rather than toward the underlying theory or general principles.

Principal kinds of programmes included are those dealing with the technology of air crew operations, including air piloting, navigation, and service to passengers in flight; ships' officer programmes, such as those required for deck and engineering officers, programmes for other ships' personnel; railway operating trades programmes such as those for engine drivers, conductors, dispatchers, etc.; road motor vehicle operating programmes; programmes in the installation and maintenance of communications equipment; postal service programmes, and other communications programmes such as those in telegraphy, etc. A programme in any of these subject areas usually contains some background courses in related subjects in the natural sciences, social and behavioural sciences, commercial and business administration, mathematics and statistics, selected in accordance with the programme's particular speciality.

Programmes may be full-time or part-time, day or evening. Full-time programmes are generally conducted in technical institutes, technical colleges, or community colleges, as are some part-time programmes. Other part-time programmes are often conducted in special schools set up by transport authorities, professional societies, and the like. Although full-time programmes generally last for more than one year, the part-time ones are often of short duration, i.e. a few months, and tend to be of the retraining, refresher, and sandwich course type.

Usual minimum educational prerequisite is completion of second-level education, second stage. Especially in the case of shorter programmes, some applicants may be admitted with lower educational qualifications upon demonstration of ability to handle the subject matter.

Usual award for successful completion of a programme is a certificate or diploma, usually indicating the kind of programme involved.

57002. Air crew programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, consisting of lectures, classroom or group discussion and on-the-job experience designed to provide training in air crew activities. Although some consideration is given to the theoretical aspects of flight and aircraft operation, the programmes' main emphasis is on the practical skills and knowledge required for air crew personnel.

Principal course content usually includes, i.a., communications procedure; flight procedure; the operation of communications and navigation equipment; navigation; physics; electronics; mathematics. Periods of apprenticeship are a compulsory feature of these programmes.

Programmes, usually full-time, last from one to three years in technical institutes, special institutes for the training of air crews, or sponsored by government departments or agencies. Applicants must demonstrate physical fitness, and maximum and minimum age limitations may be imposed.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature applicants, with relevant work experience, may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma.

57004. Ships' officer programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, consisting of instruction and laboratory work designed as the theoretical complement of extensive practical experience aboard ship. These programmes are aimed to cover the theory, principles, and knowledge required for operating a ship including marine engines and special equipment, and to provide training in regulations concerning ship management, hull surveys, public harbours, navigational aids, etc. The end purpose of the programmes is to qualify candidates as masters or first engineers of a ship; lesser qualifications are acquired gradually in the process.

Programmes are typically given partly on board ships and partly in nautical or technical institutes. Programmes are often restricted to one or two subjects and may last only a few weeks.

Principal course content usually includes, i.a., general shipboard knowledge; navigation; pilotage; ship maintenance; routine and cargo work; communications; ship construction and stability; shipmaster's activities; marine engineering; electricity; damage control; watertight integrity; meteorology; naval architecture; and other subjects designed to provide a broad foundation of skills and knowledge related to ship management and operation.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students with relevant work experience may be admitted with lower qualifications, and provision may be made for upgrading their educational level while they are participating in the programmes. Admission to the engineering branches may require completion of apprenticeship programmes or the equivalent.

Usual award for successful completion is a certificate.

57006. Railway operating trades programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, consisting of lectures, classroom or group discussion, and on-the-job experience designed to provide training for railway operating personnel. Although some consideration may be given to the theoretical aspects of railway systems and organization, the programmes' main emphasis is on the basic practical skills and knowledge required.

Programmes, usually full-time, may require from one to three years' study in a technical institute, a special institute for the training of railway operators, or a government department or agency, and they include an apprenticeship period.

Principal course content usually includes, i.a., diesel mechanics, dynamics, communications.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature applicants with relevant work experience may be admitted with lower educational qualifications. Applicants must demonstrate physical fitness, and specifically must meet eyesight and hearing requirements. There may also be maximum and minimum age limitations.

Usual award for successful completion is a certificate or diploma.

57008. Road motor vehicle operating programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, consisting of lectures, classroom or group discussion, and on-the-job experience, designed to train road motor vehicle operators. The programmes' main emphasis is on the practical skills and knowledge required for road motor vehicle operators.

The programmes, usually full-time, may take up to one year's study, and are given in technical institutes, in special institutes for the training of road motor vehicle operators, or are established and run as part of a government department. In addition, a period of apprenticeship is usually required.

Principal course content usually includes such subjects as highway regulations, safety rules, basic vehicle maintenance, vehicle control, vehicle insurance, highway conditions, etc.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature applicants, with relevant work experience, may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma.

57026. Postal service programmes, except electronics equipment installation and servicing

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, consisting of lectures, classroom or group discussion, and on-the-job experience, designed to provide training in post office operations. Although consideration is given to the theoretical aspects of the postal service, the programmes' main emphasis is on basic practical skills and knowledge.

The programmes, usually full-time, may require one to three years' study; they are given in technical or special institutes, or may be established and conducted as part of a government department. They generally feature a period of apprenticeship.

Principal course content usually includes such subjects as basic management, accounting, sorting, application of new techniques to postal procedures, etc.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature applicants with relevant work experience may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma.

57029. Other communications programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, consisting of lectures, classroom or group discussion, and on-the-job experience, designed to provide training in communications other than that defined elsewhere in 570 or 584. Although consideration is given to the theoretical aspects of communications, the main emphasis of the programmes will be on basic practical skills and knowledge.

The programmes, usually full-time, may require one to three years' study. They may be given in technical or special institutes, or be established and conducted as part of a government department. They generally feature a period of apprenticeship.

Principal course content usually includes the study of the various aspects of a particular trade.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature applicants with relevant work experience may be admitted with lower educational qualifications. Applicants may be required to demonstrate physical fitness, and there may be maximum and minimum age limitations.

Usual award for successful completion is a certificate or diploma.

578. Service trades programmes

This field includes a variety of programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree dealing with the principles and practices of service trades such as restaurant- and hotel-type cooking, retailing, tourist trades, etc. These programmes are designed to prepare students for careers as relatively highly skilled technicians in their chosen vocations.

The principal kinds of subject matter usually included depend to some extent on the particular speciality of the student, but some basic subject matter is common to this kind of programme to provide a general background of education required for the level of performance sought. Physics, chemistry, mathematics, office and other business procedures, psychology and related principles of personal and public relations are examples of the type of general subjects often included. In general, the practical aspects and applications of the subjects studied are stressed rather than their theoretical, scientific, or general bases. Programmes of this kind are often of the "sandwich" type, i.e. periods of study alternating with periods of work in the relevant occupation.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students with relevant work experience or an interest in the vocation concerned may be admitted with lower educational qualifications, particularly to the relatively short-term programmes. Practical demonstration and practice form an important part of these programmes, some of which are conducted in technical institutes or colleges, while others are based in special schools or agencies. Many kinds of sponsors offer such programmes, including those mentioned above as well as chambers of commerce, tourist promotion agencies, associations of hotels or restaurants, professional associations, government departments, etc.

Usual award for successful completion of a programme is a certificate or diploma.

57826. Programmes in cooking (restaurant- and hotel-type)

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of lectures, discussion groups, and practice dealing with the principles and practices of quality cooking such as that appropriate for hotel dining-rooms and restaurants. In addition, these programmes usually include instruction in food technology and kitchen management.

Principal course content usually includes such subjects as the qualities of various food materials, techniques of food buying, storage characteristics of various food materials, principles of recipe formulation, the preparation and use of condiments and special sauces, food preparation, methods of cooking, preparation of special dishes such as salads, entrées, and desserts, methods of serving food, etc. In many programmes, general courses are included as an aid in the development and understanding of the special vocational subjects. Some examples are chemistry, physics, mathematics, psychology, principles of staff supervision, hygiene, establishment and maintenance of filing systems and other record-keeping procedures, etc.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students with relevant work experience may be admitted with lower qualifications, especially in the programmes designed to upgrade the performance of those already employed.

Usual award for programmes of one year or more, often given in technical or similar institutes, is a certificate or diploma. In shorter programmes, which are often of the in-service or retraining type, a certificate of satisfactory completion may be given.

57862. Retailing programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of lectures, discussion groups, projects, and practice sessions dealing with the principles and practices of retailing or of a particular branch of retailing such as food, apparel, furniture and house furnishings, household appliances, hardware, general retailing, e.g. department store, variety store, etc.

Principal course content usually includes some general courses as an aid in the development and understanding of the special vocational subjects chosen by the student. Examples of general courses are principles of marketing, advertising and sales promotion, retail credit systems and their management, systems of merchandise delivery, principles of economics, mathematics, etc. In addition, specific vocational courses are included in accordance with a student's chosen field. For example, purchasing procedures for the relevant merchandise, storage characteristics and other special characteristics of the relevant merchandise, merchandise display, effective shop layout for the relevant kind of shop, etc., record-keeping systems for purchasing stock and sales appropriate to the kind of shop.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those with relevant work experience, may be admitted with lower qualifications, particularly in programmes designed to upgrade the performance of those already employed.

Usual award for programmes of one year or more, often given in technical or similar institutes, is a certificate or diploma. In shorter programmes, which are often of the in-service or retraining type, a certificate of satisfactory completion may be given.

57872. Tourist trades programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of lectures, discussion groups, projects, and practice sessions dealing with the principles and practices of tourist trade development and management. Some examples of trades included

are tourist bureau manager, tour manager, tourist guide, travel consultant, travel agency manager, etc.

Principal course content usually includes some general courses as an aid in the understanding of the special vocational subjects chosen by the student. Examples of such general courses are geography, with special attention to historic and other sites of interest to tourists, foreign languages, advertising and other methods of tourist promotion, etc. In addition, specific vocational courses are included such as the principles and practices of fare structures and scheduling in transport, the interpretation of transport schedules, documentation procedures for travel, accommodation facilities and practice in different countries, etc.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those with relevant work experience, may be admitted with lower qualifications, particularly in programmes designed to upgrade the performance of those already employed.

Usual award for programmes of one year or more, often given in technical or similar institutes, is a certificate or diploma. In shorter programmes, which are often of the in-service or retraining type, a certificate of satisfactory completion may be given.

57899. Other service trades programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of lectures, discussion groups, projects and practice sessions dealing with the principles and practices of service trades not included in the above groups 57826, 57862, or 57872.

Principal course content depends to some extent on the subject-matter interest of the student, and such vocationally-oriented studies are usually accompanied by general courses that will assist in the understanding and application of the specialized material. Examples of general courses are natural sciences such as physics and chemistry, social sciences such as economics, psychology and sociology, languages, business administration such as management, accountancy, finance, and mathematics.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those with relevant work experience or special vocational interest, may be admitted with lower educational qualifications, particularly in programmes designed to upgrade the performance of those already employed.

Usual award for programmes of one year or more, often given in technical or similar institutes, is a certificate or diploma. In shorter programmes, which are often of the in-service or retraining type, a certificate of satisfactory completion may be given.

584. Programmes in mass communication and documentation

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of instruction, group discussion and practice sessions dealing with the principles and practices of journalism, radio and television broadcasting, public relations, other communications arts, library techniques, the techniques of museum and similar repository operation or documentation techniques. In these programmes, attention is directed

typically toward the practical application of the subjects included rather than toward the underlying principles or philosophies.

Programmes may be full-time or part-time, day or evening. Many are of relatively short duration, i.e. less than one year, and they include retraining, refresher and sandwich courses. The majority, however, are of longer duration, some being as long as three years. Most of these programmes are given in technical institutes, technical colleges, etc., but many are provided in special schools, including schools of journalism, radio, etc. The programmes are sponsored by a wide variety of agencies.

Usual minimum educational prerequisite is completion of second-level education, second stage. In programmes designed for those already employed and for intensive short courses, applicants may be admitted with lower educational qualifications when work experience and maturity indicate ability to handle the material.

Usual award for successful completion of a programme is a certificate or diploma indicating the kind of programme involved.

58402. Programmes in journalism

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of instruction, group discussion and practice sessions, dealing with the principles and practices of journalism. Periods of practical work on newspapers or periodicals, including work in their editorial offices, usually constitute part of these programmes. Some programmes at this level are specialized in subject content and may last only three or four weeks. The practical aspects of journalism rather than its theory are usually stressed.

Principal course content usually includes current affairs, political science, the place of the press in modern society, modern news reporting, editorial practice and policy, government regulation of the mass media. Courses in shorthand and typewriting may be offered, as may courses in modern printing techniques, photography and reproduction techniques.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications. For short courses, sandwich courses and courses designed to upgrade the qualifications of those already employed, work experience is usually given greater weight than educational qualifications.

Usual award for successful completion of a programme is a certificate or diploma.

58404. Programmes in radio and television broadcasting

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of instruction, group discussion and practice sessions dealing with the principles and practices of broadcasting as one part of the field of mass communication. Periods of practical work in studios and broadcasting offices and workshops are usually included. Many of the programmes are specialized in subject content and may last only three or four weeks. The practical aspects rather than the theory of broadcasting are emphasized.

Principal course content usually includes study of the rôle of electronic media in modern society; broadcast journalism; the art and craft of radio and television production; government control of broadcasting; script writing; principles of criticism and the ethics of mass communication.

Usual minimum educational prerequisite is completion of education at the second level, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications. For short courses, sandwich courses and courses designed to upgrade the qualifications of those already employed, work experience is usually given greater weight than educational qualifications.

Usual award for successful completion is a certificate or diploma.

58407. Public relations programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom or practice sessions and group discussion dealing with the principles and practices of public relations.

Principal course content includes a number of courses in the liberal arts and social sciences, as well as prescribed courses in creative writing and the effective use of language; introductory business; marketing; the use of the mass media; industrial promotion; advertising; business psychology; conducting and interpretation of public opinion surveys, etc. Programmes usually require two years' full-time study in a college of applied arts and/or techniques, or in the communications school of a university.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students with related work experience may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate.

58409. Other programmes in communications arts

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, designed to train technicians or paraprofessionals in communications arts other than those defined above (i.e. 58402, 58404 and 58407).

Principal course content usually includes a number of liberal arts and social science courses, in addition to various prescribed courses. Programmes usually require two years' full-time study in a college of applied arts, communications, or techniques, or an equivalent institute.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students with relevant work experience may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma.

58422. Library technician programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, dealing with the principles and practices of library techniques. Theoretical and historical principles of library science are given less prominence in these programmes than are such techniques as library cataloguing, record storage, record retrieval, etc., dealing with all types of records including microfilm, magnetic tape, etc.

Principal course content usually includes, i.a., library reference and special services, acquisitions, cataloguing and classification, special collections, data processing, typing, the operation of business machines, and library structure and organization. Background courses usually include selected humanities, social sciences, natural sciences, etc., according to the interests of the student.

Programmes, usually full-time, are conducted in technical colleges or schools, and require up to two years. Some programmes, particularly those dealing with special libraries such as medical, legal, or scientific libraries, may be part-time and of shorter duration (less than one year), and are often attended by experienced general library technicians.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students with related work experience may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma.

58425. Programmes for technicians in museums and similar repositories

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, designed to train assistants for museums, archives, art galleries and similar repositories.

Principal course content usually includes, i.a., courses in related liberal arts fields such as history, anthropology, the fine arts, and archaeology, in addition to such prescribed courses as cataloguing, classification, the care and handling of ancient manuscripts, maps, government documents, data processing, restoration and exhibiting of specimens, of art, etc.

Programmes, usually full-time, are conducted in technical colleges or schools, and require up to two years.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students with relevant work experience may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma.

58429. Programmes in documentation techniques, n.e.c.

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, dealing with the principles and practices of documentation work in government, industry or educational institutions.

Principal course content includes a number of prescribed and/or optional courses (possibly with an area of specialization) in such subjects as office practice, typing,

filing, accounting, cataloguing and classification; business machines; data processing; information retrieval systems; administrative organization; and statistics.

Programmes, full-time for one or two years, are usually given in technical schools or colleges or in the institution of employment, and consist primarily of classroom sessions and periods of supervised work practice. Short programmes, often part-time, are provided in the form of refresher or sandwich courses.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students with related work experience may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma.

589. Other programmes of education at the third level, first stage, of the type that leads to an award not equivalent to a first university degree

This field includes programmes at this level not included in the above list of fields, i.e. 514 to 584. Examples of programmes included here are those dealing with police work and related law enforcement, fire protection and fire fighting, military science, other civil security; social work, vocational counselling, etc. In these programmes, attention is directed typically toward the practical application of the subjects included rather than toward the underlying principles or philosophies.

Programmes may be full-time or part-time, day or evening. Many are of relatively short duration, i.e. less than one year, and they include retraining, refresher and sandwich courses. The majority of these programmes are given in technical institutes, technical colleges, etc., but many are provided in special schools including military academies, police schools, and the like. The programmes are sponsored by a wide variety of organizations.

Usual minimum educational prerequisite is completion of second-level education, second stage. For programmes designed for those already employed and for intensive short courses, applicants may be admitted with lower educational qualifications when work experience and maturity indicate ability to handle the material.

Usual award for successful completion of a programme is a certificate or diploma indicating the kind of programme involved.

58912. Programmes in police work and related law enforcement

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom sessions and group discussion dealing with specialized training in police work, law and security administration and enforcement.

Principal course content usually includes, i.a., introduction to law enforcement, first aid and rescue operations; the use and care of police equipment; narcotics and drug abuse; laws of evidence and court procedures; criminal investigation; traffic control and administration; police administration; criminal law and legal procedures; crime and delinquency; police operations; the ethics of security administration; language and communications; social and behavioural sciences; human relations.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature applicants with relevant experience may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma.

58915. Fire-protection and fire-fighting programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom sessions and practical exercises dealing with the principles and techniques of fire fighting.

Principal course content usually includes, i.a., history of fire fighting; fire protection in buildings; fire-escape facilities; the structural stability of buildings; interior finishes and furnishings; fire-extinguishing appliances; automatic fire-alarm systems; automatic sprinkler systems; special automatic extinguishing systems; steam fire engines and motor fire engines; fireboats; ladder rescue equipment, including aerial ladders, snorkels, other rescue equipment; fire department organization; fire research; first aid.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students with relevant experience may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma.

58917. Military programmes

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom sessions, group discussion and drill, dealing with the fundamentals of military science.

Principal course content usually includes, i.a., organization of the armed forces; weapons and marksmanship; military history and logistics; army administration; military law; service orientation; counter-insurgency training; operations; small unit tactics; leadership; pre-camp orientation; branches of the armed forces; communications; map and aerial photograph reading; social and behavioural sciences.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature applicants with relevant experience may be admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma in military science. The award may also include a promotion in military rank.

58919. Other programmes in civil security

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom sessions, and group discussion dealing with specialized training in public security, designed to provide training for commissionaires or security guards.

Principal course content usually includes, i.a., the essentials of law enforcement; first aid; building supervision; power outlet checking; various locking devices used in public buildings; electric and electronic alarms; the ethics of security administration; fire hazards; fire escapes; traffic control; crime and delinquency; record keeping; visitor guidance; human relations; social and behavioural sciences.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature candidates, especially those with relevant experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate in civil security.

58932. Programmes in social work

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, dealing with the principles and practices of social work and welfare work. The practical aspects of case work and group work are stressed in these programmes, with little time spent on the theoretical or historical aspects of the subjects included.

Principal course content includes, i.a., such subjects as case work techniques, human development, social service resources, social problems, group work processes, community and clinical psychology, and sociology.

Programmes, full-time for one or two years, are usually given in schools or colleges of technology and consist of lectures, discussion groups and field work under the supervision of an experienced social worker. Some short programmes, often part-time, are provided in the form of refresher courses.

Usual minimum educational prerequisite is completion of second-level education, second stage, and often some related work experience.

Usual award for successful completion is a certificate or diploma.

58942. Programmes in vocational counselling

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, primarily consisting of classroom sessions, group discussion and practical work involving the observation of counselling procedures and supervised participation in the latter. These programmes are concerned with principles and their application in counselling, designed to enable people to assess their assets and shortcomings with respect to potential occupations so as to make satisfactory vocational decisions.

Principal course content usually includes courses on child and adolescent development, learning and motivation, vocational development, human relations and communication, information utilization and decision-making, interviewing and modification. Emphasis is usually placed on the techniques of devising and using tests.

Programmes, generally full-time, require at least one year's study. Short programmes, often part-time, are provided in the form of refresher and sandwich courses designed to upgrade the qualifications of those already employed - for example, teachers, social workers, personnel officers and placement officers.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a certificate or diploma.

58952. Programmes in environmental studies

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, designed to develop awareness of the environment and of the ways in which a multiplicity of factors affect its condition. Attention is given to methods for the protection and rehabilitation of the environment.

Through lectures, seminars, demonstrations, usually involving a multi-disciplinary approach, a background is provided in subjects such as the study and control of pollution; the protection of the environment; the conservation of natural resources. Programmes consist of special courses drawn from the social, biological and physical sciences and their applications. Study tours and visits to particular locations may be arranged.

Programmes are usually of one or two years' duration, part-time or full-time, day or evening. Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those with relevant experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma.

58962. Programmes in physical education

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, designed to increase physical strength, agility, grace of movement, athletics and sports are developed. The aim in some cases may be spiritual and moral improvement in the individual through physical excellence and control of the body.

The theoretical part of the programmes includes study of human anatomy and physiology, natural science, social and behavioural science, first aid. Attention may be paid to the history of physical education in different cultures. Stress is laid on sports of all kinds and on field athletics, as well as on gymnastics and eurhythmics. Students are normally expected to select two or three areas in which they attempt to achieve excellence; e.g. football, running, jumping, hockey, kendo, judo, etc. Competitive sports may or may not be encouraged.

Programmes are usually at least two years in duration, part-time or full-time.

Usual minimum educational prerequisite is completion of second-level education, second stage. The programmes are normally offered in colleges of physical education or community colleges or technical colleges; sometimes in universities.

Usual award for successful completion is a certificate or diploma.

58999. Other programmes of education at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, n.e.c.

Programmes at the third level, first stage, of the type that leads to an award not equivalent to a first university degree, designed to train technicians or para-professionals in fields other than those defined above (i.e. in 58912 to 58962). The emphasis in these programmes is on the practical rather than the theoretical aspects.

These programmes usually last two years full-time in an appropriate college or institute, and consist of lectures, group discussion, field work, laboratory sessions, and various prescribed courses.

Usual minimum educational prerequisite is completion of second-level education, second stage. Mature students, especially those with relevant work experience, are often admitted with lower educational qualifications.

Usual award for successful completion is a certificate or diploma.

6. EDUCATION AT THE THIRD LEVEL, FIRST STAGE, OF THE TYPE THAT LEADS TO A FIRST UNIVERSITY DEGREE OR EQUIVALENT

The core at this level consists of programmes of education for those who have completed requisite programmes at the second level, second stage, and who choose to continue their education in a type of programme that is generally provided by a university. Typically, much time is spent on the historical aspects of the subjects taught, while practical skills, though often given some prominence, have a lower priority. The importance of research is stressed by preparing students for participation in original work. These programmes require a minimum of four years' full-time study, many requiring five or six years, and a few seven years. The earlier years (usually the first or the first two) are sometimes provided in local colleges or in secondary schools, but these programmes are distinguishable from others in that they are recognized by a university as the equivalent of the corresponding university programme when a student transfers to the university.

A great variety of subject-matter programmes is offered at this level, the university being organized by subject into "departments", "faculties" or "schools" under such headings as Agriculture; Arts (Humanities, Letters); Education; Engineering; Fine Arts; Law; Business Administration (Commerce); Medicine; Pharmacy; Natural Science; Social Science; Theology (Religion). Students choose a programme within one faculty but the programme will often contain some courses given in another faculty or faculties. In some cases also, the same programme, often with somewhat different emphasis, is given in more than one faculty, e.g. pharmacology in Natural Science and in Medicine; plant pathology in Agriculture and in Natural Science; marketing in Social Science (Economics) and in Business Administration. For the purposes of ISCED, however, a particular subject-matter programme is assigned to only one field on the basis of its usual or principal association.

At this level the core comprises the great majority of the programmes in many countries. Important national differences in university organization and in degree-granting practices as well as changing practices within countries in recent years must be taken into account, however, if reasonably comparable data are to be obtained.

The term "first university degree" requires clear definition for ISCED purposes. It includes, of course, programmes leading to the usual first degrees such as bachelor of arts, bachelor of science, diplôme, etc., as well as first professional degrees like those of bachelor of law, bachelor of medicine (in some countries), and others that are frequently taken as first degrees after three, four or five years of study following a non-degree programme of pre-professional study, i.e. a total of as many as seven years in all, e.g. doctor of medicine (in some countries). Similarly, programmes designed for the simultaneous conferring of two degrees (e.g. B.A. and B.Comm. or B.A. and Ll.B.) are classed as at this level.

Increasingly, programmes formerly conducted mainly outside of universities in some countries have been moving into their university systems. Important examples are programmes leading to such professions as those of engineer, accountant, actuary, barrister and solicitor, pharmacist. The situation as between countries has always been mixed, leading to problems in international comparisons, while the fluidity within individual countries can be a source of inconsistency in national statistics over a number of years. For the purposes of ISCED, therefore, programmes conducted

outside of the university system, sponsored by a recognized professional society and conferring membership in the relevant professional society to successful candidates, should be included at this level. Presumably the conferring of membership in a recognized professional society of the type that requires demonstration of professional competence for membership, and membership of which is a requirement for practising the profession, may be considered as indicating successful completion of qualifying programmes equivalent to obtaining the relevant university degree. This does not apply, of course, to membership in a professional society which requires no programme of education and no examination, or when membership is not required to practise the profession even if a pro-forma examination is conducted for membership. Furthermore, special circumstances may exist in some countries, especially at times of severe scarcity in some professions when membership in an association (a requisite for practising) may not be taken to indicate full professional qualification.

As a general guide, it may be said that the level of the programmes of study is the important criterion and not the educational history of the individual student. For example, a student possessing a bachelor of arts degree and studying for the ordinary certificate or degree in teacher training is considered to be at this level because heis not pursuing higher studies in the subject of his first degree. Similarly, refresher courses provided for those possessing first university degrees or the equivalent are considered to be at this level because they are up-dating earlier education at this level. These are examples to indicate intent and should not be taken as exhaustive.

601. General programmes

This field includes programmes in education at the third level, first stage, of the type that leads to a first university degree or equivalent, each of which covers a variety of subject-matter designed to provide a broad spectrum of knowledge concerning the theories, analytical methods, investigatory procedures, laboratory and field work techniques of the humanities, social sciences, natural sciences, and their applications.

Some universities provide full four-year programmes of the kind included in this field as general programmes, but many universities do not offer such programmes. In some university systems, general programmes of this type will apply to a large segment of those enrolled in the first year, and perhaps also in the second year of a four- or five-year programme. This applies to systems in which the first year or first two years consist of a broadly based general type of programme while the third, fourth and perhaps fifth years consist of programmes having a very high degree of subject specialization. In other university systems and for some kinds of programmes in the systems described immediately above, subject specialization begins in the first year. By subject specialization is meant concentration on a particular subject field or individual subject to the extent that a student becomes a specialist or particularly knowledgeable in the speciality. It does not imply, of course, exclusive attention to the speciality.

Programmes may be full time or part time, day or evening. At this level, however, most programmes are full time, although students may undertake them on a part-time basis. Most programmes are conducted by universities, colleges, or similar institutions. Courses and programmes are sometimes provided by correspondence or through broadcasts (radio or television).

Usual minimum educational prerequisite is completion of second-level education, second stage, although in exceptional cases mature students may be admitted with lower educational qualifications on demonstration of ability to handle the subject-matter at this level.

Usual award for successful completion of a programme is a degree (B.A.) or the equivalent.

60100. General programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, with no special subject emphasis, designed to provide a broad general understanding of the theories, investigative practices and techniques used in the humanities, social sciences and natural sciences.

Programmes may last from two to four years in a college or university and may consist of lectures, seminars and discussion groups. Programmes usually consist of a number of compulsory courses giving a general background in a wide variety of subject areas, as well as some optional courses, chosen so that no particular major field or subject is identified.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Upon successful completion, students are awarded a first university degree (B.A.) or the equivalent.

614. Programmes in education science and teacher training

This field includes a variety of programmes in education at the third level, first stage, of the type that leads to a first university degree or equivalent, dealing with the theory and practice of teaching.

Programmes for school teaching are primarily intended to prepare students to undertake teaching at the second level of education, second stage; but some include preparation for teaching at the first stage of second level or for third level non-university type teaching. They stress the theory and history of education without neglecting practice teaching along with observation of experienced teachers. At this level the heaviest enrolment is likely to be encountered in programmes for subject-matter specialists, i.e. those who expect to teach one or two special subjects. Along with courses in education theory and teaching methods, these programmes often include courses in educational administration, teacher supervision and inspection practice.

Important kinds of programmes included are general programmes (i.e. not specialized by subject-matter or by type of student to be taught), programmes for teachers with a subject-matter speciality either in a non-vocational subject (e.g. history, languages, natural sciences, mathematics, geography, physical education) or in a vocation subject both in and out of school (e.g. fine arts, home economics, woodworking,metalworking, welding, commercial subjects, agriculture); programmes for teaching pre-school or kindergarten; programmes for teaching in adult education both in school and out of school; programmes for teaching handicapped children and programmes for teaching teacher trainees; and programmes for higher level staff for extension and other types of out-of-school education of adults and young people.

Programmes may be full time (usually the majority) or part time, day or evening; many part-time programmes being those for improving the qualifications of teachers and refresher courses, others being those for personnel in extension, adult education and other non-formal teaching. Many programmes are provided during school vacations, particularly those for teachers and those providing partial qualification in areas of teacher shortage (i.e. a prospective teacher can gain full qualification by study in successive vacation periods, being encouraged to take employment as a teacher in the intervals).

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type leading to a first university degree, usually with specialization in the subject or subjects to be taught. In special cases (mainly for qualification as a teacher of a vocational subject or as a teacher in adult education), mature students with valuable work experience may be admitted with lower educational qualifications.

Usual award for successful completion of a programme is a teaching certificate approved by the appropriate educational authority.

(Note that the above definition includes only programmes consisting primarily of courses in teacher training /education/ or pedagogy. Programmes in a university or teachers' college for undergraduate students, e.g. undergraduate programmes in education, consisting primarily of a subject-matter speciality other than teacher training but containing some courses in pedagogy, are classified according to the principal subject speciality, e.g. history, geography, mathematics, literature, chemistry, etc. This practice is designed to facilitate the international comparability of enrolment and other data classified by subject speciality as well as the comparability of such data in successive time periods for particular countries).

61401. General teacher-training programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of lectures, group discussion and practice teaching designed to train teachers mainly for the second level and occasionally for the third non-degree level of education. These programmes consist primarily of courses in pedagogy (teacher training) and related subjects such as the theory of education and educational administration.

Principal course content usually includes the history, philosophy, psychology, and sociology of education; the theory and practice of teaching; and educational administration. In addition, time is devoted to observation of experienced teachers and to supervised practice teaching.

Usual minimum educational prerequisite is a first university degree, but mature students with related work experience may be admitted with lower educational qualifications. For short programmes, especially those designed to improve the qualifications of teachers, work experience is usually given greater weight then educational qualifications. Programmes are either full or part time, and usually last the equivalent of one years full-time study.

Usual award for successful completion is a teaching certificate or diploma.

61404. Teacher-training programmes with specialization in a non-vocational subject

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of lectures, group discussion and practice teaching designed to train teachers with specialization in a non-vocational subject such as mathematics, social studies, language, physical education, etc. Students completing these programmes are qualified to teach at the second level, and in some cases at the non-degree third level of education. These programmes consist primarily of courses in pedagogy (teacher training) and related subjects such as the theory of education and educational administration.

Principal course content usually includes the history, philosophy, psychology, and sociology of education; the theory and practice of teaching in general and of teaching the particular area of specialization; and often some courses in the subject to be taught. In addition, time is devoted to observation of experienced teachers and to supervised practice teaching.

Usual minimum educational prerequisite is a first university degree or equivalent, but mature students with related work experience may be admitted with lower educational qualifications. For short programmes, especially those designed to improve the qualifications of teachers, work experience may be given greater weight than educational qualifications. The programmes may be full or part time, and usually last the equivalent of one full academic year.

Usual award for successful completion is a teaching certificate or diploma.

61408. Teacher-training programmes for teaching practical or vocational subjects

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of lectures, group discussion and practice teaching designed to train teachers of specific vocational subjects such as music, fine arts, woodworking, commercial subjects, agriculture, etc.

Students completing these programmes are qualified to teach at the second level and in some cases at the third non-degree level of education. These programmes consist primarily of courses in pedagogy (teacher training) and related subjects such as the theory of education. Included also are programmes for teachers or instructors of out-of-school vocational education.

Principal course content usually includes the history, philosophy, psychology, and sociology of education; the theory and practice of teaching in general and of the vocational subject concerned; and often courses in the subject to be taught. In addition, time is devoted to observing experienced teachers and to supervised practice teaching.

Usual minimum educational prerequisite is a first university degree or the equivalent, usually with specialization in the subject to be taught, but mature students with related work experience may be admitted with lower educational qualifications. For short programmes, especially those designed to improve the qualifications of teachers or to train instructors for out-of-school education, work experience may be given greater weight than educational qualifications. Programmes may be full-time or part-time, and last the equivalent of one year's full-time study or less.

Usual award for successful completion is a teaching certificate or diploma.

61412. Teacher-training programmes for teaching pre-school or kindergarten

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of lectures, group discussion and practice teaching designed to train teachers for education preceding the first level. These programmes emphasize the theory of education and the theoretical and general principles of the subjects studied. They consist primarily of courses in pedagogy (teacher training) and related subjects such as the theory of education and educational administration.

Principal course content usually includes the history, philosophy, psychology, and sociology of education; the theory and practice of teaching in general and the teaching of pre-school children in particular; and general courses that will assist in the understanding and guidance of pre-school and kindergarten children. In addition, time is devoted to observing experienced teachers and to supervised practice teaching.

Usual minimum educational prerequisite is a first university degree or equivalent, but mature students with relevant experience may be admitted with lower educational qualifications. For short programmes, especially those designed to improve the qualifications of teachers, work experience may be given greater weight than educational qualifications. Programmes may be full or part time, and last the equivalent of one year's full-time study. They are usually given in a teachers' college or a university.

Usual award for successful completion is a teaching certificate or diploma.

61416. Teacher training for teachers in adult education

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of lectures, group discussion and practice teaching designed to train teachers for adult education both in and out

of school. Students completing these programmes are qualified to teach at the second level and at the third non-degree level of education. These programmes emphasize the theory of education and the theoretical and general principles of the subjects studied. They consist primarily of courses in pedagogy (teacher training) and related subjects such as the theory of education.

Principal course content for those intending to teach in schools usually includes the history, philosophy, psychology and sociology of education; the theory and practice of teaching in general and of teaching and retraining adults; and special problems encountered in communicating with adults from varied backgrounds. In addition, time is devoted to observing experienced teachers and to supervised practice teaching.

Principal course content for those planning to engage in extension work and other types of out-of-school education tends towards emphasis on the subject matter to be taught, sociology related to the groups concerned, learning theory, attitudes and reactions to change, practice demonstrations, etc.

Usual minimum educational prerequisite is a first university degree or equivalent, but mature students with related work experience may be admitted with lower educational qualifications. For short programmes, especially those designed to improve the qualifications of teachers (and for those preparing for out-of-school teaching), work experience may be given greater weight than educational qualifications. Programmes may be full or part time, and last the equivalent of oneyear's full-time study or less. They are usually given in a teachers' college, a university, or a special adult education training institution.

Usual award for successful completion is a teaching certificate or diploma.

61422. Teacher training for teaching handicapped children

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of lectures, group discussion and practice teaching designed to train teachers of handicapped children. These programmes emphasize the theory of education and the theoretical and general principles of the subjects studied. They consist primarily of courses in pedagogy (teacher training) and related subjects such as the theory of education and educational administration.

Principal course content usually includes the history, philosophy, psychology, and sociology of education; the theory and practice of teaching in general and of teaching handicapped children in particular; theoretical courses leading to a basic understanding of the problems of handicapped children and psychological implications of the disabling condition. In addition, time is devoted to observing experienced teachers and to supervised practice teaching.

Usual minimum educational prerequisite is a first university degree or equivalent. Mature students with relevant experience may be admitted with lower educational qualifications but for short programmes, especially those designed to improve the qualifications of teachers, work experience may be given greater weight than educational qualifications. Programmes may be full-time or part-time, and last the equivalent of oneyear's full-time study. They are usually given in a teachers' college, university, special school, or teaching hospital.

Usual award for successful completion if a teaching certificate or diploma.

61432. Teacher training for teacher trainers

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of lectures, group discussion and practice teaching designed to train teachers for teachers' colleges, teacher-training institutes, etc. These programmes consist primarily of courses in pedagogy (teacher training) and related subjects such as the theory of education and educational administration, but they involve both the practical and the theoretical aspects of training teachers.

Principal course content usually includes the history, philosophy, psychology, and sociology of education; the theory and practice of teaching; the theory of learning; practical teaching aids such as audio-visual equipment, programmed learning methods and teaching machines; curriculum development and lesson planning. In addition, time is devoted to observing experienced teachers and to supervised practice teaching.

Usual minimum educational prerequisite is a first university degree or equivalent, but mature students with relevant work experience may be admitted with lower educational qualifications. Programmes may be full time or part time, and last the equivalent of one year's full-time study. They are usually given in a teachers' college or a university.

Usual award for successful completion is a teaching certificate or diploma.

61499. Other programmes in education science and teacher training

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of lectures, group discussion and practice teaching designed to train teachers of specializations other than those defined above. Students completing these programmes are qualified to teach at the second level and sometimes at the third non-degree level of education. These programmes consist primarily of courses in pedagogy (teacher training) and related subjects such as the theory of education and educational administration.

Principal course content usually includes the history, philosophy, psychology and sociology of education; the theory and practice of teaching in general and of teaching the particular speciality; and often courses in the subject to be taught. In addition, time is devoted to observing experienced teachers and to supervised practice teaching.

Usual minimum educational prerequisite is a first university degree, but mature students with related work experience may be admitted with lower educational qualifications. For short programmes, especially those designed to improve the qualifications of teachers, work experience may be given greater weight than educational qualifications. Programmes may be full time or part time, and last the equivalent of one year's full-time study. They are usually given in a teachers' college, a university, or a specialized educational institution.

Usual award for successful completion is a teaching certificate or diploma.

618. Fine and applied arts programmes

This field includes a variety of programmes in education at the third-level, first stage, of the type that leads to a first university degree or equivalent, dealing with the theory, history, techniques, performance and production in the fine and applied arts. These programmes stress the theoretical and general principles underlying the subjects included while not neglecting their techniques, performance methods, and related practical aspects.

The principal kinds of programmes included, which aim at the development of artistic creativeness and of skill in performance as well as appreciation of the theoretical principles involved (for example, the history of art, the history of music, form and analysis, harmony, counterpoint), come within such artistic branches as drawing and painting (including etching and printmaking), sculpturing, music, the drama, the dance, interior design, etc. Programmes in any of these areas usually contain some background courses in related fine or applied arts intended to supplement and to assist in mastering the theory and techniques of the major subject. Background courses are usually included also from such related fields as the humanities, social and behavioural sciences, and natural sciences. (Note that programmes in architecture and town-planning are not included here but in 658.)

Programmes may be full time or part time, day or evening. At this level, however, most programmes are full time, although students may undertake them on a part-time basis. In many cases, study of the subject is supplemented by practice or performance in the relevant field. Programmes are usually conducted in universities or colleges but sometimes the institutions are known by other names, e.g. conservatories of music.

Usual minimum educational prerequisite is completion of second-level education, second stage. In exceptional cases, experienced applicants with lower educational qualifications may be admitted to a programme after demonstrating satisfactory performance in the relevant subject.

Usual award for successful completion of the programme is a university degree (B.A.) or the equivalent.

61801. General programmes of art studies

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of demonstrations, lectures and student studio practice, designed to provide the student with experience in a variety of art media, a knowledge of art history and theory, and an appreciation of the arts. Programmes may be of two types: one allows the student to specialize in certain selected media or areas (painting, sculpture, art history, etc.) toward the goal of becoming a practising professional artist or art scholar; the other requires the art student to gain proficiency, experience and understanding in a wide range of media and areas toward the goal of becoming a teacher of art at the elementary and/or secondary level. In either programme the student usually is required to successfully complete a "foundation" course - a semester or year of general inquiry into and experience in the arts.

The content of these programmes usually includes inquiry and practice in a wide variety of the study media (drawing, painting, sculpture, print media, weaving, ceramics, etc.), art history, philosophy of art, and perhaps commercial art techniques and processes.

Usual minimum educational prerequisite: students wishing to enter these programmes are usually required to have completed second-level education, second stage, and to demonstrate an aptitude and skill in one or more of the study areas. Applicants with maturity, outside experience in the arts, and aptitude and commitment may be allowed to enter these programmes without having completed the educational requirements of the second level.

The length of these programmes varies, but they usually consist of from three to five years of study.

Usual award for successful completion of a programme is a university degree (B.A.) or the equivalent.

61804. Programmes in drawing and painting

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, designed to provide basic professional training in drawing and painting. Emphasis is usually placed on theory, but practice is not ignored, and through lectures, seminars, demonstrations, and studio practice, students acquire a broad background in drawing and painting.

Programmes usually last from three to five years in a university or college of art. They consist of a number of prescribed courses in such subjects as basic drawing, design, freehand drawing, history of art, lettering, theory of colour, calligraphy or silk-screenprinting, designed to provide a core or foundation in drawing and painting, as well as a number of liberal arts courses such as the literature of the indigenous language, history, social science, foreign languages, philosophy, and some elective courses, possibly in some specific field of emphasis.

Usual minimum educational prerequisite is completion of second-level education, second stage, often with a demonstrated affinity for drawing and painting. Applicants who have achieved a degree of maturity and some related experience may be admitted with lower educational qualifications.

A university degree or equivalent diploma is awarded upon successful completion of the prescribed programme, usually after written and practical examinations, which may include an oral examination.

61808. Programmes in sculpturing

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, designed to provide basic professional training in sculpturing. Emphasis is usually placed on theory, but practice is not ignored, and through lectures, seminars, demonstrations and studio practice, students acquire a broad background in sculpturing. Individual programmes may emphasize certain fields within the broad area, such as Greek or Hindu sculpture, visual and spatial relationships, or ceramics.

Programmes usually last from three to five years in a university or college of art, and consist of a number of prescribed courses in such subjects as the history of art and sculpture, visual and spatial relationships, and basic form and design intended to provide a core or foundation in sculpture. In addition, most programmes include liberal arts courses such as the literature of the indigenous language, history, social science, foreign languages, philosophy, and a number of elective courses, often in some specific area of emphasis.

Usual minimum educational prerequisite is completion of second-level education, second stage, often with demonstrated affinity for sculpturing. Applicants who have achieved a degree of maturity and some related experience may be admitted with lower educational qualifications.

A university degree or equivalent diploma is awarded on successful completion of the prescribed programme, usually after written and practical examinations, which may include an oral examination.

61822. Programmes in music

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, designed to provide basic professional training in music. Emphasis is usually placed on theory, but practice is not ignored, and through lectures, seminars, demonstrations and studio practice, students acquire a broad background in music. Individual programmes may emphasize certain fields within the broad area, such as music history, music literature or music theory.

Programmes usually last from three to five yars in a university or music school, and consist of a number of prescribed courses in such subjects as music history, harmony, counterpoint, aural theory, orchestration, arranging and composition, intended to provide a core or foundation in music. In addition, most programmes include some liberal arts courses such as the literature of the indigenous language, history, social science, foreign languages, philosophy, and a number of elective courses, possibly in some specific field of emphasis.

Usual minimum educational prerequisite is completion of second-level education, second stage, often with demonstrated affinity for music, e.g. ability to play a musical instrument. Applicants who have achieved a degree of maturity and some related experience may be admitted with lower educational qualifications.

A university degree or equivalent diploma is awarded on successful completion of the prescribed programme, usually after written and practical examinations, which may include an oral examination.

61832. Programmes in the drama

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, designed to provide basic professional training in the theatre. Emphasis is given to theory, but practice is not ignored and through lectures, seminars, demonstrations and studio practice, students acquire a broad background in acting and other theatrical activities. Individual programmes may emphasize certain fields within the broad area, such as acting, stagecraft, make-up, directing or production.

Programmes usually last from three to five years in a university or drama school and consist of a number of prescribed courses in such subjects as acting, voice and diction, stagecraft, history of the theatre, oral interpretation, rehearsal, and production, designed to provide a core or foundation in drama. In addition, most programmes include liberal arts courses such as the literature of the indigenous language, history, philosophy, languages or social sciences, and a number of elective courses, possibly in some specific field of emphasis.

Usual minimum educational prerequisite is completion of second-level education, second stage, often with demonstrated affinity for the drama. Applicants who have achieved a degree of maturity and some related experience may be admitted with lower educational qualifications.

A university degree or equivalent diploma is awarded upon successful completion of the prescribed programme, usually after written and practical examinations, which may include an oral examination.

61852. Programmes in interior design

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, designed to provide basic professional training in interior decoration. Emphasis is given to theory, but practice is not ignored, and through lectures, seminars, demonstrations, and studio practice, students acquire a broad background in interior design. Individual programmes may emphasize certain subjects within the broad area, such as the interior decoration of public buildings, office decoration, or home interior decoration.

Programmes usually last three to five years in a university or college of art and design, and consist of a number of prescribed courses in such subjects as space organization, aesthetics, problems in furniture design and mass production, for the purpose of providing a core or foundation in interior design. In addition, most programmes include liberal arts courses such as the literature of the indigenous language, history, philosophy, languages or social sciences, and a number of elective courses, possibly in some specific area of emphasis.

Usual minimum educational prerequisite is completion of second-level education, second stage, often with a demonstrated affinity for design. Applicants who have achieved a degree of maturity and some related experience may be admitted with lower educational qualifications.

A university degree or equivalent diploma is awarded upon successful completion of the prescribed programme, usually after written and practical examinations, which may include an oral examination.

61899. Other fine and applied arts programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, designed to provide basic professional training in fine and applied arts other than those previously defined, e.g. the dance, the history of art, etc. Emphasis is given to theory but practice is not ignored and through lectures, seminars, demonstrations and studio practice, students acquire a broad background in some fine or applied art. Individual programmes usually emphasize certain areas within the particular art.

Programmes usually last three to five years in a university or specialist college or institute and consist of a number of prescribed courses intended to provide a core or foundation in the particular art. In addition, most programmes include liberal arts courses such as the literature of the indigenous language, history, philosophy, languages or social sciences, and a number of elective courses, possibly in some specific area of emphasis.

Usual minimum educational prerequisite is completion of second-level education, second stage, often with demonstrated affinity for the particular art. Applicants who have achieved a degree of maturity and some related experience may be admitted with lower educational qualifications.

A university degree or equivalent diploma is awarded upon successful completion of the prescribed programme, usually after written and practical examinations, which may include an oral examination.

622. Humanities programmes

This field includes a variety of programmes in education at the third level, first stage, of the type that leads to a first university degree or equivalent, concerned with theories, analytical methods and practices of subjects in the humanities. In these programmes the theoretical and scientific principles of the constituent subjects are stressed, but an understanding of practical application and of the institutions involved is not ignored.

The principal kinds of programmes included are those dealing with the current or vernacular language and its literature, other living languages and their literature, "dead" languages and their literature, linguistics (including programmes in translation and interpretation), comparative literature, history, archaeology, philosophy, etc. A programme in any of these subjects usually contains some background courses in related humanities subjects designed to supplement and to assist in mastering the major subject. Other background courses often include a selection from such fields as the fine and applied arts, social and behavioural sciences, religion and theology, law and jurisprudence, natural science, and mathematics.

Programmes may be full time or part time, day or evening. At this level, however, most programmes are full time; although students may undertake them on a part-time basis. Part-time programmes are mainly refresher or retraining courses. Most programmes are conducted by universities, colleges, or similar institutions, but some are provided by other institutions: government departments and other government agencies. Courses and programmes are sometimes provided by correspondence or through broadcasts (radio or television).

Usual minimum educational prerequisite is completion of second-level education, second stage, although in exceptional cases mature students may be admitted with lower educational qualifications upon demonstration of ability to handle the subject-matter at this level.

Usual award for successful completion of a programme is a degree (B.A.) or the equivalent.

62201. General programmes in the humanities

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom or group discussion and seminars, dealing with concepts, terms, and analytical methods in the several areas of literature, history, language, philosophy and the liberal arts in general.

Principal course content usually includes, inter alia, world history; cultures and religions (e.g. Greek, Roman, Hindu, Far Eastern); the history of ideas and philosophy; ethics; the philosophy of science; archaeology, and one or more foreign languages, including literature, modern or classical. Courses are often arranged as major projects dealing with particular areas of culture. Background courses often include a selection from such fields as the fine and applied arts, the social and behavioural sciences, religion and theology, law and jurisprudence, natural sciences, and mathematics.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a university degree (B.A.) or the equivalent.

62211. Programmes in the current or vernacular language and its literature

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom sessions, guided reading, original writing, and group discussion, dealing with the study of the mother tongue or of a current language and its literature. These programmes may be combined with others - for example, with history or a foreign language.

Principal course content usually includes advanced grammar and syntax; general linguistics; the historical development of the language; the philosophy of language; and the phonology and morphology of language. Considerable emphasis is placed on literature, literary criticism, and interpretation, with great books being read and studied in detail. There is frequently concentration on particular periods and/or particular authors. Students may be encouraged to write prose or poetry. In some cases, optional courses may be offered in calligraphy as well as in palaeography and the deciphering of texts. An acquaintanceship with early forms of the language may be expected - for example, in the English-speaking world, with Old or Middle English. Background studies usually include history, foreign languages, comparative literature, natural sciences, the social and behavioural sciences, philosophy, and mathematics.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a university degree (B.A.) or the equivalent.

62215. Programmes in other living languages and their literature

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom sessions and group discussion dealing with the study of one or more living languages other than the students' "mother tongue", including grammar, syntax and literature. Programmes often include study of the history, geography, and culture of the country or area in which a language is spoken. A residence period of one year or more in that particular country or area is often a compulsory part of the programme. Simultaneous study of two or three living languages may be carried on, at a less advanced level than if only one language were being studied. Language laboratories are in widespread use.

Principal course content usually includes the phonology, morphology, and syntax of language; a general study of relevant literature, with a detailed consideration of great writers and their works; advanced composition and translation; conversation; the historical development of the languages. Background courses usually include history, the social and behavioural sciences, other humanities, and natural sciences.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a university degree (B.A.) or the equivalent.

62221. Programmes in "dead" languages and their literature

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom sessions, guided reading and group discussion, dealing with the study of languages no longer in current use, for example, Latin, Sanskrit, or Pali; the grammar, syntax, and literature of these languages; and the history and cultures of the people who used them. In many cases the study of two or three "dead" or classical languages is carried on simultaneously.

Principal course content usually includes the grammar, morphology, and syntax of the language; translation and composition; the literature of the language, with emphasis on its great writers and their works; the interpretation of texts; and the historical development of the language. Courses in such subjects as palaeography and archaeology may also be included. Background courses usually include world literature, ancient history, the natural sciences, and the social and behavioural sciences.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a university degree (B.A.) or the equivalent.

62231. Programmes in linguistics

Programmes at the third level,first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom sessions and group discussion, dealing with the basic concepts of language formation. These programmes may be combined with others, for example, with programmes in current or foreign languages.

Principal course content usually includes, inter alia, an introduction to transformation grammar; basic psycholinguistics; historical linguistics; types of grammatical rules and their interrelationships; the algorithm for assigning structural descriptions; the evaluation procedure for selecting the best compatible grammar; the relationship between the behavioural and structuralist views; and the deterministic view of language as a system of habits. Background courses usually include literature, history, the natural sciences, social and behavioural sciences, business administration, and mathematics.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a university degree (B.A.) or the equivalent.

62241. Programmes in comparative literature

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom sessions and group discussion, dealing with the study of international literary and cultural relationships.

Principal course content usually includes some of the following: the currency, reception, and influence of writers and their works in countries other than those of their origin; the transmission and evolution of international literary movements; the characteristics of and relationships between genres, themes and motifs; folk literature and folklore; criticism; aesthetics; intermediaries; the relationships between literature and other disciplines, etc. Background courses usually include history, the social and behavioural sciences, philosophy, religion and theology, and the natural sciences.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a university degree (B.A.) or the equivalent.

62251. Programmes in history

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom or group discussion and seminars, dealing with the discovery of the reality of the past and the interpretation of human social behaviour and institutions through time. These programmes are sometimes combined with others, for example, with programmes in political science, economics, or philosophy.

Principal course content usually includes the political, diplomatic, social, and cultural development of a particular area or country, with the rest of the world being considered chiefly in the light of its effects on this area or country, world history; the history of science; the history of technology. There may be concentration on specific aspects of the whole - e.g. on economic or cultural aspects. Courses in epigraphy and palaeography, the interpretation of documents, and the philosophy of history may also be offered. Background courses usually include the social and behavioural sciences, natural sciences, economics, political science, foreign languages and literature.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a university degree (B.A.) or its equivalent.

62261. Programmes in archaeology

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom sessions and group discussion, dealing with the study of the material remains of mankind's past. These programmes are sometimes combined with others - e.g. with programmes in history, anthropology, or sociology.

Principal course content usually includes, inter alia, the general history and development of archaeology; archaeological terminology; archaeological problems; archaeological records; archaeological classification; professional archaeology; the techniques and principles of excavation; methods of assigning dates; typology; the study of civilizations; the development of archaeological techniques; classical and mediaeval archaeology, etc. Background courses usually include ancient history, the natural sciences, world literature, foreign languages, philosophy, economics, sociology, etc.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a university degree (B.A.) or the equivalent.

62271. Programmes in philosophy

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom sessions and group discussion dealing with such matters as the nature of reality, human consciousness, human values and aesthetics. These programmes are often combined with others, for example, with programmes in history, political science, or classical languages.

Principal course content usually includes, inter alia, an introduction to philosophical thinking; classical and modern logic; the history of philosophy; one or more types of classical philosophy studied in detail; ethics and morals; epistemology; aesthetics, etc. Optional courses include the philosophy of science, of religion, of language and semantics. Frequently there is concentration on a particular school such as Marxism, existentialism, scientific humanism, or empiricism. Background courses usually include history, the fine and applied arts, religion and theology, social sciences, and foreign languages.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a university degree (B.A.) or the equivalent.

62299. Other programmes in the humanities

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom instruction, group discussion and practice in the humanities, but not classifiable under categories 62201 through 62271. These programmes may stress a particular approach to culture and the humanities, be arranged around a particular centre of interest, or include unusual combinations of courses.

Principal course content usually includes the study and practice of one or more foreign languages, the history of cultures and civilizations, philosophy, literature, and archaeology. Other courses may be featured depending on the chief aim of the programmes - artistic, cultural, philosophical, ideological, political.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a first university degree (B.A.) or the equivalent.

626. Religion and theology programmes

Programmes in education at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of lectures, group discussion and practice concerned with the study of religious doctrine, of the relevant religious rites and offices and the propagation of the religious belief. Although theological scholarship is stressed, these programmes also include practical application on the rôle of ministers of religion, priests, and other religious workers.

Principal course content usually includes study of relevant classical languages (e.g. Pali, Sanskrit, Hebrew, Greek, Latin, etc.) and textual analysis and criticism; religious history, the relevant theology, comparative religions, study of relevant ancient writing, manuscripts, etc.; analysis and criticism of the theological interpretations of sacred works; expository methods in religious practice including the rôle of prayer, preaching, singing and ritual. Programmes at this level usually include a selection of relevant courses in other fields such as the humanities; social sciences; fine and applied arts; social welfare; law and jurisprudence. In addition, time is devoted to work among people and to assisting qualified ministers of religion or other religious workers in the performance of their duties, including the conducting of religious services and other offices in places of worship.

Usual minimum educational prerequisite is completion of second-level education, second stage. In exceptional cases, mature candidates with relevant experience and appropriate motivation may be admitted with lower educational qualifications.

Usual award for completion of a programme is ordination as a minister of religion, often with a bachelor's degree (B.D., B.A.) or the equivalent.

62600. Religion and theology programmes (see definition under 626)

630. Social and behavioural science programmes

This field includes a variety of programmes in education at the third level, first stage, of the type that leads to a first university degree or equivalent, concerned with the theory, analytical methods, and practices of the social and behavioural sciences. These programmes stress the theoretical and scientific principles of the subjects included, as well as an understanding of the institutions involved and the analytical tools and methods of social science.

The principal kinds of programmes included are those dealing with economics, political science, sociology (including demography); anthropology, psychology, geography, studies of regional cultures. A programme in any of these subjects usually contains some background courses in related social and behavioural sciences designed to supplement and to assist in mastering the major subject. Other background courses often include a selection from such subjects as the humanities, natural sciences, law and jurisprudence, business administration and related programmes, mathematics, computer science, and statistics.

Programmes may be full-time or part-time, day or evening. At this level, however, most programmes are full-time, although students may undertake them on a part-time basis. The part-time programmes are mainly refresher or retraining courses. Most programmes are conducted by universities, colleges or similar institutions, but some are provided by employers, trade unions, employers'

associations, etc. Courses and programmes are sometimes conducted by correspondence or through broadcasts (radio or television).

Usual minimum educational prerequisite is completion of second-level education, second stage, although in exceptional cases mature students may be admitted with lower educational qualifications upon demonstration of ability to handle the subject-matter at this level.

Usual award for successful completion of a programme is a degree (B.A., B.Sc.) or the equivalent.

63001. General programmes in the social and behavioural sciences

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of instruction and seminar or group discussion dealing with the principles and practices of the social and behavioural sciences in general.

Principal course content usually includes the principles of social and behavioural sciences such as economics, political science, sociology, anthropology, psychology, geography; specialized courses in the various social and behavioural sciences, particularly those concerned with interdisciplinary subjects such as economic policies of governments, political factors in economic analysis, political sociology, social and cultural anthropology, social psychology, etc. In most cases, students choose some combination of social science problems and policies and arrange to take the relevant courses. Background courses usually included are those in the humanities such as languages, literature, history, archaeology, philosophy, etc.; business administration specialities, law, relevant natural science programmes, mathematics, and computer science.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a general programme.

Usual award for successful completion is a bachelor's degree or the equivalent.

63012. Economics programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of instruction and seminar or group discussion, dealing with the theoretical and institutional bases of modern economic systems, their histories and operating principles.

Principal course content usually includes the principles of economics, economic theory, history of economic thought, economic history, economic organization and planning, economic development in historical perspective, public finance, labour economics, money and banking, industrial organization, urban economics, national accounts, international and inter-regional exchange, monetary policy, international payments, marketing, and econometrics. Background courses often included are statistical methods, mathematics, and study of social and political institutions.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a general programme.

Usual award for successful completion is a bachelor's degree or the equivalent.

63022. Political science programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of instruction and seminar or group discussion dealing with the principles and practices of government.

Principal course content usually includes national governmental institutions, comparative government, political theory, history of political thought, local governmental institutions and problems, constitutional development, public administration, and international intergovernmental organizations. Background courses often included are relevant specialities in economics, sociology, psychology, history, languages and philosophy.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a general programme.

Usual award for successful completion is a bachelor's degree or the equivalent.

63032. Sociology programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of instruction and seminar or group discussion, dealing with the principles and practices of modern human societies, including the dynamics of social organizations, institutions, and groups.

Principal course content usually includes the history of sociological theory, contemporary sociological theory, social problems, the sociology of the family, comparative social systems, social change, urban sociology, political sociology, social stratification, population and human ecology, demography, social institutions, and social conflict theories. Background courses often included are the principles of economics, political science, race and ethnic relations, anthropology, criminology and penology, statistics and research methods, problems of minority groups, and psychology.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a general programme.

Usual award for successful completion is a bachelor's degree or the equivalent.

63042. Anthropology programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of instruction and seminar or group discussion dealing with the principles and practices of primitive human societies, including social organization and art forms.

Principal course content usually includes comparative anthropology, physical anthropology, kinship systems in primitive societies, culture and personality in primitive societies, social organization of pre-literate societies, economic anthropology, religion in primitive societies, languages in pre-literate cultures, comparative ethnology, methods in cultural anthropology. Background courses often included are general archaeology, principles of linguistics, comparative sociology, social psychology, experimental analysis of social behaviour, geology, history and statistical analysis.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a general programme.

Usual award for successful completion is a bachelor's degree or the equivalent.

63052. Psychology programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of instruction and seminar or group discussion dealing with the principles and practices of psychology.

Principal course content usually includes subjects such as learning and motivation, evolution and development of behaviour, sensory processes and perception, experimental psychology, applied psychology, physiological psychology, social psychology, developmental psychology, theories of personality, experimental analysis of behaviour disorders, cognitive processes, history of psychology, clinical psychology, psychometrics. Background courses often included are sociology, anthropology, biology, mathematics and philosophy, anatomy and physiology of the nervous system.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a general programme.

Usual award for successful completion is a bachelor's degree or the equivalent.

63062. Geography programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of instruction and seminar or group discussion dealing with the principles and applications of geography.

Principal course content usually includes specialized subjects such as the history of geographic thought, political geography, urban geography, physical geography, economic geography, quantitative geography, comparative geography, cultural and anthro-geography, cartography. Background courses often included are climatology, map interpretation, interpretation of aerial photographs, industrial location and development, geology, archaeology, anthropology, sociology, statistical analysis,and research methodology.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a general programme.

Usual award for successful completion is a bachelor's degree or the equivalent.

63072. Studies of regional cultures

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, in which a combination of social and behavioural science and related disciplines is applied to study of the social, cultural, and ethnic problems of a particular geographic region.

Principal course content usually includes principles of sociology; principles of economics, principles of political science, physical geography, economic geography, principles of regional planning, problems of regional development, the structure of local government, urban geography, urban sociology, rural geography, rural sociology, studies of ethnic and minority groups. Background courses often included are relevant languages, demography, anthropology, further courses in economics, further courses in sociology, further courses in political science, mathematics, statistical analysis, and research methodology.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a general programme.

Usual award for successful completion is a bachelor's degree or the equivalent.

63099. Other social and behavioural science programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of instruction and seminar or group discussion dealing with the principles and practices of social and behavioural sciences not included in the above programme groups.

Principal course content will depend on the particular social and behavioural sciences included. Branches of social and behavioural sciences already included above are sometimes known by different titles. For example, in the above groupings, ethnology is a branch of anthropology, demography is a branch of sociology, human geography is a branch of geography. The social and behavioural sciences to be included here cannot be specified in advance, but users of ISCED should examine the other programme groups carefully (including those classed as humanities programmes) before allotting any programme to this residual group.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a general programme.

Usual award for successful completion is a bachelor's degree or the equivalent.

634. Business administration and related programmes

This field includes a variety of programmes in education at the third level, first stage, of the type that leads to a first university degree or equivalent, concerned with the theory, analytical methods, and practices of business management, business methods, public administration, and institutional administration. These programmes stress the theoretical and general principles of the subjects included without neglecting an understanding of the institutions involved and the analytical tools and methods of administration.

The principal kinds of programmes included are those dealing with business administration, and business practices in general, those with specialization in accountancy and record keeping, those with specialization in marketing and sales management, those with specialization in finance and investment, those with specialization in personnel administration and collective bargaining, those with specialization in international operations, etc.; programmes in public administration and programmes in institutional administration, including administration of schools, hospitals, welfare institutions, etc. A programme in any of these

subject areas usually includes some background courses in related social and behavioural sciences, humanities, or law and jurisprudence designed to supplement and to assist in mastering the major subject. Other background courses usually include selected natural sciences, engineering, mathematics, computer science, and statistics.

Programmes may be full-time or part-time, day or evening. At this level, however, most programmes are full-time, although students may undertake them on a part-time basis. The part-time programmes are mainly refresher or retraining courses, although programmes in business management and institutional management for those already in management positions are becoming more and more common. Most programmes are conducted by universities, colleges, or similar institutions, but some are provided by employers, trade unions, employers' associations, government departments, institutions, etc. Programmes and courses are sometimes conducted by correspondence or through broadcasts (radio or television).

Usual minimum educational prerequisite is completion of second-level education, second stage. In exceptional cases, mature students may be admitted with lower educational qualifications upon demonstration of ability to handle the subject-matter at this level.

Usual award for successful completion of a programme is a degree (B.Com., B.Sc.) or the equivalent. For short-term programmes, a certificate is commonly awarded.

63401. General programmes in business administration (commerce)

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of instruction and seminar or group discussion dealing with the principles and practices of business management. Emphasis is given to management theory and to the analysis of forces affecting the operation of business organizations such as financial, marketing, production, legal and other factors. A broad background in the social sciences and related subjects is often provided.

Principal course content usually includes specialized business administration subjects such as accountancy, commercial law, corporation finance and administration, marketing and advertising, purchasing policy, production scheduling, personnel administration. Background courses often included are economic theory, economic history, economic geography, money and banking, international trade and payments, labour economics, statistics, and courses in the humanities, political science, and public administration;

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a university degree (B.B.A., B.Com., B.Sc.) or the equivalent.

63432. Programmes in business administration with specialization in accountancy

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of instruction and group discussion dealing with the principles and practices of business management with specialization in accountancy. Emphasis is given to management theory, especially those elements relating to accountancy such as cost accounting, auditing and public accounting. A background is usually provided in other functional areas of business such as production, marketing and personnel relations.

Principal course content usually includes specialized business administration subjects such as general accountancy, commercial law, corporation finance, inventory control, accounting records and systems, financial statement analysis, funds flow statements, budgeting systems, product costing, standard costs, return on investment and capital acquisitions. Background courses often included are economic theory, money and banking, labour economics, statistics, and courses in the humanities, political science, and public administration.

Usual minimum educational prerequisite is completion of second-level education, second stage. For entry to programmes sponsored by professional accounting associations such as those of chartered accountants and registered industrial accountants, greater emphasis may be placed on experience than on academic qualifications.

Usual award for successful completion is a university degree (B.B.A., B.Com., B.Sc.) or the equivalent.

63439. Programmes in business administration with other specialization

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of instruction and seminar or group discussion dealing with the principles and practices of business management with emphasis on a field of specialization other than accountancy, e.g. marketing finance and investment, personnel administration, or international operations. A broad background in the social sciences, mathematics, and related subjects is often provided in these programmes.

Principal course content depends on the particular speciality, but most programmes include basic subjects such as accountancy, commercial law, corporation finance and administration, marketing, mathematics, statistics, and economics. Programmes with specialization in marketing feature marketing management, sales management, market research, information systems, advertising retailing, and market planning; those specializing in finance and investment, feature investment and cash management, appraisal of financial securities, personal investment policies and practices, portfolio management, financial institutions, etc.; those specializing in labour studies including personnel administration feature labour relations, collective bargaining, labour law, wage determination, hiring practices, employee welfare schemes, etc.; while those in international operations feature financial management, investment policy, marketing and market analysis, international relations, and international trade and payments, etc.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a university degree (B.B.A., B.Com., B.Sc.) or the equivalent.

63452. Programmes in public administration

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of instruction and seminar or group discussion dealing with the principles and practices of public administration. Emphasis is given to governmental processes, political systems, the organization and administration of the public service, statistics, intergovernmental relations, and public finance. A broad background is often provided in the social sciences and related subjects.

Principal course content usually includes specialized public administration subjects such as local government, administrative law, legislative procedures, the budgetary process, the policy process, and intergovernmental relations. Background courses often included are economics, sociology, human relations, accounting and finance, organization theory, the sociology of groups, constitutional history, operations research, data processing, and administrative communications and control techniques.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a university degree (B.P.A., B.A.) or the equivalent.

63462. Programmes in institutional administration

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of instruction and seminar or group discussion dealing with the principles and practices of institutional administration, e.g. school administration, hospital administration, administration of welfare institutions, etc. Emphasis is given to management theory, and to the specific administrative problems of the relevant type of institution. A broad background in the social sciences and related subjects is usually included.

The general administration subject-matter common to these programmes usually includes the principles of administration, institutional accounting, administration forms, e.g. the committee, advisory boards, etc., operations research techniques, personnel administration, information systems, and often the administration of food, laundry, and other ancillary services. Specific administrative principles and problems in such fields as education, health care, and social service administration are covered in specialized courses suited to the student's speciality. Most programmes of this type also include selected courses from the social sciences, natural sciences, the humanities, law, engineering, etc.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a university degree (B.A.) or the equivalent.

638. Law and jurisprudence programmes

This field includes a variety of programmes in education at the third level, first stage, of the type that leads to a first university degree or equivalent, dealing with the theory, philosophy, and history of a legal system. Most programmes of this kind also include study of comparative law, i.e. comparisons of various modern and past systems of law. The theoretical and general principles underlying the subjects included are stressed in these programmes, but they do not neglect practical problems, and most of them use the case study method.

These programmes tend to be general in terms of subject-matter content. They are designed to impart a broad knowledge of the historical roots of the relevant legal system; the techniques required for the practice of law in the relevant context; an appreciation of the law as a social institution; practical problems of framing legislation; legal requirements for transactions such as property transfer, inheritance, etc.; commercial law, including company law and contracts; and criminal law. The programmes usually include background courses which supplement the major subject and assist students in mastering the subject-matter of the programmes, such as courses in economics, political science, business and public administration, history, philosophy, and languages.

Programmes may be full-time or part-time, day or evening. They are usually conducted by universities or colleges of law, and some programmes and courses may be conducted by correspondence or through broadcasts (radio or television). Part-time or short-time courses are mainly of the refresher type.

Usual minimum educational prerequisite is completion of second-level education, second stage. In some jurisdictions, applicants are required to have a first university degree for admission to a law programme. In exceptional cases, mature students with suitable work experience may be admitted with lower educational qualifications.

Usual award for successful completion of a programme is a degree (L1.B.) or the equivalent.

63801. General programmes in law

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of instruction and seminar or group discussion dealing with the principles and practices of law and jurisprudence. The historical and theoretical bases for the law are stressed, but the programmes also include the study of current law and practice through case studies and other methods.

Principal course content usually includes subjects dealing with general areas such as the relevant legal history, the relevant basic legal philosophy, the relevant criminal law, and the relevant civil law; more specific legal problems such as administrative law, constitutional law, law relating to family and domestic matters, the law of inheritance, the law of contracts, etc., form the basis for other courses. Background courses often included are economics, sociology, philosophy, psychology, and appropriate electives in such fields as natural science, business administration, or engineering.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a general programme.

Usual award for successful completion is a bachelor of laws degree (Ll.B.) or an equivalent, such as the licence.

63812. Programmes for "notaires"

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of instruction and group and seminar discussion, dealing with the theory and practice of civil law. Programmes for notaires exist only in jurisdictions where they are authorized to carry out a wide range of functions in civil law. These programmes do not apply to "notaries public" of the British type.

Principal course content usually includes subjects dealing with general areas such as the relevant history of civil law, the relevant basic legal philosophy, and the relevant civil law; more specific legal questions such as the law relating to the family and domestic matters, the law of inheritance, contract law, the law of property or of property transfer, etc., form the basis for other courses. Background courses often included are accountancy, economics, sociology, psychology, and philosophy.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a general programme.

Usual award for successful completion is a degree or certificate (licence).

642. Natural science programmes

This field includes a variety of programmes in education at the third level, first stage, of the type that leads to a first university degree or equivalent, concerned with theory, experimental techniques and, when applicable, field work methods of one or more branches of the natural sciences. These programmes stress the theoretical and scientific principles of the subjects included as well as the mastery of experimental techniques as a basis for research and investigation.

The principal kinds of programmes included are: general programmes in natural sciences (included in 64299), biological sciences (e.g. general biology, zoology, botany, entomology, microbiology); chemistry (e.g. general chemistry, inorganic chemistry, organic chemistry, physical chemistry); physics (e.g. general physics, mechanics, optics, thermodynamics, relativity, electricity, electronics, atomic and nuclear physics); geological sciences (e.g. mineralogy, petrography, physical geology, palaeontology, stratigraphy, geomorphology); astronomy (e.g. basic astronomy, astrophysics, stellar evolution, stellar classification, radio astronomy); meteorology (e.g. synoptic meteorology, physics of weather forecasting, synoptic meteorological laboratory methods, atmospheric thermodynamics); oceanography (e.g. elements of oceanography, biological oceanography, chemical oceanography, physical oceanography, geological oceanography). Programmes in any of the natural sciences usually include background courses in other natural sciences, chosen to supplement and enhance understanding of the major speciality, and many of the programmes also include courses in mathematics, statistics, computer science, social sciences and the humanities.

Programmes may be full-time or part-time, day of evening. At this level, however, most programmes are full-time, although students may undertake them on a part-time basis. The part-time programmes are mainly refresher courses. Most programmes are conducted by universities, colleges or similar institutions through regular lectures, seminars- laboratory periods and field work, but some are provided through correspondence or through broadcasts (radio or televison).

Usual minimum educational prerequisite is completion of second-level education, second stage, although in exceptional cases mature students may be admitted with lower educational qualifications upon demonstrating ability to handle the subject-matter at this level.

Usual award for successful completion of a programme is a bachelor of science degree or an equivalent diploma.

64202. Biological science programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with fundamental principles of biology. At this level, the theoretical and general principles of the subjects studied are emphasized, although practical application is not ignored.

Principal course content usually includes some of the following: principles of general biology, history of biology, diversity of organisms, inheritance and evolution, environment and man, molecular biology, cellular biology, genetics, cytology, general physiology, comparative invertebrate physiology, comparative vertebrate anatomy, biology of lower plants, morphology of vascular plants, plant and animal taxonomy, biochemistry, ecology, histology, embryology, microbiology. Background courses often included are general chemistry, general physics, mathematics, ethology, humanities, social sciences.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a bachelor of science degree or its equivalent.

64212. Chemistry programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with fundamental principles of chemistry. At this level, the theoretical and general principles of the subjects studied are emphasized, although practical application is not ignored.

Principal course content usually includes some of the following: principles and methods of chemistry, theories of chemistry, physical chemistry, analytical chemistry, chemistry of the elements, elementary and advanced inorganic chemistry, elementary and advanced organic chemistry, quantum chemistry, and industrial chemistry. Background courses often included are general biology, general physics, biochemistry, instrumental analysis, mathematics, humanities, social sciences, and languages.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a science programme.

Usual award for successful completion is a bachelor of science degree or its equivalent.

64222. Geological science programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with fundamental principles of geology. At this level, the theoretical and general principles of the subjects studied are emphasized, although practical application is not ignored.

Principal course content usually includes some of the following: introductory geology, crystallography, mineralogy, optical mineralogy, palaeontology, petrology, stratigraphy, historical geology, geochronology, structural geology, field geology, economic geology, micropalaeontology, geochmistry, sedimentology, geophysics, hydrogeology, marine geology, ore deposits, igneous and metamorphic petrogenesis, examination of mining properties. Background courses often included are geography, general chemistry, general physics, general biology, mathematics, humanities, social sciences, and languages.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a science programme.

Usual award for successful completion is a bachelor of science degree or its equivalent.

64232. Physics programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with fundamental principles of physics. At this level, the theoretical and general principles of the subjects studied are emphasized, although practical application is not ignored. Note that programmes in physical metallurgy are included.

Principal course content usually includes some of the following: general physics, optics, physical optics, electricity, magnetism, theoretical mechanics, electromagnetic theory, electric circuits, atomic and nuclear physics, optical instruments, electrical measurements and measuring instruments, electronics, advanced mechanics, classical thermodynamics, theoretical physics, statistical mechanics, quantum mechanics, relativity, solid-state physics, physical metallurgy, structure of metals, corrosion. Background courses often included are general chemistry, cosmology, astronomy, astrophysics, history of science, mathematics, humanities, social sciences, and languages.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a science programme.

Usual award for successful completion is a bachelor or science degree or its equivalent.

64242. Astronomy programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with fundamental principles of astronomy. At this level, the theoretical and general principles of the subjects studied are emphasized, although practical application is not ignored.

Principal course content usually includes some of the following: basic astronomy, cosmology, fundamentals of celestial mechanics, solar physics, space astronomy, introductory astrophysics, stellar atmospheres, stellar interiors, stellar evolution, pulsating stars, novae and supernovae, interstellar medium and gaseous nebulae, astrometry, stellar classification, observational theory, radioastronomy, and galactic structure. Background courses often included are physics, mathematics, photometry, spectroscopy, interferometric methods, geology, statistics, humanities, social sciences, and languages.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a science programme.

Usual award for successful completion is a bachelor of science degree or its equivalent.

64252. Meteorology programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with the fundamental principles of meteorology. At this level, the theoretical and general principles of the subjects studied are emphasized although practical application is not ignored.

Principal course content usually includes some of the following: physical climatology, biometeorology, physics of weather forecasting, synoptic meteorology, tropical meteorology, synoptic meteorological laboratory methods, synoptic analytical techniques, physical meteorology, dynamic meteorology, hydrodynamics of the atmosphere, atmospheric thermodynamics, meteorological instrumentation, dynamic climatology, and micrometeorology. Background courses often included are mathematics, physics, general chemistry, statistics, geography, geology, astronomy, cosmology, hydrology, humanities, social sciences, and languages.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a science programme.

Usual award for successful completion is a bachelor of science degree or its equivalent.

64262. Oceanography programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with fundamental principles of oceanography. At this level, the theoretical and general principles of the subjects studied are emphasized, although practical application is not ignored.

Principal course content usually includes some of the following: elements of oceanography, instrumentation and methods in oceanography, survey of navigation, biological oceanography, chemical oceanography, physical oceanography, geological oceanography, and marine population dynamics. Background courses often included are general biology, general physics, general chemistry, biochemistry, statistics, mathematics, computer science, geology, humanities, social sciences, and languages.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a science programme.

Usual award for successful completion is a bachelor of science degree or its equivalent.

64299. Other natural science programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with the principles and practice of natural sciences not included in the above programme groups (e.g. general programmes in natural science). At this level, the theoretical and general principles of the subjects studied are emphasized, although practical application is not ignored.

Principal course content usually includes some of the following: refining and beneficiating of metallic ores, recovery of metals by smelting and refining operations, metal production including rolling, etc., testing of metals, other specialities in natural sciences appropriate to the particular programmes included. Background courses usually include general biology, general chemistry, general physics, appropriate specialities in these subjects, social science specialities, mathematics, and statistics.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a bachelor of science degree or its equivalent.

646. Mathematics and computer science programmes

This field includes a variety of programmes in education at the third level, first stage, of the type that leads to a first university degree or equivalent, concerned with the theory, analytical methods, and practices of mathematics and computer science. These programmes stress the theoretical, general principles of the subjects studied without neglecting an understanding of the technological and practical aspects.

Principal kinds of programmes included are those dealing with general mathematics, statistical methods and analysis, actuarial science, and other specialities in mathematics. Programmes in computer science are included; however, programmes in applied mathematics (except statistics and actuarial mathematics) are not included here, but are in the field of application, e.g. economics (econometrics), biology (biometrics), engineering (engineering mathematics), etc. A programme in any of these specializations usually includes courses in general mathematics (e.g. differential and integral calculus, algebra, trigonometry, analytical geometry, probability theory, etc.), as well as courses related to the particular speciality of the programme. Most of these programmes include background courses in related fields such as social sciences, natural sciences, medicine, engineering, etc. Some programmes also include other courses from the humanities, business administration, or other fields.

Programmes are usually full-time, but students may undertake them on a part-time basis. As a rule, the programmes are conducted in universities, colleges, or similar institutions, and such part-time programmes as exist are mainly refresher or retraining courses. Programmes are sponsored by a variety of institutions including government departments, educational institutions, trade unions, employers, and professional associations. Although most programmes are conducted in a classroom, seminar, or laboratory atmosphere, they may be given by correspondence or through broadcasts (radio or television).

Usual minimum educational prerequisite is completion of second-level education, second stage. In exceptional cases, mature applicants with lower educational qualifications may be admitted upon demonstrating ability to handle the subject-matter at this level.

Usual award for successful completion of the programme is a university degree (B.A., B.Sc.) or the equivalent.

64601. General programmes in mathematics

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and problem sessions, and seminars in mathematical principles and practices. Three or four years of study are required with upwards of one-third of the programme selected from mathematics courses. A broad mathematical background is often provided in the first years of the programme.

Principal course content usually includes differential and integral calculus; introductory analysis; projective geometry; linear algebra and geometry; differential equations; probability theory. Additional courses may be selected from

mathematical specialities such as modern algebra; and geometry; mathematical statistics; theory of numbers; mathematical logic; linear programming; differential geometry; combinatories and graph theory; stochastic processes and algebraic topology. A selection of background courses is often included from fields such as natural sciences, social science, engineering, etc.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a university degree (B.Sc., B.A.) or the equivalent.

64611. Programmes in statistics

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory sessions (experimental, project or computation) and seminars. Three or four years of study are normally required with more than one-third of the programme usually being selected from courses in statistics.

Principal course content usually includes, inter alia, theory of probability statistical inference; theory of games; operational research; sampling theory; mathematical models in behavioural sciences; stochastic processes; analysis of variance; mathematical statistics. Additional courses may be selected from: deterministic models in operations research; linear programming; data processing in operational research; multivariate analysis; sequential analysis; non-parametric statistical inference; large sample theory; time series analysis; geometrical probability and applications; classification and pattern recognition; compound decision problems; econometric statistics. A selection of background courses is often included from fields such as natural science, social science, medicine, engineering, etc.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a university degree (B.Sc., B.A.) or the equivalent.

64621. Programmes in actuarial science

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom sessions, practice (computation or experimental) and seminars. Three or four years of study are normally required with more than one-third of the programme selected from courses in actuarial science.

Principal course content usually includes general mathmatics; differential and integral calculus; introductory analysis; differential equations; probability theory. Specialized courses are usually selected from the mathematics of investment and credit, introductory life contingencies, finite calculus; theory of life contingencies and selected topics such as preparation and analysis of raw data; application of operational research; risk theory; financing of pensions; social insurance, demography.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a university degree (B.Sc., B.A.) or the equivalent.

64639. Other programmes in mathematics

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom sessions, seminars, and in some subjects, laboratory work. Three or four years of study are normally required, with more than one-third of the programme usually being selected from courses in mathematics.

Principal course content usually includes general mathematics; calculus; differential equations; probability theory; and introductory analysis. Specialized courses are selected from subjects such as the following, according to a student's speciality: mathematical logic; group theory; rings and modules; category theory; algebraic number theory; class field theory; commutative algebra; complex analysis; theory of ordinary differential equations; theory of partial differential equations; Fourier series and transforms; topics in general relativity; mathematical foundations of quantum mechanics; coding theory; information theory; discrete time control systems; operations research; algebraic topology; topological and lie groups; statistical inference; probability and stochastic processes; markov processes; multivariate statistical analysis; algebraic K theory; and modular representation.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a university degree (B.Sc., B.A.) or the equivalent.

64641. Programmes in computer science

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom sessions, seminars and practice sessions in systems analysis, the theory and practice of computer functioning, new applications of computers, etc. Three or four years of study are normally required with upwards of one-third of the programme usually being selected from courses in computer science.

Principal course content usually includes general mathematics; calculus; differential equations; probability theory; and introductory analysis. Specialized courses are usually selected from the following according to a student's speciality: the Egdon computer system, Fortran, advanced Algol, and other languages; machine codes; on-line systems; programme documentation; computer structures and hardware; computer systems and systems programmes; batch-processing systems; multi-access systems; queuing problems in computer systems; simulation; data structures and their application; information storage and retrieval; computer programming in machine-oriented and user-oriented languages; design of computer systems and associated hardware and software; numerical methods; non-numerical methods; numerical analysis; combinatorial theory; statistical programming; information science and library organization.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a university degree (B.Sc., B.A.) or the equivalent.

650. Medical diagnostic and treatment programmes

This field includes a variety of programmes in education at the third level, first stage, of the type that leads to a first university degree or equivalent, dealing with theoretical and practical aspects of medicine and health. These programmes are primarily concerned with education in the prevention, diagnosis and treatment of human illness and injury. At this level, the programmes typically emphasize the theoretical, general and scientific principles of the subjects included, although practice, including specified time spent as an employee in a working situation, constitutes an important element in most programmes.

Important kinds of programmes include those dealing with aspects of medicine and surgery as required for the practice of medicine, aspects of dentistry, stomatology, odontology, required to practise dentistry; aspects of pharmaceutical practice, nursing (particularly public health nursing), medical technology concerned with diagnosis and treatment requiring a strong theoretical background, rehabilitation medicine, public health and hygiene, etc. Background courses usually included are relevant ones in biological sciences (e.g. zoology, microbiology, vertebrate anatomy and physiology), chemistry (e.g. organic chemistry), biochemistry, physics (especially X-ray and other radiation physics), psychology, social sciences, and the humanities.

Except for refresher courses and special courses on new methods and techniques, these programmes are usually followed full time in a university, college or teaching hospital. They are rarely, if ever, conducted at this level by correspondence, radio or television broadcast.

Usual minimum educational prerequisite is completion of second-level education, second stage. In many cases at least two years of pre-medical education in specified subjects, following completion of second-level education, are compulsory for admission.

Usual award for successful completion of a programme is an appropriate bachelor's degree or diploma. In some countries a doctorate is awarded for some programmes at this level (e.g. M.D., D.D.S.).

65002. Programmes in hygiene

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with items that affect public health such as communicable diseases; hygienic standards in food and water supply; disposal of garbage, sewage, etc.

Principal course content usually includes subjects such as biology, chemistry, biochemistry, microbiology, immunology, virology, parasitology, sanitation, communicable diseases, quarantine, nutrition, and public health. Background courses often included are basic anatomy and physiology; statistics and population dynamics; food, milk and water inspection; psychology and sociology.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a bachelor of science degree or its equivalent.

65006. Programmes in medicine and surgery

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom, hospital and laboratory instruction dealing with the diagnosis and treatment of disease. The theoretical and general principles of the subjects studied are emphasized.

Principal course content usually includes specialized medical subjects such as human anatomy, physiology; pathology, surgery; general medicine; preventive medicine, public health medicine, and nuclear medicine; obstetrics, gynaecology, neurology, paediatrics, anaesthesiology, psychiatry, radiology and pharmacy. Background courses often included are vertebrate anatomy and physiology, biochemistry, microbiology, immunology, serology, haematology, pharmacology, etc.

Usual minimum educational prerequisite is completion of second-level education, second stage. Some institutions require successful completion of a pre-professional programme in medicine.

Usual award for successful completion is a bachelor's degree in medicine and surgery and, in some jurisdictions, the degree of doctor of medicine.

65008. Rehabilitation medicine programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom, hospital and laboratory instruction dealing with the principles and practices of rehabilitating physically or mentally disabled persons.

Principal course content usually includes specialized subjects such as basic anatomy and physiology, kinetics, electrotherapy, rehabilitation techniques, including physical therapy and occupational therapy, speech pathology, audiology, and auditory pathology. Background courses often included are linguistics, acoustics, semantics, phonetics, sociology, general psychology, clinical psychology, and physical education.

Usual minimum educational prerequisite is completion of second-level education, second stage.

65012. Programmes in nursing

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom, hospital, and laboratory instruction dealing with the principles and practices of caring for the sick with particular attention to public health nursing.

Principal course content usually includes subjects such as nursing techniques and procedures, anatomy and physiology, psychiatric nursing, paediatric nursing, obstetrical nursing, geriatric nursing, and public health nursing. Background courses often included are general chemistry, biochemistry, pharmacology, microbiology, sociology, and psychology.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a bachelor of science degree in nursing or its equivalent.

65030. Medical technology programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom, hospital and laboratory instruction dealing with the principles and practices of laboratory medicine. These programmes are primarily concerned with applying laboratory methods in diagnostic and treatment procedures; programmes primarily concerned with laboratory techniques in the physical sciences being classified in 642, natural science programmes.

Principal course content usually includes specialized medical laboratory, technology subjects such as microbiology, blood banking, haematology, pharmacology, clinical chemistry, and histology. Background courses often included are anatomy, physiology, serology, virology, psychology, sociology, and general chemistry.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a bachelor of science degree or its equivalent.

65042. Programmes in dentistry, stomatology, odontology

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom, hospital andlaboratory instruction dealing with the principles and practices of dental care. A broad background in the social sciences and related subjects is also provided.

Principal course content usually includes subjects such as general dentistry, oral anatomy and physiology, oral pathology, general and local anaesthesia, oral surgical procedures, endodontics, orthodontics, paedodontics, prosthodontics, periodontics, dental jurisprudence, dental ethics and practice management. Background courses often included are histology, haematology, immunology, serology, pharmacology, biochemistry, microbiology, radiobiology, and medicine.

Usual minimum educational prerequisite is completion of second-level education, second stage. Some institutions require successful completion of a pre-professional programme in dental science.

Usual award for successful completion is a bachelor's degree in dentistry, and, in some jurisdictions, the degree of doctor of dental science.

65052. Programmes in pharmacy

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of dispensing drugs and medicines.

Principal course content usually includes subjects such as drug calculation, drug preparations, phyto-chemistry, pharmacognosy, dispensing pharmacy, pharmaceutical investigation, product development, and history of pharmacy. Background courses often included are biochemistry, pharmacology, basic anatomy and physiology, organic chemistry and business management.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a bachelor of science degree or its equivalent.

65099. Other medical diagnostic and treatment programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom, hospital and laboratory instruction dealing with the diagnosis and treatment of disease and not included in any of the above programme groups. The theoretical and general principles of the subjects studied are emphasized.

Principal course content will depend upon the particular specialities but all are likely to include study of human anatomy, physiology and pathology, medical laboratory procedures, and public health. Background courses will include appropriate specialities in biology, chemistry, physics, psychology, other social sciences, mathematics, and statistical analysis.

Usual minimum educational prerequisite is completion of second-level education, second stage. Some institutions may require completion of a pre-professional programme in medicine for some of the specialities included.

Usual award for successful completion is a bachelor of science degree or the equivalent.

654. Engineering programmes

This field includes a variety of programmes in education at the third level, first stage, of the type that leads to a first university degree or equivalent, concerned with the theory, experimental techniques, and, when applicable, field work methods of one or more branches of engineering science. These programmes stress the theoretical and scientific principles of the subjects included as well as the mastery of experimental techniques as a basis for research and investigation.

The principal kinds of programmes included are general engineering, chemical engineering (e.g. physical chemistry, chemical process control, polymer technique, electrochemistry); civil engineering (e.g. structural engineering, highway engineering, and hydraulic engineering); electrical and electronics engineering; industrial engineering (e.g. organization and method engineering, production planning); metallurgical engineering (i.e. extractive metallurgy); mining engineering; mechanical engineering (including inter alia mechanical, marine, aeronautical and automotive engineering and naval architecture); and agricultural, forestry, and fishery engineering. Programmes in any of the specialized areas of engineering usually include background courses in other branches of engineering as well as relevant courses in natural sciences, chosen to supplement and heighten understanding of the major speciality, and most such programmes also include selected courses in mathematics, statistics, computer science, social science, and the humanities.

Programmes may be full-time or part-time, day or evening. At this level, however, most programmes are full-time, although students may undertake them on a part-time basis. The part-time programmes are mainly refresher courses. Most of the programmes are conducted in universities, technical colleges or institutes, through regular lectures, seminars, laboratory periods, and field work, but some are provided through correspondence or through broadcasts (radio or television).

Usual minimum educational prerequisite is completion of second-level education, second stage, although in exceptional cases mature students may be admitted with lower educational qualifications upon demonstrating ability to handle the subject-matter at this level.

Usual award for successful completion of a programme is a university degree (B.Sc. (Eng.); B.Eng.; B.E., etc.) or an equivalent diploma.

65412. Chemical engineering programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with principles and practices of chemical engineering. Chemical engineering is largely concerned with the application of chemistry to industrial processes, with the design, construction and operation of plants that use or produce chemicals and with the development and production of a large variety of materials such as synthetic fibres, plastics, drugs, fertilizers, etc.

Principal course content usually includes basic courses in chemistry such as inorganic chemistry, organic chemistry, physical chemistry; specific courses in chemical engineering such as chemical thermodynamics, chemical process analysis, chemical process control, chemical unit design, chemical unit operation, chemical plant design. These programmes usually include some related courses in such engineering fields as civil, electrical, mechanical and metallurgical engineering, as well as background courses in such fields as mathematics, physics, and biology.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually with emphasis on natural sciences.

Usual award for successful completion is a university degree (B.Sc.(Eng.); B.Eng.; B.E.Chem., etc.) or the equivalent.

65416. Civil engineering programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with the principles and practice of civil engineering. Civil engineering is concerned with the design and construction of structures of steel, timber, reinforced concrete and other materials, highways, railways, canals and airports; hydraulic engineering for hydro-electric power, water supply, drainage and irrigation; harbour, river and coastal works, municipal layout and servicing with roads, water distribution, sewers, and sewage disposal.

Principal course content usually includes some of the following: strength of materials; structural engineering; hydraulic engineering; soil mechanics and foundations; highway engineering; concrete and reinforced concrete construction; and water supply and sewerage construction. Background courses usually include mathematics, natural sciences such as physics and chemistry, basic engineering sciences such as thermodynamics and fluid mechanics, and land surveying and photogrammetry.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually with emphasis on science subjects.

Usual award for successful completion is a university degree (B.Sc.(Eng.); B.Eng.; B.E.Civil, etc.) or the equivalent.

65422. Electrical and electronics engineering programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with the principles and practice of electrical and electronics engineering. The field of activity associated with electrical and electronics engineering is a wide one, ranging from the theory and practice of the generation, transmission and distribution of electric power through communication systems, aerospace electronic systems, electronic computer design and construction, and the design and construction of biomedical electronic apparatus. These are examples, and are not intended to be exhaustive.

Principal course content usually includes some of the following: electromagnetic theory; electric networks and systems; electromechanical energy conversions and electric mechanics; power systems; electric measurements; electronic circuits; communication systems; control systems and servomechanisms; and computer technology. Background courses usually include engineering mathematics; basic sciences such as physics and chemistry; and basic engineering sciences, including engineering materials.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually with emphasis on science subjects.

Usual award for successful completion is a university degree (B.Sc.(Eng.); B.Eng.; B.E.E., etc.) or the equivalent.

65426. Industrial engineering programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of industrial engineering. Industrial engineering is concerned with the study, effective performance, and operation of integrated systems of personnel, materials and equipment in the production of goods and services.

Principal course content usually includes some of the following: manufacturing processes; industrial organization; work analysis and measurement; project analysis and control; and production planning and control. A substantial number of courses are taken from other engineering disciplines. Generally these courses are selected from a wide choice of electives. Background courses usually include mathematics; operational research; linear programming; natural sciences such as physics and chemistry; economics; and accounting.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually with emphasis on science subjects.

Usual award for successful completion is a university degree (B.Sc.(Eng.); B.Eng., etc.) or the equivalent.

65432. Metallurgical engineering programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of metallurgical engineering.

Metallurgical engineering (otherwise known as extractive metallurgy) is concerned with study of the scientific and engineering principles and practices employed in extracting, refining, and shaping metals obtained from ores. Note that physical metallurgy, which is the study of the properties of metals and the utilization of metals and alloys, is included in 64232 - Physics programmes.

Principal course content usually includes some of the following: extraction metallurgy; mineral processing; hydrometallurgy; structure of metals; electrochemistry; mineral beneficiation; and mechanical metallurgy. Background courses usually include mathematics; natural sciences such as physics, chemistry and geology; and basic engineering sciences such as thermodynamics and fluid mechanics.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually with emphasis on science subjects.

Usual award for successful completion is a university degree (B.Sc.(Eng.); B.Eng.; B.E.Met., etc.) or the equivalent.

65436. Mining engineering programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction and field trips dealing with the principles and practices of mining engineering. Mining engineering is concerned with exploration for mineral deposits, mine development, mine production, and mine plant engineering and design.

Principal course content usually includes some of the following: mineral analysis; underground environmental control; mine valuation; mineral beneficiation; mining methods; petroleum engineering; rock mechanics; mine plant design; and mine safety. Background courses usually include land surveying; mathematics; natural sciences such as physics, chemistry, and geology and basic engineering sciences such as thermodynamics, fluid mechanics and soil mechanics.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually with emphasis on science subjects.

Usual award for successful completion is a university degree (B.Sc.(Eng.); B.Eng.; B.E., etc.) or the equivalent.

65442. Mechanical engineering programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of mechanical engineering. Mechanical engineering is concerned with the design, construction and use of apparatus or machines that generate, transmit, or use power. Included, inter alia, are marine, aeronautical, and automotive engineering and naval architecture.

Principal course content usually includes some of the following: thermodynamics; fluid dynamics; machine design; electro-mechanical energy conversion; stress analysis; thermal power generation; heating and air-conditioning; system dynamics; internal combustion engines; design and construction of water craft; aerodynamics; design and construction of aircraft and space vehicles; and design and construction of motor vehicles. Background courses usually include mathematics, natural sciences such as physics and chemistry; and other engineering subjects such as properties of metals, fluid mechanics, and some electric and electronic circuitry.

Selected programmes may be offered by some universities, providing specialization in areas such as aeronautical engineering, nuclear engineering, petroleum engineering, marine engineering, or naval architecture.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually with emphasis on science subjects.

Usual award for successful completion is a university degree (B.Sc.(Eng.); B.Eng.; B.E., etc.) or the equivalent.

65453. Agricultural engineering programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction and field work dealing with the principles and practices of agricultural engineering. Agricultural engineering is concerned with the application of mechanization for the development of farm land, soil and water conservation, irrigation, crop production and protection, harvesting, handling, storage and processing of agricultural products and the design of farm structures and machinery; the design and construction of farm equipment and its practical application to agriculture.

Principal course content usually includes some of the following: soil and water conservation; irrigation and drainage design; analysis of agricultural structures and analysis of agricultural production systems. Elective courses from other engineering disciplines make up part of the programme. Background courses usually include mathematics, natural sciences, and social sciences.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually with emphasis on science subjects.

Usual award for successful completion is a university degree (B.Sc.(Eng.); B.Eng.; B.Agric.Eng., etc.) or the equivalent.

65463. Forestry engineering programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction and field work, dealing with the principles and practices of forest engineering. Forestry engineering is concerned with the application of engineering principles to forestry programmes, with emphasis on logging operations.

Principal course content usually includes some of the following: dendrology, wood technology and utilization; forest management operations; forest mensuration; hydrology; logging production planning and control in logging; logging transportation; and forest economics. Elective courses from other engineering disciplines make up part of the programme. Background courses usually include mathematics; natural sciences such as chemistry and biology; and social sciences such as economics and sociology.

Usual minimum educational prerequisite is completion of second-level education, second stage, with emphasis on science subjects.

Usual award for successful completion is a university degree (B.Sc.(Eng.); B.Eng.; B.For.Eng., etc.) or the equivalent.

65499. Other engineering programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with engineering programmes not included in the above programme groups, such as general engineering, engineering science, engineering physics, and fishery engineering. General engineering programmes provide a more diverse background than is obtained in the specialized fields of engineering. Programmes in engineering science and in engineering physics provide special opportunities for candidates to enter the fields of research and development. Engineering physics is concerned with the application of physics and mathematics to the solution of engineering problems.

Principal course content varies according to the particular programme. In general engineering, the programme consists of a selection of engineering subjects covering the basics of the various branches of engineering; in engineering science and engineering physics the programmes are also broadly based in terms of subject-matter, but the emphasis is on the theoretical background of the subject. Programmes in engineering also usually contain an appropriate selection of subjects from the natural sciences such as physics, chemistry, biology, or geology; the social sciences, particularly economics and sociology; and mathematics and statistics.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually with emphasis on science subjects.

Usual award for successful completion is a university degree (B.Sc.(Eng.); B.A.Sc.; B.E.Sc., etc.) or the equivalent.

658. Architectural and town-planning programmes

This field includes a variety of programmes in education at the third level, first stage, of the type that leads to a first university degree or equivalent, concerned with the theory, experimental techniques, and, where applicable, field work methods of programmes in structural architecture, landscape architecture, and town or community planning. These programmes stress the theoretical and scientific principles of the subjects included as well as mastery of the techniques and methods used. Experimental techniques and methods are also stressed as a basis for research and investigation.

The principal kinds of programmes included are those dealing with structural architecture (e.g. the history of architecture, architectural design, structural theory, integrated building systems, social implications of architecture, etc.), landscape architecture (e.g. landscape graphics, principles of landscape architecture, landscape design, etc.), and town or community planning (principles of urban planning, social and institutional determinants for physical urban planning, contemporary urban problems, problems and methods of urban redevelopment, etc.). A programme in any aspect of these subjects usually includes background courses in closely related areas such as other disciplines in architecture and town-planning, as well as relevant courses in engineering, natural sciences, and social sciences chosen to enhance the student's understanding of his major subject. In the case of landscape architecture, relevant agricultural specialities may also be included. Most programmes also include selected courses in mathematics, the humanities, commercial or business administration, and, where relevant, computer science.

Programmes may be full-time or part-time, day or evening. At this level, however, most programmes are full-time, although students may undertake them on a part-time basis. The part-time programmes are mainly refresher courses. Most programmes are conducted in universities, technical colleges, or institutes, but some are provided through correspondence or through broadcasts (radio or television).

Usual minimum educational prerequisite is completion of second-level education, second stage, although in exceptional cases mature students may be admitted with lower educational qualifications on demonstrating ability to handle the subject-matter at this level.

Usual award for successful completion of a programme is a university degree (B.Sc., B.Arch.) or the equivalent.

65801. General programmes in architecture and town planning

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom, laboratory, and seminar or group discussion dealing with the principles and practices of architecture and town planning. These are general programmes in the sense that they are not specialized in any particular aspect of the field. Programmes at this level stress the theoretical and scientific principles of the subjects included, in addition to work on projects designed to develop practical skills.

Principle course content usually includes, inter alia, the history of architecture, principles of architectural design, structural design, structural theory, building methods, materials, and assemblies, architectural graphics, mechanical and other equipment of buildings and structures, landscape design, earth-grading, draining, and irrigation systems, planting design, some study of agricultural science such as soil chemistry, fertilizer technology, arboriculture, floriculture, etc., principles of urban planning, quantitative methods in urban planning, urban transport, regional planning and development, metropolitan area development, etc. The social and cultural aspects of community development and of architectural and community planning are usually stressed. In addition, background courses may include selected specialities in engineering, natural sciences, social sciences, the humanities, mathematics, statistics, and business administration.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a general programme.

Usual award for successful completion is a university degree (B.Sc.) or the equivalent, e.g. the licence.

65802. Programmes in structural architecture

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom, laboratory and seminar or group discussion dealing with the principles and practices of architecture. Programmes at this level stress the theoretical and scientific principles of the subjects included as well as work on projects designed to develop practical skills.

Principal course content usually includes, inter alia, the history of architecture, principles of architectural design; structural design; structural theory; building methods; materials; and assemblies; architectural graphics; integrated building systems; mechanical equipment of buildings; social and community

implications of architecture. Background courses designed to enhance the understanding of the major subject often include relevant specialities from enginering (particularly civil engineering), relevant specialities from the natural sciences, social sciences, humanities, commercial and business administration, mathematics, design theory and analysis.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a general programme.

Usual award for successful completion is a university degree (B.Arch., B.Sc.) or the equivalent, e.g. the licence.

65812. Programmes in landscape architecture

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom, laboratory and seminar or group discussion dealing with the principles and practices of landscape architecture. Programmes at this level stress the theoretical and scientific principles of the subjects included as well as work on projects designed to develop practical skills.

Principal course content usually includes, inter alia, the history of landscape architecture, landscape design, earth grading, drainage, irrigation systems, landscape graphics, planting design, selected courses in structural architecture, and selected courses in agricultural science such as soil chemistry, fertilizer technology, arboriculture, floriculture, etc. Background courses designed to enhance the understanding of the major subject often include courses in town-planning, selected specialities in engineering, natural sciences, social sciences, the humanities, and commercial or business administration.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a general programme.

Usual award for successful completion is a university degree (B.Arch., B.Sc.) or the equivalent, e.g. the licence.

65822. Programmes in town planning

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and seminar or group discussion dealing with the principles and practices of town or community planning. Programmes at this level stress the theoretical and scientific principles of the subjects included as well as work on projects designed to develop an appreciation of community planning techniques and of the practical problems involved.

Principal course content usually includes, inter alia, the history of modern urban development; contemporary urban problems; urban planning projects; principles of urban planning; social and institutional determinants for physical urban planning; quantitative methods in urban planning; urban transportation systems in relation to community planning; regional planning and development; metropolitan area development; problems and methods of urban redevelopment. Background courses designed to enhance the understanding of the major subject often include processes and problems of social change, other relevant specialities in urban sociology, relevant specialities in architecture, economics, political science, geography, psychology, natural sciences, mathematics, statistics, and computer science.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a general programme.

Usual award for successful completion is a university degree (B.Arch., B.Sc.) or the equivalent, e.g. the licence.

662. Agricultural, forestry, and fishery programmes

This field includes a variety of programmes in education at the third level, first stage, of the type that leads to a first university degree or equivalent, dealing with theoretical and practical aspects of agricultural, forestry and fishery operations. The programmes are intended to prepare students for careers as agricultural, forestry or fishery scientists in such areas as research, data analysis, management in large-scale enterprises or institutes; as advisers to governments or to enterprises or institutes both public and private, protecting the health of animals, as veterinarians, etc. These programmes typically emphasize the theoretical, general and scientific principles of the subjects included although practical application is not ignored. Students are encouraged to undertake original work, especially in the final phases of the programmes.

Important kinds of programmes include those dealing with aspects of animal husbandry; crop husbandry; horticulture; soil and water sciences; agricultural economics and management of agricultural operations; veterinary science; food sciences and technology; forestry sciences including the cultivation, protection, management of forest crops as well as the science and technology of forest ranges, and protection and management of watersheds and recreational areas; programmes in fishery science and technology including fish cultivation and fishery management. Background courses usually required include biological sciences such as zoology, entomology, botany and microbiology; chemistry courses of various kinds; social science courses such as those in economics, and sociology; and courses in mathematics and statistics. (Note that agricultural engineering programmes are in 65453, forestry engineering programmes in 65463, and fishery engineering programmes in 65499.)

Programmes are followed either full-time or part-time, day or evening, and although usually sponsored by a university or technological college, may be conducted by correspondence or through radio or television broadcasts. In the main, however, these programmes are followed by full-time students in universities or similar institutions.

Usual minimum educational prerequisite is completion of second-level education, second stage, although in exceptional cases mature students may be admitted with lower educational qualifications upon demonstrating ability to handle the subject-matter at this level.

Usual award for successful completion of a programme is a degree or equivalent diploma (usually a B.Sc. in agriculture).

66201. General programmes in agriculture

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and field instruction dealing with the principles and practices of agriculture.

Principal course content usually includes some of the following: principles of horticulture; crop production, preservation, and harvesting; principles of animal husbandry; animal breeding, nutrition, genetics; poultry science, dairy science, landscape and agricultural gardening; economics and farm management. Background courses usually include botany, zoology, chemistry, physics, mathematics, biology, microbiology, economics and agricultural engineering.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a science programme.

Usual award for successful completion is a bachelor's degree (B.Sc.) or an equivalent, such as the licence.

66203. Animal husbandry programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and field instruction dealing with the principles and practices of animal husbandry, i.e. the study and investigation of the application of scientific methods in the breeding, nutrition and care of domestic animals (including poultry).

Principal course content usually includes animal (and poultry) breeding, ruminant and non-ruminant nutrition, principles of animal nutrition, genetic improvement of farm animals, animal anatomy and physiology, poultry science, dairy science, and farm management. Background courses often included in addition to general agricultural courses, are those in biological sciences, chemistry, social sciences, etc.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a science programme.

Usual award for successful completion is a bachelor's degree (B.Sc.) or an equivalent such as the licence.

66206. Horticulture programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and field instruction dealing with the principles and practices of horticulture.

Principal course content usually includes some of the following: principles of horticulture, greenhouse methods, soil science, landscape gardening, crop growth and culture, plant physiology, plant genetics, plant pathology, floriculture, fruit and vegetable crops, and nursery management. Background courses usually include botany, biochemistry, chemistry, mathematics and statistics.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a science programme.

Usual award for successful completion is a bachelor's degree (B.Sc.) or an equivalent such as the licence.

66208. Crop husbandry programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom, laboratory and field instruction dealing with the principles and practices of crop husbandry.

Principal course content usually includes some of the following: principles of crop husbandry, soil preparation, soil chemistry, seed technology, fertilizer technology, agronomy, pest- and weed-control, and harvesting and preservation of crops. Background courses usually include botany, plant physiology, microbiology, chemistry, farm management, marketing of agricultural products, and statistical analysis.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a science programme.

Usual award for successful completion is a bachelor's degree (B.Sc.) or an equivalent such as the licence.

66212. Agricultural economics programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, dealing with the principles and practices of agricultural economics. Emphasis is given to management theory and to the analysis of forces affecting agricultural organizations.

Principal course content usually includes some of the following: principles of economics, principles of agricultural economics, marketing of agricultural products, production economics, farming systems, farm management and organization, cost control in agriculture, price theory, economics of natural resource use, agriculture and government. Background courses usually include: economic theory, money and banking, labour economics, statistics, principles of accounting, botany, zoology, chemistry, soil science, principles of crop husbandry, principles of animal husbandry, agronomy and rural institutions, including co-operatives.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a general programme.

Usual award for successful completion is a bachelor's degree (B.Sc.) or an equivalent such as the licence.

66222. Food sciences and technology programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction. These programmes are designed for the study of the applications of chemistry, bacteriology, engineering and other sciences to food processing and preservation.

Principal course content usually includes specialized food-related subjects such as the principles of food technology, food chemistry, food preservation, food processing systems, dairy technology, meat technology, poultry technology, fish processing technology, milk and water sanitation and nutrition. Background courses often included are general chemistry, microbiology, biology, biochemistry, general physics, mathematics, statistical analysis.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a general programme.

Usual award for successful completion is a bachelor's degree (B.Sc.) or an equivalent such as the licence.

66226. Soil and water sciences programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of soil and water sciences.

Principal course content usually includes some of the following: principles of soil conservation, soil physics, soil chemistry, soil fertility, soil survey methods, soil classification, water conservation, protection of watersheds and general soil and water science. Background courses usually include: chemistry, physics, biology, microbiology, geology, geomorphology, mathematics, statistical analysis and geography.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a science programme.

Usual award for successful completion is a bachelor's degree (B.Sc.) or an equivalent such as the licence.

66232. Programmes in veterinary medicine

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with the principles and practice of veterinary medicine.

Principal course content usually includes some of the following: veterinary anatomy, neuroanatomy, histology, embryology, genetics, and physiology; veterinary pathology, pharmacology, parasitology, and radiology; veterinary surgery, obstetrics, public health; animal diseases and environmental medicine; hospital practice and veterinary pharmaceutical dispensing. Background courses usually include: general biology, comparative vertebrate anatomy and physiology, biochemistry, microbiology, immunology, general chemistry, general physics.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a science programme. Some institutions require successful completion of a pre-professional programme in veterinary science.

Usual award for successful completion is a bachelor's degree or a licence in veterinary science. The professionals are called doctors of veterinary medicine.

66249. Other programmes in agriculture

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom, laboratory and field work instruction in agricultural specialities not covered by any of the above programme groups. Programmes at this level emphasize the theoretical principles of the subjects studied, although practical application of technology is not neglected.

Principal course content is related to the particular speciality such as apiculture, sericulture, other insect culture; fur farming; mushroom growing; growing of trees for their sap, as rubber production or maple sugar production. In addition to study of the particular speciality, these programmes include courses in agricultural subjects such as horticulture, animal husbandry, and crop husbandry, along with background courses in such fields as zoology, botany, microbiology, entomology, chemistry, farm management, marketing, social sciences and statistical analysis.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a bachelor's degree (B.Sc.) or an equivalent such as the licence.

66262. Forestry programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and field instruction dealing with the principles of forest resource management and forest products.

Principal course content usually includes specialized forest-related subjects such as forest biology, forest soils, management of forestry resources, forest vegetation manipulation, forest pathology, dendrology (including wildlife management), forest photogrammetry, dynamics of forest stands, wood science, non-timber resources, and forest economics. Background courses often included are general biology, general chemistry, general physics, plant physiology, economics, and mathematics.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a science programme.

Usual award for successful completion is a bachelor's degree (B.Sc.) or an equivalent such as the licence.

66272. Programmes in fishery science and technology

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and laboratory instruction dealing with the principles and practices of fishery science.

Principal course content usually includes specialized fisheries science subjects such as ichthyology, fisheries management, fishery economics, fish culture, fish propagation, design and construction of fishing boats and gear, fishing operations, international fish distribution, and fishery aspects of water pollution. Background courses often included are: invertebrate zoology, fundamentals of limnology, oceanography, ecology, principles of physiology, general chemistry, general physics, mathematics, economics and statistical analysis.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a science programme.

Usual award for successful completion is a bachelor's degree (B.Sc) or an equivalent such as the licence.

666. Home economics (domestic science) programmes

This field includes a variety or programmes in education at the third level, first stage, of the type that leads to a first university degree or equivalent, concerned with the theory and practice of domestic science, including household arts. In these programmes the theoretical and scientific principles of the constituent subjects are stressed, but problems of practical application also receive attention.

The principal kinds of programmes included are those covering general home economics, those with emphasis on household and consumer food research and nutrition, those with emphasis on household arts such as interior decoration, clothing design and dressmaking, and household management and budgeting, etc. Typically, these programmes include a broad range of subject-matter covering the natural sciences, social and behavioural sciences, fine arts, and humanities. Programmes emphasizing a particular subject-matter usually include courses in a variety of other subjects that supplement the speciality. In most cases the programmes also include practical work and demonstration projects and introduction to basic research.

Programmes may be full time or part time, day or evening. At this level most programmes are full time, although students may undertake them on a part-time basis. Such part-time programmes as exist are usually of the refresher or retraining type. Most programmes are conducted by universities or similar institutions. Programmes of this type are sometimes provided through broadcasts (radio or television).

Usual minimum educational prerequisite is completion of second-level education, second stage. In exceptional cases mature applicants having relevant work experience may be admitted with somewhat lower educational qualifications upon demonstrating ability to handle the subject-matter.

Usual award for successful completion of a programme is a university degree (B.A., B.Sc.) or the equivalent.

66601. General programmes in home economics

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and seminar discussion and laboratory sessions dealing with the principles and practices of home economics. A broad background in home economics is generally provided in these programmes.

Principal course content usually includes specialized courses in clothing and textiles; child development and family life; food and nutrition; consumer education; housing; home furnishing; household management and family economics. Background courses often included are general chemistry, microbiology, physiology, general psychology, developmental psychology, economics, sociology, and anthropology.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a science programme.

Usual award for successful completion is a university degree (B.A., B.Sc.) or the equivalent.

66612. Programmes in home economics with emphasis on household and consumer food research; nutrition

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and seminar discussion and laboratory sessions dealing with the principles and practices of household and consumer food research and nutrition.

Principal course content usually includes basic home economics courses (as in 66601) along with specialized courses in food study and food management; experimental food; nutrition and therapeutic nutrition. Background courses often included are general biology, microbiology, biochemistry, physiology, mathematics, psychology, and statistics.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a science programme.

Usual award for successful completion is a university degree (B.A., B.Sc.) or the equivalent.

66632. Programmes in home economics with emphasis on household arts

Programmes at the third level, first stage, of the type that leads tc a first university degree or equivalent, primarily consisting of classroom and seminar discussion and laboratory sessions dealing with the principles and practices of design and its application to (a) house interiors or (b) clothing. Programmes with an emphasis on the household arts are closely allied to many in the fine arts.

Principal course content usually includes basic home economics courses (as in 66601) along with a selection from: design; the history of art; furniture and interior design; house planning; textile design; apparel design; draping; flat-pattern designing; the history of costume design; textiles; dressmaking and tailoring. Background courses often included are art, history, psychology, chemistry, organic chemistry, social sciences.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a university degree (B.A., B.Sc.) or the equivalent.

66699. Other home economics programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom and seminar discussion and laboratory sessions dealing with the principles and practice of home economics not included in the above programme groups (i.e. 66601, 66612 and 66632). These programmes are concerned with the applications of science to problems connected with homes or institutions such as the preparation of meals; the storage of foods; the treatment of textiles; laundering, etc.

Principal course content depends on the area of specialization. In addition, courses in chemistry, physics, biology, and physiology are usually included.

Usual minimum educational prerequisite is completion of second-level education, second stage, usually in a science programme.

Usual award for successful completion is a university degree (B.A., B.Sc.) or the equivalent.

684. Programmes in mass communication and documentation

This field includes a variety of programmes in education at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom, seminar, or group discussions and practice work dealing with the theory, experimental techniques, and operations involved in such subjects as journalism, radio and television broadcasting, public relations, and library science. In these programmes, the theoretical and scientific principles of the constituent subjects are stressed, but problems of practical application and an understanding of the institutions involved also receive attention.

Programmes may be full or part time, day or evening. At this level, however, most programmes are full time, although students may undertake them on a part-time basis. Such part-time programmes as exist are mainly refresher or retraining courses. Most programmes are conducted by universities, colleges, or similar institutions, but some are provided by special agencies. A wide variety of sponsors institute programmes of this kind.

Usual minimum educational prerequisite is completion of second-level education, second stage. In exceptional circumstances, applicants may be admitted with lower educational qualifications if they have demonstrated ability to handle the material at this level.

Usual award for successful completion of a programme is a university degree (B.A., B.Sc., B.J., or the equivalent).

68402. Journalism programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of study of the theory and practices of journalism as part of the field of mass communication. Programmes involve lectures in specific vocational subjects, seminars, workshop sessions and often internship with a publication and individual guided research into journalistic practices.

Principal course content usually includes subjects of a general nature such as sociology or economics; a foreign language; history; current affairs; international organization; and political science. The specialized part of the programmes usually includes subjects such as the place of the press in modern society; modern news reporting; editorial practice and policy; ethics of journalism; and government control of the mass media. The internship period is an important element as is competence in writing the mother tongue and/or a current language.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a university degree (B.J., B.A.) or the equivalent.

68404. Programmes in radio and television broadcasting

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, consisting of study of the theory and practice of radio and television broadcasting as part of the field of mass communication. Programmes consist of lectures in specific vocational subjects, seminars, and workshops, and often internship with a radio or television broadcasting station.

Principal course content usually includes subjects of a general nature such as sociology or economics; a foreign language; and history. The specialized part of the programmes usually includes subjects such as broadcasting media in modern society; broadcasting technique, e.g. announcing broadcasting journalism, the art and craft of radio and television production, government regulation of broadcasting, advanced script writing, the ethics of mass communication, and work and study at a radio or television broadcasting station or both. The internship period is an important element.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a university degree (B.A.) or the equivalent.

68407. Public relations programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, consisting primarily of classroom sessions, seminar or group discussion, and studio work or practical on-the-job experience designed to provide training in both the practical and theoretical aspects of public relations.

Principal course content usually includes general subjects in the liberal arts and social sciences, in addition to prescribed courses such as creative writing and the effective use of language; introductory business; business administration and organization; business psychology; marketing; industrial promotion; advertising; theuse and understanding of the mass media; conducting and interpretation of public opinion polls; sociology.

Programmes, usually full time, require three or four years of study in a college of applied arts and technology or in the communications school of a university.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a university degree (B.A.) or the equivalent.

68409. Other programmes in communications arts

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, consisting primarily of classroom sessions, seminar or group discussion and studio work or practical on-the-job experience designed to provide training in communications arts other than those described in the above programme groups (i.e. 68402, 68404 and 68407).

Principal course content usually includes courses in the liberal arts and social sciences, in addition to prescribed courses in areas of specialization.

Programmes, usually full time, require three or four years of study in a college of applied arts and technology or in the communications school of a university.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a university degree (B.A.) or the equivalent.

68422. Library science programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, dealing with the principles and applications of library science. The programmes, consisting of lectures, seminars, discussion groups and practical on-the-job training, are generally of two types: (1) one-year post-degree programmes specializing solely in library science, and (2) first-degree programmes involving several subject areas one of which is library science. Both types of programme deal with all kinds of records, including microfilm, magnetic tape, etc.

The specialized (i.e. library science) content of both programmes includes prescribed courses in such subjects as reference, classification and cataloguing, systems analysis, development and use of thesauri, administration, technical services, and bibliography. Programmes are usually given in universities.

Usual minimum educational prerequisite for the first type is possession of a university degree; for the second type, it is completion of second-level education, second stage.

Usual award for successful completion is a bachelor's degree or the equivalent.

689. Other education at the third level, first stage, of the type that leads to a first university degree or equivalent

This field includes a variety of programmes in education at this level, first stage, of the type that leads to a first university degree or equivalent, not included in the above list of fields, i.e. 601 to 684. Examples of programmes included here are those primarily dealing with criminology, other civil security and military science; social welfare, vocational counselling, environmental questions, etc. In these programmes the theoretical and scientific principles of the constituent subjects are stressed but problems of practical application and an understanding of the institutions involved also receive attention.

Programmes may be full time or part time, day or evening. At this level, however, most programmes are full time, although students may undertake them on a part-time basis. Such part-time programmes as exist are mainly refresher or retraining courses. Most programmes are conducted by universities, colleges or similar institutions, but some are provided by military schools, police schools, and the like. A wide variety of agencies sponsor these programmes.

Usual minimum educational prerequisite is completion of second-level education, second stage. In exceptional conditions, applicants may be admitted with lower educational qualifications if they demonstrate ability to handle the material at this level.

Usual award for successful completion of a programme is a university degree (B.A., B.Sc.) or the equivalent.

68913. Programmes in criminology

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom sessions and seminar or group discussion dealing with the principles and practices of criminology.

Principal course content includes, inter alia, introduction to criminology, the principles of criminal investigation, the psychopathology and psychodynamics of crime, the components of normal and abnormal personality, methods of personality measurement and clinical diagnosis, social origin and characteristics of crime, the sociology of legal and correctional institutes, the history of crime and its treatment, scientific methodology, law enforcement policies and social structure, criminal law in action, field work in criminology. Background courses include economics, history, the social and behavioural sciences, law and jurisprudence.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a university degree (B.A., B.Sc.) or the equivalent.

68919. Other civil security and military programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, primarily consisting of classroom sessions and on-the-job experience designed to provide training in the principles and practice of military science.

Principal course content usually includes, inter alia, the principles of warfare; the military impact of leadership; the evolution of military tactics; origins and evolution of weapons and weaponry; the history of sea and air power; the evolution of naval, land, and aerial warfare; amphibian warfare; navigation and naval operations; basic meteorology for aviation; navigation by dead reckoning and pilotage; radio and radio navigation; fundamentals of military law; the world's political and military systems. Background courses usually include economics, history, the social and behavioural sciences, law and jurisprudence.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a university degree (B.A., B.Sc.) or the equivalent. Awards may sometimes be in the form of a promotion to higher military rank or an appointment to a military staff.

68932. Social welfare programmes

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, consisting of lectures, seminars, group discussions and field work dealing with the principles and practices of social welfare work. While emphasis is given to both the practical and theoretical aspects of social work, the theoretical, general and historical basis of the subjects studied are stressed.

Programmes provide students with a broad background in social work through a number of prescribed core courses in such subjects as human growth and behaviour, normal and abnormal psychology, sociology, psychiatry, medical information, social welfare policy, social case work, and social agency administration. Some programmes permit special emphasis on a particular aspect of social work.

Programmes usually involve one to two years full-time study in a school of social work or a university.

Usual minimum educational prerequisite is completion of second-level education, second stage, preferably in the social or behavioural sciences, and demonstrated affinity for social work. Mature students with related work experience may be admitted with lower educational qualifications.

Usual award for successful completion is a bachelor's degree or the equivalent.

68942. Programmes in vocational counselling

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, consisting principally of classroom sessions, seminar or group discussion and practical work in and observation of counselling procedures.

The programmes cover the principles and practices of counselling designed to enable individuals to assess their assets and shortcomings with respect to occupations so as to make satisfactory vocational decisions.

The programmes, usually full time, require a minimum of one year's study. Practical work carried on under supervision may take up to one-quarter or one-third of the total time.

Principal course content usually includes, inter alia, child and adolescent development; learning and motivation; social and organizational behaviour; cognitive processes; human traits (intelligence, aptitudes, interests and personality); vocational development; human relations and communication; utilization of information; decision-making; experimental methods; interviewing behaviour modification. Emphasis is placed on the techniques of constructing and applying tests.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a university degree (B.A.) or the equivalent.

68952. Programmes in environmental studies

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, dealing with the principles and practices of environmental science, i.e. the analysis of environmental problems and environmental protection and rehabilitation.

Through lectures, seminars, group discussion and demonstration, usually involving an interdisciplinary approach, a background is provided in such subjects as the study and control of environmental pollution, the protection of the environment in all its aspects, the protection of natural resources, and the preservation of the earth's ecology. Programmes consist of a wide variety and combination of courses drawn from the social, behavioural, natural, and physical sciences and their applications.

Programmes are usually of three to fouryear's duration in a university. Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a university degree (B.A., B.Sc.) or the equivalent.

68962. Programmes in physical education

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, consisting primarily of classroom instruction and gymnasium exercises dealing with the essentials of physical education.

Principal course content usually includes some of the following: adaptive physical education; analysis of physical education activities for the elementary schools; statistical methods in health, physical education and recreation; physical fitness appraisal; methods and principles of athletic coaching; human anatomy and physiology; principles of body mechanics; kinesiology; organization and administration of health and physical education in schools.

Much attention is paid to the achievement of competence and skill in athletics such as running and jumping; in sports such as football or hockey; in gymnastics and games; in activities such as boxing, wrestling and judo; in the achievement of rhythmic excellence for example, in dancing.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a university degree (B.A., B.Sc.) or the equivalent.

68972. Programmes in nautical science

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, consisting primarily of classroom sessions, laboratory exercises and in-ship training dealing with the essentials of the nautical sciences.

Principal course content usually includes some of the following: ship-building; naval architecture; stability; seamanship; spherical trigonometry; nautical

astronomy; navigation; navigational aids; meteorology; oceanography; hydrography; marine biology; marine law.

Usual minimum educational prerequisite is completion of second-level education, second stage, preferably in the field of science. Mature students with related work experience may be admitted with lower educational qualifications.

Usual award for successful completion is a university degree (B.Sc.) or the equivalent.

68999. Other programmes of education at the third level, first stage, of the type that leads to a first university degree or equivalent, n.e.c.

Programmes at the third level, first stage, of the type that leads to a first university degree or equivalent, consisting of lectures, seminars, group discussion and laboratory or field work designed to provide professional training in subject areas other than those defined above (i.e. in 68913 to 68972).

These programmes usually last from three to five years, full time, in a college or university, and consist of various prescribed and/or elective courses.

Usual minimum educational prerequisite is completion of second-level education, second stage.

Usual award for successful completion is a university degree (B.A., B.Sc.) or the equivalent.

7. EDUCATION AT THE THIRD LEVEL, SECOND STAGE, OF THE TYPE THAT LEADS TO A POSTGRADUATE UNIVERSITY DEGREE OR EQUIVALENT

The core at this level consists of programmes of education for those who have completed requisite programmes at the third level, first stage, of a type that leads to a first university degree, and who choose to continue their education toward a higher degree or equivalent award. These are programmes of high-level professional education and those involving independent research of a high order. In almost all cases students follow programmes in the same subject field as for their first degrees, but of a more specialized character, the study and research being concentrated on one or two subdivisions of the major subject. The theoretical and philosophical aspects of the subjects studied are emphasized even more at this level than for the first university degree. Subject-matter fields within which the higher specialization takes place are the same at this level as in the one immediately preceding, and programmes are usually of one to four years' duration.

Programmes included in this category are of two types: one is mainly an extension of the classroom-laboratory-seminar type of learning characteristic of category 6 and leading usually to a higher degree such as a master's degree or a higher professional qualification such as a specialist qualification in medicine; the other consists mainly of original research, usually of a largely independent nature, resulting in a dissertation worthy of publication and culminating in a degree or other award of the highest level (usually a doctorate). This category (7) could be subdivided into two "level" categories (e.g. 7 and 8) on the above basis because the two kinds of programmes are so different in content and method. It is not considered feasible to do this internationally at present, but some countries might find such a division useful for national statistics.

Degrees and equivalent diplomas or other certificates are usually awarded after completion of a series of examinations and often after the presentation and defence of a thesis. These higher degrees and awards take various forms and have different titles from country to country, some of them being master of arts, master of science, diplôme d'études supérieures, doctorates of various kinds. These are not given as equivalents, but merely as examples.

As with level 6, few programmes at this level are encountered outside the university system in most countries. The definition of "postgraduate university degree" follows from that given above for "first university degree." Cases will be encountered in some countries where professional societies conduct programmes that would be classed as "postgraduate," e.g. in engineering, medicine or law. Employers of young university graduates, particularly larger employers in industries such as electronics, aerospace, chemicals, who operate research and development departments or units, give postgraduate instruction that does not lead to a higher degree but would be classed at this level. Refresher courses at this level are quite common.

714. Programmes in education science and teacher training

This field includes a variety of programmes in education at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, dealing with theoretical and practical aspects of school teaching, the principles of education, comparative education, curricula and educational psychology. Emphasis is given to the theoretical principles of the subjects included in these programmes, and original research work, as substantiated by the presentation and defence of a scholarly thesis, is usually an important element; The programmes followed by individual students at this level are usually concerned with one specialized area of the educational sciences, but practical aspects such as practice teaching and other observation of and participation in educational processes are important in some cases.

Important kinds of programmes are general teacher training programmes (although these are less common here than at levels 5 and 6); specialized programmes in terms of those to whom the education is to be directed (e.g. pre-school and kindergarten teaching, adult education teaching; teaching of teacher trainees); and specialized programmes on problems of teaching particular subjects (such as languages, science or mathematics). The programmes tend to be more highly specialized because they are designed for university graduates most of whom are already qualified teachers and many of whom have had some years of teaching or related working experience. The objective of these programmes is to develop high-level specialists in particular aspects of education including teaching and related activities such as supervision and inspection of teaching, educational counselling, educational planning and economics of education. Background courses are not so important here as at other educational levels but many programmes include related specialities such as courses in administration, psychology, educational guidance, statistics, etc.

In the main these programmes are full time but many are carried on in school vacation periods or as part-time activities by employed teachers. Other examples of part-time programmes are refresher courses and special courses to introduce new methods and techniques.

Usual minimum educational prerequisite is completion of education at the third level, first stage, of the type leading to a first university degree or equivalent, and an initial qualification in teaching.

Usual award for successful completion is a higher university degree (e.g. M.Ed., D.Ed. or Ph.D.) or higher diploma (e.g. diplôme d'études supérieures).

71401. General programmes in education science

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, consisting of study, seminars or group discussion, and research designed to prepare specialists in various branches of education and teaching. Emphasis may be placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include the history of education, the theory of comparative education, of teaching; curriculum development; and the use of teaching aids such as teaching machines, audio-visual equipment, etc. Subject areas within which background studies tend to fall include fields allied to the student's major subject as well as relevant specialities in other related fields such as the humanities, social sciences, natural sciences, religion and theology, law and jurisprudence, foreign languages, etc. Students may specialize in one particular area, e.g. history of education, philosophy of education, comparative education.

Usual minimum educational prerequisite is completion of third-level education, first stage,of the type that leads to a first university degree, usually in the same or a related field, together with the holding of an initial teaching qualification. Students in these programmes have frequently had teaching experience.

Usual award for successful completion is a master's degree or equivalent. If research has played an important rôle, together with the presentation of a theses or dissertation, a doctor's degree may be awarded, usually after a period of study lasting at least 2 or 3 years.

71404. Programmes in education with specialization in curriculum development in non-vocational subjects

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, consisting of study, seminar or group discussion and research designed to prepare specialists in the curriculum and methods of teaching in a non-vocational subject area such as history, science, languages, chemistry, economics, mathematics. Attention is paid to the theory of curriculum development, psychology and sociology.

Through seminars, directed reading, and independent research, the student seeks to acquire a comprehensive grasp of one field within the broad area of non-vocational education and may also prepare one or more minor fields in related or other areas of education. In addition, programmes often include background study in the subject to be taught and in related subject-matter areas. Programmes usually last from one to three years, full time, and consist of a number of prescribed courses, demonstrated facility in one or more foreign languages, and usually the preparation of a thesis or dissertation involving original investigation of a particular problem within the major subject.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree, usually in the same or a related field, the holding of an initial teaching qualification, and demonstrated potential for study at the graduate level. Some programmes may require experience in teaching or administration at an appropriate level.

Usual award for successful completion is a master's degree or equivalent. If research has played an important rôle, together with the presentation of a thesis or dissertation, a doctor's degree may be awarded, usually after a period of study lasting at least two or three years.

71408. Programmes in education with specialization in curriculum development in vocational subjects

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, consisting of study, seminar or group discussion and research designed to prepare specialists in the curriculum and methods of teaching in a practical or vocational subject area such as the fine arts, home economics, commercial subjects, agriculture, etc. Attention is paid to the theory of curriculum development, psychology and sociology.

Through seminars, directed reading and independent research, the student seeks to acquire a comprehensive grasp of one aspect of the broad subject areas, such as the teaching of industrial arts, vocational or technical courses at the

first, second or third (non-degree) level of education, and may also prepare one or more minor subjects in related areas of teacher training. In addition, a programme sometimes includes background study in aspects of the subject to be taught and in other related subject-matter areas.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree, usually in the same or a related field, the holding of an initial teaching qualification, and demonstrated potential for study at the graduate level. Some programmes may require experience in teaching or administration at an appropriate level.

Usual award for successful completion is a master's degree or equivalent. If research has played an important rôle, together with the presentation of a thesis or dissertation, a doctor's degree may be awarded, usually after a period of study lasting at least two or three years.

71412. Programmes with specialization in early childhood education

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, designed to prepare specialists in the theory and practice of dealing with young children and of teaching in education preceding the first level (i.e. kindergarten level). Attention is paid to psychology, sociology and to the theory of curriculum development.

Through seminars, directed reading and independent research, the student seeks to acquire a comprehensive grasp of one field within the general area of kindergarten education, such as reading instruction, child psychology, etc., and may also prepare one or more minor subjects in related or other areas of education. Programmes usually last from one to three years' full-time study and may consist of a certain number of prescribed courses, demonstrated facility in one or more foreign languages and the preparation of a thesis or dissertation involving original research into a particular problem within the major subject.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree, usually in the same or a related field, the holding of an initial teaching qualification, and demonstrated potential for study at the graduate level. Some programmes may require experience in teaching or administration at an appropriate level.

Usual award for successful completion is a master's degree or equivalent. If research has played an important rôle, together with the presentation of a thesis or dissertation, a doctor's degree may be awarded, usually after a period of study lasting at least two or three years.

71416. Programmes with specialization in adult education

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, designed to prepare specialists in teaching and curriculum development in adult or continuing education.

Through seminars, directed reading and independent research, the student seeks to acquire a comprehensive grasp of one field within the general field of adult education such as adult counselling, service for adult education within the community, problems relating to the education of older people, extension and other types of

non-formal education, and may prepare one or more subjects in related or other areas of education. Programmes usually last from one to three years' full-time study and may consist of a certain number of prescribed courses, demonstrated facility in one or more foreign languages, and the preparation of a thesis or dissertation involving original research into a particular problem within the major subject.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree, usually in the same or a related field, the holding of an initial teaching qualification, and demonstrated potential for study at the graduate level. Some programmes may require experience in teaching or administration at an appropriate level.

Usual award for successful completion is a master's degree or equivalent. If research has played an important rôle, together with the presentation of a thesis or dissertation, a doctor's degree may be awarded, usually after a period of study lasting at least two or three years.

71422. Programmes with specialization in the education of the handicapped

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, designed to prepare specialists in the teaching of handicapped children.

Through seminars, directed reading and independent research, a student seeks to acquire a comprehensive grasp of one field within the general field of teaching the handicapped such as the teaching of physically, visually, aurally, emotionally disturbed, socially maladjusted, mentally or speech handicapped children, and may prepare one or more subjects in related or other areas of education. Programmes usually last from one to three years' full-time study and may consist of a certain number of prescribed courses, demonstrated facility in one or more foreign languages, and the preparation of a thesis or dissertation involving original research into a particular problem within the major subject.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree, usually in the same or a related field, the holding of an initial teaching qualification, and demonstrated potential for study at the graduate level. Some programmes may require experience in teaching or administration at an appropriate level.

Usual award for successful completion is a master's degree or equivalent. If research has played an important rôle, together with the presentation of a thesis or dissertation, a doctor's degree may be awarded, usually after a period of study lasting at least two or three years.

71432. Programmes in education for teacher trainers

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, designed to prepare specialists in the training of teachers.

Through seminars, directed reading and independent research, a student seeks to acquire a comprehensive grasp of one field within the general field of teacher training, such as educational foundations, or teaching methods, and may prepare one or more subjects in related or other areas of education. Programmes usually last

from one to three years' full-time study and may consist of a certain number of prescribed courses, demonstrated facility in one or more foreign languages, and the preparation of a thesis or dissertation involving original research into a particular problem within the major field.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree, usually in the same or a related field, the holding of an initial teaching qualification, and demonstrated potential for study at the graduate level. Some programmes may require experience in teaching or administration at an appropriate level.

Usual award for successful completion if a master's degree or equivalent. If research has played an important rôle, together with the presentation of a thesis or dissertation, a doctor's degree may be awarded, usually after a period of study lasting at least two or three years.

71472. Programmes in education science without teacher training

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, designed to prepare specialists in educational science without emphasis on pedagogy as such. Emphasis is placed on the social and educational factors involved in the educational process from the individual, family and community points of view.

Through seminars, directed reading, visits, supervised internship and independent research, a student seeks to acquire a comprehensive understanding of some speciality in educational science. His speciality may be educational planning or some aspect of planning; educational policy with respect to an aspect of education; the impact of education on other social forces; the impact of current social factors on education; the learning process; a speciality in the history of education; a speciality in educational theory, etc. A programme in any speciality of this kind usually involves study of related subjects in the humanities, social and behavioural sciences, law, fine and applied arts, mathematics, statistics, etc.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree, usually in educational science and often the holding of a teaching qualification.

Usual award for successful completion is a master's degree or equivalent. If research has played an important rôle, together with the presentation of a thesis or dissertation, a doctor's degree may be awarded, usually after a period of study lasting at least two or three years.

71499. Other programmes in education science and teacher training

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, designed to prepare specialists in areas of the educational sciences or teacher training not previously defined.

Through seminars, directed reading and independent research, the student seeks to acquire a comprehensive grasp of his particular subject and possibly of one or more related aspects of other subjects. Programmes usually last from one to three years' full-time study, and may consist of a certain number of prescribed courses, demonstrated facility in one or more foreign languages, and the preparation of a thesis or dissertation involving original research into a particular problem

within the major subject. Examples of such major subjects are: educational counselling; educational science methods in higher education; anthropology of education applied to specific case studies; experimental studies in planned community development and education; specific studies in educational technology and computerized instruction.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree, usually in the same or a related field, the holding of an initial teaching qualification, and demonstrated potential for study at the graduate level. Some programmes may require experience in teaching or administration at an appropriate level.

Usual award for successful completion is a master's degree or equivalent. If research has played an important rôle, together with the presentation of a thesis or dissertation, a doctor's degree may be awarded, usually after a period of study lasting for at least two or three years.

718. Fine and applied arts programmes

This field includes a variety of programmes in education at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, consisting of study, seminars, research and performance in aspects of the fine and applied arts. At this level, emphasis is given to the theoretical, philosophical and historical bases of the subjects included in a programme, and original research or composition is often an important element. In many programmes, original research work as substantiated by the presentation and defence of a scholarly thesis is a requirement. The programmes followed by individual students at this level are usually confined to one specialized area within one of the fine or applied arts.

Important kinds of programmes included are highly specialized studies within such groups as the history and philosophy of art, drawing and painting (including etching and print making), sculpturing, music, drama, interior design, etc. A programme in any of the above specialities usually entails some study of related aspects of the same subject as well as special aspects of other related fine and applied arts, as a means of supplementing and assisting in the mastery of the major subject. In some cases, background studies are included also in special aspects of related subjects in the humanities, social and behavioural sciences, religion, natural sciences, etc. (Note that programmes in architecture and town-planning are not included here, but are in 758).

These programmes are mostly full-time, although advanced students may be active in their professions and therefore may undertake a programme on a part-time basis. The relatively few part-time programmes are refresher courses and special courses. Periods of practice or performance form an indispensable part of some programmes. Programmes are usually given in universities, but some are provided by special colleges of fine arts.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or the equivalent, generally in the same or a related field. In exceptional cases, reputable artists without a university degree are admitted to these courses.

Usual award for successful completion is a higher degree (M.A., M.Mus., Ph.D.) or the equivalent.

71802. Programmes in the history and philosophy of art

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, designed to prepare specialists in the history and/or philosophy of art.

Through study, seminar, studio work, and independent research, students acquire a comprehensive knowledge of some speciality within the broad area of the history and philosophy of art, such as Greek or Hindu sculpture, Chinese painting, art as an expression of nationalism, etc.

Programmes usually last between one and three years full-time in a university or college of art, and may consist of a number of prescribed courses, the achievement of a professional standard in the particular art form, demonstrated facility in one or more foreign languages, and the preparation of a thesis or dissertation based on original research into a particular problem within the major subject.

Usual minimum educational prerequisite is possession of a first university degree or equivalent in the fine arts, and demonstrated potential for graduate study.

Upon completion of written and/or oral examinations, successful students are awarded a master's degree (i.e. M.A., M.F.A.) or a higher diploma, or a doctorate (i.e. Ph.D., D.F.A.) or the equivalent.

71804. Programmes in drawing and painting

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, designed to prepare specialists in drawing or painting.

Through study, seminars, studio work, and independent research, students acquire a comprehensive knowledge of some speciality within the broad area of drawing and painting, such as theory of colour, basic forms, analysis of the visual arts, life drawing, lettering, etc.

Programmes usually last between one and three years full-time in a university or college of art and may consist of a certain number of prescribed courses, the achievement of a professional standard in the particular art form, demonstrated facility in one or more foreign languages, and the preparation of a thesis or dissertation based on original research into a particular problem within the major subject.

Usual minimum educational prerequisite is possession of a first university degree or equivalent in fine arts, demonstrated potential for graduate study and presentation of a representative portfolio of the individual's accomplishments in painting or drawing.

Upon completion of written and/or oral examinations, successful students are awarded a master's degree (i.e. M.A., M.F.A.) or higher diploma, or a doctorate (i.e. Ph.D., D.F.A.) or the equivalent.

71808. Programmes in sculpturing

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, designed to prepare specialists in sculpturing.

Through study, seminars, studio work, and independent research, students acquire a comprehensive knowledge of some speciality within the broad area of sculpture, such as visual and spatial relationships, definition of forms and structures, design, Greek or Hindu sculpture, etc.

Programmes usually last between one and three years full-time in a university or college of art and may consist of a number of prescribed courses, the achievement of a professional standard in the particular art form, demonstrated facility in one or more foreign languages, and the preparation of a thesis or dissertation based on original research into a particular problem within the major subject.

Usual minimum educational prerequisite is possession of a first university degree or equivalent in the fine arts, demonstrated potential for graduate study and presentation of representative samples of the individual's work.

Upon completion of written and/or oral examinations, successful students are awarded a master's degree (i.e. M.A., M.F.A.) or higher diploma, or a doctorate (i.e. Ph.D., D.F.A.) or the equivalent.

71822. Programmes in music

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, designed to prepare specialists in music, e.g. the history of music, music theory, musical composition, orchestration, etc.

Through study, seminars, studio work, and independent research, students acquire a comprehensive knowledge of some speciality within the broad areas of music such as baroque music, orchestration, composition, arranging, piano, etc.

Programmes usually last between one and three years full-time in a university or music school and may consist of a number of prescribed courses, the achievement of a professional standard in the specialization, demonstrated facility in one or more foreign languages, and the preparation of a thesis or dissertation based on original research into a particular problem within the major subject.

Usual minimum educational prerequisite is possession of a first university degree or equivalent in music, demonstrated potential for graduate study, and perhaps the performance of a brief recital or presentation of a representative selection of past work.

Upon completion of oral and/or written examinations, successful students are awarded a Master's degree (i.e. M.A., M.Mus.) or higher diploma, or a doctorate (i.e. Ph.D., Mus.Doc.) or the equivalent.

71832. Programmes in the drama

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, designed to prepare specialists in the drama.

Through study, seminars, studio work and independent research, students acquire a comprehensive knowledge of some speciality within the broad area of drama such as acting, stagecraft, make-up, oral interpretation, diction, production, directing, etc.

Programmes usually last between one and three years full-time in a university or drama school and may consist of a number of prescribed courses, the achievement of a professional standard in the specialization, demonstrated facility in one or more foreign languages, and the preparation of a thesis or dissertation based on original research into a particular problem within the major subject.

Usual minimum educational prerequisite is possession of a first university degree or equivalent in the dramatic arts, demonstrated potential for graduate study, and perhaps some experience in drama.

Upon completion of oral and/or written examinations, successful students are awarded a master's degree (i.e. M.A., M.F.A.) or higher diploma, or a doctorate (i.e. Ph.D., D.F.A.) or the equivalent.

71852. Programmes in interior design

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, designed to prepare specialists in interior decoration and design.

Through study, seminars, studio work, and independent research, students acquire a comprehensive knowledge of some speciality within a broad area of interior design such as interior decoration of public buildings, offices, homes, etc.

Programmes usually last between one and three years full-time in a university or college of art and design and may consist of a number of prescribed courses, such as period furniture, colour harmony, wall decoration, product development, etc., the achievement of a professional standard in the specialization, demonstrated facility in one or more foreign languages, and the preparation of a thesis or dissertation based on original research into a particular problem within the major subject.

Usual minimum educational prerequisite is possession of a first university degree or equivalent in fine arts or design, demonstrated potential for graduate study, and often presentation of representative work.

Upon completion of oral and/or written examinations, successful students are awarded a Master's degree (i.e. M.F.A.) or higher diploma, or a doctorate (i.e. Ph.D., D.F.A.) or the equivalent.

71899. Other fine and applied arts programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, designed to prepare specialists in fine and applied arts other than those previously defined.

Through study, seminars, studio work, and independent research, students acquire a comprehensive knowledge of some speciality within one of the fine or applied arts such as dancing, textile design, apparel design, furniture design, etc.

Programmes usually last between one and three years full-time in a university or college of art and design, and may consist of a number of prescribed courses in the particular speciality concerned, the achievement of a professional standard in the specialization, demonstrated facility in one or more foreign languages, and the preparation of a thesis or dissertation based on original research into a particular problem within the major subject.

Usual minimum educational prerequisite is possession of a first university degree or equivalent in the fine arts or design, demonstrated potential for graduate study, and often presentation of representative work.

Upon completion of oral and/or written examinations, successful students are awarded a master's degree (i.e. M.F.A.) or higher diploma, or a doctorate (i.e. Ph.D., D.F.A.) or the equivalent.

722. Humanities programmes

This field includes a variety of programmes in education at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, concerned with theories, analytical methods, and research in aspects of subjects in the humanities. At this level, emphasis is given to the theoretical principles of the subjects included in the programmes and original research work, as substantiated by the presentation and defence of a scholarly thesis, is usually an important element. The programmes followed by individual students at this level are usually confined to one specialized area within one of the humanities.

Important kinds of programmes include those dealing with highly specialized aspects of the current or vernacular language and its literature, other living languages and their literature, "dead" languages and their literature, linguistics, comparative literature, history, archaeology, philosophy, etc. Study of a highly specialized programme in any of these subjects usually entails some study of related aspects of the same subject as well as special aspects of other related subjects in the humanities, as a means for supplementing and assisting in the mastery of the major subject: In some cases, other background studies are included in special aspects of such fields as the fine and applied arts, social and behavioural sciences, religion and theology, law and jurisprudence, natural sciences, mathematics, computer science, and statistics. In the main these programmes are full-time, although advanced students may do part-time teaching, research work, or other work related to their studies. The relatively few part-time programmes are refresher courses and special courses.

Usual minimum educational prerequisite is completion of education at the third level, first stage, of the type leading to a first university degree or equivalent, generally in the same or a closely related field.

Usual award for successful completion is a higher degree (M.A., Ph.D.) or the equivalent, (diplôme d'études supérieures).

72211. Programmes in the current or vernacular language and its literature

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research, dealing with the advanced study of the mother tongue or another current language, its history, its present structure, and its literature. Emphasis is given to research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas into which courses and research projects tend to fall include special periods, a particular writer or group of writers, the structure and grammar of the language, the history of the language, the analysis of specific texts, principles of literary criticism, etc. Subject areas within which background studies tend to fall include history, comparative literature, linguistics, foreign languages, natural sciences, the social and behavioural sciences, philosophy, and mathematics.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type leading to a first university degree or equivalent, usually in the same or a closely related field.

Usual award for successful completion is a higher degree (M.A., Ph.D.) or the equivalent.

72215. Programmes in other living languages and their literature

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research, dealing with a living language, its history, its present structure, and its literature. Emphasis is given to research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas into which courses and research projects tend to fall include special periods in the literature; a particular writer or group of writers; the structure and grammar of the language; the history of the language; analysis of specific texts; principles of literary criticism; etc. Subject areas within which background studies tend to fall include history, comparative literature, linguistics, other foreign languages, natural sciences, the social and behavioural sciences, philosophy, and mathematics.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type leading to a first university degree or equivalent, usually in the same or a closely related field.

Usual award for successful completion is a higher degree (M.A., Ph.D.) or the equivalent.

72221. Programmes in "dead" languages and their literature

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the advanced study of a classical language, its history, structure and literature. Emphasis is given to research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas into which courses and research projects tend to fall include specific periods in the literature; a particular writer or group of writers; the structure and grammar of the language; the history of the language; analysis of specific texts; the principles of literary criticism, etc. Subject areas within which background studies tend to fall include ancient history, comparative literature, linguistics, other foreign languages, natural sciences, the social and behavioural sciences, philosophy, and mathematics.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type leading to a first university degree or equivalent, usually in the same or a closely related field.

Usual award for successful completion is a higher degree (M.A., Ph.D.) or the equivalent.

72231. Programmes in linguistics

Programme at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research, dealing with advanced concepts of language formation. Emphasis is given to original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas into which courses and research projects tend to fall include, i.a., transformation grammar; psycho-linguistics and advanced psycho-linguistics; historical linguistics; generative linguistics; grammatical rules specifying well-formed strings; conditions for the analysability and assigning of structural descriptions; generative phonology; articulatory and acoustic correlates; laryngeal theory; non-phonemic features; research techniques in linguistics, etc. Subject areas within which background studies tend to fall include foreign languages, literature, history, philosophy, natural sciences, business management, mathematics, and statistics.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type leading to a first university degree or equivalent, usually in the same or a closely related field.

Usual award for successful completion is a higher degree (M.A., Ph.D.) or the equivalent.

72241. Programmes in comparative literature

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the advanced study of international literary and cultural relations. Emphasis is given to research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas into which courses and research projects tend to fall include the origin and evolution of international literary movements; folk literature and folklore; criticism; aesthetics; intermediaries; epics and sagas; tragedy; comedy; modern drama; the contemporary novel; problems of comparative literature; the comparative method in literary studies; the forces in contemporary literature; and research techniques in comparative literature.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type leading to a first university degree or equivalent, usually in the same or a closely related field.

Usual award for successful completion is a higher degree (M.A., Ph.D.) or the equivalent.

72251. Programmes in history

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the discovery of the reality of the past and the interpretation of human behaviour throughout time. Emphasis is given to research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas into which courses and research projects tend to fall include, e.g. a special period in a particular area; a specific problem in the history of an area; the history of science and technology at a particular time and place; interpretations of movements in national or world history; aspects of the philosophy of history; analysis of documents; interpretative biographies of significant persons. Subject areas within which background studies tend to fall include political science, the social and behavioural sciences, natural sciences, economics, philosophy, foreign languages, and literature.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type leading to a first university degree or equivalent, usually in the same or a closely related field.

Usual award for successful completion is a higher degree (M.A., Ph.D.) or the equivalent.

72261. Programmes in archaeology

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the study of the material remains of mankind's past. Emphasis is given to research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas into which courses and research projects tend to fall include, i.a., the general history and development of archaeology; archaeological records; archaeological classification and terminology; the materials and techniques of archaeology; research techniques in archaeology; civilizations, e.g. the New World prior to urban civilization; early man, etc;. Emphasis is frequently laid on practical work in museums and the interpretation of artefacts. Participation in excavation and exploration may be an essential feature of the programmes. Subject areas within which background studies tend to fall include ancient history, the natural sciences, world literature, foreign languages, philosophy, etc.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type leading to a first university degree or equivalent, usually in the same or a closely related field.

Usual award for successful completion is a higher degree (M.A., Ph.D.) or the equivalent.

72271. Programmes in philosophy

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of classroom sessions and group discussion dealing with such problems as the nature of reality, human consciousness, human values, aesthetics, etc. Emphasis is given to research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas into which courses and research projects tend to fall include, i.a., epistemology, logic, semantics, aesthetics, moral philosophy, the works of a particular philosopher or school of philosophy, the history of philosophy at a particular period, a comparative study of Western and Eastern philosophy, the philosophy of science or mathematics, etc. Subject areas within which background studies tend to fall include history, the fine and applied arts, religion and theology, law and jurisprudence, the social and behavioural sciences, and foreign languages.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type leading to a first university degree or equivalent, usually in the same or a closely related field.

Usual award for successful completion is a higher degree (M.A., Ph.D.) or the equivalent.

72299. Other humanities programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with specialized areas of the humanities not found in the above group of programmes (i.e. 72211 to 72271). Included, i.a., are programmes featuring a particular approach to a subject, for example, economic or social, unusual combinations of courses, or a combining of humanistic and scientific programmes. In these programmes emphasis is typically placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include, i.a., the history of science, palaeography, the interpretation of texts, carbon-dating techniques, archaeological excavation.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc., M.A., Ph.D.) or the equivalent.

726. Religion and theology programmes

Programmes in education at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, concerned with the study of religion, the scholarly investigation of religious doctrines, the performance of religious rites and offices, and the propagation of religious beliefs. At this level, emphasis is given to the philosophical and conceptual bases of the subjects included in the programmes, and original investigation and research, as substantiated by the presentation and defence of a scholarly thesis, are usually an important element. The programmes followed by individual students tend to be restricted to one specialized area of religious and theological studies.

Important kinds of programmes include those dealing with specialized aspects of textual and other records containing sacred writings in relevant classical languages, religious history, the relevant theology, analysis and criticism of theological interpretations of sacred works, and the examination of expository methods in religious practice including prayer, preaching, singing and ritual. Study of a highly specialized programme in this field usually involves some study of related aspects of other fields such as the humanities, social sciences, fine and applied arts, social welfare, law and jurisprudence. In some programmes a period of field work may be involved.

Usual minimum educational prerequisite is completion of education at the third level, first stage, of the type leading to a first university degree or the equivalent, generally in the same or a closely related field.

Usual award for successful completion is a higher degree (M.A., D.D., Ph.D.) or the equivalent.

72600. Religion and theology programmes (see definition under 726)

730. Social and behavioural science programmes

This field includes a variety of programmes in education at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, concerned with the theories, analytical methods, and research in the social and behavioural sciences. At this level, emphasis is given to the theoretical principles of the subjects included in the programmes and original research work, as substantiated by the presentation and defence of a scholarly thesis, is usually an important element. The programmes followed by individual students at this level are usually confined to one specialized area within one of the social and behavioural sciences. In most cases, the research content of the programme is paramount.

Important kinds of programmes include those dealing with highly specialized aspects of economics, political science, demography, sociology, anthropology, measurement and evaluation in education, applied psychology in education, other programmes in psychology; geography, studies in regional cultures, etc. Study of

a highly specialized programme in any of these subjects usually entails some study of related aspects of the same subject, as well as special aspects of other related social and behavioural sciences as a means for supplementing and for assisting in the mastery of the major subject. In some cases, background studies are included also in special aspects of such fields as humanities, natural sciences, law and jurisprudence, business administration and related programmes, mathematics, computer science, and statistics.

In the main, these programmes are full-time, although advanced students may do part-time teaching, research work, or laboratory supervision. The relatively few part-time programmes are refresher courses and special courses designed to introduce new methods or new technologies to those already established in their professions.

Usual minimum educational prerequisite is completion of education at the third level, first stage, of the type leading to a first university degree or equivalent, generally in the same or a closely related field.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or equivalent (diplôme d'études supérieures).

73012. Economics programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with economic theories, economic institutions and economic policies. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include advanced economic theory, history of economic doctrines, economic history, international trade and payments, monetary theory and policy, the business cycle, transportation economics, public finance, labour economics; welfare economics, marketing, econometrics, problems of economic development, consumption economics. Subject areas within which background studies tend to fall include business administration, sociology, political science, psychology, mathematics, and statistics.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or the equivalent.

73022. Political science programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with political theories, political institutions and governmental forms. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include political theory; unitary and federal government problems, including theory, constitutional questions, and institutions; comparative political systems;

political parties; international intergovernmental agencies; government decision-making. Subject areas within which background studies tend to fall include public administration, economics, sociology, psychology, law, and history.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or the equivalent.

73033. Programmes in demography

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the theory of human population growth and the measurement of human populations. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include the theory of population growth and change, techniques of population projection, methods of measuring population size and characteristics (census taking), fertility, mortality, and morbidity in human populations. Subject areas within which background studies tend to fall include sociology, economics, family planning, anthropology, mathematics, and statistics.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or the equivalent.

73035. Programmes in sociology except demography

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the theory and institutions of human societies, including the dynamics of social organizations, institutions and groups. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include theories of human societies, social institutions, problems of social change, the family and the social institutions, social pathology, including the sociology of crime and rehabilitation of groups, quantitative sociology. Subject areas within which background studies tend to fall include economics, public administration, psychology, anthropology, law, history, mathematics, and statistics.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or the equivalent.

73042. Anthropology programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the theory and practices of primitive human societies. Emphasis is placed on the theoretical and historical aspects of the subjects studied, and original research work is stressed, its results being usually substantiated by the presentation and defence of a scholarly thesis or dissertation. At this level, individual programmes are usually highly specialized in terms of subject-matter content.

Principal subject-matter areas within which study and research projects tend to fall include comparative anthropology, physical anthropology, social organization in pre-literate societies, methods of social control in primitive societies, religion in primitive societies, the family and extended family (clan) in primitive societies, language in pre-literate cultures, etc. Many specialized programmes include study in other related branches of anthropology as well as study in specialities of related subjects such as linguistics, sociology, psychology, archaeology, religion, law, economics, natural sciences, and the fine arts.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or the equivalent.

73052. Programmes in psychology

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the principles and practices of psychology. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include the history of psychology, psychological theories, history of psychological theories, experimental psychology, applied psychology, including measurement and evaluation programmes in education; social psychology, abnormal psychology, clinical psychology, psychotherapy, psychological testing, and psychometrics. Subject areas within which background studies tend to fall include relevant specialities in philosophy, sociology, anthropology, biology, mathematics, statistics, and computer science.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or equivalent.

73062. Geography programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or

group discussion and research dealing with theory and practice in various geographical disciplines. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include the conceptual framework for geographical analysis, quantitative methods in geography, physical geography, economic geography, political geography, cultural geography, urban geography, rural geography, and regional geography. Subject areas within which background studies tend to fall include relevant specialities in economics, sociology, psychology, geology, biology, meteorology, cartography, mathematics and statistics.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or the equivalent.

73072. Studies of regional cultures

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research in which a combination of social and behavioural science and related disciplines is applied to analyses of the social, cultural, and ethnic problems of a particular geographic region. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include relevant specialities in sociology, anthropology, economics, political science, geography, psychology, geology, biology, meteorology, history, languages, literature, and linguistics. Subject areas within which background studies tend to fall include relevant specialities in philosophy, fine arts, archaeology, religion, law and jurisprudence, mathematics, computer science and statistics.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or the equivalent.

73099. Other social and behavioural science programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the principles and practices of social and behavioural sciences not included in the above programme groups. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall will depend on the particular social and behavioural science disciplines included. Branches of social and behavioural sciences already included above are sometimes known by different titles: For example, in the above groupings,

econometrics in a branch of economics, ethnography is a branch of anthropology, psychotechnology is a branch of psychology, and diplomacy is a branch of political science. The social and behavioural sciences to be included here cannot be specified in advance, and therefore users of ISCED should examine the other programmes groups carefully (including those classed as humanities, law and jurisprudence, and business administration and related programmes) before allotting any programme to this residual group.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or the equivalent.

734. Business administration and related programmes

This field includes a variety of programmes in education at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, concerned with the theory, analytical methods, and practices of business management, business methods, public administration, and institutional administration. At this level, emphasis is given to the theoretical principles of the subjects included in the programmes, and original research work as substantiated by the presentation and defence of a scholarly thesis is usually an important element. The programmes followed by individual students at this level usually cover a relatively narrow specialized subject area within one of the business administration and related specializations enumerated below.

Important kinds of programmes include those dealing with highly specialized aspects of business administration, usually with a specialization such as one of the following: accountancy; marketing, sales management, or advertising; finance, investment, and investment market analysis, etc. Programmes in public administration and in institutional administration with appropriate specialities are included. Study of a highly specialized programme in any of these subjects usually entails some study of related aspects of the same subject, as well as special aspects of other related business, public or institutional administration subjects, as a means for supplementing and assisting in the mastery of the major subject. In some cases, background studies are included also in special aspects of such fields as the humanities, social and behavioural sciences, law and jurisprudence, natural sciences, engineering, mathematics, computer science, and statistics.

In the main, these programmes are full-time, although advanced students may do part-time teaching, research work, or field investigation. The relatively few part-time programmes are refresher courses and special courses designed to introduce new methods or new technologies to those already established in their profession.

Usual minimum educational prerequisite is completion of education at the third level, first stage, of the type leading to a first university degree or equivalent, generally in the same or a closely related field. For short programmes and refresher courses, these admission requirements may be relaxed for individuals with less educational background but who are well established in business management public administration, or institutional administration.

Usual award for successful completion is a higher degree (M.Comm., M.A., M.B.A., Ph.D.) or the equivalent.

73432. Programmes in business administration with specialization in accountancy

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar, or group discussion and research dealing with the principles and practices of business administration, with emphasis on accountancy. Background study in other areas of business administration is usually included. An important part of all such programmes is original research work involving the preparation and defence of a dissertation or thesis.

Principal subject-matter areas within which study and research projects tend to fall are general accounting, cost accounting, analysis of financial statements, flow of funds analysis, auditing of financial records, application of electronic computers to accounting procedures, etc. In addition, many programmes include some study of other business administration subjects such as commercial law, corporation finance, purchasing policy, etc. Background subject areas from which special subjects are often selected are economic theory, money and banking, international trade, statistics, and mathematics.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (M.B.A., Ph.D.) or the equivalent.

73434. Programmes in business administration with specialization in marketing

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the principles and practices of business administration with emphasis on marketing. Background study in other areas of business administration is usually included. Original research work involving the presentation and defence of a thesis or dissertation is an important element of these programmes.

Principal subject-matter areas within which study and research projects tend to fall include marketing and sales policy, market research, sales promotion, advertising, wholesale and retail management, etc. In addition, many programmes include the study of other business administration subjects such as production policy and management, product packaging, accountancy, purchasing policy and management theory. Background subject areas from which special subjects are often selected include economics, international trade, mathematics and statistics.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (M.B.A., Ph.D.) or the equivalent.

73436. Programmes in business administration with specialization in finance and investment

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the principles and practices of business

administration, with emphasis on finance and investment. Background study in other areas of business administration is usually included. An important part of all such programmes is original research work involving the preparation and defence of a dissertation or thesis.

Principal subject-matter areas within which study and research projects tend to fall include financial market analysis, financial institutions, appraisal of financial securities, investment portfolio management, special problems of institutional investors, estate management, public policy and the investment market, etc. In addition, many programmes include some study of other business administration subjects such as commercial law, corporation finance, accountancy, etc. Background subject areas from which special subjects are often selected include economic theory, money and banking, economic fluctuations, mathematics, and statistics.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (M.B.A., M.A., Ph.D.) or the equivalent.

73439. Programmes in business administration with other specialization

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the principles and practices of business administration with emphasis on a subject not included in the above programme groups (i.e. 73432 to 73436). Examples of subject specialities included here are production policy, business location, business organization, and labour studies including personnel administration. Background study in other areas of business administration is usually included in a programme that specializes in a particular subject area. Original research as demonstrated by the presentation and defence of a dissertation or thesis is an important element in these programmes.

Principal subject-matter areas within which study and research projects tend to fall depend to some extent on the student's particular speciality. All the programmes, however, tend to include study of basic business administration subjects in addition to the speciality, and examples of these are: principles of business management; forms of business organization; corporation finance; accountancy; business financial policy; commercial law; marketing and sales policy, including retailing; advertising; production planning and policy; and ancillary business services such as delivery, credit, customer service, purchasing policy, etc. Background study is often included, such studies being selected from areas such as economics, sociology, mathematics, statistics, law, and engineering.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (M.B.A., M.A., Ph.D.) or the equivalent.

73452. Programmes in public administration

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the principles and practices of public

administration. Emphasis is given to independent research and to the theoretical and historical background of the subjects studied. Background study in other areas of administration and public policy is often included in these programmes. The important ingredient of independent research is usually demonstrated by the presentation and defence of a scholarly thesis or dissertation.

Principal subject-matter areas within shich study and research projects tend to fall usually include government forms and administrative agencies, comparative government, intergovernmental relations, objectives of public policy, administration and management of the public services, legislative procedures, etc. Background studies tend to include a broad range of social sciences such as economics, sociology psychology; the humanities such as history, languages, literature, philosophy; business administration; law; and natural sciences. The objective is to provide a broadly-based programme for an adequate understanding of public administration principles and practices.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (M.B.A., M.A., Ph.D.) or the equivalent.

73462. Programmes in institutional administration

Programmes at the third-level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the principles and practices of institutional administration. Examples of the kinds of institutional administration included are school administration, hospital administration, and administration of welfare institutions. The theoretical and historical background of the subjects studied are emphasized and an important element in these programmes is independent research involving the preparation and defence of a scholarly thesis or dissertation.

Principal subject-matter areas within which study and research projects tend to fall differ with the student's speciality, but all tend to include principles of administration and management, accounting and financial control, information systems, personnel management, establishment of work objectives, etc. Specific administrative principles and problems of educational administration, hospital administration or welfare administration form the specialized portion of a programme, depending on the student's speciality. A broad background in the social sciences, natural sciences, humanities, law, etc., is often considered an essential part of these programmes.

Usual minimum educational prerequisite is completion of third-level education first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (M.A., M.B.A., Ph.D.) or the equivalent.

738. Law and jurisprudence programmes

This field includes a variety of programmes in education at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, concerned with the theory, philosophy, history, and practice of law in terms

of a particular legal system or in a comparative sense. At this level, emphasis is given to the theoretical principles and historical bases of the subjects included in the programmes, and original research work as substantiated by the presentation and defence of a scholarly thesis, is usually an important element. The programmes followed by individual students at this level usually cover a relatively narrow specialized subject area within one of the kinds of specializations enumerated below.

Important kinds of programmes include those dealing with specialized areas within such subject-matter specialities as jurisprudence and the history of law, international law, labour law, maritime law, constitutional and administrative law, criminal law, commercial law, air and space law, law dealing with natural resources, and other branches of civil law. Most programmes also include study of relevant aspects of other law specialities. In some cases background studies are included also in special aspects of such fields as the humanities, social and behavioural sciences, commercial and business administration, public administration, natural sciences, engineering, etc.

In the main, these programmes are full-time, although advanced students may do part-time work in teaching less advanced students or in practising their profession. Such part-time programmes as exist are of the refresher course type.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type leading to a first university degree or equivalent, generally in the same or a closely related field.

Usual award for successful completion is a higher degree (Ll.M., Ph.D.) or the equivalent.

73802. Programmes in jurisprudence and history of law

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the philosophy, science, and history of law. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include the relevant legal philosophy, comparative legal philosophies, the histories of the various systems of law, comparative modern legal systems, the judicial process, the relationship of law and morality, the relationship of law and justice, and the history of law. Subject areas within which background studies tend to fall include philosophy, psychology, history, economics, sociology, political science, and public administration.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (Ll.M., Ph.D.) or the equivalent.

73804. Programmes in international law

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or

group discussion and research dealing with the principles and practices of international law. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include the historical development of international law and of international legal institutions, the relationship of international and national law, international claims procedure, and the legal bases of nation States. Subject areas within which background studies tend to fall include political science, economics, philosophy, and history.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (Ph.D.) or the equivalent.

73806. Programmes in labour law

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the principles and practices of the law applicable to the relations between employers and employees or their respective organizations. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include the history of labour law, comparative labour law, national labour legislation, local labour legislation, the law as applied to labour disputes and other dealings between employers and employees, and some aspects of other legal specialities related to the particular programmes being followed. In addition, background courses in such subject areas as the history of labour organization, labour as a social and political entity, collective bargaining procedures, the administration of collective agreements, economics, sociology, and philosophy are often included.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (Ph.D.) or the equivalent.

73808. Programmes in maritime law

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the principles and practices of the regime of the high seas. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include the philosophy and history of maritime law; territorial jurisdictions in maritime areas; laws governing ships on the seas; laws on the protection of the marine environment; international conventions governing conduct on

the high seas; the constitution and jurisdiction of maritime courts; the law on salvage, ocean prizes, and the like; and some aspects of other legal specialities related to the particular programme being followed. In addition, background courses in such subject areas as marine insurance, ocean transport, history, economics, political science, business administration, and public administration, are often included.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (Ph.D.) or the equivalent.

73899. Other law and jurisprudence programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with the principles and practices of legal specialities not included in the above programme groups. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include constitutional and administrative law, commercial law, fiscal law, the law dealing with natural resources, air and space law, other branches of civil law, and other branches of criminal law. A specialized programme within any of the subject areas mentioned usually includes study of related legal specialities, and some programmes also include background studies in special aspects of such related fields as the humanities, social and behavioural sciences, commercial and business administration, public administration, natural sciences, engineering, etc.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (Ll.M., Ph.D.) or the equivalent.

742. Natural science programmes

This field includes a variety of programmes in education at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, concerned with theory, experimental techniques, and research methods in the natural sciences. At this level, emphasis is given to the theoretical principles of the subjects included in the programmes, and original research work, as substantiated by the presentation and defence of a scholarly thesis, is usually an important element. The programmes followed by individual students at this level are usually restricted to one specialized area within one of the physical sciences. In most cases, the research content of the programme is paramount.

The principal kinds of programmes included come within such disciplines as the biological sciences (including pharmacology), i.e. specialities in zoology, botany, microbiology; chemistry, i.e. inorganic chemistry, organic chemistry, physical chemistry; geological sciences, i.e. geology, palaeontology, mineralogy;

physics, i.e. mechanics, light, heat, electricity, high energy physics, quantum physics; astronomy (including astrophysics and radio astronomy); meteorology; oceanography; and other natural sciences such as metallurgy. Many programmes in the natural sciences at this level also include background studies in related natural sciences, in mathematics, statistics, and social sciences.

In the main, these programmes are full-time, although advanced students often do part-time teaching or supervise less advanced students in laboratories or field work. Some examples of part-time programmes are refresher courses and special courses designed to introduce new methods and techniques to those already employed in their specialities.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type leading to a first university degree or equivalent, generally in the same or a closely related field.

Usual award for successful completion is a higher university degree (i.e. M.Sc., Ph.D.) or its equivalent (e.g. diplôme d'études supérieures).

74202. Biological science programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of seminar sessions, classroom and laboratory instruction dealing with advanced topics in the field of biology, including pharmacology. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include biometrics, ethology, human physiology, biological effects of radiation, cytogenetics, population genetics, molecular genetics, developmental genetics, theoretical and experimental embryology, microbial ecology, mycology, advanced algology, ichthyology, advanced vertebrate and invertebrate physiology, experimental endocrinology, advanced plant physiology and morphology of angiosperms and gymnosperms, oceanography, stock assessment and population dynamics, limnology, cytology, histology, evolution and genetics, botanical techniques, animal and plant parasitology, pharmacogenetics,pharmacology of endocrine organs, pharmacology of psycho-active drugs, pharmacology of biologically active monamines, development of therapeutic agents, autonomic nervous system pharmacology, and advanced pharmacological methodology. Subject areas within which background studies tend to fall include biology, chemistry, physics, mathematics, and statistical analysis.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (e.g. M.Sc., Ph.D.) or the equivalent.

74212. Chemistry programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of seminar sessions, classroom and laboratory instruction dealing with advanced topics in the field of chemistry. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include advancec courses related to chemistry such as advanced analytical chemistry, crystal chemistry, X-ray crystallography, symmetry, metal chelatics, electroanalytical chemistry, chemistry of particles and related compounds, statistical thermodynamics, homogenous chemical kinetics, absorption and catalysis, chemical isotopes, chemistry of natural products, stereochemistry of carbon compounds, organic synthetic chemistry, chemical spectroscopy, molecular vibrations, molecular spectroscopy-diatomics, and quantum chemistry. Subject areas within which background studies tend to fall include appropriate specialities in physics, biology, geology, mathematics, statistical analysis, social sciences, and business management.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (e.g. M.Sc., Ph.D.) or the equivalent.

74222. Geological science programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of seminars, study, and laboratory work dealing with advanced topics in the field of geological science. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include advanced geological subjects such as stratigraphy, palaeontology, palaeobotany, palaeozoology, history and foundations of geology, geomorphology, types and principles of ore deposits, ore microscopy, sediments of the world, coal petrology, palynology, advanced mineralogy, crystallography, chemical oceanography, glacial geology, dynamic structural geology, geotectonics, advanced structure and petrofabrics, habitat of oil, and photogeology. Subject areas within which background studies tend to fall include appropriate specialities in physics, biology, chemistry, mathematics, statistical analysis and social sciences.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (e.g. M.Sc., Ph.D.) or the equivalent.

74232. Physics programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of seminars, study, and laboratory work dealing with advanced subjects in the field of physics. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation. Note that programmes in physical metallurgy are included.

Principal subject-matter areas within which courses and research projects tend to fall include, i.a., advanced subjects related to the field of physics such as the quantum theory of solids, statistical mechanics, advanced thermodynamics, theoretical acoustics, applied group theory, advanced nuclear physics, advanced electricity and magnetism, quantum mechanics, atomic physics, advanced electronics, fourier optics, physical metallurgy, the structure of metals, X-ray diffraction in metals, relativity and cosmology, fluid mechanics, super-conductivity, advanced geophysics, and physics of the earth. Subject areas within which background studies tend to fall include appropriate specialities in chemistry,biology, geology, mathematics, statistical analysis, and social sciences.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (e.g. M.Sc., Ph.D.) or the equivalent.

74242. Astronomy programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of seminars, study and laboratory work dealing with advanced topics in the field of astronomy. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include advanced subjects related to the field of astronomy such as astro-physical plasma kinetic theory, Riemannian geometry, general relativity theory, cosmological models, radiometers and antennae, solar physics, solar radiation, solar terrestrial effects, lunar astronomical studies, double stars, theory of stellar atmosphere, information theory of noise signals, theory of convolutions, spherical astronomy, non-equilibrium radiative transfer theory, galactic structure and advanced astrophysics. Subject areas within which background studies tend to fall include fundamentals of celestial mechanics, solar physics and appropriate specialities in physics and mathematics.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (e.g. M.Sc., Ph.D.) or the equivalent.

74252. Meteorology programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of seminars, study and laboratory work dealing with advanced topics in the field of meteorology. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include advanced meteorological subjects such as advanced climatology, atmospheric turbulence, bioclimatology, dynamic oceanography, physics of the upper

strata, cloud physics, atmospheric motions, atmospheric wave motion, -ray diffraction, electron microscopy, spectroscopy, and cosmology. Subject areas within which background studies tend to fall include appropriate specialities in biology, geology, oceanography, computer science, physics, statistics and mathematics.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same of a related field.

Usual award for successful completion is a higher university degree (e.g. M.Sc., Ph.D.) or the equivalent.

74262. Oceanography programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of seminars, study and laboratory work dealing with advanced topics in the field of oceanography. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include advanced subjects in the field of oceanography such as advanced marine geology and geophysics, advanced physical oceanography, advanced chemical oceanography, advanced biological oceanography, physiology of marine plants, fluid mechanics, ichthyology, marine population dynamics, and oceanographic techniques. Subject areas within which background studies tend to fall include appropriate specialities in botany, zoology, chemistry, physics, geology, mathematics, instrumental analysis, biochemistry, and statistics.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion a higher university degree (e.g. M.Sc., Ph.D.) or the equivalent.

74299. Other natural science programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of seminars, study and laboratory work in a natural science not included in the above programme groups. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include specialized courses in the particular field of science concerned. In addition, most programmes include appropriate specialities in related areas of natural science, social sciences, mathematics and engineering.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree or the equivalent, such as the diplôme d'études supérieures.

746. Mathematics and computer science programmes

This field includes a variety of programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, concerned with the theory, analytical methods, and practices of specialities in mathematics, statistics, actuarial science, or computer science. At this level, emphasis is given to the theoretical principles of the subjects included in the programmes, and original research work as substantiated by the presentation and defence of a scholarly thesis is usually an important element. The programmes followed by individual students at this level usually cover a relatively narrow range of subject matter within a branch of mathematics, statistics, actuarial science, or computer science. Note that programmes in applied mathematics, except statistics and actuarial science, are not included here, but are found in the field of application, e.g. economics (econometrics), biology (biometrics), physics (mathematical physics), etc.

Principal subject areas within which study and research projects tend to fall are theoretical mathematics, one of the main branches of pure mathematics, a branch of statistical theory or practice, a branch of actuarial theory or practice, or an aspect of computer science. Study of a highly specialized programme in any of these subjects usually entails some study of specialized aspects of the same general subject field as well as specialities in other related fields of applied mathematics, natural sciences, social sciences, engineering, medicine, etc. Some programmes also include background studies in special aspects of such fields as the humanities, law and jurisprudence, business administration, etc.

In the main, these programmes are full-time, although advanced students may do part-time teaching, research work, or practice in their professions. Thus, the students may undertake the programmes on a part-time basis. The relatively few part-time programmes tend to be refresher courses and special courses designed to introduce new methods or new technologies to those already established in their professions.

Usual minimum educational prerequisite is completion of education at the third level, first stage, of the type leading to a first university degree or equivalent, usually in the same or a related field. For short programmes and refresher courses, these admission requirements may be relaxed for individuals who are well established in the subjects concerned.

Usual award for successful completion is a higher university degree (M.A., M.Sc., Ph.D.) or the equivalent.

74611. Programmes in statistics

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, consisting of study, seminar or group discussion and research in a speciality of statistical theory or practice. At this level, programmes tend to be highly specialized in terms of subject matter, and an important constituent is original research work resulting in presentation and defence of a scholarly thesis or dissertation.

Principal subject-matter areas within which study and research projects tend to fall include, i.a., analysis of time series; multivariate analysis; stochastic processes; theory of games; design of experiments; statistical topics connected with operations research; decision theory; sequential analysis; theory and practice of sample surveys; non-parametric methods; and statistical model building.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent.

Usual award for successful completion is a higher university degree (M.A., M.Sc., Ph.D.) or the equivalent.

74621. Programmes in actuarial science

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study and group discussion or seminars dealing with specialities in actuarial science. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include advanced probability theory, selected topics in actuarial science, insurance law and regulations, annuities, investment policy for reserves, etc.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or the equivalent.

74639. Other programmes in mathematics

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, consisting of study, seminar or group discussion and research dealing with the theory and practice of mathematics. At this level a programme tends to be specialized in a particular aspect of mathematical theory or practice. An important constituent of these programmes is original research work resulting in the presentation and defence of a scholarly dissertation or thesis.

Principal subject areas within which study and research projects tend to fall include advanced algebra; applications of matrix algebra; advanced analysis; generalized functions; tensor analysis; convex programming; topology; differential geometry; combinatories; foundations of mathematics; mathematical logic; group theory; rings and modules; category theory; algebraic number theory; class field theory; commutative algebra; complex analysis; theory of ordinary differential equations; theory of partial differential equations; Fourier series and transforms; topics in general relativity; mathematical foundations of quantum mechanics; coding theory; information theory; discrete time control systems; operations research; algebraic topology; topological and lie groups; statistical inference; probability and stochastic processes; markov processes; multivariate statistical analysis; algebraic K-theory; modular representation.

Usual minimum educational prerequisite is completion of third level education, first stage, of the type that leads to a first university degree or equivalent.

Usual award for successful completion is a higher university degree (M.Sc., M.A., Ph.D.) or the equivalent.

74641. Programmes in computer science

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, consisting of study, seminar or group discussion and research in the theory and practice of computer science. At this level, programmes tend to be highly specialized in terms of subject content, and an important element is original research work resulting in the presentation and defence of a scholarly thesis or dissertation.

Principal subject-matter areas within which study and research projects tend to fall include, i.a., computing with symbolic expressions; topics in computer science; theory of switching; logic design and digital systems; models of thought processes; artificial intelligence research; the representation problem in artificial intelligence; numerical methods of optimization; advanced numerical analysis; compiler construction; graphic data processing; mathematical theory of computation; computer models for natural languages; analog computation; data processing in business problems; information and communication theory; and information organization and retrieval.

Usual minimum educational prerequisite is completion of third level education, first stage, of the type that leads to a first university degree or the equivalent.

Usual award for successful completion is a higher university degree (M.Sc., M.A., Ph.D.) or the equivalent.

750. Medical science programmes

This field includes a variety of programmes in education at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, dealing with theoretical and practical aspects of medicine, dentistry and related disciplines. Emphasis is given to the theoretical and scientific principles of the subjects included, and original research work, as substantiated by the presentation and defence of a scholarly thesis, is usually an important element. High level speciality in medicine, surgery, dentistry, pharmacy, nursing and related disciplines is a feature of these programmes.

Important kinds of programmes are those for medical specialities such as internal medicine, surgery, anaesthesiology, radiology and radiation medicine, obstetrics, gynaecology, paediatrics, neurology, psychiatry, preventive medicine, forensic medicine, biomedical electronics and medical biophysics; dental and stomatological specialities such as operative (therapeutic) dentistry, oral surgery, periodontics, pedodontics, endodontics, prosthodontics and orthodontics; other health-related specialities such as medical laboratory technology concerned with diagnostic and treatment procedures, pharmacy and nursing. Background courses are less important at this level but advanced specialized courses in such closely related fields as biological and other natural sciences, social and behavioural sciences, mathematics and statistics, law and jurisprudence, business and institutional administration, are often included in these programmes.

Except for refresher courses and special courses on new methods and techniques, these programmes are usually followed full-time in a university, college or teaching hospital. They are rarely, if ever, conducted at this level by correspondence, radio or television broadcasts.

Usual minimum educational prerequisite is completion of education at the third level, first stage, of the type leading to a first university degree or equivalent, generally in the same or a closely related field. In addition, these programmes

often require experience in the general practice of medicine, dentistry, etc., for a stated period as a prerequisite for entry.

Usual award for successful completion is a certificate or licence indicating the speciality achieved, or sometimes an advanced degree.

75006. Programmes in medical specialities

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, dealing with the principles and practices of a medical speciality. Emphasis is given to original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include advanced studies in some of the following:- surgery, internal medicine, anaesthesiology, radiology and radiation medicine, obstetrics, gynaecology, paediatrics, neurology, psychiatry, ophthalmology, oto-rhino-laryngology, preventive and social medicine, forensic medicine, biomedical electronics, medical biophysics, etc.

Usual minimum educational prerequisite is completion of third level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree or a certificate of specialization.

75042. Programmes in dental and stomatological specialities

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, case histories, practice, and conferences dealing with the principles and practices of operative (therapeutic) dentistry, oral surgery, periodontics, pedodontics, endodontics, prosthodontics or orthodontics. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include crown and bridge prosthodontics, denture prosthodontics, endodontics, orthodontics, pedodontics, periodontics, operative dentistry, oral diagnosis, oral surgery and anaesthesia, preventive medicine, and radiology. Subject areas within which background studies tend to fall include dental anatomy and physiology, pharmacology, principles of medicine, jurisprudence and practice management.

Usual minimum educational prerequisite is completion of third level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree or a certificate of specialization.

75052. Programmes in pharmacy

Programmes at the third level,second stage, of the type that leads to a post-graduate university degree or equivalent, dealing with the principles and practices of a speciality in pharmacy, i.e. the dispensing of drugs and medicines. Emphasis is given to original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include advanced studies in some of the following:- drug preparations, phyto-chemistry, pharmacognosy, dispensing pharmacy, pharmaceutical investigation, product development, history of pharmacy, etc.

Usual minimum educational prerequisite is completion of third level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree such as M.Pharm., D.Pharm., or Ph.D.

75099. Other medical science programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, case histories, ward work and hospital conferences dealing with the principles and practices of medical and public health disciplines not included in the above programme groups. Included are programmes in medical laboratory technology, nursing, etc. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include biomedical electronics, techniques of isotope control, advanced specialities in the application of advanced technology to diagnostic and treatment procedures in the laboratory, laboratory management, advanced specialities in pharmacy such as drug stability, systematic pathology, quality control in pharmaceutical manufacture, community pharmacy management, advanced nursing specialities such as those in public health nursing, comparative nursing and nursing of patients with particular needs such as geriatric nursing, surgical nursing, paediatric nursing, nursing administration and supervision. Subject areas within which background studies tend to fall include appropriate specialities in biology, chemistry, physics, social sciences and business administration. Coupled with study and research in subjects such as the above, there is usually a period of practice or hospital internship.

Usual minimum educational prerequisite is completion of third level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree or a certificate of specialization.

754. Engineering programmes

This field includes a variety of programmes in education at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, concerned with theory, experimental techniques, and research methods in

engineering. At this level, emphasis is given to the theoretical principles of the subjects included in the programmes, and original work, as substantiated by the presentation and defence of a scholarly thesis or dissertation, is usually an important element. The programmes followed by individual students at this level are usually restricted to one specialized area within one of the branches of engineering. In most cases, the research content of the programme is paramount.

The principal branches of engineering within which the specialized programmes fall include, i.a., chemical engineering, i.e. the design and operation of industrial chemical processes, the preparation, manipulation and transformation of materials, and the design, construction, and economic operation of equipment for carrying out industrial chemical processes; civil engineering, i.e. the design and construction of public works and including structural engineering, railway engineering, highway engineering, hydraulic engineering, municipal engineering, and sanitary engineering; electrical and electronics engineering, i.e. the theory and practice of the generation, the transmission, and the utilization of electrical energy as well as the design, manufacture, and assembly of electronic circuitry for many purposes; industrial engineering, i.e. the principles and techniques or organizing and conducting industrial processes involving all factors of production; metallurgical engineering (i.e. extractive metallurgy); mining engineering, i.e. the principles and practices of extracting and mechanically treating ores; mechanical engineering, i.e. the principles and practices of designing, constructing, and using apparatus that generates, transmits and utilizes power and including, i.a. marine, aeronautical, and automotive engineering and naval architecture; and other engineering specialities such as engineering science, engineering mathematics, and engineering physics. Many programmes in engineering at this level also include background studies in related engineering areas, as well as relevant specialities in natural sciences, mathematics, statistics, computer science, social science, and commercial or business administration.

In the main, these programmes are full-time, although advanced students often do part-time teaching or supervise less advanced students in laboratories or field work. Some examples of part-time programmes are refresher courses and special courses designed to introduce new methods and techniques to those already employed in their specialities.

Usual minimum educational prerequisite is completion of education at the third level, first stage, of the type leading to a first university degree or equivalent, generally in the same or a related field.

Usual award for successful completion is a higher university degree (M.Sc.(Eng.) M.Eng., M.E., Ph.D., D.Eng., etc.) or the equivalent.

75412. Chemical engineering programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with advanced studies in specialized areas of chemical engineering. Emphasis is placed on original research work as substantiated by the presentation and defence of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include, i.a., chemical engineering systems design; applied thermodynamics and chemical kinetics, fluidization phenomena; chemical reactor design; catalysis; polymer science; absorption and ion exchange; chemical unit operation; biochemical engineering; water pollution control; air pollution control; pulp

and paper technology; corrosion and corrosion control; electrochemical engineering; advanced process design. Subject areas within which background studies tend to fall include appropriate specialities from other engineering programmes and appropriate specialities from related fields such as the natural sciences, the social sciences, mathematics, statistics, and computer science.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc.(Eng.), M.E., M.Eng., D.Eng., Ph.D., etc.) or the equivalent.

75416. Civil engineering programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with advanced studies in specialized areas of civil engineering. Emphasis is placed on original research work as substantiated by the presentation and defence of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include, i.a., soil engineering; theoretical soil mechanics; hydraulic transients; sediment transport; hydraulics of open channels; advanced hydrology; analysis of engineering structures; strength of materials; structural dynamics; plate and shell structures; stability and vibration of structures; water quality analysis; sanitary engineering; municipal engineering, railway engineering, harbour engineering and coastal works; and highway engineering. Subject areas within which background studies tend to fall include appropriate specialities from other engineering programmes and appropriate specialities from other related fields such as the natural sciences, the social sciences, mathematics, statistics, and computer science.

Usual minimum educational prerequisite is completion of third level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc.(Eng.), M.Eng., M.E., D.Eng., Ph.D., etc.) or the equivalent.

75422. Electrical and electronics engineering programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion, and research dealing with advanced studies in specialized areas of electrical and electronics engineering. Emphasis is placed on original research work as substantiated by the presentation and defence of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include, i.a., linear and non-linear electrical and electronics systems; electromagnetic theory; electric power systems; computer methods in power system analysis; microwave theory and techniques; biomedical engineering; theory and design of electronic computer circuitry; power system protection and control; matrix analysis of electrical machines; and solid-state electronics. Subject areas

within which background studies tend to fall include appropriate specialities from other engineering programmes, and appropriate specialities from other related fields such as the natural sciences, the social sciences, mathematics, statistics, and computer science.

Usual minimum educational prerequisite is completion of third level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc.(Eng.), M.Eng., M.E., D.Eng., Ph.D., etc.) or the equivalent.

75426. Industrial engineering programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with advanced studies in specialized areas of industrial engineering. Emphasis is placed on original research work as substantiated by the presentation and defence of a scholarly thesis or dissertation.

Subject-matter areas within which courses and research projects tend to fall include, i.a., plant layout, production standards and methods, cost control, quality control, safety engineering, work simplification and measurement, forms and records management, design of budget systems, and organizational studies. Subject areas within which background studies tend to fall include operational research, inventory control, personnel management, network flows and integer programming, other appropriate engineering specialities, and appropriate specialities from other related fields such as the natural sciences, social sciences, commercial and business administration, mathematics, statistics, and computer science.

Usual minimum educational prerequisite is completion of third level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc.(Eng.), M.E., M.Eng., D.Eng., Ph.D., etc.) or the equivalent.

75432. Metallurgical engineering programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with advanced studies in specialized areas of metallurgical engineering, (known also as extractive metallurgy). Emphasis is placed on original research work as substantiated by the presentation and defence of a scholarly thesis or dissertation. Note that programmes in physical metallurgy are included in 74232, Physics programmes.

Principal subject-matter areas within which courses and research projects tend to fall include, i.a., mineral processing; metallurgical thermodynamics; metallurgical kinetics; hydrometallurgy; structure of metals; phase transformations in solids; diffusion and sintering theory. Subject areas within which background studies tend to fall include appropriate specialities from other engineering programmes and appropriate specialities from related fields such as the natural sciences, the social sciences, mathematics, statistics, and computer science.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc.(Eng.), M.Eng., M.E., D.Eng., Ph.D., etc.) or the equivalent.

75436. Mining engineering programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with specialized areas of mining engineering. Emphasis is placed on original research work as substantiated by the presentation and defence of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include, i.a., mining methods; ventilation and environmental mine engineering; valuation of actual or potential mining properties; explosives technology in mining operations; rock mechanics; automatic control of mineral processes; treatment of mineral industry effluents; and open-pit mine design. Subject areas within which background courses tend to fall include appropriate specialities from other engineering programmes and appropriate specialities from related fields such as natural sciences, social sciences, commercial and business administration, mathematics, statistics, and computer science.

Usual minimum educational prerequisite is completion of third level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc.(Eng.), M.Eng., M.E., D.Eng., Ph.D., etc.) or the equivalent.

75442. Mechanical engineering programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with specialized areas of mechanical engineering. Emphasis is placed on original research work as substantiated by the presentation and defence of a scholarly thesis or dissertation. Included, i.a., are marine, aeronautical, and automotive engineering and naval architecture.

Principal subject-matter areas within which courses and research projects tend to fall include, i.a., machine design; dynamics of machinery; stress analysis; mechanical vibrations; advanced heat transfer; friction and wear; gas and steam engine analysis; internal combustion engine analysis; space dynamics, high speed gas dynamics, aerodynamics; astrodynamics; refrigeration and cryogenics; watercraft design and construction, aircraft design and construction; and motor vehicle design and construction. Subject areas within which background studies tend to fall include appropriate specialities from other engineering programmes, appropriate specialities from related fields such as natural sciences, social sciences, commercial and business administration, mathematics, statistics and computer science.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc.(Eng.), M.E., M.Eng., D.Eng., Ph.D., etc.) or the equivalent.

75453. Agricultural engineering programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with specialized areas of agricultural engineering. Emphasis is placed on original research work as substantiated by the presentation and defence of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include, i.a., agricultural equipment application and methods; design of farm machinery and structures; processing equipment and methods for agricultural products; drainage of agricultural land; design and operation of irrigation systems; quality of water supplies; waste treatment in agricultural industries; pollution problems in agriculture; and application of power sources in agriculture. Subject areas within which background studies tend to fall include appropriate specialities from other engineering programmes and appropriate specialities from related fields such as agriculture, natural sciences, social sciences, commercial and business administration, mathematics, statistics, and computer science.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc.(Eng.), M. Agric.Eng., D.Eng., Ph.D., etc.) or the equivalent.

75463. Forestry engineering programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with specialized areas of forestry engineering. Emphasis is placed on original research work as substantiated by the presentation and defence of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include, i.a., forestry engineering methods; forest hydrology; water quality and forest land use; forest environment; measurement techniques; forest mensuration; forest land management; production planning and control in logging; logging methods; logging engineering; and transport of logs and related forest products. Subject areas within which background studies tend to fall include appropriate specialities from other engineering programmes, and appropriate specialities from related fields such as natural sciences, social sciences, commercial and business administration, forestry, mathematics, statistics, and computer science.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc.(Eng.), M.For.Eng., D.Eng., Ph.D., etc.) or the equivalent.

75499. Other engineering programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with specialized areas of engineering not included in the above groups of programmes. Included, i.a., are programmes in engineering science, engineering mathematics, engineering physics, and fishery engineering. In these programmes emphasis is typically placed on original research work as substantiated by the presentation and defence of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include, i.a., analytical techniques in engineering; principles of engineering analysis; non-linear mechanics; properties of materials; elastic behaviour of materials; feedback control systems; nuclear reactor theory ; quantum theory; electromagnetic theory; theory of measurements; plasma physics; crystal structure and X-rays; physical electronics; statistical mechanics; spectroscopy; plasma dynamics; and applications of elementary particle physics. Subject areas within which background studies and courses tend to fall include engineering specialities outside of the type that the student is following, and appropriate specialities in such related fields as natural sciences, social sciences, commercial and business administration, mathematics, statistics, and computer science.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc., M.A.Sc., Ph.D.) or the equivalent.

758. Architectural and town-planning programmes

This field includes a variety of programmes in education at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, concerned with the theory, experimental techniques, and research methods in architecture and town or community planning. At this level emphasis is given to the theoretical principles of the subjects included, and original work, as substantiated by the presentation and defence of a scholarly thesis or dissertation, is usually important. The programmes followed by individual students at this level are usually based upon one specialized area within one of the subjects included. In most cases, the research content of the programme is paramount.

Important kinds of programmes include those dealing with specialized areas within branches of architecture (e.g. the history of architecture, environmental control in building structures, integrated building systems, etc.), landscape architecture (landscape design and the siting of structures, landscape environmental control, etc.), or town and community planning (principles of urban land use, social and instutitional determinants for physical urban planning, metropolitan area development, urban renewal or redevelopment, etc.). Many programmes in architectural and town planning specialities at this level include background study related architectural or town planning subjects and related specialities in engineering, mathematics, natural sciences and social sciences, designed to supplement the study of the principal subject involved. Additional background study may also include relevant specialities in such fields as commercial and business administration, law and jursiprudence, or the humanities.

In the main, these programmes are full-time, although advanced students often do part-time teaching or supervise less advanced students in work on projects or in field work. Examples of part-time programmes are refresher courses and special courses designed to introduce new methods and techniques to those already employed in their specialities.

Usual minimum educational prerequisite is completion of education at the third level, first stage, of the type that leads to a first university degree or the equivalent, generally in the same or a related field.

Usual award for successful completion is a higher university degree (e.g. M.Arch., M.Sc., Ph.D.) or the equivalent.

75802. Programmes in structural architecture

Programmes at the third level, second stage, of the type that leads to a post-graduate universtity degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with advanced specialities in the principles and practices of structural architecture. Emphasis is placed on original research work as substantiated by the presentation and defence of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include, i.a., the history of architecture, architectural theory, construction management, building methods, modular and component design, environmental and energy control systems, building science, and social and community aspects of architecture. Subject areas within which background studies tend to fall include relevant specialities from landscape architecture and town or community planning, relevant specialities from engineering programmes (particularly civil engineering), relevant specialities from the natural sciences, social sciences, humanities, commercial and business administration, law and jurisprudence, mathematics, fine and applied arts.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or the equivalent.

75812. Programmes in landscape architecture

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with advanced specialities in the principles and practices of landscape architecture. Emphasis is placed on original research work as substantiated by the presentation and defence of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include, i.a., the history of landscape architecture, the history of structural architecture, historic styles in structural architecture, landscape design and the siting of structures, landscape environmental control (drainage, irrigation, etc.), and planting design. Many programmes also include study of related specialities in agricultural science such as soil chemistry, fertilizer

technology, arboriculture, floriculture, etc. Additional background studies may be included from related aspects of such fields as engineering, natural sciences, mathematics, social sciences, the humanities, law and jurisprudence, and commercial and business administration.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or the equivalent.

75822. Programmes in town planning

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study, seminar or group discussion and research dealing with advanced specialities in the principles and practices of town or community planning. Emphasis is placed on original research work as substantiated by the presentation and defence of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include, i.a., the history of town or community planning, the history of modern urban development, principles of urban land use, principles and problems or urban planning, social and institutional determinants for physical urban planning, regional planning development, metropolitan area development, urban transportation and traffic movements in relation to community planning, urban renewal or redevelopment, community planning as a function of local government, community planning and national or provincial governments. Subject areas within which background studies tend to fall include relevant specialities from architectural programmes, relevant specialities from engineering programmes (particularly civil engineering), and relevant specialities from such related fields as the fine and applied arts, social sciences, natural sciences, the humanities, law and jurisprudence, mathematics, statistics, and computer science.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or the equivalent.

762. Agricultural, forestry, and fishery programmes

This field includes a variety of programmes in education at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, dealing with theoretical and practical aspects of agricultural, forestry and fishery operations. Emphasis is placed on the theoretical, general and scientific principles of the subjects included, and original research work, as substantiated by the presentation and defence of a scholarly thesis, is usually an important element. High-level speciality in particular aspects of agricultural, forestry and fishery science is a feature of these programmes.

Important kinds of programmes include those dealing with highly specialized aspects of animal husbandy; crop husbandy; horticulture; soil and water sciences; agricultural economics and management of agricultural operations; veterinary science; food sciences and technology; forestry economics and forest management; wood science; forest cropping and protection of forest resources, including management of watersheds and recreational areas; fishery economics and fishery management; fishery science and technology, including fish culture. Background courses are less important at this level, but advanced specialized courses in such closely related fields as biological sciences, natural sciences, social sciences, mathematics and statistics are often included in these programmes. (Note that agricultural engineering programmes are in 75453, forestry engineering programmes in 75463, and fishery engineering programmes in 75499).

In the main, these programmes are full-time, but they are frequently carried on in combination with part-time employment in the same institution, such as laboratory instruction and supervising or as a research assistant. Some students otherwise employed complete these programmes on a part-time or extra-mural basis. They are rarely, if ever, conducted by correspondence or broadcast lectures and demonstrations.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, generally in the same or a closely related field.

Usual award for successful completion of a programme is an advanced degree or equivalent diploma (usually M.Sc., or Ph.D. in this field).

76203. Animal husbandry programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study and research dealing with advanced specialities in the field of animal husbandry. Emphasis is given to original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include: animal genetics, animal breeding, animal nutrition, production of animal products, and control of animal environment. Subject areas within which background studies tend to fall include specialities in biology, biochemistry, biophysics, and statistical analysis.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc., Ph.D.) or the equivalent.

76206. Horticulture programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study and research dealing with advanced specialities in the field of horticulture. Emphasis is given to original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include horticultural science, horticultural food crops, genetics and breeding of horticultural plants, preservation and storage of fruits and vegetables including low-temperature physiology, plant pathology, marketing of horticultural products, cultivation of orchards and vineyards, and horticultural plant taxonomy. Subject areas within which background studies tend to fall include botany, biochemistry, greenhouse methods, floral design, nursery management, mathematics, and statistical analysis.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc., Ph.D.) or the equivalent.

76208. Crop husbandry programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study and research dealing with advanced specialities in the field of crop husbandry. Emphasis is given to original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include plant genetics, plant breeding, soil fertility, soil chemistry, soil genesis and classification, soil physics, soil biochemistry, soil microbiology, seed technology, pest- and weed-control, production of crops and control of crop environment. Subject areas within which background studies tend to fall include specialities in botany, biochemistry, biophysics, microbiology, seed biology, mathematics, and statistical analysis.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc., Ph.D.) or the equivalent.

76212. Agricultural economics programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study and research dealing with advanced specialities in the field of agricultural economics. Emphasis is given to original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include farm management, farming systems, farm finance, farm policy planning and implementation, marketing of agricultural products, farm cost control, farm production economics, trade in agricultural products. Subject areas within which background studies tend to fall include business management, accountancy, economics, law and jursiprudence, public finance and taxation policy, agricultural co-operation and rural sociology, natural resource use economics and planning, area development planning, spatial equilibrium of agricultural production.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc., Ph.D.) or the equivalent.

76222. Food sciences and technology programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study and research dealing with advanced specialities in the field of food sciences and technology.

Principal subject-matter areas within which courses and research projects tend to fall include food chemistry, food microbiology, food engineering, food preservation, including freezing, concentrating, sterilizing, drying, packing (air-tight containers), food safety and toxicology and special problems in food technology. Subject areas within which background studies tend to fall include chemistry, physics, biology, nutrition and dietetics, mathematics, and statistical analysis.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc., Ph.D.) or the equivalent.

76226. Soil and water sciences programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study and research dealing with advanced specialities in the field of soil and water sciences. Emphasis is given to original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include soil chemistry, soil physics,soil microbiology, soil conservation, soil fertility, soil classifcation, soil genesis, water conservation, hydrology, protection of water resources. Subject areas within which background studies tend to fall include chemistry, physics, biology, fundamentals of hydrology, mathematics, and statistical analysis.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc., Ph.D.) or the equivalent.

76232. Programmes in veterinary medicine

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study and research dealing with advanced specialities in the field of veterinary medicine. Emphasis

is given to original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include veterinary anatomy, physiology, histology, embryology, and genetics; veterinary pathology, pharmacology, parasitology and radiology; veterinary surgery, obstetrics, public health, and environmental medicine. Most programmes also include appropriate specialities in such related subject areas as biology, chemistry, physics, mathematics, and statistics.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree or a certificate of specialization.

76249. Other programmes in agriculture

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of study and research work dealing with theoretical and practical aspects of agricultural specialities not covered in the above programme groups. These programmes are highly specialized and emphasis is placed on original research work.

Principal content of these programmes is related to an aspect of the speciality concerned such as apiculture, sericulture, or other insect culture; fur farming; mushroom growing; growing of trees for their sap, as rubber production or maple sugar production. Aspects of general agricultural science related to the programmes are not ignored in spite of the highly specialized nature of these programmes. Included in some programmes also may be study of subjects like mathematics, statistics, botany, entomology, chemistry, and other disciplines related to the projects undertaken.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc., or Ph.D.) or equivalent (diplôme d'études supérieures).

76262. Forestry programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of seminar and research work dealing with the principles and practices of forest management. Emphasis is given to protection and harvesting of forest crops and products, along with the effective management of land, water, forage and wildlife management in forests.

Principal subject-matter areas within which courses and research projects tend to fall include forest management, forest resource utilization, forest mensuration, wood science, forest conservation, forest protection, forest economics, reforestation, wildlife management, forest watershed management, and development and protection of forest recreational areas. Subject areas within which background studies

tend to fall include botany, chemistry, physics, biology, photogrammetry, hydrology, soil chemistry, law and jurisprudence, mathematics, and statistical analysis.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc., Ph.D.) or the equivalent.

76272. Programmes in fishery science and technology

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of seminar and research work dealing with the principles and practices of fishery science and technology. Emphasis is given to original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas within which courses and research projects tend to fall include ichthyology, limnology, oceanography, fish and marine life culture, fishery resource management, fishery economics, fishing technology, commercial fishery exploitation, sport fishery management, and fish pathology. Subject areas within which background studies tend to fall include specialities in biology, chemistry, biochemistry, aquatic ecology, fishery products technology, mathematics, and statistical analysis.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc., Ph.D.) or the equivalent.

766. Home economics (domestic science) programmes

This field includes a variety of programmes in education at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, concerned with study and research work in home economics, including household arts. At this level, emphasis is given to the theoretical principles of the subjects included in the programmes, and original research work as substantiated by the presentation and defence of a scholarly thesis is usually an important element. The programmes followed by individual students are usually concerned with one specialized area within a branch of home economics.

Important kinds of programmes include those dealing with household and consumer food research and nutrition, household arts such as interior decoration, clothing design, dressmaking, and household management and family economics, child development, etc. Study and research projects tend to fall within areas of subject matter such as the above, but most programmes also include study of other home economics specialities as well as related specialities in the natural sciences, social and behavioural sciences, the humanities, fine arts, etc. Programmes at all levels in home economics tend to be quite broadly based in terms of subject matter.

Programmes at this level tend to be full-time, although students may do part-time work such as teaching, research work, or practising their professions. Such part-time programmes as exist are usually of the refresher or special course type.

Usual minimum educational prerequisite is completion of education at the third level, first stage, of the type leading to a first university degree or equivalent, generally in the same or a closely related field.

Usual award for successful completion of a programme is a higher university degree (M.A., M.Sc., Ph.D.) or the equivalent.

76612. Programmes in household and consumer food research, nutrition

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of seminar or group discussion and laboratory sessions, dealing with advanced subjects in food and nutrition. Periods of work in educational institutions, commercial enterprises, hospitals, etc., may form a regular part of the courses. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas into which courses and research projects tend to fall include, i.a., advanced foods and nutrition subjects such as human nutrition; chemistry and its applications to the preparation of foods; nutrition and disease; maternal and child nutrition; experimental food methods; and the cultural aspects of food. Subject areas within which background courses tend to fall include bio-chemistry, microbiology, physiology, sociology, psychology, anthropology and statistics.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc., M.A., Ph.D.) or the equivalent.

76632. Programmes in household arts

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of seminar or group discussion and laboratory sessions dealing with advanced subjects in household arts. Periods of work in educational institutions, commercial enterprises, hospitals, etc., may form a regular part of the courses. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas into which courses and research projects tend to fall include, i.a., interior space planning, housing design, apparel design and consumer-product design. Subject areas within which background courses tend to fall include architecture and housing, anthropology, human development, and family studies; art (textiles and clothing); chemistry; physics; psychology; sociology; consumer economics; and statistics.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc., M.A., Ph.D.) or the equivalent.

76699. Other home economics programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of seminar or group discussion and laboratory sessions not included in the above programme groups (i.e. 76612 and 76632). These programmes are concerned with the applications of science to problems that arise in the running of homes or institutions in connexion with the preparation of meals, the storage of food, the treatment of textiles, etc. Emphasis is typically placed on original research work as substantiated by the presentation and defence of a scholarly thesis or dissertation.

Subject areas within which background studies and courses tend to fall include home economics specialities outside of the type that the student is pursuing, and appropriate specialities in the natural sciences, social and behavioural sciences, humanities, fine arts, etc. Work experience and field experience with families are desirable in conjunction with most programmes where basic research is carried out.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.Sc., M.A., Ph.D.) or the equivalent.

784. Programmes in mass communication and documentation

This field includes a variety of programmes in education at the third level, second stage, of the type that leads to a post-graduate university degree or the equivalent, concerned with study and research work in such subjects as journalism, radio- and television broadcasting, public relations, other communications arts, and library science. These programmes emphasize the theoretical principles of the subjects included, and they typically involve original research work as substantiated by the presentation and defense of a scholarly thesis. The programmes followed by individual students at this level usually cover a relatively narrow range of subject matter within a branch of journalism, broadcasting, public relations, other mass communications arts, or library science. Most such specialized programmes include study of other aspects of the same subject area, as well as specialized aspects of related subjects in other fields.

Most programmes at this level are full-time, but students may engage in part-time work such as teaching, research work, or practice of professions. Such part-time programmes as exist tend to be of the refresher- or retraining type. Most programmes are conducted by universities, colleges, or similar institutions.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or the equivalent, usually in the same or a related field.

Usual award for successful completion of a programme is a higher university degree (M.A., M.Sc., M.J., Ph.D.) or the equivalent.

78402. Programmes in journalism

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, consisting of study, seminar or group discussion and research in the theory and practice of journalism, often with a period of internship with a periodical devoted to news or the interpretation of news. These programmes are usually specialized in subject content and include the preparation and defence of a thesis or dissertation based on original research.

Principal subject-matter areas within which study and research projects tend to fall include, i.a., current affairs; political science; communication theory; news reporting; rewriting and editing; layout design; the ethics of journalism. Other studies in general education at the third level may be selected according to the needs and background of the student - for example, in economics, sociology, law, public administration, natural science, or psychology. The subjects selected for study generally relate to the subject of the student's research project, i.e. of the thesis or dissertation.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (M.Sc., M.J., M.A., Ph.D.) or the equivalent.

78404. Programmes in radio and television broadcasting

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, consisting of study, seminar or group discussion and research in radio or television broadcasting, often with periods of internship with a broadcasting organization. These programmes are usually specialized in subject content, and include the preparation and defence of a thesis or dissertation based on original research.

Principal subject-matter areas within which study and research projects tend to fall include, i.a., current affairs; political science; communication theory; broadcasting policy; broadcasting techniques; organization of broadcasting agencies; broadcasting and public policy. Other studies in general education at the third level may be selected according to the needs and background of the student - for example, in economics, sociology, biology, or psychology. The subjects selected for study usually relate to the subject of the student's research project, i.e. of the thesis or dissertation.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (M.Sc., M.A., Ph.D.) or the equivalent.

78407. Public relations programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, consisting of study, seminar or group discussion and research in the theory and practice of public relations. These

programmes are usually specialized in subject content and include the preparation and defence of a thesis or dissertation based on original research.

Principal subject-matter areas within which study and research projects tend to fall include creative writing and effective use of language, the use of mass media, business psychology, public opinion surveying; industrial promotion; marketing; advertising. Other studies in general education at the third level may be selected according to the student's requirements and background - for example, studies in economics, sociology, law, public administration, natural science, or psychology. The subjects selected for study generally relate to the subject of the student's research project, i.e. of the thesis or dissertation.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (M.A., Ph.D.) or the equivalent.

78409. Other programmes in communications arts

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, consisting of study, seminar or group discussion and research in areas of the communications arts other than those defined in the preceding programme groups (i.e. 78402, 78404 and 78407). These programmes are usually specialized in subject content and include the preparation and defence of a thesis or dissertation based on original research.

Principal subject-matter areas within which study and research projects tend to fall depend on the particular communications art selected for study.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (M.A., M.Sc., Ph.D.) or the equivalent.

78422. Library science programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, dealing with the principles and applications of library science.

Through lectures, seminars, directed and independent study, and research, students acquire a comprehensive knowledge either of the general area of library science or of one or more fields within the broader area such as collection development, cataloguing, and classification, technical services, and the history of library services.

Programmes last between one and three years full-time in a university and consist of a number of prescribed courses such as cataloguing and classification, technical services, reference materials and services, library organization and administration; demonstrated competence in one or more foreign languages; and the preparation of a thesis or dissertation based on original research into a particular problem within the major subject.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.A., M.L.S., Ph.D.) or the equivalent.

789. Other programmes of education at the third level, second stage, of the type that leads to a postgraduate university degree or equivalent

This field includes a variety of programmes in education at this level not included in the above list of fields, i.e. 714 to 784. These programmes emphasize the theoretical principles of the subjects included, and they typically involve original research work as substantiated by the presentation and defence of a scholarly thesis. The programmes followed by individual students at this level are usually confined to one specialized area within a subject. Examples of the subject areas within which study and research projects tend to fall include criminology, civil security and military science; social welfare, vocational counselling, environmental questions, etc. Most specialized programmes include study of other aspects of the subject area, as well as specialized aspects of related subjects in other fields.

Most programmes at this level are full-time, but students may engage in part-time work such as teaching, research work, or practice of their professions. Such part-time programmes as exist tend to be of the refresher or retraining type. Most programmes are conducted by universities, colleges, or similar institutions.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion of a programme is a higher university degree (M.A., M.Sc., Ph.D.) or the equivalent.

78913. Programmes in criminology

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of classroom sessions and seminar discussion dealing with the principles and practices of criminology. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas into which courses and research projects tend to fall include the history of crime and its treatment; organized crime and the professional criminal; constitutional and procedural problems in law enforcement; the prison community; the alcoholic and the narcotic addict; sexual offenders and character disorders; white-collar crime; non-conformist cultures; forensic toxicology; juvenile delinquency, its prevention and control; law and discretion in criminal sentencing; group psychotherapy in correctional institutions; the prevention and control of crime in metropolitan areas; practical work and research techniques in criminology. Subject areas within which background studies tend to fall include history, economics, the social and behavioural sciences, mathematics, natural sciences, statistics.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a closely related field.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or the equivalent.

78919. Other civil security and military programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of classroom sessions, on-the-job experience and seminar discussion dealing with the principles and practices of military science. Emphasis is placed on original research work as substantiated by the presentation of a scholarly thesis or dissertation.

Principal subject-matter areas into which courses and research projects tend to fall include the principles of logistics; military administration; personnel management; military justice; service orientation and leadership; elementary aerodynamics and aircraft structure; light aircraft operations; aerospace power; aerospace management; international aviation regulations; the history of maritime affairs; ship design; control systems; the principles of ship stability; ship weaponry; control and propulsion systems; world change and its military implications; political philosophy; defence management; the ethics of peace, war and defence. Subject areas within which background studies tend to fall include history, economics, the social and behavioural sciences, mathematics, physics, chemistry, statistics.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type leading to a first university degree or equivalent, usually in the same or a closely related field.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or the equivalent.

78932. Social welfare programmes

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, consisting of lectures, seminars, independent and directed study and research and field work in the theory and practice of social welfare programmes and work.

Students acquire a comprehensive knowledge of the broad area of social welfare or of one or more aspects of the subject such as social welfare policy, social case work, social work research, psychiatric social work, medical social work or social agency administration.

Programmes usually last one to three years full-time in a school of social work at a university, and consist of a certain number of prescribed courses, demonstrated competence in one or more foreign languages, and the preparation of a thesis or dissertation based on original research into a particular problem within the major subject.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher degree (M.A., M.S.W., Ph.D., D.S.W.) or the equivalent.

78942. Programmes in vocational counselling

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, primarily consisting of lectures, seminars, independent and directed study and research and field work in the theory and practice of vocational counselling.

Students acquire a comprehensive knowledge of the broad area of vocational counselling. Emphasis is placed on practical work in and the observation of counselling procedures. An essential part of the programmes is the preparation of a thesis or dissertation, which may consist of an orderly and critical presentation of one part of the whole field of counselling or of an account of original research. Programmes usually last two to three years, full-time.

Principal subject areas within which study and research projects tend to fall include: vocational counselling theory; effective employment placement; job analysis and occupational analysis; learning and motivation; human traits (intelligence, aptitudes, interests and personality); interviewing methodology; the construction, application and scoring of vocational aptitude tests. Background study in such subjects as psychology, education science, humanities, social sciences and statistics is usually included.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related field.

Usual award for successful completion is a higher university degree (M.A., M.Sc., Ph.D.) or the equivalent.

78952. Programmes in environmental studies

Programmes at the third level, second stage, of the type that leads to a post-graduate university degree or equivalent, dealing with specialized aspects of the theory and practice of environmental science, including wildlife protection. Most programmes at this level are concentrated within a particular aspect of environmental studies.

Through lectures, seminars, and independent and directed study and research, these programmes provide a thorough coverage of one or more branches of environmental science such as pollution detection and control, the preservation of the ecology, the control and planning of the use of natural resources, environmental rehabilitation, etc.

Programmes usually last between one and three years in a university and consist of a number of prescribed courses drawn, in varying combinations, from the humanities, social sciences, natural sciences, engineering and medical sciences, etc. Students must usually demonstrate competence in one or more foreign languages. An important requirement is the preparation of a thesis or dissertation based on original research into a particular problem within the major subject.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent, usually in the same or a related subject.

Usual award for successful completion is a higher degree (M.A., M.Sc., Ph.D.) or the equivalent.

78999. Other programmes of education at the third level, second stage, of the type that leads to a postgraduate university degree or equivalent, n.e.c.

Programmes at the third level, second stage, of the type that leads to a postgraduate university degree or equivalent, designed to train specialists in subject areas other than those defined above (i.e. 78913 to 78952).

Programmes consist of lectures, seminars, independent and directed study and research and possibly some field work. They usually last between one and three years in a university and include various prescribed courses, acquisition of competence in one or more foreign languages, and the presentation and defence of a scholarly thesis or dissertation.

Usual minimum educational prerequisite is completion of third-level education, first stage, of the type that leads to a first university degree or equivalent.

Usual award for successful completion is a higher university degree (M.A., M.Sc., Ph.D.) or the equivalent.

9. EDUCATION NOT DEFINABLE BY LEVEL

This category includes educational programmes that cannot be defined by level and that are therefore not included in any of the categories numbered 0 to 7, i.e. no particular definable prior education is required to enable students to undertake them. Because the programmes cannot be defined by level it is clear that their subject-matter content is organized and presented in a non-theoretical "general interest" manner, with minimal reference to scientific principle or historical perspective. Thus, the programmes may be useful to students having a wide variety of educational experience and perhaps in some cases no prior formal education.

The content of this category can be described only in a negative sense, i.e. programmes that cannot be fitted into any of the other categories. Thus it is a residual and care must be taken to avoid making it a receptacle for all cases that are difficult to classify by level. If it were to become such a receptacle, not only would it be too large and heterogeneous itself for useful analyses, but the value of the data on all other levels would be affected adversely.

Although programmes in this category cannot be identified as requiring any specific educational prerequisite for entrance, they vary considerably in scope and depth. However, they may be grouped into the same broad subject fields as in other level categories (0 to 7). In the main the programmes in category 9 are part-time and voluntary and they vary greatly in length. A wide variety of agencies provide them, including, i.a., government departments (Education, Culture, Information, Agriculture, Health, Industry, Labour, Social Welfare and Community Development); educational institutions (e.g. secondary school systems, university extra-mural departments, adult education institutes, cultural centres, correspondence schools); and non-governmental organizations (e.g. trade unions, industries, co-operative societies, women's associations and youth organizations).

Programmes in this category may sometimes be difficult to distinguish from programmes of "unorganized" education or from activities, such as recreation, that are not, for the purposes of ISCED, regarded as "education" (see paragraph 5 to 9 of the Introduction to this volume). It is important that the criteria used in ISCED to determine whether programmes are "organized and sustained" be fully understood "organized" is intended to mean programmes consisting of prearranged courses with established aims or curricula, while "sustained" is intended to mean that the learning experience has the elements of duration and continuity). In application, this will cover programmes in which students (or clients) are enrolled or registered in an organized and sustained teaching-learning activity.

901. General programmes

Programmes not definable by level, consisting of organized and sustained instruction and learning, covering a variety of subject matter designed to provide a broad survey or review of information in a number of fields such as fine arts, the humanities, religion, social science, natural science, architecture, the world of work, and other aspects of living and the environment in which we live. These programmes differ from the general programmes encountered in level categories 0 to 6 in that they do not require any identifiable prior education for admission. Thus they are designed for a very wide range of clients, and generally do not include highly technical or involved study, but wide-ranging discussion. Most programmes included here will be of the general-interest type undertaken for personal rather than vocational reasons.

Instruction may involve lectures, group discussions, visits to points of interest, and perhaps travel. Many different agencies may organize such programmes, including professional groups, clubs, societies, community organizations, etc.

Seldom do programmes of this type involve any formal attempt to measure achievement.

90100. General programmes (see definition under 901)

914. Programmes in teacher training, including training for extension and other fields of non-formal education

Programmes not definable by level and hence excluded from categories 0 to 7, dealing with the techniques of teaching, including educational philosophy and educational administrative techniques. Since these programmes require no identifiable educational prerequisite, they are designed primarily for training those engaged in or intending to participate in extension work or similar activities of informal education for adults and young people out of school. Some programmes of this type may be designed primarily for teachers at all levels to impart new skills, such as the use of audiovisual aids; others may be for mothers of young children interested in forming a co-operative kindergarten or pre-school group. The above are merely examples.

These programmes vary widely in scope and depth. They may involve direct teaching and lectures, seminars or group discussions; programmes transmitted through the media of mass communication; correspondence courses; or any combination of these. They vary in duration from a few weeks to a year.

Programmes are organized by a wide variety of agencies, including government departments and services, educational institutions at all levels, and non-governmental organizations.

Seldom is a certificate or other tangible evidence of participation given to those who complete a programme.

91416. Education science and teacher training for work in adult education

Programmes not definable by level dealing with the educational philosophy and techniques of teaching required for work in adult education. These programmes do

not require any specific prior education for admission, and therefore they are generally practical in emphasis and designed primarily for those intending to engage in adult education work, including extension or similar activities of informal education. Practice teaching and case work are likely to be important. Techniques such as the use of audiovisual aids, lesson planning, administration, methods of group leadership, the use of broadcasting, etc., are also stressed. Because of the wide application of these methods, programmes of this kind may also be useful to those engaged in community development work, social work, religion, medicine, library work, etc.

Often part-time, these programmes vary in duration and depth. They are organized by many kinds of agencies including educational institutions, adult education centres, religious bodies, community centres, trade unions, clubs, societies, broadcasting authorities, etc. Instruction can be carried on through lectures, group discussions, projects, practice sessions, broadcasts, or by any combination of these and other methods.

Although some certificate of attendance may be given, there is rarely any attempt to measure achievement in these programmes.

91499. Other programmes in teacher training

Programmes not definable by level, dealing with educational science and teacher training except for work in adult education. Programmes of this kind do not require any specific prior education for admission, and therefore they are concerned usually with topics of immediate interest in teaching, lesson planning, or the use of new pedagogical techniques. Many of these programmes are ad hoc for those engaged in teaching to impart new information or methods, including the use of new equipment. Others are for the general interest of people not actively employed in education. The programmes vary in length and intensity, and they may include visits to educational institutions or other places in which teaching is carried on.

The majority of these programmes are part-time, although some may be full-time. They often take the form of a series of single meetings or linked weekend sessions which may be held in colleges, residential centres, schools, universities, village halls, community and youth centres, or any other suitable place. Instruction can be by any method including classes, discussion groups, projects, correspondence, audiovisual aids, broadcasts, or any combination of these.

Seldom do programmes of this type involve any formal attempt to measure achievement.

918. Fine and applied arts programmes

Programmes not definable by level and hence excluded from categories 0 to 7, designed to increase knowledge, understanding, and appreciation of the fine and applied arts, to develop creative and interpretive skills. Programmes are generally part-time and vary in length.

Since these programmes require no identifiable educational prerequisite, they are designed primarily for enjoyment or to develop artistic talents for use as a hobby or leisure-time activity. Professional artists may undertake some programmes of this kind to extend the scope of their artistic activities or to learn new skills, especially those involving newly-discovered techniques or materials.

Programmes of this type may involve general art studies, the history and philosophy of art, drawing and painting, sculpturing, music, the dance, drama, photography, including cinematography, interior design, lettering, silk-screen printing, etc. Instruction may be given by direct teaching or lectures, group discussion and practice, broadcasts (radio or television), correspondence, demonstrations and performances, visits to exhibitions or other repositories, or any combination of such methods.

Programmes are organized by a wide variety of agencies including education authorities, other government agencies, trade unions, women's groups, associations of artists, to name a few.

Seldom is a certificate or other tangible evidence of participation given to those who complete a programme.

91810. Programmes in visual and plastic arts

Organized and sustained programmes not definable by level, designed to increase or develop creative skills and appreciation of the visual and plastic arts, including drawing, painting, print making, and sculpturing, but not including handicrafts, which are in 91812. Since these programmes require no identifiable prior education for entry, they are mainly of the type taken for enjoyment or to develop artistic talent and awareness for use as a hobby or as a leisure-time activity. In some cases professional artists may find these programmes useful as a medium for developing new approaches or new skills.

These programmes may be general or specific. General programmes combine the development and practice of skills in more than one medium (e.g. painting and print making), or some aspect of the history and appreciation of the visual arts in general. Specific programmes are usually concerned with a particular topic or method in one of the plastic arts - for example, oil painting, drawing, silk-screen printing, stone carving, wood carving, modelling with plastic substances, enamelling, etc.

Usually part-time, these programmes vary greatly in duration and intensity. They usually include practice in particular subjects, supplemented by lectures, demonstrations, discussion, and criticism. Visits to collections are often used along with radio and television broadcasts. Some attention is usually paid to developing appreciation of the artistic field concerned.

Instruction may take place in educational institutions, community halls, out of doors, or in any suitable location. Students are usually encouraged to work alone as much as possible in order to develop their own interests. Programmes are organized by a variety of agencies including educational bodies, art centres, art galleries, clubs, societies, and professional artists.

Seldom do programmes of this type involve any formal attempt to measure achievement.

91812. Programmes in handicrafts

Organized and sustained programmes not definable by level, designed to develop creative skills in handicrafts such as wood carving, ceramics, art metalwork (including goldsmithing, silversmithing, and jewelry), mosaics, paper craft, including paper sculpture, leather craft, basketry and textile handicrafts (including art needlework, weaving, knitting, knotting /macramé/, or lace making and tapestry). The difference

between these programmes and those included in other fields such as 974 is that these are primarily intended to develop artistic skills. Because they are open to all regardless of previous formal education, these programmes are mainly of the type used for general interest and hobby purposes.

These programmes are generally concerned with specific topics, and they are usually part-time. Their duration and intensity vary according to the nature of the subject. Instruction usually consists of practice supplemented by lectures and demonstrations; projects, exhibitions, and visits to relevant collections are also principal means of instruction, with a view to developing skill and originality.

Many types of agencies organize these programmes, including educational bodies, community organizations, clubs, societies, and handicraft centres. Instruction may take place in educational institutions, halls, workshops, community centres, or in any suitable location.

Seldom do programmes of this type involve any formal attempt to measure achievement.

91822. Programmes in music

Programmes not definable by level, consisting of organized and sustained instruction and learning in the theory, performance, and appreciation of music. Since these programmes do not require any identifiable educational prerequisite, they appeal to a very wide public, and the majority of the students undertake them for enjoyment or leisure-time activity, although professional musicians may sometimes enrol.

These programmes vary in duration and intensity, are usually part-time and may deal with musical theory and composition, as well as performance. All kinds of music are included but usually a particular programme is confined to one type, such as folk music, popular music, or classical music. All forms of composition, such as opera, symphony, chamber music, choral music, etc., may be included in a programme, or a programme may be confined to study of a particular form, composer or period. All types of musical performance, including solo, choral, and operatic singing, playing of instruments either solo or in orchestras may form the basis for particular programmes. Music appreciation usually forms part of any programme, and practical skills are emphasized and developed through practice, performance, discussion, and criticism. Attendance at concerts and other musical performances is often included. The main difference between these musical programmes and those included in levels 5, 6 and 7 is their part-time and usually leisure-time focus.

Programmes are organized by a wide variety of agencies including educational bodies, churches, community centres, clubs, societies, trade unions, employers, etc.

Seldom do programmes of this type involve any formal attempt to measure achievement.

91832. Programmes in drama

Programmes not definable by level, consisting of organized and sustained instruction and learning in the drama, including acting, stage management, directing, make-up, etc. Programmes of this kind may also include topics in voice production and speech, theatrical design, drama appreciation and criticism, the history of the theatre and play reading. Because they require no identifiable prior education for admission, these programmes are typically designed for part-time participants interested mainly in

some aspect of the drama for recreational or leisure-time activity, although some may attract actual or potential professionals.

Programmes may be general or specific. General programmes involve practice and learning in more than one aspect of the drama to obtain some overall appreciation. Specific programmes are usually concerned with a particular topic or method such as acting, stage-set designing, stage make-up, costuming, lighting, direction, etc. Instruction usually takes the form of practice or projects supplemented by lectures, discussion, and criticism.

These programmes are organized by a variety of agencies, including educational bodies, amateur or professional theatre groups, community centres, clubs, societies, etc.

Seldom do programmes of this type involve any formal attempt to measure achievement.

91899. Other fine and applied arts programmes

Programmes not definable by level, consisting of organized and sustained instruction and learning in the theory, history, and practice of a fine or applied art not included in groups 91810, 91812, 91822 or 91832. Some examples of types of programmes included are photography and cinematography, the dance, interior design, the history of art, etc. Because these programmes require no identifiable prior education for entry, they are mainly of the type taken for enjoyment or to develop artistic talent and awareness for use as a hobby or a leisure-time activity, although sometimes professional artists will find these programmes useful.

The programmes may be general or specific in subject matter, but most will be concerned with a particular aspect of the artistic field concerned. In the main, the programmes are practical, involving performance and projects supplemented by discussion and criticism.

Usually part-time, these programmes vary greatly in intensity and duration. Visits to collections, centres of performance, and actual performances are usually an important part of a programme. Attention is usually paid also to appreciation of the particular artistic field.

Instruction may take place in educational institutions, community halls, out of doors or in any suitable premises. Students are usually encouraged to work alone or in small groups, with a view to developing individual interests. Programmes are organized by a variety of agencies, including educational bodies, dancing schools, clubs, societies, community centres, etc.

Seldom do programmes of this type involve any formal attempt to measure achievement.

922. Humanities programmes

Programmes not definable by level and hence excluded from categories 0 to 7, dealing with topics in the field of humanities, i.e. languages, literature, history, archaeology, and philosophy. Since these programmes have no identifiable educational prerequisite, they are usually concerned with a particular topic rather than being composed of a number of related courses. Thus, they are designed primarily for general interest or enjoyment rather than for specific qualification in the subject matter. In some cases, however, individuals may undertake programmes of this kind

as an aid to the performance of their work or in connexion with volunteer work or other community activities.

These programmes vary widely in scope and depth, cover a broad range of subjects, and are usually part-time. Subject areas within which topics lie include the learner's mother tongue or the principal language of his region and its literature, other contemporary languages and their literature, "dead" languages and their literature, linguistics, comparative literature, history, archaeology, philosophy (including logic and ethics).

A wide variety of agencies provides this type of programme, including government departments and agencies and especially departments of education, community organizations such as literary associations, women's groups, clubs, societies, etc. Instruction may involve lectures, group discussions, radio or television broadcasts, correspondence, the use of audiovisual equipment, or any combination of methods.

Seldom do programmes of this type involve any formal attempt to measure achievement.

92215. Programmes in a "foreign" or second language and its literature

Programmes not definable by level, consisting of organized and sustained instruction and learning in a living language or languages other than the student's "mother tongue," including the relevant grammar, syntax, and literature. Many of these programmes are concerned with a relatively narrow aspect of language such as conversation, with little emphasis on the structure or history of the language. Because they are outside the regular system of educational levels, these programmes appeal to a very wide public. Many are of the in-service training or retraining type for employees who require some knowledge of another language in connexion with their work.

A period of residence in an area where the language being studied is spoken may form part of some programmes. Others make use of language laboratories and other audiovisual techniques as part of the instruction. Instruction also includes classroom work, discussion groups, practice in conversation, practice in writing, reading, and vocabulary building. Some programmes may include study of the history, geography and culture of the country or countries using the relevant language.

Seldom do programmes of this type involve any formal attempt to measure achievement.

92221. Programmes in "dead" languages and their literature

Programmes not definable by level consisting of organized and sustained instruction and learning in a language or languages no longer in current use, such as Latin, Sanskrit, classical Greek, and Pali, including the grammar, syntax, and literature of the relevant language. Because these programmes are outside the regular system of educational levels, they are designed to appeal to a very wide public, most of whom will use the knowledge gained for personal enrichment and general interest.

Many programmes of this kind include also study of the historical development of the language, the history and cultures of the people who used them, and sometimes reference to the archaeological features of the area in which the language was used. Instruction usually includes classroom work, discussion groups, practice in writing, reading, and vocabulary building, audiovisual aids, and sometimes visits to museums and other collections.

Seldom do programmes of this type involve any formal attempt to measure achievement.

92251. Programmes in history

Programmes not definable by level, consisting of organized and sustained instruction and learning in history, i.e. with the discovery of the reality of the past and the interpretation of social behaviour and institutions through time. Because they are outside the regular system of educational levels, in that no identifiable previous education is required for admission, these programmes appeal to a very wide public, most of whom will use the knowledge gained for personal enrichment and general interest, although some may be of the in-service training or retraining type.

In the main, programmes of this kind deal with a topic or related series of topics rather than with a closely related group of courses. They are usually part-time and relatively short in duration. Some examples of the kinds of topics included are current events, history of an area or region, highlights of history, special historical topics of local or national interest, etc.

Instruction may be conducted through lectures, discussion groups, the writing of essays, the use of audiovisual equipment, broadcasts, or any combination of these and other methods.

Seldom do programmes of this type involve any formal attempt to measure achievement.

92261. Programmes in archaeology

Programmes not definable by level, consisting of organized and sustained instruction and learning in archaeology, i.e. study of the material remains of mankind's past. Because these programmes require no identifiable previous education for admission, they attract a wide variety of students, most of whom will use the knowledge gained for personal enrichment, general interest, or as a basis for participating in local archaeological activities, although some may be of the in-service training or retraining type.

In the main, these programmes deal with particular topics rather than covering a series of related courses. They are usually designed in terms of the particular archaeological features of interest in the locality. Thus, they are usually short in duration, and part-time.

Instruction may involve classroom work, discussion groups, practice sessions in the identification and typing of archaeological specimens or remains, visits to archaeological sites, use of audiovisual equipment, broadcasts, or any combination of these and other methods.

Seldom do programmes of this type involve any formal attempt to measure achievement.

92299. Other humanities programmes

Programmes not definable by level, consisting of organized and sustained instruction and learning in humanities subjects not included in the above groups 92215, 92221, 92251 and 92261. Examples of subject areas covered are the current or vernacular language and its literature, linguistics, comparative literature, philosophy,

including logic, ethics, morals, aesthetics, etc. Because these programmes require no identifiable previous education for admission, they appeal to a wide variety of students, most of whom will use the knowledge gained for personal enrichment or general interest, although some may be of the in-service training or retraining type.

In the main, programmes of this type deal with a topic or related series of topics rather than with a closely related group of courses. They are usually part-time and of relatively short duration.

Instruction may involve lectures, discussion groups, the preparation of essays or papers, radio or television broadcasts, or any combination of these or other methods.

Seldom do programmes of this type involve any formal attempt to measure achievement.

926. Religion and theology programmes

Programmes not definable by level and hence excluded from categories 0 to 7, consisting of organized and sustained instruction and learning in topics dealing with questions in religion and theology. Typically, these programmes deal with a particular topic rather than being composed of a number of related courses. Since these programmes require no identifiable educational prerequisite, they are designed primarily for those having a nonprofessional interest in the subject matter, e.g. voluntary workers engaged in religious activities. In general, therefore, programmes of this type are not attended by religious professionals but by lay people concerned with improving their knowledge of their chosen faith or of religion in general.

These programmes are usually part-time, and vary greatly in length and in the depth of their subject matter. Subject areas within which topics may lie include religion in society, comparative religions, the rôle of sacred writings, religious history, questions of theology, expository methods in religious practice, etc.

Methods of instruction may include lectures, group discussion, correspondence, demonstration, radio or television broadcasting, or combinations of such means.

These programmes are usually organized by religious groups, including churches, mosques, temples, monasteries, and other religious organizations; by educational institutions including theological seminaries; or by non-religious bodies such as departments of education, university extension departments, correspondence schools, etc.

Seldom do programmes of this type involve any formal attempt to measure achievement.

92600. Religion and theology programmes (see definition under 926)

930. Social and behavioural science programmes

Programmes not definable by level and hence excluded from categories 0 to 7, dealing with topics in the social and behavioural sciences, including economics, political science, sociology, psychology, geography, anthropology, regional studies,

etc. Since these programmes require no identifiable educational prerequisite, they tend to be concerned with particular topics rather than with a study in depth of a number of related courses. Thus, the programmes are designed primarily for those having a nonprofessional interest in the subject matter, and many are concerned with topics of current interest that will appeal to a broad public, although some may be of the in-service training or retraining type.

Subject-matter content varies widely, the programmes are usually part-time, and differ in scope and depth. They may involve classroom work, discussion groups, field trips, the preparation of material to present to the group for discussion, correspondence, radio and television broadcasts, or combinations of these and other methods.

The programmes are organized by a wide variety of agencies including educational institutions and bodies, trade unions, clubs, societies, broadcasting authorities, etc.

Seldom do programmes of this type involve any formal attempt to measure achievement.

93012. Programmes in economics

Programmes not definable by level, consisting of organized and sustained instruction and learning in topics dealing with economic theories, institutions or policies. Typically, these programmes are concerned with a particular topic rather than being composed of a number of related courses. The subject content of these programmes varies greatly because, being outside the regular system of educational levels, they appeal to a very wide public. In general, the programmes are designed for the interest and information of adults and young people out of school in subjects having little connexion with their usual work or household activities, although some may be of the in-service training or retraining type.

A few examples of topics likely to be encountered in such programmes are government finance and taxation, personal and family finance, consumer protection, inflation, labour relations, current economic problems.

The programmes vary in length from a few meetings to as long as a year, but few will exceed six months in duration. Methods of instruction are equally varied, including lectures, discussion groups, correspondence, individual or group projects, use of audiovisual aids, teaching machines, broadcasts, etc. Some programmes may involve field trips or excursions.

Seldom do programmes of this type involve any formal attempt to measure achievement.

93022. Programmes in political science

Programmes not definable by level, consisting of organized and sustained instruction and learning in topics dealing with political theories, political institutions, and governmental forms. Typically, these programmes are concerned with a particular topic rather than being composed of a number of related courses. Their subject content varies greatly because, being outside the regular system of educational levels, they appeal to a very wide public. Because no identifiable prior education is required for admission, these programmes tend to be designed for the interest and information of adults and young people out of school in subjects having little connexion with their usual work or household activities, although some may be of the in-service training or retraining type.

A few examples of topics likely to be encountered in such programmes are the conduct of meetings, the organization and conduct of elections, legislative procedures, the rôle of special and continuing committees in the legislature, political parties, governmental legislation at all levels, study of a particular political doctrine, constitutional questions, the United Nations organization and specialized agencies, other intergovernmental organizations, etc.

The programmes vary in length from a few meetings to as long as a year, but few will exceed six months in duration. Methods of instruction are equally varied, including lectures, discussion groups, correspondence, individual or group projects, use of audiovisual aids, teaching machines, broadcasts, etc. Some programmes may involve field trips or excursions.

Seldom do programmes of this type involve any formal attempt to measure achievement.

93032. Programmes in sociology

Programmes not definable by level, consisting of organized and sustained instruction and learning in topics dealing with the theory and institutions of human societies, including the dynamics of social organizations, institutions, and groups, theories of population growth, and the measurement of human populations. Typically, these programmes are concerned with a particular topic rather than being composed of a number of related courses. Their subject content varies greatly because, being outside the regular system of educational levels, they appeal to a very wide public. Because no identifiable prior education is required for admission, these programmes tend to be designed for the interest and information of adults and young people out of school in subjects having little connexion with their usual work or household activities, although some may be of the in-service training or retraining type.

A few examples of topics likely to be encountered in such programmes are the changing rôle of particular social institutions, such as the church, the family, marriage, peer groups, etc.; the sociology of crime and rehabilitation under such headings as recidivism, corporal punishment, juvenile delinquency, the use of detention as against other methods of rehabilitation; the population explosion, family planning, techniques of measuring population growth, etc.

The programmes vary in length from a few meetings to as long as a year, but few will exceed six months in duration. Methods of instruction are equally varied, including lectures, discussion groups, correspondence, individual or group projects, use of audiovisual aids, teaching machines, broadcasts, etc. Some programmes may involve field trips.

Seldom do programmes of this type involve any formal attempt to measure achievement.

93052. Programmes in psychology

Programmes not definable by level consisting of organized and sustained instruction and learning in topics dealing with individual and group psychology. Typically, each of these programmes will be concerned with a particular topic rather than being composed of a number of related courses.

Topics might include, i.a., group psychology, crowd behaviour, inter-personal relations, child psychology, adolescent psychology, problems of sub-normal intelligence, the development of motivation in others, self-development.

The subject-matter content of these programmes varies greatly because, being outside the regular system of educational levels, they appeal to a very wide public. The programmes are intended to contribute to the general education of adults and young people, often in subjects having little connexion with their usual work or household activities, although some may be of the in-service training or retraining type.

Programmes included range in length from a few meetings to activities extending to a year or more, although few will entail more than six months in the same programme. Methods of instruction are equally varied, including lectures, discussion groups, other group activities to promote inter-personal contact, correspondence, use of audiovisual aids, teaching machines, broadcasts, etc.

Seldom do programmes of this type involve any formal attempt to measure achievement such as an examination or certification.

93062. Programmes in geography

Programmes not definable by level, consisting of organized and sustained instruction and learning in topics dealing with the principles and applications of geography. Typically, these programmes are concerned with a particular topic rather than being composed of a number of related courses. The subject content of these programmes varies greatly because, being outside the regular system of educational levels, they appeal to a very wide public. In general, the programmes are designed for the interest and information of adults and young people out of school in subjects having little connexion with their usual work or household activities. In some cases, however, such as programmes of in-service training for employees of travel agencies or transport companies, the training may be vocational.

A few examples of topics that may be encountered in such programmes are important trade routes, the physical geography of an area, the influence of geography on the culture of an area, the importance of rivers in the history and development of an area, glaciers, volcanoes and thermal areas, particular topics in urban geography, etc.

Programmes vary in length from a few meetings to activities extending to a year or more, although few last more than six months. Methods of instruction are equally varied, including lectures, discussion groups, correspondence, individual or group projects, field trips, use of audiovisual aids, teaching machines, broadcasts, etc.

Seldom do programmes of this type involve any formal attempt to measure achievement.

93099. Other programmes in social and behavioural science

Programmes not definable by level, consisting of organized and sustained instruction and learning in topics dealing with social and behavioural science subjects not included in the above groups 93012, 93022, 93032, 93052 or 93062. Some examples of subjects included are anthropology and regional cultures. The subject content of these programmes varies greatly because, being outside the regular system of educational levels, they appeal to a very wide public and are typically concerned with a particular topic rather than being composed of a number of related courses. They are usually designed for general interest and provided to adults and young people out of school in subjects having little connexion with their usual work or

household activities. In a few cases, however, they may take the form of in-service vocational training.

The programmes vary in length from a few meetings to as long as one year, but few exceed six months in duration. Methods of instruction are equally varied, including lectures, discussion groups, correspondence, projects, etc. Programmes in some subjects may involve field trips.

Seldom do programmes of this type involve any formal attempt to measure achievement.

934. Commercial, clerical, business and public administration programmes

Programmes not definable by level and hence excluded from categories 0 to 7, dealing with topics in the field of commercial studies, including typing and clerical work, as well as topics in such subjects as business administration, public administration, and institutional administration. Since these programmes require no identifiable educational prerequisite, they tend to be concerned with particular topics rather than with a study in depth of a number of related courses. Thus, the programmes are primarily of the in-service type but some are designed for those having a nonprofessional interest in the subject matter.

The programmes vary widely in subject-matter content, are usually part-time, and differ in scope and depth. The topics covered will lie within such subject areas as management studies, office procedures and the organization of office records; business practices including the principles of accountancy, marketing, finance, investment, and business law; public administration, including the basis for budgeting, staffing, and organizing public business; institutional administration, including the administration of hospitals, schools, custodial and welfare institutions, etc.

Programmes are organized by a wide variety of agencies including educational bodies, government departments and services, employers, labour organizations, clubs and societies. The instruction may involve classroom work, discussion, practice sessions, projects, case studies, correspondence, broadcasting, or any combinations of these and other methods.

Seldom do programmes of this type involve any formal attempt to measure achievement.

93404. Shorthand-typing (secretarial) programmes

Programmes not definable by level, consisting of organized and sustained instruction and learning in aspects of shorthand or speed writing, typewriting, and related procedures such as formats of correspondence, notes, etc. These programmes differ from those in 23404, 33404, and 53404 in that they do not provide complete instruction in shorthand-typing but are concerned with particular techniques or new methods. Thus, many of the programmes included here are of the in-service variety, or are provided by manufacturers or sellers of relevant equipment, although some students take programmes of this nature for general interest or personal reasons.

Since the programmes included here have no identifiable educational prerequisite for admission, they appeal to a very wide public, are usually part-time, and vary greatly in length and intensity. Instruction may take the form of classroom work, practice, the use of audiovisual equipment, or combinations of these and other methods.

Seldom do programmes of this type involve any formal attempt to measure achievement.

93408. Clerical programmes

Programmes not definable by level, consisting of organized and sustained instruction and learning in aspects of clerical work such as the maintenance of office records, the establishment and operation of filing systems, indexes and other forms of data storage and retrieval, bookkeeping, cashier or cash-desk work, etc. Because these programmes require no identifiable prior education for admission, they differ from those concerned with clerical work at other levels in that they do not provide complete instruction in the skills covered, but concentrate on particular techniques or new methods. Thus, many of the programmes included here are of the in-service variety and are provided by employers as a means of retraining or to introduce new methods or equipment. Some students take programmes of this nature for general interest or personal reasons.

The majority of these programmes are part-time and they vary greatly in length and intensity. Instruction may take the form of classroom work, practice, case studies, correspondence, the use of audiovisual equipment, or combinations of these and other methods.

Seldom do programmes of this type involve any formal attempt to measure achievement.

93438. Programmes in labour studies, including personnel administration

Programmes not definable by level, consisting of organized and sustained instruction and learning in aspects of labour studies, including personnel administration, such as the history of labour organizations, management and operation of labour organizations, hiring policy, staff training, maintenance of personnel records, job description, job evaluation, labour-management relations, collective bargaining techniques, collective agreements, grievance procedure, etc. Since no prior educational prerequisite can be specified for these programmes they tend to be concerned with particular topics rather than with a study in depth of a number of related courses. Thus, they are often of the in-service type, designed either for retraining of staff or as a means of introducing new methods or techniques. Some students, however, take programmes of this type for general interest or personal reasons.

The majority of these programmes are part-time and they vary widely in subject matter, duration, scope and depth. Instruction may take the form of classroom work, discussion groups, practice sessions, case studies, correspondence, the use of audiovisual equipment, or combinations of these and other methods.

Seldom do programmes of this type involve any formal attempt to measure achievement.

93499. Other commercial, clerical, business and public administration programmes

Programmes not definable by level, consisting of organized and sustained instruction and learning in aspects of clerical operations, business administration, public administration, and institutional administration not included in the above groups 93404, 93408, or 93438. Examples of the subject-matter areas within which

these programmes fall are aspects of business management, accountancy, salesmanship and marketing, advertising, finance and investment, purchasing methods, work planning and scheduling, etc. Since no prior educational prerequisite can be specified for these programmes they tend to be concerned with particular topics rather than with a study in depth of a number of related courses. Thus, they are often of the in-service type, designed either for retraining staff or as a means for studying and introducing new methods or techniques. Some students, however, take programmes of this type for general interest or personal reasons.

The majority of these programmes are part-time and they vary widely in subject matter, duration, scope and depth. Instruction may take the form of classroom work, discussion groups, practice sessions, case studies, field trips, correspondence, the use of audiovisual equipment, or combinations of these and other methods.

Seldom do programmes of this type involve any formal attempt to measure achievement.

938. Programmes in law

Programmes not definable by level, consisting of instruction and learning in legal matters and designed particularly for those seeking some familiarity with specific topics, although not from the viewpoint of a professional lawyer. Because these programmes are aimed at a wide audience, with no identifiable educational prerequisite, they tend to be concerned with particular topics rather than with the study in depth of a number of related courses.

The programmes vary in subject matter, are usually part-time, and differ in scope and depth. The topics will tend to be chosen from such subject areas as the theory, philosophy and history of law, the law in society, aspects of civil law, questions of law enforcement, legal requirements for transactions such as property transfer, marriage and divorce, inheritance, etc., and criminal law.

Programmes are organized by a wide variety of agencies including educational bodies, planning groups, government departments, consumer groups, law societies, labour organizations, and broadcasting authorities. The instruction may involve classroom work, discussion, case studies, projects, correspondence, broadcasting, or any combinations of these and other methods.

Seldom do programmes of this type involve any formal attempt to measure achievement.

93800. Programmes in law (see definition under 938)

942. Natural science programmes

Programmes not definable by level, consisting of organized and sustained instruction and learning in topics dealing with the natural sciences such as biology, chemistry, geology, physics, astronomy, meteorology, oceanography, etc. Because these programmes are aimed at a wide audience and no identifiable educational prerequisite can be established, they tend to be concerned with particular topics rather than with study in depth of a number of related courses.

The programmes vary in subject matter, being typically concerned with a topic within one of the natural sciences, although some may deal with an interdisciplinary

topic. In general, the topics will be such that any required basic knowledge of the science concerned can be supplied as part of the programme.

Usually part-time, these programmes are organized by a wide variety of agencies including educational organizations, consumer groups, government departments and agencies, community organizations, broadcasting authorities, etc. Instruction may involve lectures, group discussions, correspondence, radio or television broadcasts, or any combination of these and other methods.

Seldom do programmes of this type involve any formal attempt to measure achievement.

94202. Biological science programmes

Programmes not definable by level, consisting of organized and sustained instruction and learning dealing with the principles and practices of biological sciences and technology. Since no prior educational prerequisite can be specified for these programmes, they tend to be concerned with a particular topic rather than being composed of a number of related courses. Thus, they are often of the in-service type, designed either to introduce staff to an appreciation of the material with which they will work or for retraining or introducing new methods and techniques. Some programmes in this group are designed for general interest or for the particular needs of those concerned with community problems or other matters requiring some knowledge of biological science.

The majority of these programmes are part-time and they vary widely in subject matter, duration, scope, and depth. Instruction may take the form of classroom work, laboratory work, discussion groups, projects, correspondence, field trips, or a combination of these and other methods.

Seldom do programmes of this type involve any formal attempt to measure achievement.

94222. Geological science programmes

Programmes not definable by level, consisting of organized and sustained instruction and learning dealing with the principles and practices of geological sciences and technology. Since no prior educational prerequisite can be specified for these programmes, they tend to be concerned with a particular topic rather than being composed of a number of related courses. They are, therefore, often designed for specific needs such as the in-service type of programme providing a general knowledge of a geological science to nonprofessional staff to introduce new methods and techniques for which staff must be retrained. Some programmes of this type are related to the general interests or particular needs of those requiring a general knowledge of some branch of geological science in connexion with community problems or other concerns.

The majority of these programmes are part-time and they vary widely in subject matter, duration, scope, and depth. Instruction may take the form of classroom work, laboratory work such as identification of specimens, discussion groups, projects, correspondence, field trips, or a combination of these and other methods.

Seldom do programmes of this type involve any formal attempt to measure achievement.

94232. Physics programmes

Programmes not definable by level, consisting of organized and sustained instruction and learning dealing with the principles and practices of physics. Since no prior educational prerequisite can be specified for these programmes, they tend to be concerned with a particular topic rather than being composed of a number of related courses. They are therefore often designed for specific needs such as in-service training provided for nonprofessional staff requiring a general knowledge of some branch of physics related to their work, or to introduce new methods or techniques for which staff must be retrained. Some of these programmes are related to the general interests or particular needs of those requiring a knowledge of some branch or application of physics in connexion with general concerns not associated with their occupations.

The majority of these programmes are part-time and they vary widely in subject matter, duration, scope and depth. Instruction may take the form of classroom work, laboratory work, discussion groups, projects, correspondence, field trips, or a combination of these and other methods.

Seldom do programmes of this type involve any formal attempt to measure achievement.

94242. Astronomy programmes

Programmes not definable by level, consisting of organized and sustained instruction and learning dealing with the principles and practices of astronomy. Since no prior educational prerequisite can be specified for these programmes, they tend to be concerned with a particular topic rather than being composed of a number of related courses. They are therefore often designed for specific needs such as the in-service type of programmes providing a general knowledge of an aspect of astronomy required by nonprofessional staff or to introduce new methods or techniques for which staff must be retrained. Some of these programmes are related to the general interests or hobbies of individuals, while others meet the particular needs of those requiring a knowledge of some branch or application of astronomy in connexion with general concerns not associated with their occupations.

The majority of these programmes are part-time and they vary widely in subject matter, duration, scope and depth. Instruction may take the form of classroom work, astronomical observation, discussion groups, projects, correspondence, or a combination of these or other methods.

Seldom do programmes of this type involve any formal attempt to measure achievement.

94299. Other natural science programmes

Programmes not definable by level, consisting of organized and sustained instruction and learning dealing with the principles and practices of natural sciences not included in the above groups 94202, 94222, 94232 and 94242. Some examples of sciences included are chemistry, meteorology, and oceanography. Since no prior educational prerequisite can be specified for these programmes, they tend to be concerned with a particular topic rather than being composed of a number of related courses. They are therefore often designed for specific needs such as in-service training provided for nonprofessional staff requiring a general knowledge of some branch of the natural science in question, or to introduce new methods or techniques for which staff must be retrained. Some of these programmes are related to the

general interests or hobbies of individuals, while others meet the particular needs of those requiring a knowledge of some branch or application of the natural science in question in connexion with social or other general concerns not associated with their work.

The majority of these programmes are part-time and they vary widely in subject matter, duration, scope and depth. Instruction may take the form of classroom work, laboratory work, field investigation, discussion groups, projects, correspondence, or a combination of these and other methods.

Seldom do programmes of this type involve any formal attempt to measure achievement.

946. Programmes in computer science

Programmes not definable by level, consisting of instruction and learning in computer science, particularly for those seeking some familiarity with specific topics in the field. Because these programmes are aimed at a wide audience and no identifiable educational prerequisite can be established, they tend to be concerned with particular topics rather than with study in depth of a number of related courses. Therefore the great majority of these programmes will not appeal to computer specialists.

These programmes vary in subject matter, being typically concerned with a single topic within some application of computer science.

Usually part-time, these programmes are organized by a wide variety of agencies, including educational bodies, clubs, societies, consumer groups, employers, trade unions, community organizations, broadcasting authorities, etc. Instruction may involve lectures, group discussion, correspondence, practice with computer equipment, radio or television broadcasts, or any combinations of these and other methods.

Programmes of this type do not usually involve any formal attempt to measure achievement.

94600. Programmes in computer science

Programmes not definable by level, consisting of organized and sustained instruction and learning in aspects of computer science such as systems analysis, the theory and practice of computer operations, programming, computer languages, hardware and software, new applications for computers, etc. Because these programmes require no identifiable educational prerequisite, they tend to be of a very general nature or to be concerned with particular topics rather than with study in depth of a number of related courses. Thus, many of the programmes are of the in-service type, providing either general knowledge of computer operations and applications to employees who will not be using computers directly, or to introduce new methods and techniques for which staff, including sometimes computer specialists, must be retrained. Certain types of programmes may be based upon earlier short courses of the same type and are therefore consecutive in nature. Some programmes included here are related to the general interests or hobbies of individuals, while others meet the particular needs of the general public for information on computer functioning and applications. The above are examples of the kinds of programmes included and are not intended to provide an exhaustive list.

The majority of these programmes are part-time, and they vary widely in subject matter, duration, scope and depth. Instruction may take the form of classroom work, practice sessions, problem solving, case studies, discussion groups, correspondence, or a combination of these or other methods.

Programmes of this type do not usually involve any formal attempt to measure achievement but some may require successful completion of an operation on a computer.

950. Health-related programmes

Programmes not definable by level, consisting of organized and sustained instruction and learning in medical diagnostic and treatment topics such as nursing, public health, sanitation, first aid, hygiene, rehabilitation of invalids and injured people, etc. Because these programmes are aimed at a wide audience, and no identifiable educational prerequisite can be established, they tend to be concerned with particular topics or techniques, rather than study in depth of a number of related courses.

The programmes vary in subject matter, some being very broad and general, but the majority are concerned with a topic within one of the medical or health areas mentioned above. In general, the topics are such that any required technical knowledge can be supplied as part of the programme.

Usually part-time, these programmes are organized by many different kinds of agencies, including hospitals and other organizations in the health field, government departments, educational organizations, clubs, societies, community organizations, broadcasting authorities, etc. Instruction may involve lectures, group discussions, practice sessions, visits to hospitals, public health clinics, and the like, radio or television broadcasts, or any combinations of these and other methods.

Seldom do programmes of this type involve any formal attempt to measure achievement.

95018. Nursing and other medical auxiliary programmes

Programmes not definable by level, consisting of organized and sustained instruction and learning dealing with the principles and practices of nursing and other medical auxiliary programmes such as midwifery, public health, hygiene, etc. Because these programmes require no identifiable previous education for admission, they tend to be concerned with particular topics or particular aspects of the subject matter rather than with a number of related courses. Many are therefore intended for specific needs such as in-service training or retraining of nonprofessional staff who require some knowledge of the subject matter; or as a means for introducing new methods or techniques. Some programmes of this kind may be designed for the training of assistants or volunteer workers who will work with the professionals. Others may be intended for general interest or as part of a community programme, such as a voluntary emergency service. These are merely examples.

The programmes are mainly part-time, and they vary widely in subject matter, duration, scope and depth. Instruction may take the form of classroom work, practice sessions, discussion groups, projects, correspondence, or any combination of these or other methods.

Seldom do programmes of this type involve any formal attempt to measure achievement.

95099. Other health-related programmes

Programmes not definable by level, consisting of organized and sustained instruction and learning in health-related fields except those included in 95018. Some examples of subject-matter areas included are physical and mental rehabilitation programmes, first aid, medical technology programmes such as X-ray, respiratory technology, haematological technology, biochemical technology, etc. Because these programmes require no identifiable prior education for admission, they tend to be concerned with particular topics rather than being composed of a number of related courses. Many are therefore intended for specific needs such as in-service training or retraining of nonprofessional staff who require some knowledge of the subject matter, or as a means for introducing new methods or techniques. Some programmes of this kind may be designed for the training of assistants or volunteer workers who will work with the professionals, or they may be intended for general interest or as part of a community programme, such as a voluntary emergency service, blood-donor clinics, etc. These are merely examples.

The programmes are mainly part-time and vary widely in subject matter, duration, scope and depth. Instruction may take the form of classroom work, laboratory work, practice sessions, discussion groups, projects, correspondence, or any combination of these or other methods.

Seldom do programmes of this type involve any formal attempt to measure achievement.

952. Trade, craft, and industrial programmes, n.e.c.

Programmes not definable by level, consisting of organized and sustained instruction and learning in trades, crafts or industrial processes. These programmes differ from those in fields 252, 352 and 552 in that they do not require any identifiable prior education for admission. Thus, they are designed for a very wide range of clients and generally do not involve the students in highly skilled or technical operations. Many of these programmes will be of the in-service type, designed to impart new information or new techniques and methods to those having on-the-job experience. Other programmes in this group are intended for those who are not engaged as workers or craftsmen in the processes or topics covered, but who require some such knowledge for vocational or nonvocational purposes. Note that work-oriented functional literacy programmes are included in category 10821, and that training for handicrafts at this level is included in 91812.

These programmes vary widely in scope and depth as well as in subject matter, but are generally practical and of immediate application to the trade, craft, or industry concerned. They cover topics in such areas as metal trades, woodworking trades, electrical and electronic trades, other building trades, mechanical and repair trades, graphic arts, leather and technical trades, food and drink processing, etc. The programmes are usually part-time and vary in duration from a week or two to as long as one year.

Instruction may involve lectures, group discussion, projects, practice sessions, visits to work sites, audiovisual aids, or any combination of these and other methods. Many kinds of agencies sponsor these programmes, including educational bodies, employers, government departments, community associations, trade unions, etc.

Seldom do programmes of this type involve any formal attempt to measure achievement.

95200. Trade, craft, and industrial programmes, n.e.c. (see definition under 952)

954. Engineering programmes

Programmes not definable by level, consisting of organized and sustained instruction and learning in topics dealing with engineering, such as surveying, drafting and design, chemical engineering and materials technology, civil engineering, electrical and electronics engineering, industrial engineering, metallurgical and mining engineering, mechanical engineering, or agricultural, forestry, and fishery engineering, etc. Because these programmes are aimed at a wide audience and no identifiable educational prerequisite can be established, they are unlikely to appeal to professional engineers or technologists. Thus, being directed toward a wide audience, with little if any knowledge of engineering, they tend to be concerned with either a very broad subject matter or specific topics or techniques rather than with study in depth of a number of related courses.

The programmes vary in subject matter, but the majority are concerned with a topic within one of the subject areas mentioned above. In general, the subject matter is such that any required technical knowledge can be supplied as part of the programme.

Usually part-time, these programmes are organized by many different kinds of agencies, including educational organizations, government departments, employers, community organizations, broadcasting authorities, etc. Instruction can involve lectures, group discussions, projects, visits to building sites, mines, factories, or other work places, the use of audiovisual aids, including radio or television broadcasts, or any combinations of these and other methods.

Seldom do programmes of this type involve any formal attempt to measure achievement.

95400. Engineering programmes (see definition under 954)

958. Architectural and town-planning programmes

Programmes not definable by level, consisting of organized and sustained instruction and learning in topics dealing with architecture and town planning such as local community planning projects, local planning ordinances and their applications to the community, principles of community planning, the history of architecture, principal architectural forms, etc. Because these programmes are directed at a wide audience, and no identifiable educational prerequisite can be established, they are unlikely to appeal to professional architects or town planners. They tend to be concerned either with a very broad survey of a subject or with specific topics or methods rather than study in depth of a number of related courses. In general, the topics are such that any required technical knowledge can be supplied as part of the programme.

The programmes vary in subject matter, are usually part-time and are organized by many different kinds of agencies, including educational bodies, community organizations, government agencies, clubs, societies, broadcasting authorities, etc. Instruction may involve lectures, group discussions, practice sessions, projects, visits to architectural sites or typical communities, radio or television broadcasts, or any combination of these and other methods.

Seldom do programmes of this type involve any formal attempt to measure achievement.

95810. Architectural programmes

Programmes not definable by level, consisting of organized and sustained instruction and learning in architecture. Because these programmes require no identifiable prior education for admission they are of little if any interest to the professional architect, and are designed to meet the needs of those who seek some knowledge of architecture either for general interest or as a hobby. Other programmes of this type may be of the in-service kind, for employees who require some knowledge of architecture in their work. Some examples of the kinds of programmes envisaged are general-interest courses in the history of architecture, the architecture of a particular period or a particular area, ancient architectural forms of interest in archaeology, etc.

The programmes are mainly part-time and they vary widely in subject matter, duration, scope and depth. Instruction may take the form of classroom work, discussion groups, projects, field work, correspondence, or any combination of these or other methods.

Seldom do programmes of this kind involve any formal attempt to measure achievement.

95822. Town or community planning programmes

Programmes not definable by level, consisting of organized and sustained instruction and learning in town or community planning. Because these programmes require no identifiable prior education for admission, they are of interest primarily to nonprofessionals who, either as individuals or groups, are concerned with some aspect of community planning. Some examples of problems that may be examined in these programmes are the development of new towns, traffic and transport aspects of planning, the provision of community services, planning in relation to pollution problems and environmental improvement, survey techniques and community planning, problems of rehousing in a community, etc. Others who will be interested in this type of programme are those conducting in-service training for employees who require a general knowledge of town or community planning in their work.

Programmes are mainly part-time and they vary widely in subject matter, duration, scope and depth. Instruction may take the form of classroom work, discussion groups, projects, field work, correspondence, or any combination of these or other methods.

Seldom do programmes of this kind involve any formal attempt to measure achievement.

962. Agricultural, forestry, and fishery programmes

Programmes not definable by level, consisting of organized and sustained instruction and learning in agricultural, forestry, or fishery topics in such fields as animal husbandry, crop husbandry, horticulture and gardening, farm management, soil and water technology, animal health, forestry, fishing and fish processing. Because these programmes are aimed at a wide audience and no identifiable prior educational prerequisite can be established, they are unlikely to appeal to trained professionals in their subject fields. Their focus is more likely to be toward improving the knowledge and competence of practising farmers, forestry or fishery personnel without technical training, or providing some general knowledge for those who desire to undertake such work. They also include general-interest programmes for people concerned with a specific problem in agriculture, forestry, or fishery,

but who may not themselves be engaged in that kind of work. Note that extension programmes in which participants are not enrolled (e.g. visits to individual farms by agricultural extension workers) are excluded as being not "organized and sustained" (see the definition of "education", paragraphs five to nine of the Introduction to this volume).

Programmes vary in subject matter, some being very broad and general, but the majority being concerned with a topic or closely related series of topics within one of the subject areas mentioned above. In general, the topics are such that any required technical knowledge can be supplied as part of the programme.

Usually part-time, these programmes are organized by many different kinds of agencies, including government departments, educational bodies, farmers' unions or co-operatives, fishermen's unions or co-operatives, organizations of forestry workers, employers, community organizations, clubs, societies, broadcasting organizations, etc. Some programmes may be given in special institutes or in residential or other training centres. Instruction may involve lectures, group discussions, demonstrations, practice sessions, visits to agricultural, forestry or fishery projects, radio or television broadcasts, or any combination of these and other methods.

Seldom do programmes of this type involve any formal attempt to measure achievement.

96202. Programmes in agriculture

Programmes not definable by level, consisting of organized and sustained instruction and learning in topics dealing with the principles and practices of agriculture such as crop husbandry, animal husbandry, horticulture, pest control, farm management, soil and water technology, marketing of farm products, etc. Because these programmes are directed at a wide audience and no identifiable educational prerequisite can be established, they tend to be concerned either with a very broad survey of a subject or with specific topics or methods rather than with study in depth of a number of related courses. (Note that extension programmes in which participants are not enrolled, involving visits to individual farms by extension workers, are excluded by the definition of "education" used in ISCED.) Many of these programmes are designed to provide information for practising farmers, while others are intended for amateur gardeners or stock or plant breeders who are concerned with problems requiring some technical knowledge such as soil preparation, methods of planting and cultivation, diseases of plants, diseases of insects (e.g. bees), poultry, or animals, plant pests, disposal of waste, or other matters of interest to the amateur.

Programmes are mainly part-time and vary widely in subject matter, duration, scope and depth. Instruction may take the form of classroom work, practice, discussion groups, supervised work on model farms, etc., correspondence, or any combination of these or other methods.

Seldom do programmes of this type involve any formal attempt to measure achievement.

96262. Forestry and forest products technology programmes

Programmes not definable by level, consisting of organized and sustained instruction and learning dealing with the principles and practices of forestry and forest products technology, including such subject areas as silviculture, forest

scaling, forest protection, such as fire control, pest control, etc., forest cropping and wood-lot management, etc. Because no identifiable educational prerequisite can be established for these programmes they tend to be concerned either with a very broad survey of a subject or with specific topics or methods rather than with study in depth of a number of related courses. Many programmes of this kind are designed to provide information for those engaged in forestry, often as in-service training or retraining, or as a means for introducing new methods or techniques. Others are intended to provide information on forestry for those not directly engaged in these operations but who require such knowledge in their jobs. Some of these programmes are provided for the general knowledge of people seeking the training for use in leisure-time or similar activities. The above are merely examples.

The programmes vary in subject matter, duration, scope and depth, and they are mainly part-time. Instruction may take the form of classroom work, practice, discussion groups, supervised work in forest areas, correspondence, or any combination of these or other methods.

Seldom do programmes of this type involve any formal attempt to measure achievement.

96272. Fishery programmes

Programmes not definable by level, consisting of organized and sustained instruction and learning dealing with the principles and practices of the fishery, including such subject areas as fishing methods, fishing gear, fishing boat design and construction, fish processing, fish culture, fish detection, fishery aspects of water pollution, methods of fish farming, etc. Because no identifiable educational prerequisite can be established for these programmes they tend to be concerned with a very broad survey of a subject or with specific topics or methods rather than with study in depth of a number of related courses. Many of these programmes are of the in-service training or retraining type, for use in introducing new work methods, new equipment or techniques. Others are used to provide information on the fishery to those not directly engaged in fishery operations but who require such knowledge in their jobs. Some programmes of this kind are provided for the general knowledge of people needing the training for use in leisure-time or similar activities. The above are merely examples.

The programmes are mainly part-time, and they vary in subject matter, duration, scope and depth. Instruction may take the form of classroom work, practice, supervised work in fishery operations, discussion groups, correspondence, or any combination of these or other methods.

Seldom do programmes of this type involve any formal attempt to measure achievement.

966. Home economics (domestic science) programmes

Programmes not definable by level, consisting of organized and sustained instruction and learning in home economics (domestic science) topics in such fields as the care, maintenance, and improvement of the home, child care, household food management and nutrition, family sewing and the care and mending of apparel, etc. Because these programmes are aimed at a wide audience and no identifiable educational prerequisite can be established, they tend to be concerned with particular topics or techniques rather than the study in depth of a number of related courses. They are, however, "organized and sustained," and therefore programmes consisting of

individual visits by community workers to give advice and assistance to wives and mothers in their homes are excluded.

Programmes vary in subject matter, some being very broad and general, but the majority being concerned with a topic or closely related series of topics within one of the subject areas mentioned above. In general, the topics are such that any required technical knowledge can be supplied as part of the programme.

Usually part-time, these programmes are organized by many different kinds of organizations, including government departments, educational bodies, community development agencies, social welfare agencies, women's associations, youth organizations, community organizations, clubs, societies, broadcasting organizations, etc.

Instruction may involve lectures, group discussions, projects, practice sessions, audiovisual aids, radio or television broadcasts, or any combination of these and other methods.

Seldom do programmes of this type involve any formal attempt to measure achievement.

96604. Programmes with emphasis on dressmaking and needlecrafts

Programmes not definable by level, consisting of organized and sustained instruction and learning in family sewing, including dressmaking, making of household textile goods, mending, hand knitting, crocheting, etc. Because no specific educational prerequisite can be identified for admission to these programmes, they tend to be concerned with specific topics or methods rather than consisting of study in depth of a number of related courses. In the main, the programmes are designed for housewives or others who are responsible for family sewing, and thus they differ from the craft or industrial type of sewing and textile technology included in field 54 Trade, craft, and industrial programmes, n.e.c. Programmes included here often cover both hand and machine sewing in addition to the use and making of patterns, choice of materials, embroidering, fine needlework, etc. They may also include the making of accessories such as belts, gloves, bags, scarves, and headwear.

The programmes vary in subject matter, duration, scope and depth, and are mainly part-time. Instruction usually takes the form of projects which are carried out under supervision supplemented with lectures, demonstrations, discussion groups, etc.

Seldom do programmes of this type involve any formal attempt to measure achievement.

96612. Programmes with emphasis on household food management and nutrition

Programmes not definable by level, consisting of organized and sustained instruction and learning in household food management, family nutrition, and the preparation of food for a household. Because these programmes require no identifiable educational prerequisite for admission, they tend to be concerned with practical aspects of food purchasing, storage, processing, cooking, and the nutritional qualities of various foods from the viewpoint of one who is responsible for household food management. They may be general or broadly based, encompassing the whole field of family food and nutrition, including food preparation, cooking, home baking, use of convenience foods, preservation, nutrition, including the needs of special members of the household such as infants, expectant mothers, or elderly

people, consumer education, and the serving of food for everyday and special occasions. Or they may be more specialized, dealing in greater depth with one aspect of food and nutrition such as cake and pastry baking, cake decoration, home freezing, cooking on a budget, slimming diets, etc.

These programmes vary greatly in duration, scope and depth, and are usually part-time. Instruction often takes the form of practice in handling, cooking, and serving food, with group participation in sampling and assessing the product. This is supplemented with lectures, discussions, demonstrations, visits to model kitchens and food-processing plants, the use of audiovisual equipment, etc.

Seldom do programmes of this type involve any formal attempt to measure achievement.

96622. Programmes with emphasis on child care

Programmes not definable by level, consisting of organized and sustained instruction and learning in child care and particularly in the welfare of children of any age in a family setting, or in a crèche or play group for children up to three years of age. Because these programmes require no identifiable educational prerequisite for admission, they tend to be concerned with practical aspects of child care. They may be general or broadly based, combining work in the classroom with observation of young children in the home or in play groups, and many such programmes include brief working periods in play groups under supervision. Or the programmes may be more specific, dealing in greater depth with one aspect of child care such as child development, guidance, health, nutrition, hygiene, family planning, etc. These programmes are usually part-time and they vary in duration, scope and depth.

Seldom do programmes of this type involve any formal attempt to measure achievement.

96699. Other home economics programmes

Programmes not definable by level, consisting of organized and sustained instruction and learning in home economics (domestic science) programmes other than those included in 96604, 96612 and 96622, above. Some examples of subject areas within which these programmes may fall include household arts such as home furnishing, house planning, and home management. Because no identifiable educational prerequisite can be specified for admission to these programmes, they tend to be concerned with practical aspects of the subject matter in question. They are therefore often designed for specific needs such as the problems faced by home makers in areas of urban redevelopment or the needs of households in rural areas having limited access to information on household furnishings and equipment. The above is illustrative and should not be considered as exhaustive.

Usually part-time, these programmes vary greatly in duration, scope and depth. Instruction usually includes classroom work, practice, projects, demonstrations, discussion groups, the use of audiovisual equipment, or any combination of these or any other methods.

Seldom do programmes of this type involve any formal attempt to measure achievement.

970. Transport and communications programmes

Programmes not definable by level, consisting of organized and sustained instruction and learning in transport and communications topics. Because these programmes are aimed at a wide audience and have no identifiable educational prerequisite, they tend to be concerned with particular topics or techniques rather than study in depth of a number of related courses. Some of the programmes in this group take the form of in-service training for the personnel of companies engaged in air transport, shipping, rail transport, road transport, or communications services such as postal services, telephone, and telegraph. Others are provided for those concerned with a transport or communications problem but not employed in the transport or communications industries. In any case, the topics included are such that any required technical knowledge can be supplied as part of the programme.

These programmes vary in subject matter, some being very broad and general while others are concerned with a particular topic or closely related series of topics. They are usually part-time, and vary in duration from a week or two to as long as one year.

Instruction may involve lectures, group discussion, projects, practice sessions, audiovisual aids, or any combination of these and other methods.

Seldom do programmes of this type involve any formal attempt to measure achievement.

97000. Transport and communications programmes (see definition under 970)

978. Service trades programmes

Programmes not definable by level, consisting of organized and sustained instruction and learning in service trades such as barbering and beauty culture, waiter-waitress training, laundry and dry-cleaning trades, other hotel trades, retailing, tourist trades, etc. These programmes differ from those in fields 278, 378 and 578 in that they do not require any identifiable prior education for admission. Thus, they are designed for a very wide range of clients and any technical knowledge required is such that it can be included as part of the programme. Many of these programmes are of the in-service type, designed as training or retraining for existing staff. In many cases, they are designed to impart new information or new techniques or to introduce new methods. Other programmes in this group are intended for a general audience who are interested in the subject matter for purposes not connected with their principal vocation.

The programmes vary widely in scope and depth as well as in subject matter, but are generally practical and of immediate application. They are generally part-time and vary in duration from one week or two to as long as a year, although few exceed six months.

Instruction may involve lectures, group discussions, practice sessions with evaluation of the results, projects, audiovisual aids, or any combination of these and other methods. Many kinds of agencies sponsor these programmes, including educational bodies, employers, government departments, community associations, clubs, societies, etc.

Seldom do programmes of this type involve any formal attempt to measure achievement.

97800. Service trades programmes (see definition under 978)

984. Programmes in mass communication and documentation

Programmes not definable by level, consisting of organized and sustained instruction and learning in subjects such as journalism, radio and television broadcasting, the cinema, public relations, library work, and other documentation work. These programmes differ from those in fields 584, 684 and 784 in that they do not require any identifiable prior education for admission. Thus, they are designed for a wide range of clients, and generally do not involve the students in skilled or technical operations. They are generally very broadly based, although some of them may be concerned with particular topics or techniques rather than with study in depth of a number of related courses. The programmes vary widely in scope, depth and duration. They tend to be practical, with immediate application to the work area involved. Some are intended for in-service training, but others are designed for those having a general interest in the subject for either vocational or non-vocational purposes.

Instruction may involve lectures, group discussions, projects, practice sessions, visits to work areas or other relevant operations, broadcasts, correspondence, or any combination of these and other methods. Many types of agencies organize these programmes, including government departments, educational bodies, employers, professional groups, clubs, societies, community organizations, trade unions, business concerns, etc.

Seldom do programmes of this type involve any formal attempt to measure achievement.

98400. Programmes in mass communication and documentation (see definition under 984)

989. Other education not definable by level

Programmes not definable by level, consisting of organized and sustained instruction and learning not included in any of the above fields 901 - 984. Because these programmes do not require any specific prior education for admission, they are designed for a very wide range of clients and generally do not involve the students in skilled or technical operations. Subject areas within which the topics will fall include, i.a., physical education, criminology, police work, fire protection, other civil security and military subjects; social welfare including family planning, vocational counselling, environmental studies. These programmes vary widely in scope, depth and duration. They tend to be practical, with immediate application to the work area involved. Many are intended for in-service training, but others are provided for those having a general interest in the subject for either vocational or non-vocational purposes.

Instruction may involve lectures, group discussion, projects, practice sessions, visits to work areas or other relevant sites, broadcasts, correspondence, or any combination of these and other methods. Many different agencies organize such programmes, including government departments, educational bodies, employers, professional groups, clubs, societies, community organizations, trade unions, business concerns, etc.

Seldom do programmes of this type involve any formal attempt to measure achievement.

98962. Programmes in physical education

Programmes not definable by level, consisting of organized and sustained instruction and learning in physical education, sports, gymnastics, etc. Because these programmes are aimed at a wide audience and no identifiable educational prerequisite can be established, they are mainly concerned with particular sports or techniques rather than with a rounded physical education programme consisting of theoretical and practical work in depth in a number of related courses. Thus, the principal aim of many programmes included here is the improvement of performance in a sport for spare-time recreational purposes. In some cases, programmes sponsored by business enterprises or by clubs or associations may have a wider purpose such as general improvement of the physical capacities of clients or members.

Usually part-time, these programmes vary greatly in duration, scope and depth. They are sponsored by many kinds of agencies, including community associations, clubs, societies, youth groups, business enterprises, employers, labour organizations, etc. Instruction may take the form of lectures, practice sessions, discussion groups, supervised exercise or play, supplemented with criticism and analysis of performance, audiovisual equipment, or any combination of these or other methods.

Seldom do programmes of this type involve any formal attempt to measure achievement.

98999. Other education not definable by level, n.e.c.

Programmes not definable by level, consisting of organized and sustained instruction and learning included in the definition of 989 above, except physical education. Thus, the definition of 989 applies here with the above-noted exception.

A	0	1	2	3	5	6	7	9
Abnormal psychology, programmes in					53052	63052	73052	93052
Accountancy, programmes with specialization in				33499	53432	63432	73432	93499
Acting, programmes in				31899	51832	61832	71832	91832
Actuarial science, programmes in					54621	64621	74621	94602
Administration, business, programmes in				33452	534	634	734	934
Administration, hospital, programmes in					53462	63462	73462	93499
Administration, institutional, programmes in					53462	63462	73462	
Administration, public, programmes in					53452	63452	73452	93499
Administration, school, programmes in					53462	63462	73462	93499
Administration, welfare agency, programmes in					53462	63462	73462	93499
Adult education, programmes in teacher training for			21408	31416	51416	61416		91416
Adult education, programmes with specialization in							71416	
Advanced algebra, programmes in					54601	64601	74639	
Advanced geometry, programmes in					54601	64601	74639	
Advertising, programmes in					53434	63439	73434	93499
Aeronautical engineering, programmes in				35499	55442	65442	75442	
Agricultural economics, programmes in					56212	66212	76212	96202

	0	1	2	3	5	6	7	9
Agricultural engineering, programmes in				35499	55452	65453	75453	
Agricultural programmes		162	262	362	562	662	762	962
Agricultural programmes, general		16202	26202	36201	56201	66201		96202
Agricultural programmes, other				36249	56249	66249	76249	96202
Agriculture, general programmes in		16202	26202	36201	56201	66201		96202
Agriculture, other programmes in				36249	56249	66249	76249	96202
Aircraft navigation, programmes in					57002			
Aircraft piloting, programmes in					57002			
Air crew programmes					57002			97000
Airline stewarding					57002			
Algebra, advanced, programmes in					54601	64601	74639	
Animal health, programmes in					56232	66232	76232	
Animal husbandry, programmes in		16202	26202	36203	56203	66203	76203	96202
Announcing (radio and television), programmes in					58404	68404	78404	984
Anthropology, programmes in					53099	63042	73042	93099
Apparel design, programmes in				31899	51899		71899	91899
Applied arts, other programmes in				31899	51899	61899	71899	91899
Applied arts, programmes in				318	518	618	718	918
Applied mathematics, other programmes in					54639	64639	74639	94602
Applied psychology					53052	63052	73052	93052
Archaeology, programmes in					52299	62261	72261	92261

	0	1	2	3	5	6	7	9
Architectural and town-planning, general, programmes in					55801	65801		
Architectural and town-planning programmes					558	658	758	958
Architecture, landscape, programmes in					55812	65812	75812	95810
Architecture, programmes in					558	658	758	958
Architecture, structural, programmes in					55802	65802	75802	95810
Archive technicians, programmes for the training of					58425			
Art gallery technicians, programmes for the training of					58425			
Art, history of, programmes in				31899	51899	61899	71802	91899
Art, philosophy of, programmes in				31899	51899	61899	71802	91899
Art studies, general programmes of				31899	51801	61801	71899	91899
Arts, applied, other programmes in				31899	51899	61899	71899	91899
Arts, applied, programmes in				318	518	618	718	918
Arts, fine, other programmes in				31899	51899	61899	71899	91899
Arts, fine, programmes in				318	518	618	718	918
Arts, graphic, programmes in		15299	25278	35278	55278			
Arts, household, programmes in				36699	56632	66632	76632	96699
Astronomy, programmes in					54299	64242	74242	94242
Astrophysics, programmes in					54299	64242	74242	94242
Atomic physics, programmes in					54232	64232	74242	94242

	0	1	2	3	5	6	7	9
Audiology, programmes in						65008	75006	95099
Auditing, programmes in					53432	63432	73432	93499
Auditory pathology, programmes in						65008	75006	95099
Automotive engineering, programmes in				35499	55442	65442	75442	
B								
Banking and money, programmes in					53012	63012	73012	93012
Barbering and beauty culture, programmes in		17812	27812	37812	57899			97800
Bartending, programmes in		17822	27822	37822				
Beauty culture programmes			27812	37812	57899			97800
Behavioural Sciences: See Social and behavioural sciences								
Biological oceanography, programmes in					54299	64262	74262	94299
Biological physics, programmes in					54202	64202	74202	94202
Biological science, programmes in					54202	64202	74202	94202
Biometrics, programmes in						64202	74202	
Bookbinding, programmes in		15299	25278	35278	55278			952
Bookkeeping, programmes in		13411	23499	33432				
Botany, programmes in					54202	64202	74202	
Building trades programmes, n.e.c.		15216	25216	35216				952
Business administration and related programmes					534	634	734	934
Business administration, general programmes in					53434	63401		93499

	0	1	2	3	5	6	7	9
Business administration, marketing and sales programmes					53434	63439	73434	93499
Business administration with other specialization, programmes in						63439	73439	93499
Business administration with specialization in accountancy, programmes in					53432	63432	73432	93499
Business administration with specialization in finance and investment, programmes in					53436	63439	73436	93499
Business administration with specialization in marketing, programmes in					53434	63439	73434	93499
Business cycles, programmes in					53012	63012	73012	
Business-machine operation, programmes in			23499	33422	53422			
Business management, programmes in					53401	63401	73439	93499
Business, other programmes in		13411	23499	33499	53439	63439	73499	93499
Business, programmes in		134	234	334	534	634	734	934
C								
Calculus, programmes in					54601	64601		
Chemical engineering, programmes in				35499	55412	65412	75412	95400
Chemical oceanography, programmes in					54299	64262	74262	94299
Chemistry, general programmes in					54212	64212	74212	94299
Chemistry, programmes in				35299	54212	64212	74212	94299
Child care, programmes with emphasis on			26699	36622	56622	66699	76699	96622
Cinematography, programmes in				31899	51842	61899	71899	91899

	0	1	2	3	5	6	7	9
Civil engineering, programmes in				35499	55416	65416	75416	95400
Civil security, other programmes in		18900	28900	38900	58919	68919	78919	98999
Civics, programmes in					53022	63022	73022	93022
Classical languages, programmes in					52208	62221	72221	92221
Clerical programmes		13411	23499	33499				93408
Clerical-typist programmes		13411	23499	33408				93408
Clinical psychology, programmes in					53052	63052	73052	93052
Commercial and business administration programmes			234	334	534	634	734	934
Commercial and business programmes, other			23499	33499	53439	63439	73439	93499
Commercial programmes, general		13401	23401	33401	53401			93499
Commercial programmes specialized		13411						
Communicable diseases, control of, programmes in		150	25099	35002	55002	65002		95099
Communications arts, other programmes in					58409	68409	78409	984
Communications equipment, installation and maintenance, programmes in				35222	55222			95200
Communications, other programmes in				37029	57029			97000
Communications programmes				370	570			970
Community planning, programmes in					55822	65822	75822	95822
Comparative geography, programmes in					53099	63062	73062	93062
Comparative government, programmes in					53022	63022	73022	93022

	0	1	2	3	5	6	7	9
Comparative literature, programmes in					52299	62241	72241	92299
Computer applications, programmes in					54641	64641	74641	94600
Computer functioning, programmes in					54641	64641	74641	94600
Computer languages, programmes in					54641	64641	74641	94600
Computer science, programmes in					54641	64641	74641	94600
Control of communicable diseases, programmes in		150	25099	35002	55002	65002		95099
Cooking (restaurant- and hotel-type), programmes in			27822	37822	57826			
Cosmetology, programmes in				37812				
Cost accounting, programmes in					53432	63432	73432	93499
Counselling, vocational, programmes in					58942	68942	78942	
Crafts, programmes in		152	252	352	552			952
Criminology, programmes in				38900	58912	68913	78913	98999
Crop husbandry, programmes in		16202	26202	36208	56208	66208	76208	96202
Cultural geography, programmes in					53099	63062	73062	93062
Cultures, regional, programmes in					53099	63072	73072	93099
Current or vernacular languages, programmes in					52211	62211	72211	92299
D								
Dancing, ballroom, programmes in								91899
Dancing, except ballroom, programmes in				31899	51899	61899	71899	

	0	1	2	3	5	6	7	9
Data processing, electronic, programmes in				33422	53426			93499
"Dead" languages, programmes in					52208	62221	72221	92221
Decoration, interior, programmes in				31899	51899	61852	71852	91899
Deflation and inflation, programmes in					53012	63012	73012	93012
Delinquency, social, programmes in					53032	63032	73035	93032
Demography, programmes in					53032	63032	73033	93032
Dental practitioners, programmes for					55042	65042	75042	
Dental techniques, other programmes in				35099	55046	65099		95099
Dentistry, programmes in					55042	65042	75042	
Design, apparel, programmes in				31899	51899		71899	91899
Design of experiments, programmes in						64611	74611	
Design, furniture, programmes in				31899	51899		71899	91899
Design, interior, programmes in				31899	51899	61852	71852	91899
Design, textile, programmes in				31899	51899	61899	71899	91899
Differential and integral calculus, programmes in					54601	64601		
Direction, theatrical, programmes in					51832	61832	71832	91832
Documentation personnel, programmes for					58429	68422	78422	98400
Domestic electricity programmes		15222	25222	35222	55222			95200
Domestic Science: See Home economics								
Drafting, programmes in				35406	55406			95400

	0	1	2	3	5	6	7	9
Drama, programmes in the				31899	51832	61832	71832	91832
Drawing, programmes in				31804	51804	61804	71804	91810
Dressmaking, home economics programmes with emphasis on		16604	26604	36699	56699			96604
Drink processing, programmes in		15212	25212	35212				952
Dry-cleaning trades, programmes in		17842	27842	37899				97800
E								
Early childhood education, programmes with specialization in			21401	31412	51412	61412	71412	91499
Econometrics, programmes in					53012	63012	73012	93012
Economic geography, programmes in					53099	63062	73062	93062
Economics, agricultural, programmes in				36249	56212	66212	76212	96202
Economics, programmes in				33499	53012	63012	73012	93012
Education sciences, general programmes in the					51401	61401	71401	
Education, first level, other programmes in		189						
Education, general programmes containing little or no technical	001	101	201	301				
Education not definable by level, other								989
Education, physical, programmes in				38900	58962	68962	78999	98999
Education programmes with specialization in early childhood education			21401	31412	51412	61412	71412	91499
Education science (teacher training), other programmes in				31499	51499	61499	71499	91499

	0	1	2	3	5	6	7	9
Education science (teacher training), programmes in			214	314	514	614	714	914
Education science without teacher training, programmes in							71472	
Education, second level, first stage, other programmes			289					
Education, second level, second stage, other programmes				389				
Education (teacher training) See : Teacher training, programmes in								
Education, third level, first stage, of the type that leads to an award not equivalent to a first university degree, other programmes					589			
Education, third level, first stage, of the type that leads to a first university degree or equivalent, general programmes in						601		
Education, third level, first stage, of the type that leads to a first university degree or equivalent, other programmes in						689		
Education, third level, second stage, of the type that leads to a postgraduate university degree or equivalent, other programmes in							789	
Educational psychology, programmes in					53052	63052	73052	93052
Electrical and electronics engineering programmes				35422	55422	65422	75422	95400

	0	1	2	3	5	6	7	9
Electrical and electronics trades, programmes in		15222	25222	35222	55222			952
Electrical trades, programmes in		15222	25222	35222	55222			952
Electronic data processing, programmes in				33422	53426			93499
Electronics equipment installation and servicing, programmes in				35222	55222			952
Electronics trades, programmes in				35222	55222			952
Elementary programmes, general		101						
Elementary public health, programmes in		150						
Embryology, programmes in					54202	64202	74202	94202
Engineering, aeronautical, automotive, programmes in				35499	55442	65442	75442	95400
Engineering, agricultural, programmes in				35499	55452	65453	75453	95400
Engineering, chemical, programmes in				35499	55412	65412	75412	95400
Engineering, civil, programmes in				35499	55416	65416	75416	95400
Engineering drawing, programmes in				35406	55406			
Engineering, electrical, programmes in				35422	55422	65422	75422	95400
Engineering, electronic, programmes in				35422	55422	65422	75422	95400
Engineering, forestry, programmes in				35499	55452	65463	75463	95400
Engineering, industrial, programmes in				35426	55426	65426	75426	95400
Engineering, marine, programmes in				35499	55442	65442	75442	95400
(For Ship's Engineer, see 75004)			371					

	0	1	2	3	5	6	7	9
Engineering mathematics, programmes in					55499	65499	75499	
Engineering, mechanical, programmes in				35499	55442	65442	75442	95400
Engineering, metallurgical, programmes in				35499	55432	65432	75432	95400
Engineering, mining, programmes in				35436	55436	65436	75436	95400
Engineering, other programmes in				35499	55499	65499	75499	95400
Engineering, petroleum and gas, programmes in				35499	55436	65436	75436	95400
Engineering physics, programmes in					55499	65499	75499	
Engineering science, programmes in					55499	65499	75499	
Entomology, programmes in					54202	64202	74202	94202
Environmental studies, programmes in			28900	38900	58952	68952	78952	98999
Estate management, programmes in					53436	63439	73436	93499
Extractive metallurgy, programmes in				35499	55432	65432	75432	
F								
Family planning, programmes in		166						989
Finance, programmes with specialization in					53436	63439	73436	93499
Finance, public, programmes in					53012	63012	73012	93012
Financial market analysis, programmes in					53436	63439	73436	93499
Financial securities, appraisal of, programmes in					53436	63439	73436	93499
Fine arts, other programmes in the				31899	51899	61899	71899	91899
Fine arts, programmes in the				318	518	618	718	918

	0	1	2	3	5	6	7	9
Fire fighting, programmes in			28900	38900	58915			98999
Fire protection, programmes in			28900	38900	58915			98999
First level education, other programmes in		189						
Fishery engineering, programmes in				35499	55452	65473	75473	954
Fishery, programmes in		16272	26272	36272	56272	66272	76272	96272
Food and drink processing trades, programmes in		15212	25212	35212	55212			952
Food hygiene, programmes in		150	25099	35002	55002	65002		95099
Food preservation, programmes in		15212	25212	35212	55212			952
Food processing, programmes in		15212	25212	35212	55212			952
Food sciences and technology, programmes in				36249	56249	66222	76222	96202
Forecasting, weather, programmes in					54299	64252	74252	94299
"Foreign" languages, programmes in					52208	62215	72215	92215
Forestry engineering, programmes in				35499	55452	65463	75463	95400
Forestry, programmes in		16262	26262	36262	56262	66262	76262	96262
Functional literacy, programmes in		10821						
Fur cleaning and -glazing, programmes in		17842	27842					
Furniture design, programmes in				31899	51899		71899	91899
G								
Garbage disposal, hygienic, programmes in		150	25099	35002	55002	65002		95099

	0	1	2	3	5	6	7	9
General accountancy, programmes in					53432	63432	73432	93499
General agricultural programmes		16202	26202	36201	56201	66201	76249	96200
General art studies, programmes in					51801	61801		
General biology, programmes in					54202	64202	74202	94202
General chemistry, programmes in					54212	64212	74212	94299
General commercial programmes		13401	23401	33401	53401	63401	73439	93499
General elementary programmes		101						
General engineering, programmes in					55499	65499	75499	954
General fishery programmes		16272	26272	36272	56272	66272	76272	96272
General forestry programmes		16272	26262	36262	56262	66262	76262	96262
General home economics programmes		16601	26601	36601	56601	66601	76699	96699
General humanities programmes					52299	62201	72299	92299
General medical auxiliary programmes		15000	25002	35002	55002			95099
General medicine, programmes in						65006		
General natural science, programmes in					54299	64299	74299	94299
General oceanography, programmes in					54299	64262	74262	94299
General physics, programmes in					54232	64232	74232	94232
General programmes containing little or no technical education		101	201	301				
General programmes for children of pre-primary age	001							

	0	1	2	3	5	6	7	9
General programmes in law						63801	73899	93800
General programmes in mathematics					54601	64601	74639	94602
General programmes of art studies				31899	51801	61801	71899	91899
General programmes with a trade, craft or industrial emphasis		15201	25201	35201				
General programmes with no special subject emphasis	001	101	201	30101		601		901
General programmes with special emphasis on the humanities and social sciences				30104				
General programmes with special emphasis on mathematics and natural or applied sciences				30108				
General programmes with special emphasis on other non-technical subjects				30199				
General teacher-training programmes			21401	31401	51401	61401	71499	91499
General trade and craft programmes		15201	25201	35201				
Genetics, programmes in					54202	64202	74202	94202
Geography, programmes in					53099	63062	73062	93062
Geological oceanography, programmes in					54299	64262	74262	94299
Geological science, programmes in				35299	54222	64222	74222	94222
Geology, programmes in				35299	54222	64222	74222	94222
Geometry, advanced, programmes in					54601	64601	74639	
Geomorphology, programmes in					54222	64222	74222	

	0	1	2	3	5	6	7	9
Geriatric nursing, programmes in					55012	65012	75099	
Graphic arts, programmes in		15299	25279	35278	55278			95200
H								
Hairdressing, programmes in		17812	27812	37812				
Handicrafts, programmes in				31812	51812	61899		91812
Harmony (music), programmes in				31822	51822	61822	71822	91822
Hat cleaning and -blocking, programmes in		17842	27842					
Health, animal, programmes in				36249	56232	66232	76232	96202
Health-related auxiliary programmes		150	250	350				950
History, programmes in					52299	62251	72251	92251
History of art, programmes in the				31899	51899	61899	71802	91899
History of law, programmes in the						63801	73802	93800
History of music, programmes in					51822	61822	71822	91822
History, political, programmes in					52299	62251	72251	92251
History of psychology, programmes in					53052	63052	73052	93052
History, social, programmes in					52299	62251	72251	92251
Home economics (domestic science) programmes		166	266	366	566	666	766	966
Home economics programmes, general		16601	26601	36601	56601	66601	76699	96699
Home economics programmes, other		16699	26699	36699	56699	66699	76699	96699

	0	1	2	3	5	6	7	9
Home economics programmes with emphasis on child care		16622	26699	36622	56622			
Home economics programmes with emphasis on cooking and baking		16608	26608	36612	56612			96612
Home economics programmes with emphasis on dressmaking & sewing		16604	26604	36699	56699			96604
Home economics programmes with emphasis on household and consumer food research, nutrition		16608	26608	36612	56612	66612	76612	96612
Home economics programmes with emphasis on household arts		16699	26699	36699	56632	66632	76632	96699
Horticulture, programmes in		16202	26202	36206	56206	66206	76206	96204
Hospital administration, programmes in					53462	63462	73462	93499
Hotel and restaurant trades programmes		17822	27822	37822	57899			97800
Household arts, programmes with an emphasis on				36699	56632	66632	76632	96699
Household food research, programmes with an emphasis on		16608	26608	36612	56612	66612	76612	96612
Human geography, programmes in					53099	63062	73062	93062
Humanities, general programmes in the					52299	62201	72299	92299
Humanities, other programmes in the					52299	62299	72299	92299
Humanities, programmes in the					522	622	722	922
Hygiene, programmes in			25002	35002	55002	65002	75099	95099
Hygienic disposal of garbage, programmes in		150	25099	35002	55002	65002		95099

	0	1	2	3	5	6	7	9
Hygienic disposal of sewage, programmes in		150	25099	35002	55002	65002		95039
I								
Industrial and domestic electricity, programmes in		15222	25222	35222	55222			95200
Industrial engineering, programmes in				35426	55426	65426	75426	95400
Industrial programmes		152	252	352	552			952
Industrial programmes, other		15299	25299	35299	55299			95200
Industrial psychology, programmes in					53052	63052	73052	93052
Inflation and deflation, programmes in					53012	63012	73012	93012
Inorganic chemistry, programmes in					54212	64212	74212	94299
Institutional administration, programmes in					53462	63462	73462	93499
Integral and differential calculus, programmes in					54601	64601		
Intergovernmental organizations, programmes in					53022	63022	73022	93022
Interior decoration, programmes in				31899	51899	61852	71852	91899
Interior design, programmes in				31899	51899	61852	71852	91899
International economics, programmes in					53012	63012	73012	93012
International law, programmes in						63801	73804	93800
International literature, programmes in					52229	62241	72241	92299

	0	1	2	3	5	6	7	9
International trade, programmes in					53012	63012	73012	93012
Interpreters and translators, programmes for					52202	62215	72215	
Investment analysis, programmes in					53436	63439	73436	93499
Investment portfolio management, programmes in					53436	63439	73436	93499
J								
Jewellery (handicraft), programmes in				31812	51812	61812		
Journalism, programmes in					58402	68402	78402	984
Jurisprudence and history of law, programmes in					53800	63801	73802	
Jurisprudence, programmes in law and					538	638	738	938
K								
Kindergarten teachers, training programmes for				31412	51412	61412	71412	91499
L								
Laboratory assistant programmes				35282				
Laboratory technician programmes					55284			
Labour economics, programmes in					53012	63012	73012	93012
Labour law, programmes in						63801	73806	93800
Labour studies, programmes in					53439	63439	73439	93438
Landscape architecture, programmes in					55812	65812	75812	95810
Language, classical, programmes in					52208	62221	72221	92221

	0	1	2	3	5	6	7	9
Language, current or vernacular, programmes in					52211	62211	72211	92299
Languages, "dead," programmes in					52208	62221	72221	92221
Languages, "foreign," programmes in					52208	62215	72215	92215
Languages, living, except current or vernacular, programmes in					52208	62215	72215	92215
Laundry and dry-cleaning trades programmes		17842	27842	37899				97800
Law and jurisprudence, programmes in					538	638	738	938
Law enforcement, programmes in				38900	58912	68913	78913	98999
Law, general programmes in						63801		93800
Law, history of, programmes in						63801	73802	93800
Law, international, programmes in						63801	73804	93800
Law, labour, programmes in						63801	73806	93800
Law, maritime, programmes in						63801	73808	93800
Law, programmes in					538	638	738	938
Leather cleaning, programmes in		17842	27842					
Leather trades, programmes in		15272	25272	35272				952
Lens-making, optical, programmes in					55286			
Library cataloguing, programmes in					58422	68422	78422	984
Library science, programmes in					58422	68422	78422	

	0	1	2	3	5	6	7	9
Library technician programmes					58422			
Linguistics, programmes in					52299	62231	72231	
Literacy, functional, programmes in		10821						
Literacy, simple, programmes in		10811						
Literature, comparative, programmes in					52299	62241	72241	92299
Literature, international, programmes in					52229	62241	72241	92299
Literature of current or vernacular languages, programmes in the					52211	62211	72211	92299
Literature of "dead" languages, programmes in the					52208	62221	72221	92221
Literature of living languages except the current or vernacular language, programmes in the					52208	62215	72215	92215
Living languages, except current or vernacular, programmes in					52208	62215	72215	92215
Local magistrates, programmes for					53800			
M								
Magistrates, local, programmes for					53800			
Makeup (stage), programmes in				31899	51832	61832	71832	91832
Management, business, programmes in					53401	63401	73439	93499
Management, estate, programmes in					53436	63439	73436	93499
Management theory, programmes in					53401	63401	73439	93499

	0	1	2	3	5	6	7	9
Marine engineering, programmes in				35499	55442	65442	75442	
(For Ship's Engineer, see 57004)								
Maritime law, programmes in						63801	73808	93800
Market analysis, financial, programmes in					53436	63439	73436	93499
Market research, programmes in					53434	63439	73434	93499
Marketing, programmes in		13411	23499	33499	53434	63439	73434	93499
Mass communication and documentation, programmes in					584	684	784	984
Master, ship's, programmes for					57004			
Mate, ship's, programmes for					57004			
Materials technology, programmes in					55412	65412	75412	95400
Mathematical statistics, programmes in					54611	64611	74611	
Mathematical theory, programmes in						64639	74639	
Mathematics, applied, other programmes in					54639	64639	74639	
Mathematics, engineering, programmes in					55499	65499	75499	
Mathematics, general, programmes in					54601	64601	74639	
Mathematics, other programmes in					54639	64639	74639	
Mathematics, programmes in					546	646	746	
Mechanic trades, programmes in		15242	25242	35242	55242			952

	0	1	2	3	5	6	7	9
Mechanical engineering, programmes in				35499	55442	65442	75442	95400
Mechanical repair trades, programmes in		15242	25242	35242	55242			952
Mechanics (physics), programmes in					54232	64232	74232	94232
Medical auxiliaries, general programmes for		15000	25002	35002	55002			95018
Medical diagnostic and treatment programmes			250	350	550	650	750	950
Medical specialities, programmes in							75006	
Medical technicians, except x-ray technicians, programmes for			25099	35099	55019			
Medical techniques, except dental, other programmes in				35099	55019	65030		95099
Medical x-ray techniques, programmes in					55017			
Medicine and surgery, general programmes in						65006		
Medicine, rehabilitation, programmes in					55008	65008	75099	
Medicine veterinary, programmes in					56232	66232	76232	
Metal trades, programmes in		15232	25232	35232	55232			952
Metallurgical engineering, programmes in				35499	55432	65432	75432	95400
Metallurgy, extractive, programmes in				35499	55432	65432	75432	
Metallurgy, physical, programmes in					54232	64232	74232	

	0	1	2	3	5	6	7	9
Meteorology, programmes in					54299	64252	74252	94299
Microbiology, programmes in					54202	64202	74202	94202
Midwifery, programmes in			25015	35015	55015			95018
Military training, programmes in			28900	38900	58917	68919	78919	98999
Mineralogy, programmes in					54222	64222	74222	94222
Mining engineering, programmes in				35436	55436	65436		95400
Money and banking, programmes in					53012	63012	73012	93012
Motor vehicle operation, programmes in			27008	37008	57008			97000
Museum technicians, programmes for the training of					58425			
Music, programmes in				31822	51822	61822	71822	91822
Music, history of, programmes in					51822	61822	71822	91822
Music theory, programmes in				31822	51822	61822	71822	91822
N								
Natural science, general programmes in					54299	64299	74299	94299
Natural science, other programmes in					54299	64299	74299	94299
Natural science, programmes in					542	642	742	942
Nautical science, programmes in						68972		98999
Naval architecture, programmes in				35499	55442	65442	75442	
News editing, programmes in					58402	68402	78402	984

	0	1	2	3	5	6	7	9
News reporting, programmes in					58402	68402	78402	984
News writing, programmes in					58402	68402	78402	984
"Notaires," programmes for						63812		
Nuclear physics, programmes in					54232	64232	74232	94232
Nursing, programmes in			25012	35012	55012	65012	75099	95018
Nutrition, programmes with an emphasis on				36612	56612	66612	76612	96612
O								
Obstetrical nursing, programmes in					55012	65012	75099	
Occupational therapy, programmes in					55008	65008	75099	95099
Oceanography, programmes in					54299	64262	74262	94299
Odontology, programmes in					55042	65042	75042	
Office machines, programmes in the operation of			23499	33422	53422			93499
Optical-lens making, programmes in					55286			
Optics, programmes in					54232	64232	74232	94232
Optometry, programmes in					55062	65099		
Orchestration (music), programmes in					51822	61822	71822	91822
Organic chemistry, programmes in					54212	64212	74212	94299
Organisation, social, programmes in					53032	63032	73035	93032
P								
Painting, art, programmes in				31804	51804	61804	71804	91810

	0	1	2	3	5	6	7	9
Palaeontology, programmes in					54222	64222	74222	94222
Passenger agent, programmes for				37872				
Pediatric nursing, programmes in					55012	65012	75099	
Penal reform, programmes in					53032	63032	73035	93032
Personality, study of, programmes in					53052	63052	73052	93052
Personnel administration, programmes in					53439	63439	73439	93438
Petrography, programmes in					54222	64222	74222	
Pharmacology, programmes in					54202	64202	74202	
Pharmacy, programmes in					55052	65052	75052	
Philosophy, programmes in					52299	62271	72271	92299
Philosophy of art, programmes in						61899	71802	91899
Photography, programmes in				31899	51842	61899	71899	91899
Physical chemistry, programmes in					54212	64212	74212	94299
Physical education, programmes in				38900	58962	68962	78999	98962
Physical geography, programmes in					53099	63062	73062	93062
Physical geology, programmes in						64222	74222	
Physical metallurgy, programmes in					54232	64232	74232	
Physical oceanography, programmes in					54299	64262	74262	94299
Physics, engineering, programmes in					55499	65499	75499	

	0	1	2	3	5	6	7	9
Physics, programmes in					54232	64232	74232	94232
Physiotherapy, programmes in					55008	65008	75099	95099
Planning, regional, programmes in					55822	65822	75822	95822
Planning, town, programmes in					55822	65822	75822	95822
Planning, urban, programmes in					55822	65822	75822	95822
Police work, programmes in			28900	38900	58912	68913	78913	98999
Political geography, programmes in					53099	63062	73062	93062
Political history, programmes in					52299	62251	72251	92251
Political institutions, programmes in					53022	63022	73022	93022
Political parties, programmes in					53022	63022	73022	93022
Political science, programmes in					53022	63022	73022	93022
Postal service programmes				37026	57026			97000
Pottery (handicraft), programmes in				31812	51812	61812		91812
Practitioner, dental, programmes for					55042	65042	75042	
Pre-primary age, general programmes for children of	001							
Pre-school teachers, training programmes for				31412	51412	61412	71412	91499
Preservation, food, programmes in		15212	25212	35212	55212			952
Preventive medicine, programmes in						65006	75006	
Printing, programmes in		15299	25278	35278	55278			952

	0	1	2	3	5	6	7	9
Product costing, programmes in					53432	63432	73432	93499
Psychiatric nursing, programmes in					55012	65012	75099	
Psychological tests, programmes in					53052	63052	73052	93052
Psychology, history of, programmes in					53052	63052	73052	93052
Psychology, programmes in					53052	63052	73052	93052
Psychometrics, programmes in					53052	63052	73052	93052
Public accounting, programmes in					53432	63432	73432	93499
Public administration, programmes in				33452	53452	63452	73452	93499
Public finance, programmes in					53012	63012	73012	93012
Public health, elementary, programmes in		150						
Public health inspection, programmes in		15000	25002	35002	55002	65002		95099
Public health nursing, programmes in						65012	75099	
Public relations, programmes in					58407	68407	78407	984
R								
Radio astronomy, programmes in					54299	64242	74242	94242
Radio broadcasting, programmes in					58404	68404	78404	984
Railway operating trades, programmes in			27006	37006	57006			97000
Recidivism, programmes in					53032	63032	73035	93032

	0	1	2	3	5	6	7	9
Record retrieval, programmes in					58422	68422	78422	984
Record storage, programmes in					58422	68422	78422	984
Regional cultures, programmes in					53099	63072	73072	93099
Regional planning, programmes in					55822	65822	75822	95822
Rehabilitation medicine, programmes in					55008	65008	75099	
Relativity, programmes in					54232	64232	74232	94232
Religion, programmes in		126	226	326	526	626	726	926
Repair trades, mechanical, programmes in		15242	25242	35242	55242			95200
Restaurant trades programmes		17822	27822	37822	57899			97800
Retailing trades programmes		17899	27862	37862	57862			97800
Retrieval, record, programmes in					58422	68422	78422	984
Road motor vehicle operating, programmes in			27008	37008	57008			97000
S								
Sales, programmes in		13411	23499	33499	53434	63439	73434	93499
Sales promotion, programmes in					53434	63439	73434	93499
Sampling theory, programmes in					54611	64611	74611	
School administration, programmes in					53462	63462	73462	93499
Science, actuarial, programmes in					54621	64621	74621	
Science, biological, programmes in					54202	64202	74202	94202

	0	1	2	3	5	6	7	9
Science, computer, programmes in					54641	64641	74641	94600
Science, domestic : See Home economics								
Science, education, programmes in						614	714	
Science, engineering, programmes in					55499	65499	75499	
Science, fishery, programmes in					56272	66272	76272	
Science, food, programmes in					56249	66222	76222	96202
Science, geological, programmes in					54222	64222	74222	94222
Science, library, programmes in					58422	68422	78422	
Science, medical, programmes in					550	650	750	
Science, natural, programmes in					542	642	742	942
Science, nautical, programmes in						68972		98999
Science, political, programmes in					53022	63022		93022
Science, soil and water, programmes in					56226	66226	76226	96202
Sculpturing, programmes in				31899	51808	61808	71808	91810
Seaman's programmes			27004	37004				97000
Secretarial training, programmes in			23404	33404	53404			93404
Securities, financial, appraisal of, programmes in					53436	63439	73436	93499
Security, civil, programmes in		18900	28900	38900	58919	68919	78919	98999
Service station attendant, programmes for			27862	37862	57862			

	0	1	2	3	5	6	7	9
Service trades programmes		178	278	378	578			978
Service trades programmes, other		17899	27899	37899	57899			97800
Sewage disposal, hygienic, programmes in		150	25099	35002	55002	65002		95099
Ship's master or mate, programmes for					57004			
Ship's engineer programmes					57004			
Ship's officer programmes					57004			97000
Shorthand, programmes in			23404	33404	53404			93404
Simple literacy, programmes in		10811						
Singing (voice), programmes in					51822	61822	71822	91822
Social and behavioural science, programmes in					530	630	730	930
Social and behavioural science, general programmes in					53099	63001	73099	93099
Social and behavioural science, other programmes in					53099	63099	73099	93099
Social control, programmes in					53032	63032	73035	93032
Social change, programmes in					53032	63032	73035	93032
Social history, programmes in					52299	62251	72251	92251
Social institutions, programmes in					53032	63032	73035	93032
Social organisation, programmes in					53032	63032	73035	93032

	0	1	2	3	5	6	7	9
Social psychology, programmes in					53052	63052	73052	93052
Social welfare, programmes in			28900	38900	58932	68932	78932	98999
Social work, programmes in			28900	38900	58932	68932	78932	98999
Sociology, programmes in					53032	63032	73035	93032
Soil and water science, programmes in					56226	66226	76226	96202
Soil and water technician, programmes for		16202	26202	36249	56226			
Specialized commercial programmes		13411						
Speech pathology, programmes in						65008	75006	95099
Sports, programmes in				38900	58962	68962	78999	98962
Stagecraft, programmes in				31899	51832	61832	71832	91832
Standard costing, programmes in					53432	63432	73432	93499
Statistics, programmes in					54611	64611	74611	94600
Stellar classification, programmes in					54299	64242	74242	94242
Stellar evolution, programmes in					54299	64242	74242	94242
Stenography: See Shorthand								
Stomatological specialities, programmes in							75042	
Stomatology, programmes in					55042	65042	75042	
Storage, record, programmes in					58422	68422	78422	984

	0	1	2	3	5	6	7	9
Stratigraphy, programmes in				35299	54222	64222	74222	
Structural architecture, programmes in					55802	65802	75802	95810
Surgery, programmes in						65006	75006	
Surveying, programmes in				35402	55402	65499		95400
Systems analysis, programmes in					54641	64641	74641	94600
T								
Table service (waiter, waitress), programmes in		17822	27822	37822				
Tax problems, programmes in					53012	63012	73012	93012
Teacher training for teacher trainers, programmes in						61432	71432	
Teacher training for teachers of adult education, programmes in			21408	31416	51416	61416	71416	91416
Teacher training for teachers of handicapped children, programmes in				31422	51422	61422	71422	91499
Teacher training for teachers of practical or vocational subjects, programmes in			21408	31408	51408	61408	71408	91499
Teacher training for teachers of preschool and kindergarten, programmes in				31412	51412	61412	71412	91499
Teacher training for teachers of vocational subjects, programmes in			21408	31408	51408	61408	71408	91499
Teacher training, general programmes in			21401	31401	51401	61401		
Teacher training, other programmes in				31499	51499	61499	71499	91499

	0	1	2	3	5	6	7	9
Teacher training programmes			214	314	514	614	714	914
Teacher training with specialization in a non-vocational subject, programmes in					51404	61404	71404	91499
Teacher training with specialization in a vocational subject, programmes in			21408	31408	51408	61408	71408	91499
Teaching, practice, programmes in			214	314	514	614	714	914
Television broadcasting, programmes in					58404	68404	78404	984
Textile design, programmes in				31899	51899		71899	91899
Textile techniques, programmes in					55274			
Textile trades, programmes in		15274	25274	35274				952
Theology, programmes in : See Religion								
Theoretical mathematics, programmes in							74639	
Therapy, occupational, programmes in					55008	65008	75099	95099
Thermodynamics, programmes in					54232	64232	74232	94232
Time series analysis, programmes in					54611	64611	74611	
Tour management, programmes in					57872			
Tour supervising, programmes in				37872				
Tourist bureau management, programmes in					57872			
Tourist guiding, programmes in				37872	57872			

	0	1	2	3	5	6	7	9
Tourist trades programmes		17899	27899	37872	57872			97800
Town planning, programmes in					55822	65822	75822	95822
Trades, general programmes in		15201	25201	35201				
Trades, programmes in		152	252	352	552			952
Translators, programmes for					52202	62215	72215	92215
Transport, programmes in			270	370	570			970
Travel agency management, programmes in					57872			
Travel consulting, programmes in				37872	57872			
Typing and shorthand programmes			23404	33404	53404			93404
Typists : See Clerical-typist programmes								
U								
Urban geography, programmes in					53099	63062	73062	93062
Urban planning, programmes in					55822	65822	75822	95822
V								
Variance, analysis of, programmes in					54611	64611	74611	
Veterinarian technician, programmes for					56232			
Veterinary medicine, programmes in					56232	66232	76232	
Vocational counselling, programmes in					58942	68942	78942	
Vocational psychology, programmes in					53052	63052	73052	93052

	0	1	2	3	5	6	7	9
Vocational subjects, programmes in teacher training or education for			21408	31408	51408	61408	71408	91499
Voice (singing), programmes in					51822	61822	71822	91822
W								
Water science, programmes in					56226	66226	76226	96202
Water supply hygiene, programmes in		150	25099	35002	55002	65002		95099
Water techniques, programmes in		16202	26202	36249	56226	66226	76226	
Weather forecasting, programmes in					54299	64252	74252	94299
Weaving (handicraft), programmes in				31812	51812	61812		91812
Welfare agency administration, programmes in					53462	63462	73462	93499
Welfare, social, programmes in					58932	68932	78932	98999
Woodcarving (handicraft), programmes in					51812	61812		91812
Woodworking trades, programmes in		15262	25262	35262				952
X								
X-ray technology, programmes in					55017	65030	75099	
Z								
Zoology, programmes in					54202	64202	74202	94202

APPENDIX

LEVELS / FIELDS	0	1	2	3	5	6	7	9
	EDUCATION PRECEDING THE FIRST LEVEL	EDUCATION AT THE FIRST LEVEL	EDUCATION AT THE SECOND LEVEL, FIRST STAGE	EDUCATION AT THE SECOND LEVEL, SECOND STAGE	EDUCATION AT THE THIRD LEVEL, FIRST STAGE, OF THE TYPE THAT LEADS TO AN AWARD NOT EQUIVALENT TO A FIRST UNIVERSITY DEGREE	EDUCATION AT THE THIRD LEVEL, FIRST STAGE, OF THE TYPE THAT LEADS TO A FIRST UNIVERSITY DEGREE OR EQUIVALENT	EDUCATION AT THE THIRD LEVEL, SECOND STAGE OF THE TYPE THAT LEADS TO A POST GRADUATE UNIVERSITY DEGREE OR EQUIVALENT	EDUCATION NOT DEFINABLE BY LEVEL
01 General programmes	001 General programmes for children of pre-primary age 00100 General programmes for children of pre-primary age	101 General elementary programmes 10100 General elementary programmes	201 General programmes containing little or no technical education 20100 General programmes containing little or no technical education	301 General programmes containing little or no technical education 30101 General programmes with no special subject emphasis 30104 General programmes with special emphasis on humanities and social sciences 30108 General programmes with special emphasis on mathematics and natural or applied sciences 30199 General programmes with special emphasis on other non-technical subjects		601 General programmes 60100 General programmes		901 General programmes 90100 General programmes
08 Literacy programmes		108 Literacy programmes 10811 Simple literacy programmes 10821 Functional literacy programmes						
14 Teacher training and education science programmes			214 Teacher training programmes 21401 General teacher training for elementary school teaching 21408 Teacher training for specialists such as those in vocational or adult education programmes	314 Teacher training programmes 31401 General teacher training programmes 31408 Teacher training with specialization in a specific vocational or practical subject 31412 Teacher training for pre-school and kindergarten teachers 31416 Teacher training for teachers in adult education 31422 Teacher training for teachers of handicapped children 31499 Other specialized teacher training programmes	514 Teacher training programmes 51401 General teacher training programmes 51404 Teacher training programmes with specialization in a non vocational subject 51408 Teacher training programmes for teachers of vocational subjects 51412 Teacher training programmes for pre-school and kindergarten teachers 51416 Teacher training programmes for teachers in adult education, n.e.c. 51422 Teacher training programmes for teachers of handicapped children 51499 Other specialized teacher training programmes	614 Programmes in education science and teacher training 61401 General teacher training programmes 61404 Teacher training programmes with specialization in a non-vocational subject 61408 Teacher training for teaching practical or vocational subjects 61412 Teacher training programmes for teaching pre-school or kindergarten 61416 Teacher training for teachers in adult education 61422 Teacher training for teaching handicapped children 61432 Teacher training for teacher trainers 61499 Other programmes in education science and teacher training	714 Programmes in education science and teacher training 71401 General programmes in education science 71404 Programmes in education with specialization in curriculum development in a non-vocational subject 71408 Programmes in education with specialization in curriculum development in a vocational subject 71412 Programmes with specialization in early childhood education 71416 Programmes with specialization in adult education 71422 Programmes with specialization in the education of the handicapped 71432 Programmes in education for teacher trainers 71472 Programmes in education science without teacher training 71499 Other programmes in education science and teacher training	914 Programmes in teacher training including training for extension and other fields of non-formal education 91416 Education science and teacher training for work in adult education 91499 Other programmes in teacher training
18 Fine arts programmes				318 Fine and applied arts programmes 31804 Programmes in drawing and painting 31812 Programmes in handicrafts 31822 Programmes in music 31899 Other programmes in fine and applied arts	518 Fine and applied arts programmes 51801 General programmes of art studies 51804 Programmes in drawing and painting 51808 Programmes in sculpturing 51812 Programmes in handicrafts 51822 Programmes in music 51832 Programmes in the drama 51842 Programmes in photography and cinematography 51899 Other fine and applied arts programmes	618 Fine and applied arts programmes 61801 General programmes of art studies 61804 Programmes in drawing and painting 61808 Programmes in sculpturing 61822 Programmes in music 61832 Programmes in the drama 61852 Programmes in interior design 61899 Other fine and applied arts programmes	718 Fine and applied arts programmes 71802 Programmes in the history and philosophy of art 71804 Programmes in drawing and painting 71808 Programmes in sculpturing 71822 Programmes in music 71832 Programmes in the drama 71852 Programmes in interior design 71899 Other fine and applied arts programmes	918 Fine and applied arts programmes 91810 Programmes in visual and plastic arts 91812 Programmes in handicrafts 91822 Programmes in music 91832 Programmes in drama 91899 Other fine and applied arts programmes
22 Humanities programmes					522 Humanities programmes 52202 Programmes for interpreters and translators 52208 Other programmes in languages, except the current or vernacular language 52211 Programmes in the current or vernacular language and its literature 52299 Other humanities programmes	622 Humanities programmes 62201 General programmes in the humanities 62211 Programmes in the current or vernacular language and its literature 62215 Programmes in other living languages and their literature 62221 Programmes in "dead" languages and their literature 62231 Programmes in linguistics 62241 Programmes in comparative literature 62251 Programmes in history 62261 Programmes in archaeology 62271 Programmes in philosophy 62299 Other programmes in the humanities	722 Humanities programmes 72211 Programmes in the current or vernacular language and its literature 72215 Programmes in other living languages and their literature 72221 Programmes in "dead" languages and their literature 72231 Programmes in linguistics 72241 Programmes in comparative literature 72251 Programmes in history 72261 Programmes in archaeology 72271 Programmes in philosophy 72299 Other humanities programmes	922 Humanities programmes 92215 Programmes in a "foreign" or second language and its literature 92221 Programmes in "dead" languages and their literature 92251 Programmes in history 92261 Programmes in archaeology 92299 Other humanities programmes
26 Religion and theology programmes		126 Religion and theology programmes 12600 Religion and theology programmes	226 Religion and theology programmes 22600 Religion and theology programmes	326 Religion and theology programmes 32600 Religion and theology programmes	526 Religion and theology programmes 52600 Religion and theology programmes	626 Religion and theology programmes 62600 Religion and theology programmes	726 Religion and theology programmes 72600 Religion and theology programmes	926 Religion and theology programmes 92600 Religion and theology programmes
30 Social and behavioural science programmes					530 Social and behavioural science programmes 53012 Programmes in economics 53022 Programmes in political science 53032 Programmes in sociology 53052 Programmes in psychology 53099 Other programmes in social and behavioural science	630 Social and behavioural science programmes 63001 General programmes in the social and behavioural sciences 63012 Economics programmes 63022 Political science programmes 63032 Sociology programmes 63042 Anthropology programmes 63052 Psychology programmes 63062 Geography programmes 63072 Studies of regional cultures 63099 Other social and behavioural science programmes	730 Social and behavioural science programmes 73012 Economics programmes 73022 Political science programmes 73033 Programmes in demography 73035 Programmes in sociology except demography 73042 Anthropology programmes 73052 Programmes in psychology 73062 Geography programmes 73072 Studies of regional cultures 73099 Other social and behavioural science programmes	930 Social and behavioural science programmes 93012 Programmes in economics 93022 Programmes in political science 93032 Programmes in sociology 93052 Programmes in psychology 93062 Programmes in geography 93099 Other programmes in social and behavioural science
34		134 Commercial programmes 13401 General commercial programmes 13411 Specialized commercial programmes	234 Commercial programmes 23401 General commercial programmes 23404 Typing and shorthand programmes 23499 Other commercial programmes	334 Commercial and business programmes 33401 General commercial programmes 33404 Shorthand-typing (Secretarial) programmes 33408 Clerical-typists programmes 33422 Programmes in the operation of office machines 33432 Book-keeping programmes	534 Commercial and business administration programmes 53401 General commercial programmes 53404 Secretarial programmes 53422 Programmes in business machine operation except electronic data processing 53426 Programmes in electronic data	634 Business administration and related programmes 63401 General programmes in business administration (commerce) 63432 Programmes in business administration with specialization in accountancy 63439 Programmes in business administration	734 Business administration and related programmes 73432 Programmes in business administration with specialization in accountancy 73434 Programmes in business administration with specialization in marketing 73436 Programmes in business administration with specialization in finance and	934 Commercial, clerical, business and public administration programmes 93404 Shorthand-typing (Secretarial programmes) 93408 Clerical programmes 93438 Programmes in labour

Social and behavioural science programmes				53052 Programmes in psychology 53099 Other programmes in social and behavioural science	63022 Political science programmes 63032 Sociology programmes 63042 Anthropology programmes 63052 Psychology programmes 63062 Geography programmes 63072 Studies of regional cultures 63099 Other social and behavioural science programmes	73035 Programmes in sociology except demography 73042 Anthropology programmes 73052 Programmes in psychology 73062 Geography programmes 73072 Studies of regional cultures 73099 Other social and behavioural science programmes	93032 Programmes in sociology 93052 Programmes in psychology 93062 Programmes in geography 93099 Other programmes in social and behavioural science
34 Commercial and business administration programmes	**134 Commercial programmes** 13401 General commercial programmes 13411 Specialized commercial programmes	**234 Commercial programmes** 23401 General commercial programmes 23404 Typing and shorthand programmes 23499 Other commercial programmes	**334 Commercial and business programmes** 33401 General commercial programmes 33404 Shorthand-typing (Secretarial) programmes 33408 Clerical-typists programmes 33472 Programmes in the operation of office machines 33432 Book-keeping programmes 33439 Other commercial and business programmes 33452 Programmes in local public administration	**534 Commercial and business administration programmes** 53401 General commercial programmes 53404 Secretarial programmes 53422 Programmes in business machine operation except electronic data processing 53426 Programmes in electronic data processing 53432 Accountancy programmes 53434 Business administration, marketing and sales programmes 53436 Programmes in financial management and investment analysis 53439 Other commercial and business programmes 53452 Programmes in public administration 53462 Programmes in institutional administration	**634 Business administration and related programmes** 63401 General programmes in business administration (commercial) 63432 Programmes in business administration with specialization in accountancy 63439 Programmes in business administration with other specialization 63452 Programmes in public administration 63462 Programmes in institutional administration	**734 Business administration and related programmes** 73432 Programmes in business administration with specialization in accountancy 73434 Programmes in business administration with specialization in marketing 73438 Programmes in business administration with specialization in finance and investment 73439 Programmes in business administration with other specialization 73452 Programmes in public administration 73462 Programmes in institutional administration	**934 Commercial, clerical, business and public administration programmes** 93404 Shorthand-typing (Secretarial programmes) 93408 Clerical programmes 93438 Programmes in labour studies including personnel administration 93499 Other commercial, clerical, business and public administration programmes
38 Law and jurisprudence programmes				**538 Law and jurisprudence programmes** 53800 Programmes for local magistrates	**638 Law and jurisprudence programmes** 63801 General programmes in law 63812 Programmes for "notaires"	**738 Law and jurisprudence programmes** 73802 Programmes in jurisprudence and history of law 73804 Programmes in international law 73806 Programmes in labour law 73808 Programmes in maritime law 73899 Other law and jurisprudence programmes	**938 Programmes in law** 93800 Programmes in law
42 Natural science programmes				**542 Natural science programmes** 54202 Biological sciences programmes 54212 Chemistry programmes 54222 Geological sciences programmes 54232 Physics programmes 54299 Other natural science programmes	**642 Natural science programmes** 64202 Biological science programmes 64212 Chemistry programmes 64222 Geological sciences programmes 64232 Physics programmes 64242 Astronomy programmes 64252 Meteorology programmes 64262 Oceanography programmes 64299 Other natural science programmes	**742 Natural science programmes** 74202 Biological sciences programmes 74212 Chemistry programmes 74222 Geological sciences programmes 74232 Physics programmes 74242 Astronomy programmes 74252 Meteorology programmes 74262 Oceanography programmes 74299 Other natural science programmes	**942 Natural science programmes** 94202 Biological science programmes 94222 Geological science programmes 94232 Physics programmes 94242 Astronomy programmes 94299 Other natural science programmes
46 Mathematics and computer science programmes				**546 Mathematics and computer science programmes** 54601 General programmes in mathematics 54611 Programmes in statistics 54621 Programmes in actuarial science 54699 Other programmes in applied mathematics 54641 Programmes in computer science	**646 Mathematics and computer science programmes** 64601 General programmes in mathematics 64611 Programmes in statistics 64621 Programmes in actuarial science 64699 Other programmes in mathematics 64641 Programmes in computer science	**746 Mathematics and computer science programmes** 74611 Programmes in statistics 74621 Programmes in actuarial science 74699 Other programmes in mathematics 74641 Programmes in computer science	**946 Programmes in computer science** 94600 Programmes in computer science
50 Medical and health-related programmes	**150 Elementary public health programmes** 15000 Elementary public health programmes	**250 Health-related auxiliary programmes** 25002 General medical auxiliary programmes 25012 Nursing programmes 25015 Midwifery programmes 25099 Other health related auxiliary programmes	**350 Health-related auxiliary programmes** 35002 General medical auxiliary programmes 35012 Nursing programmes 35015 Midwifery programmes 35099 Other health-related auxiliary programmes	**550 Medical diagnostic and treatment programmes** 55002 Public health inspection programmes 55008 Physiotherapy and occupational therapy programmes 55012 Nursing programmes 55015 Midwifery programmes 55017 Programmes in medical x-ray techniques 55019 Other programmes in medical diagnostic and treatment techniques except dental technicians 55042 Dental practitioner programmes 55046 Other programmes in dental techniques 55052 Pharmacy programmes 55642 Optometry programmes 55099 Other medical diagnostic and treatment programmes	**650 Medical diagnostic and treatment programmes** 65002 Programmes in hygiene 65006 Programmes in medicine and surgery 65008 Rehabilitation medicine programmes 65012 Programmes in nursing 65030 Medical technicians programmes 65042 Programmes in dentistry, stomatology, odontology 65052 Programmes in pharmacy 65099 Other medical diagnostic and treatment programmes	**750 Medical science programme** 75006 Programmes in medical specialities 75042 Programmes in dental and stomatological specialities 75052 Programmes in pharmacy 75099 Other medical science programmes	**950 Health related programmes** 95018 Nursing and other medical auxiliary programmes 95099 Other health related programmes
52 Trade, craft, and industrial programmes	**152 Trade, craft, and industrial programmes, n.e.c.** 15201 General trade and crafts programmes 15212 Food and drink processing trades programmes 15218 Building trades programmes, n.e.c. 15222 Electrical trades programmes 15232 Metal trades programmes 15242 Mechanical and mechanical repair trades programmes 15262 Woodworking trades programmes 15272 Leather trades programmes 15274 Textile trades programmes 15276 Clothing and related trades programmes 15299 Other trade, craft, and industrial programmes	**252 Trade, craft and industrial programmes, n.e.c.** 25201 General trade and craft programmes 25212 Food and drink processing trades programmes 25218 Building trades programmes 25222 Electrical trades programmes 25232 Metal trades programmes 25242 Mechanical and mechanical repair trades programmes 25262 Woodworking trades programmes 25266 Materials handling and earth-moving equipment operating trades programmes 25272 Leather trades programmes 25274 Textile trades programmes 25276 Clothing and related trades programmes 25278 Printing and book-binding trades programmes 25299 Other trade, craft and industrial programmes, n.e.c.	**352 Trade, craft and industrial programmes, n.e.c.** 35201 General programmes with a trade, craft or industrial emphasis 35216 Building trades programmes, n.e.c. 35222 Electrical and electronics trades programmes 35232 Metal trades programmes 35242 Mechanical and mechanical repair trades programmes 35262 Woodworking trades programmes 35264 Heating, air-conditioning and refrigeration trades programmes 35268 Materials handling and earth moving equipment operating programmes 35272 Leather trades programmes 35274 Textile trades programmes 35276 Clothing and related trades programmes 35278 Graphic arts and book binding trades programmes 35282 Laboratory assistant programmes 35299 Other trade, craft and industrial programmes, n.e.c.	**552 Trade, craft and industrial programmes n.e.c.** 55212 Food processing programmes 55222 Electrical and electronics trades programmes 55232 Metal trades programmes 55242 Mechanical and mechanical repair trades programmes 55264 Heating, air-conditioning and refrigeration trades programmes 55274 Programmes in textile techniques 55278 Graphic arts programmes 55284 Laboratory technician programmes 55286 Optical lens making 55299 Other trade, craft and industrial programmes, n.e.c.		**952 Trade, craft and industrial programmes, n.e.c.** 95200 Trade, craft and industrial programmes, n.e.c.
54 Engineering programmes			**354 Engineering programmes** 35402 Programmes in surveying 35406 Programmes in engineering drawing 35422 Electrical and electronics engineering technician programmes 35426 Industrial engineering technician programmes 35436 Mining engineering technician programmes 35452 Agricultural, forestry and fishery engineering technician programmes 35499 Other engineering programmes	**554 Engineering programmes** 55402 Programmes in surveying 55406 Programmes in drafting and design 55412 Programmes in chemical engineering and materials techniques 55416 Programmes in civil engineering techniques 55422 Programmes in electrical and electronics engineering techniques 55426 Programmes in industrial engineering techniques 55432 Programmes in metallurgical engineering techniques 55436 Programmes in mining engineering techniques	**654 Engineering programmes** 65412 Chemical engineering programmes 65416 Civil engineering programmes 65422 Electrical and electronics engineering programmes 65426 Industrial engineering programmes 65432 Metallurgical engineering programmes 65436 Mining engineering programmes 65442 Mechanical engineering programmes 65453 Agricultural engineering programmes 65463 Forestry engineering programmes 65499 Other engineering programmes	**754 Engineering programmes** 75412 Chemical engineering programmes 75416 Civil engineering programmes 75422 Electrical and electronics engineering programmes 75426 Industrial engineering programmes 75432 Metallurgical engineering programmes 75436 Mining engineering programmes 75442 Mechanical engineering programmes 75453 Agricultural engineering programmes 75463 Forestry engineering programmes 75499 Other engineering programmes	**954 Engineering programmes** 95400 Engineering programmes

Engineering programmes

35426 Industrial engineering technician programmes	55416 Programmes in civil engineering techniques	65426 Industrial engineering programmes	75426 Industrial engineering programmes	
35436 Mining engineering technician programmes	55422 Programmes in electrical and electronics engineering techniques	65432 Metallurgical engineering programmes	75432 Metallurgical engineering programmes	
35452 Agricultural, forestry and fishery engineering technician programmes	55426 Programmes in industrial engineering techniques	65436 Mining engineering programmes	75436 Mining engineering programmes	
35499 Other engineering programmes	55432 Programmes in metallurgical engineering techniques	65442 Mechanical engineering programmes	75442 Mechanical engineering programmes	
	55436 Programmes in mining engineering techniques	65453 Agricultural engineering programmes	75453 Agricultural engineering programmes	
	55442 Programmes in mechanical engineering techniques	65463 Forestry engineering programmes	75463 Forestry engineering programmes	
	55452 Programmes in agricultural, forestry, and fishery engineering techniques	65499 Other engineering programmes	75499 Other engineering programmes	
	55499 Other engineering programmes			

58 Architectural and town planning programmes

558 Architectural and town planning programmes	658 Architectural and town planning programmes	758 Architectural and town planning programmes	958 Architectural and town planning programmes
55801 General programmes in architecture and town planning	65801 General programmes in architecture and town planning	75802 Programmes in structural architecture	95810 Architectural programmes
55802 Programmes in structural architecture	65802 Programmes in structural architecture	75812 Programmes in landscape architecture	95822 Town or community planning programmes
55812 Programmes in landscape architecture	65812 Programmes in landscape architecture	75822 Programmes in town planning	
55822 Programmes in town or community planning	65822 Programmes in town planning		

62 Agricultural, forestry and fishery programmes

162 Agricultural, forestry and fishery programmes	262 Agricultural, forestry and fishery programmes	362 Agricultural, forestry and fishery programmes	562 Agricultural, forestry and fishery programmes	662 Agricultural, forestry and fishery programmes	762 Agricultural, forestry and fishery programmes	962 Agricultural, forestry and fishery programmes			
16202 Agricultural programmes	26202 Agricultural programmes	36201 General agricultural programmes	56201 General programmes in agriculture	66201 General programmes in agriculture	76203 Animal husbandry programmes	96202 Programmes in agriculture			
16262 Forestry programmes	26262 Forestry programmes	36203 Animal husbandry programmes	56203 Animal husbandry programmes	66203 Animal husbandry programmes	76206 Horticulture programmes	96262 Forestry and forest products technology programmes			
16272 Fishery programmes	26272 Fishery programmes	36206 Horticulture and gardening programmes	56206 Horticulture programmes	66206 Horticulture programmes	76208 Crop husbandry programmes	96272 Fishery programmes			
		36208 Crop husbandry programmes	56208 Crop husbandry programmes	66208 Crop husbandry programmes	76212 Agricultural economics programmes				
		36249 Other programmes in agriculture	56212 Agricultural economics programmes	66212 Agricultural economics programmes	76222 Food sciences and technology programmes				
		36262 Forestry programmes	56226 Soil and water technology programmes	66222 Food sciences and technology programmes	76226 Soil and water sciences programmes				
		36272 Fishery programmes	56232 Animal health programmes	66228 Soil and water sciences programmes	76232 Programmes in veterinary medicine				
			56249 Other programmes in agriculture	66232 Programmes in veterinary medicine	76249 Other programmes in agriculture				
			56262 Forestry and forest products technology programmes	66249 Other programmes in agriculture	76262 Forestry programmes				
			56272 Fishery programmes	66262 Forestry programmes	76272 Programmes in fishery science and technology				
				66272 Programmes in fishery science and technology					

66 Home economics (domestic science) programmes

166 Home economics (domestic science) programme	266 Home economics (domestic science) programmes	366 Home economics (domestic science) programmes	566 Home economics (domestic science) programmes	666 Home economics (domestic science) programmes	766 Home economics (domestic science) programmes	966 Home economics (domestic science) programmes			
16601 General home economics programmes	26601 General home economics programmes	36601 General programmes in home economics	56601 General programmes in home economics	66601 General programmes in home economics	76612 Programmes in household and consumer food research; nutrition	96604 Programmes with emphasis on dressmaking and needlecrafts			
16604 Home economics programmes with emphasis on dressmaking and sewing	26604 Home economics programmes with emphasis on dressmaking and sewing	36612 Programmes with emphasis on nutrition	56612 Programmes with emphasis on household food management and nutrition	66612 Programmes in home economics with emphasis on household and consumer food research; nutrition	76632 Programmes in household arts	96612 Programmes with emphasis on household food management and nutrition			
16608 Home economics programmes with emphasis on cooking, food preservation and nutrition	26608 Home economics programmes with emphasis on cooking and food preservation	36622 Programmes with emphasis on child care	56622 Programmes with emphasis on child care	66632 Programmes in home economics with emphasis on household arts	76699 Other home economics programmes	96622 Programmes with emphasis on child care			
16622 Home economics programmes with emphasis on child care	26699 Other home economics programmes	36699 Other home economics programmes	56632 Programmes with emphasis on household arts	66699 Other home economics programmes		96699 Other home economics (domestic sc			
16699 Other home economics programmes			56699 Other home economics programmes						

70 Transport and communications programmes

270 Transport programmes	370 Transport and communications programmes	570 Transport and communications programmes	970 Transport and communications programmes						
27004 Seamen's programmes	37004 Seaman's certificate programmes	57002 Air crew programmes	97000 Transport and communications programmes						
27006 Railway operation programmes	37006 Railway operating trades programmes	57004 Ships' officer programmes							
27008 Road motor vehicle operating programmes	37008 Road motor vehicle operation programmes	57006 Railway operating trades programmes							
	37026 Postal service programmes except electronics equipment installation and servicing	57008 Road motor vehicle operation programmes							
	37029 Other communications programmes	57026 Postal service programmes, except electronics equipment installation and servicing							
		57029 Other communications programmes							

78 Service trades programmes

178 Services trades programmes	278 Service trades programmes	378 Service trades programmes	578 Service trades programmes	978 Service trades programmes					
17812 Barbering and beauty culture programmes	27812 Barbering and beauty culture programmes	37812 Barbering and beauty culture programmes	57826 Programmes in cooking (restaurant and hotel type)	97800 Service trades programmes					
17822 Hotel and restaurant trades programmes	27822 Hotel and restaurant trades programmes	37862 Retailing programmes	57862 Retailing programmes						
17842 Laundry and dry-cleaning trades programmes	27842 Laundry and dry-cleaning trades programmes	37872 Tourist trades programmes	57872 Tourist trades programmes						
17862 Retailing programmes	27862 Retailing programmes	37899 Other service trades programmes	57899 Other service trades programmes						
17899 Other service trades programmes	27899 Other service trades programmes								

84 Programmes in mass communication and documentation

584 Programmes in mass communication and documentation	684 Programmes in mass communication and documentation	784 Programmes in mass communication and documentation	984 Programmes in mass communication and documentation						
58402 Programmes in journalism	68402 Journalism programmes	78402 Programmes in journalism	98401 Programmes in mass communication and documentation						
58404 Programmes in radio and television broadcasting	68404 Programmes in radio and television broadcasting	78404 Programmes in radio and television broadcasting							
58407 Public relations programmes	68407 Public relations programmes	78407 Public relations programmes							
58409 Other programmes in communications arts	68409 Other programmes in communications arts	78409 Other programmes in communications arts							
58422 Library technician programmes	68422 Library science programmes	78422 Library science programmes							
58425 Programmes for technicians in museums and similar repositories									
58429 Programmes in documentation techniques, n.e.c.									

89 Other programmes

189 Other programmes of education at the first level	289 Other programmes of education at the second level, first stage	389 Other programmes of education at the second level, second stage	589 Other programmes of education at the third level, first stage of the type that leads to an award not equivalent to a first university degree	689 Other education at the third level, first stage of the type that leads to first university degree or equivalent	789 Other education at the third level, second stage of the type that leads to a post-graduate university degree or equivalent	989 Other education not definable by level			
18900 Other programmes of education at the first level	28900 Other programmes of education at the second level, first stage	38900 Other programmes of education at the second level, second stage, n.e.c.	58912 Programmes in police work and related law enforcement	68913 Programmes in criminology	78913 Programmes in criminology	98902 Programmes in physical education			
			58915 Fire protection and fire fighting programmes	68919 Other civil security and military programmes	78919 Other civil security and military programmes	98999 Other education not definable by level, n.e.c.			
			58917 Military programmes	68932 Social welfare programmes	78932 Social welfare programmes				
			58919 Other programmes in civil security	68942 Programmes in vocational counselling	78942 Programmes in vocational counselling				
			58932 Programmes in social work	68952 Programmes in environmental studies	78952 Programmes in environmental studies				
			58942 Programmes in vocational counselling	68962 Programmes in physical education	78999 Other programmes of education at the third level, second stage of the type that leads to a postgraduate university degree or equivalent, n.e.c.				
			58952 Programmes in environmental studies	68972 Programmes in nautical science					
			58962 Programmes in physical education	68999 Other programmes of education at the third level, first stage of the type that leads to a first university degree or equivalent, n.e.c.					
			58999 Other programmes of education at the third level, first stage of the type that leads to an award not equivalent to a first university degree, n.e.c.						