This classification of educational subject matter encompasses subject matter in preprimary through postdoctoral levels. As opposed to instructional programs, which represent the form and style by which knowledge is transmitted (such as nursing, college preparatory, or journalism programs), educational subject matter deals with the knowledge itself (such as English, psychology, or physical education). This classification of subject matter is intended to provide a single standardized scheme for reporting, recording, and exchanging data about subject matter. It will be of use in providing common data about subject matter over longitudinal studies, between instructional levels, and in local, state, and federal data reporting. The classification contains 22 first-order subject-matter areas from agriculture to social sciences. Within each area, subject matter is divided into second-order, third-order, and if necessary, fourth-order entries. A digit coding structure is also used to classify all entries. Definitions of each order and suborder of subject matter are provided. A lengthy appendix lists other means of classifying subject matter, including difficulty, by level of instruction, by organization providing instruction, and by type of instructional program. An alphabetical index of all orders and suborders is also included. (Author/JS)
A CLASSIFICATION
OF EDUCATIONAL SUBJECT MATTER

SCOPE OF INTEREST NOTICE
The ERIC Facility has assigned
this document for processing
by

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

This document has been repro-
duced exactly as received from
the person or organization origin-
ating it. Points of view or opinions
stated do not necessarily repres-
ent official National Institute of
Education position or policy.

STATE EDUCATIONAL RECORDS AND REPORTS SERIES: HANDBOOK XI
A CLASSIFICATION OF EDUCATIONAL SUBJECT MATTER

by

W. Dale Chismore

and

Quentin M. Hill

National Center for Education Statistics
NATIONAL CENTER FOR EDUCATION STATISTICS

"The purpose of the Center shall be to collect and disseminate statistics and other data related to education in the United States and in other nations. The Center shall... collect, collate, and, from time to time, report full and complete statistics on the conditions of education in the United States, conduct and publish reports on specialized analyses of the meaning and significance of such statistics... and review and report on education activities in foreign countries."—Section 406(b) of the General Education Provisions Act, as amended (20 U.S.C. 1221e-1).

This project was conceived and most of the work was done in the National Center for Education Statistics' former Division of Intergovernmental Statistics and its Educational-Data Standards Branch, headed by Absalom Summs and Allan R. Lichtenberger, respectively.

The manuscript for the handbook was developed by Educational Management Services, Inc., under contract No. 3007600098 with the National Center for Education Statistics. James R. Sherman, Ph.D. served as Project Director and Principal Investigator.
FOREWORD

On July 24, 1976, the National Center for Education Statistics (NCES) awarded a 2-year contract to Educational Management Services, Inc. (EMS) of Minneapolis, Minnesota, to develop a classification of educational subject matter. This document represents the culmination of that 2-year effort to produce a single comprehensive recording and reporting scheme that will serve the needs of educational agencies and institutions throughout the United States. The charge by NCES was formidable. It was met through the cumulative efforts of many people.

A 20-member National Planning Council advised NCES and EMS on the project approach, the content and format of the document, the numerical coding and classification structure, and the subject-matter elements and additional dimensions. EMS requested nominations for the Council from a variety of educational associations whose members represented various levels of education, types of educational institutions, educational agencies, consortia, and coordinating bodies. A list of candidates was then prepared that featured a broad geographic distribution and equal representation of major educational affiliations. NCES selected the 20 Council members from this list in December, 1975.

Twenty-one Ad Hoc Subject-Matter Committees were also involved in the development process. They advised NCES and EMS on the content and structure of the document and on the definitions of subject-matter elements. Nominations for membership of the Ad Hoc Committees were sought from educational associations whose members were affiliated with specific subject-matter areas. EMS listed the nominees under one of the 22 initial subject-matter areas in accordance with their area of expertise, geographic distribution, and representation by level and type of educational agency and institution. The committee recommendations were then sent to NCES for selection.

NCES established an eight-member committee in Washington of people from the Education Division and from other Federal agencies involved in educational data collection and reporting. They met with EMS staff after each Planning Council meeting to discuss the status of the project and the structure and form of the Classification.

Three outside consultants were enlisted by NCES and EMS to lend their expertise and to provide overall advice and assistance through the project.

Over 150 individuals, representing a variety of organizations, agencies, and institutions, asked for and received one or more drafts of the Classification. Their reviews and critical comments proved to be extremely valuable.

The document was produced in three successive drafts prior to submission in final form to NCES. The first draft was produced in November, 1975 following an extensive review of the literature and existing classification systems. Federal and State classification documents and reporting forms were perused, as were those of the United Nations (UNESCO), regional accrediting bodies, private agencies, and professional societies.

The first draft was sent to all members of the National Planning Council and the Ad Hoc Subject-Matter Committees, as well as to several selected readers. The Council and the Committees met early in the spring of 1976 to discuss the draft with NCES and EMS staff members and to suggest revisions and modifications. Following an extensive period of review and modification, EMS prepared a second draft in August, 1976 and submitted it for review. The National Planning Council and the Ad Hoc Subject-Matter Committees met to discuss the second draft in the fall of 1976. The second review led to the production of a third draft which was mailed out in March, 1977. The members of the Ad Hoc Committees reviewed the third draft by mail, but the National Planning Council met to discuss their review at their final meeting in Minneapolis in May, 1977. The document underwent final revisions and modifications during the 2 months following the Planning Council meeting, and the final copy was delivered to NCES in July, 1977.
Those who worked on this project made special efforts to maintain sensitivity to the needs of those individuals responsible for collecting, recording, reporting, analyzing, interpreting, and disseminating data about subject matter. It is hoped that this Classification will serve to make their tasks easier.

David B. Orr
Acting Director, Division of Elementary and Secondary Education Statistics
CONTENTS

FOREWORD ................................................................................................................ iii

CHAPTER 1 :: INTRODUCTION .............................................................................. 1

  Need for a Subject-Matter Classification ....................................................... 2
  Examples of Use ............................................................................................... 2
    Use in Longitudinal Studies ................................................................. 2
    Use Between Instructional Levels ..................................................... 2
    Use in Reporting Data ................................................................. 3
    Use as a Reference Document ..................................................... 3
    Avoiding Misuse ........................................................................ 3
  Development of the Classification .......................................................... 3
    Procedures for Classifying Subject Matter ..................................... 3
    Coding Structure ........................................................................... 3
    Criteria for Developing Entries ................................................... 4
  Organization of the Classification ........................................................... 4
  How to Use the Subject-Matter Classification ........................................ 4
    Classification of Data About Subject Matter ..................................... 5
    Aggregate Subject Matter ................................................................ 5
    Combinations Within Subject-Matter Areas ...................................... 5
    Combinations Between Subject-Matter Areas .................................... 5
    Introductory Subject Matter ............................................................ 5
    Unlisted Subject Matter ................................................................ 5
    Amount of Detail ............................................................................. 5
    Additional Codes ............................................................................ 6

CHAPTER II :: CODED CLASSIFICATION OF EDUCATIONAL SUBJECT MATTER ......................... 7

  Agriculture and Renewable Natural Resources ........................................ 7
  Architecture and Environmental Design ............................................... 8
  Arts, Visual and Performing .................................................................... 9
  Business .................................................................................................. 10
  Communication ...................................................................................... 12
  Computer Science and Data Processing ............................................. 13
  Education .................................................................................................. 14
  Engineering and Engineering Technology ............................................ 16
  Health Care and Health Sciences .......................................................... 18
  Home Economics ..................................................................................... 20
  Industrial Arts, Trades, and Technology ............................................. 21
  Language, Linguistics, and Literature ................................................ 22
  Law .......................................................................................................... 24
  Libraries and Museums ........................................................................ 25
  Life Sciences and Physical Sciences ..................................................... 26
<table>
<thead>
<tr>
<th>Category</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematical Sciences</td>
<td>27</td>
</tr>
<tr>
<td>Military Sciences</td>
<td>28</td>
</tr>
<tr>
<td>Philosophy, Religion, and Theology</td>
<td>29</td>
</tr>
<tr>
<td>Physical Education, Health Education, and Leisure</td>
<td>30</td>
</tr>
<tr>
<td>Psychology</td>
<td>31</td>
</tr>
<tr>
<td>Public Administration and Social Services</td>
<td>32</td>
</tr>
<tr>
<td>Social Sciences and Social Studies</td>
<td>33</td>
</tr>
<tr>
<td>Agriculture and Renewable Natural Resources</td>
<td>37</td>
</tr>
<tr>
<td>Architecture and Environmental Design</td>
<td>41</td>
</tr>
<tr>
<td>Arts, Visual and Performing</td>
<td>46</td>
</tr>
<tr>
<td>Business</td>
<td>49</td>
</tr>
<tr>
<td>Communication</td>
<td>57</td>
</tr>
<tr>
<td>Computer Science and Data Processing</td>
<td>61</td>
</tr>
<tr>
<td>Education</td>
<td>65</td>
</tr>
<tr>
<td>Engineering and Engineering Technology</td>
<td>71</td>
</tr>
<tr>
<td>Health Care and Health Sciences</td>
<td>78</td>
</tr>
<tr>
<td>Home Economics</td>
<td>88</td>
</tr>
<tr>
<td>Industrial Arts, Trades, and Technology</td>
<td>91</td>
</tr>
<tr>
<td>Language, Linguistics, and Literature</td>
<td>97</td>
</tr>
<tr>
<td>Law</td>
<td>102</td>
</tr>
<tr>
<td>Libraries and Museums</td>
<td>107</td>
</tr>
<tr>
<td>Life Sciences and Physical Sciences</td>
<td>111</td>
</tr>
<tr>
<td>Mathematical Sciences</td>
<td>115</td>
</tr>
<tr>
<td>Military Sciences</td>
<td>121</td>
</tr>
<tr>
<td>Philosophy, Religion, and Theology</td>
<td>123</td>
</tr>
<tr>
<td>Physical Education, Health Education, and Leisure</td>
<td>127</td>
</tr>
<tr>
<td>Psychology</td>
<td>133</td>
</tr>
<tr>
<td>Public Administration and Social Services</td>
<td>137</td>
</tr>
<tr>
<td>Social Sciences and Social Studies</td>
<td>141</td>
</tr>
<tr>
<td>APPENDIXES</td>
<td>151</td>
</tr>
<tr>
<td>Introduction</td>
<td>153</td>
</tr>
<tr>
<td>Appendix A - Difficulty of Subject Matter</td>
<td>155</td>
</tr>
<tr>
<td>Appendix B - Level of Subject-Matter Instruction</td>
<td>157</td>
</tr>
<tr>
<td>Appendix C - Organization Providing Instruction</td>
<td>161</td>
</tr>
<tr>
<td>Appendix D - Type of Instructional Program</td>
<td>165</td>
</tr>
<tr>
<td>Appendix E - Multiple Subject Matter (Interdisciplinary)</td>
<td>171</td>
</tr>
<tr>
<td>GLOSSARY</td>
<td>175</td>
</tr>
<tr>
<td>ACKNOWLEDGMENTS</td>
<td>177</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>187</td>
</tr>
<tr>
<td>INDEX</td>
<td>189</td>
</tr>
<tr>
<td>CHART</td>
<td>1</td>
</tr>
</tbody>
</table>
CHAPTER 1
INTRODUCTION

This document is a classification of educational subject matter as it currently exists from pre-elementary through post-doctoral levels. As a single, coherent system for classifying subject matter regardless of the level of instruction, type of institution, or source of support, it represents a necessary step toward the improvement of existing data collection, recording, and reporting procedures at all levels of education.

This document is not a classification of instructional programs, nor should it be used as such. It is a subjective array of knowledge that is presently known to exist in American education. Subject matter represents the substance, manifestation, and countenance of knowledge. Instructional programs, which can and should be differentiated from subject matter, represent the form and style by which knowledge, or subject matter, is transmitted and received. Instructional programs can be defined in terms of the subject matter of which they are composed, or of experiences such as internships, practicums, and field trips. The schematic matrix in the chart illustrates the relationship between instructional programs and subject matter. A matrix like the one shown is unique to institutions as well as to students, but it does display the relationship between these two educational dimensions.

This document does not replace either of the two current and most widely used classifications of subject matter and related instructional programs. Since 1971, the Standard Terminology for Curriculum and Instruction in Local and State School Systems (Handbook VI of the State Educational Records and Report Series) has been widely used for a variety of purposes by local, State, and Federal institutions and agencies in recording and reporting data on elementary, secondary, and vocational-technical education. A Taxonomy of Instructional Programs in Higher Education (HEGIS Taxonomy), published by the Higher Education Surveys Branch of the National Center for Education Statistics in 1971, has served similar purposes in postsecondary education.

Ultimately, an instructional program classification will be developed that will complement this classification of subject matter and will replace both Handbook VI and the HEGIS Taxonomy. Until that is accomplished, data about instructional programs should be recorded and reported according to the formats and classification categories of the HEGIS Taxonomy for higher education, or Handbook VI for elementary, secondary, and vocational-technical education. This subject-matter classification should not be used for classifying instructional programs.

The distinctions between instructional programs and subject matter were particularly troublesome to those who helped develop this Classification. The distinctions between the two

### Illustrative Instructional Programs

<table>
<thead>
<tr>
<th>Business Administration</th>
<th>Journalism</th>
<th>Fine Arts</th>
<th>Nursing</th>
<th>Social Science</th>
<th>College Preparatory</th>
<th>Total Students, Credits, Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speech</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data Processing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Music</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Algebra</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total students, credits, dollars</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Subject Matter - Program Matrix

are discussed further in appendix D, where illustrative examples of instructional programs in elementary, secondary, and vocational-technical education are also provided.

This document does not propose to serve as a framework for the organization of educational agencies or institutions or for their departments or divisions. Any resemblance to existing organizational structures is unintentional. The subject matter areas that constitute the framework for the hierarchical array were established subjectively in consultation with over two hundred people, most of whom served on project committees.
NEED FOR A SUBJECT-MATTER CLASSIFICATION

This classification of educational subject matter was developed in response to the needs of people involved in data gathering and reporting in all levels and types of educational agencies and institutions. More specifically, the following developments have made it necessary to have a comprehensive subject-matter classification:

- Although it is a classification of instructional programs, the HEGIS Taxonomy has been used in many instances to identify postsecondary subject matter.
- Technical subject matter found in vocational-technical institutes and in community and junior colleges can be-and currently is-reported under both the HEGIS Taxonomy and Handbook VI. Resulting data are neither comparable nor compatible. This Classification provides a single reporting scheme that should alleviate these problems.
- Secondary schools are increasingly offering subject matter that has traditionally been the province of postsecondary education. To a lesser extent, the reverse is also true as postsecondary institutions offer courses at the secondary level as elements of adult basic or remedial programs. Neither the HEGIS Taxonomy nor Handbook VI accommodate what appears to be a crossing over of students between the two separate levels of instruction and organization. This Classification will allow for joint reporting of identical data between different levels.
- In postsecondary education, an increasing number of institutions are awarding credit for instruction taken elsewhere. Degrees may be awarded by agencies that do not themselves offer certain instruction, but rather assess learning based entirely on work done in other educational settings. This emerging educational practice will benefit from the reasonably precise definitions contained in this Classification but not in the HEGIS Taxonomy.
- There is a mixture of instructional programs and subject-matter elements in the classifications in Handbook VI that is of concern in elementary and secondary education. As public school systems are becoming increasingly more involved in providing unique programs for students with special educational needs, this limitation of Handbook VI is becoming more of a problem. By separating subject matter from programs, this Classification should help to simplify complex reporting problems.

In general, the primary reason for developing this Classification was to provide a single, standardized scheme which will facilitate the recording, reporting, and exchange of data about subject matter. Although directed primarily toward formal educational agencies and institutions, the document will facilitate communication and understanding among a wide range of people having different interests and needs related to subject matter. It will be particularly useful to Federal, State, and local government and education agencies, and to all institutions involved in administering, operating, evaluating, and funding educational activities.

EXAMPLES OF USE

The examples of use that are described below are illustrative but not exhaustive. Although the developers of the Classification were aware of several obvious uses, they recognize that there may very well be many more uses that cannot now be anticipated. Future use of the document should not be constrained by the lack of documentation of all possible applications.

Subject matter data are not collected in a vacuum. There are no measures of subject matter as such. Data are categorized by subject matter areas but reflect such characteristics as the number of courses in a particular subject matter, the number of students who are enrolled, the number of faculty who are teaching, or the number of dollars that are being consumed. In considering the following uses, it should be noted that the data which will be recorded and reported will be quantified by a number of indices such as credits, enrollments, and dollars to which subject-matter identifiers will be attached. The data that will be collected will not be different from the data that have been collected in the past. Only the categories in which the data will be classified will be different.

Use in Longitudinal Studies

Educational planners would like to be able to trace an individual's academic pursuits from early childhood to an unidentifiable point in life when formal education is no longer sought. When one considers the continuing educational programs now in existence, that end-point may occur only at death. If students are identified by common data elements, their progress through the educational continuum can be analyzed. Significant decision points, as when students select alternative courses of study, can be identified and dealt with by using a uniform classification of subject matter. Progress toward educational objectives can be assessed on a time-line in accordance with the completion of specific subject-matter competencies. At present, many students become lost to gross analytic assessment when they move from one educational subsystem to another (e.g., from a professional school to a continuing professional education program). Well-defined subject-matter elements that can be universally recognized, with no qualifying concern for the nature of level of the student, will be extremely useful in longitudinal studies.

Use Between Instructional Levels

Categorization of educational level with respect to age and competency appears to be decreasing significantly. Many of the "rites of passage" from one educational level to another have been eliminated to accommodate student enrollment at multiple levels or to allow for competency based education programs. Subject matter data must not only be continuous, but contiguous as well, so that agency or institutional student data may be transferred from one educational setting to another. A uniform classification of subject matter, uncluttered by organizational descriptors, will facilitate student entry, transfer, exit, and reentry when combined with other dimensions of educational data.
Use in Reporting Data

A standard classification of subject matter will facilitate compliance with the statutory reporting requirements for local, State, and Federal educational agencies and institutions. Uniform terminology and structure will facilitate the collection and recording of data, which is the first step of the reporting process. A comprehensive classification for education can be used to expedite communication and information exchange about subject matter regardless of the type or location of the organization providing instruction.

Use as a Reference Document

A comprehensive subject-matter classification can serve a very useful purpose as a reference document. The person using the Classification can discover not only the many elements of instruction but also the hierarchical relationships that tie those elements together. This will be particularly beneficial for students and their counselors as they explore alternative courses of study in a variety of agencies and institutions. The Classification can also serve as a reference for curriculum development and academic planning purposes.

Avoiding Misuse

In considering how the Classification should be used, it is also appropriate to mention how it should not be used. As discussed earlier, it is not a classification of instructional programs. It is not a proposed framework or model for the organization of agencies or institutions or of divisions of departments within them. The Classification is not an outline for instruction or a specification of how subject matter should be taught. It is not a structure or pattern for agency, institutional, State, or Federal funding. And finally, the Classification does not incorporate value judgments concerning the relative merits of subject-matter areas. Hierarchical rank is related to subject-matter genesis; not to perceived value or importance of particular areas of knowledge.

DEVELOPMENT OF THE CLASSIFICATION

This Classification was developed through extensive research and formal and informal advice and consultation. Several formal committees were established to assist in building the coded structures and in writing definitions. Their membership is detailed in the acknowledgments. Briefly, these committees consisted of the following:

- Twenty-two Ad Hoc Subject-Matter Committees that dealt with each of the first-order subject-matter areas. The nearly 200 members were selected because of their affiliation with and knowledge of specific subject matter.
- A 20-member National Planning Council composed, for the most part, of representatives of a variety of national education associations and State and local agencies.
- An eight-member Washington-based committee composed of selected persons from the National Center for Education Statistics as well as from other Federal agencies concerned with education data.

Over a period of 2 years, three successive and relatively complete drafts of the Classification were reviewed by these committees. The drafts were also mailed to over 150 interested individuals and association representatives for comment and criticism. This broadly based assistance was of great value to the development of the Classification, for it took place within flexible guidelines and objectives that became stabilized only as consensus was achieved by the large and diverse consulting group.

Understanding of the Classification will be enhanced by a review of the three major areas in which development of the document was conducted: 1) the procedures for classifying subject matter, 2) the coding structure, and 3) the criteria for developing entries in the Classification. These are discussed in the following sections.

Procedures for Classifying Subject Matter

The procedures followed in the classification process included limiting consideration to current and commonly found subject matter, requiring a hierarchical listing, and excluding course level detail.

Current and Common Usage. Only subject matter that was known to be currently in use in formal education settings was included. The elements were chosen on the basis of subject matter committees' consensus rather than formal theoretical considerations. Validation of the document will occur through general use, the development of related classifications, and periodic revision. The Classification was not intended to be exhaustive. Included in it are only those subject-matter elements that are most commonly found and understood in formal educational agencies and institutions and about which data are routinely collected and reported.

Hierarchical Array. The subject-matter elements are presented in a hierarchical array to facilitate data aggregation and data recording and reporting. The areas represent what the Ad Hoc Committees and others identified as generally accepted classes of subject matter. First-order designations have been established through consensus and are considered to be representative of the major categories for classifying knowledge. Second-order, third-order, and fourth-order entries are considered to be natural subdivisions of the major subject-matter areas— that is, to have their genesis in an aggregate hierarchical order.

Exclusion of Course Level Detail. Subject-matter entries comprise elements that users may disaggregate into finer detail to reflect course titles. It is recognized, however, that any element at any level can be used to identify a course and a course can be developed for any subject matter. But as long as the element can be broken down into subelements, the entry is considered subject matter and not a course, which, the developers of the Classification felt was the lowest level of disaggregation.

Coding Structure

There are 22 first-order subject-matter areas in the Classification. These areas represent a subjective judgment about a
reasonably number of categories into which knowledge can be classified for recording and reporting purposes. All subject matter could have been listed in alphabetical order without these aggregations, but to have done so would have been to ignore the natural groupings of subject matter that are derived from long experience with curriculums on the part of educational agencies and institutions. To allow for greater detail, a subject-matter area is disaggregated into descending hierarchical levels that are designated “Orders.”

The coding structure is characterized by the use of two digits for each order in the Classification. The first-order, representing the subject-matter area, is indicated by the first two digits. Each subsequent two digits represent another descending order of subject matter. Schematically, this may be represented as follows:

03 ARTS, VISUAL AND PERFORMING (First Order, Subject-Matter Area)

03.03 MUSIC (Second Order)

03.03 02 Music Studies (Third Order)

03.03 02 03 Music Theory (Fourth Order)

The potential four-order, eight-digit coding structure for the Classification allows reasonable detail but avoids many problems associated with a larger number of orders. The structure also appears satisfactory for subject-matter data collection and reporting to the degree now required at State and Federal levels. The purposes for which data are collected in specific instances will determine the required extent of detail, which might be greater or less than the four-order, eight-digit structure provides.

Criteria for Developing Entries

The importance of genetic categories of subject matter—that is, of subject-matter elements that have their genesis in the definition of the first-order or other higher-order category—was stressed throughout the development of the Classification. The importance of single entries and integrity of subject matter was also stressed. The committees were asked to develop entries for their areas under four broadly defined criteria: maturity, universality, magnitude, and relationship.

Maturity. The subject-matter elements should have been in use long enough to be commonly understood and accepted throughout the educational community. New areas of knowledge were included if they were currently recognized by all members of the committee, but esoteric descriptions that were perceived as new titles for well-established subject-matter elements were discarded.

Universality. In general, a subject-matter element should be found throughout a broad range of formal educational settings. This excluded, for example, limited offerings in a highly restricted program to which minimal resources would be devoted. Universality can apply in several ways. Certain subject matter may be found throughout the Nation at specific levels or within special institutions such as law schools. On the other hand, subject matter may be universally found throughout all types of educational agencies or institutions, but within a restricted geographic area, as is generally the case with Oceanography.

Magnitude. This criterion was applied to numbers of students enrolled, number of classes taught, amount of resources consumed, or any other characteristic of size or number. Its application was a matter of judgment. An indication of great magnitude did not of itself determine the way subject matter was treated. Even though subject matter might be studied by nearly every elementary and secondary student in the Nation and taught at virtually all colleges and universities, it might still be subsumed under a higher-order designation.

Relationships. There generally exist natural relationships among subject-matter elements. Thus, Chiropractic, Dentistry, Medicine, and Veterinary Medicine are all grouped together because of their concern with Health-Care and Health Sciences. On the other hand, subject-matter elements are sometimes grouped together because of incidental factors or somewhat artificial relationships. For example, Surveying is incidentally related to Engineering in much the way as Mathematics is to Physics. But Surveying is an entry under Engineering because the relationship, even though an incidental one, was deemed to be relatively strong. In either case, the judgments and reasonable compromises of the committees and consultants produced the array of subject matter.

ORGANIZATION OF THE CLASSIFICATION

This Classification is organized to serve the needs of those responsible for data recording and reporting at all levels of education. This first chapter provides an introduction to the document and describes how it may be used.

Chapter 2 consists of a hierarchical array of subject matter for all of education. The chapter is divided into 22 sections, each representing a designated area of subject matter. Within each area, subject matter is disaggregated to second, third, and sometimes fourth-order entries. In some instances, the array is structured alphabetically. In others, the entries are arranged according to the relationships they have with each other.

Chapter 3 contains definitions for each of the entries found in chapter 2. The array by subject-matter area is the same for both chapters, and page references for chapter 3 are also shown in figure 2. The definitions are intended to facilitate classification of subject matter for data recording and reporting purposes.

Following the main body of the document are five appendices which can be used to add additional dimensions to the subject-matter entries: Difficulty of Subject Matter, Level of Subject-Matter Instruction, Organization Providing Instruction, Type of Instructional Program, and Multiple Subject Matter (Interdisciplinary). The appendices are followed by the glossary, acknowledgments, bibliography, and index.

HOW TO USE THE SUBJECT-MATTER CLASSIFICATION

Each subject-matter area represents a branch of knowledge as it presently exists in American education. When that knowl
edge is organized, combined with other learning experiences, and provided for instruction to students, it appears as a basic unit of instruction.

This basic unit of instruction can be defined as a planned series of learning activities or experiences developed around a limited scope of subject matter. These activities or experiences have prede ned, stated objectives, a definite beginning and end, a speci ed learner population, and a means of assessing the learning that has taken place. An instructional course is an example of a basic unit of instruction.

Classification of Data About Subject Matter

Subject-matter elements will be used to classify data such as the number of students enrolled in a basic unit of instruction, the number of faculty being utilized, or the number of dollars being consumed. In some cases, there will be a one-to-one relationship between subject-matter titles and those used to identify basic units. In other instances, subject-matter titles will subsume several basic units.

Aggregate Subject Matter

If a basic unit of instruction, such as a course, consists of a combination of two or more subject-matter elements, and if the subject matter elements are subelements of a single and more aggregate entry, the aggregate entry will be used for coding. The aggregate entry may appear at the first-order, second-order, or third-order. First-order entries will use the subject-matter area title and two-digit code. The title and de nition of the subject-matter element will assist in identifying the basic unit of instruction.

For example, a unit of instruction may involve the combination of three second-order elements, such as Environmental Design, Construction and Design Implementation, and Communication in Architecture and Environmental Design. If presented separately, these three elements would appear as follows:

- 02.01 Environmental Design
- 02.03 Construction and Design Implementation
- 02.04 Communication in Architecture and Environmental Design

If they are completely integrated into a single unit, and if their content cannot be separated, they will be coded according to the aggregate entry of which they are a part. In this case, it is the subject-matter area designation.

02 Architecture and Environmental Design

The same procedure will hold for the combination of third-order elements such as the two listed below.

- 02.04 03 Rendering
- 02.04 04 Model Building

If these two are integrated into a single unit, and if their content cannot be separated, they will be coded under 02.04—Communication in Architecture and Environmental Design, the second-order element of which they are a part.

Combinations Within Subject-Matter Areas (Multiple Subject Matter)

If a basic unit of instruction consists of two or more distinct subject matter elements within a single first-order subject matter area, the basic unit will be reported as Multiple Subject Matter (Interdisciplinary). Each of the elements will retain its identity, and it will be possible to separate their content out of the combination. The coding, recording, and reporting of multiple subject matter is dealt with in appendix E.

Combinations Between Subject-Matter Areas (Multiple Subject Matter)

If a basic unit of instruction consists of two or more distinct subject-matter elements which are found in separate subject-matter areas, they will also be reported as Multiple Subject Matter (Interdisciplinary). The coding, recording, and reporting of these combinations are also dealt with in appendix E.

Introductory Subject Matter

Units of instruction which deal with general or introductory topics will be coded at aggregate subject-matter levels. The more general the topic, the more aggregate the subject-matter coding.

Data that are coded at an aggregate level will include or most of the subject-matter elements within the aggregate listing as well as subject matter that represents general or introductory topics. If greater detail is required, the data should be disaggregated for each element, but the data for general or introductory material should remain at the aggregate level. An introductory course in biology, for example, will be coded 15.03 Biology, even if it is composed of several topics in biology. If identi cation of the topics is necessary, the data being recorded can be divided and spread over two or more disaggregate entries such as General Botany or General Zoology, according to their respective degrees of emphasis.

Unlisted Subject Matter

The developers of this subject-matter classi cation did their best to identify and include the most prevalent subject matter in American education. At the same time, they realized that additional elements could emerge as knowledge expands in the future. If subject-matter elements cannot be found in this Classification for data that must be recorded or reported, then the “Other” category, coded XX..99, should be used. Data should be recorded under “Other” only if it represents unlisted subject matter, and only if it cannot be subsumed under an aggregate, general, or introductory listing that already exists.

When elements that are recorded under “Other” are to be combined, as multiple subject matter, they should be given an alphanumeric code appropriate to the second-order category of which they are a part, but ending in “99.” Other Agricultural Economics, for example, would be coded A99 when appearing in a multiple subject-matter combination.

Amount of Detail

The structure and content of the Classification re ect the subjective judgments and consensus of those who developed it. Although it appears that all areas of knowledge have been identi ed, some subject-matter elements represent greater detail than others. Review of the numerous drafts of the document indicates that the amount of detail is appropriate for the
elements that are included. Use of the Classification will validate the structure and content and will dictate the need for future disaggregation of existing elements.

Additional Codes

Subject-matter codes identify the branch of knowledge in which data are found. Additional codes may be extracted from the appendices to this Classification if greater precision is needed to identify the subject matter of basic units of instruction. Coded entries are provided for Difficulty of Subject Matter, Level of Subject Matter Instruction, Organization Providing Instruction, and Type of Instructional Program. Additional codes, not listed in this document, may also be applied for unique institutional or agency purposes.

The manner in which additional codes will be used to enhance the recording and reporting of subject matter data will be dependent upon the form and content of data documents, and upon data collection and processing techniques.
CHAPTER 2
CODED CLASSIFICATION OF EDUCATIONAL SUBJECT MATTER

This chapter contains the coded structure of the Classification of Educational Subject Matter. The structure is divided into 22 subject-matter areas and an additional area for handling multiple subject-matter elements. Combinations of subject matter should be identified as multiple subject matter and coded, recorded, and reported according to the directions given in appendix E.

### 01 AGRICULTURE AND RENEWABLE NATURAL RESOURCES

Agricultural Engineering is listed in the subject-matter area of Engineering and Engineering Technology, but Agricultural Technology is included here. Animal Sciences includes the general care of animals as factors of production. The medical treatment of animals is included in Veterinary Medical Sciences in the subject-matter area of Health Care and Health Sciences. Agricultural Economics is included in this area, but the broad subject matter of Economics is included under Social Sciences and Social Studies. The elements within Plant Sciences are differentiated from similar elements in the area of Life Sciences and Physical Sciences by their emphasis on food and fiber production. Many of the elements listed here are closely related to those of Biology, and care should be exercised in the identification of basic units of instruction.

#### 01.01 AGRICULTURAL ECONOMICS

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.01.01</td>
<td>Agricultural Appraisal</td>
</tr>
<tr>
<td>01.01.02</td>
<td>Agricultural Credit and Finance</td>
</tr>
<tr>
<td>01.01.03</td>
<td>Agricultural Marketing</td>
</tr>
<tr>
<td>01.01.04</td>
<td>Agricultural Organizations</td>
</tr>
<tr>
<td>01.01.05</td>
<td>Agricultural Supplies</td>
</tr>
<tr>
<td>01.01.06</td>
<td>Economic, Development and International Trade</td>
</tr>
<tr>
<td>01.01.07</td>
<td>Farm and Ranch Management</td>
</tr>
<tr>
<td>01.01.08</td>
<td>Public Policy and Agriculture</td>
</tr>
<tr>
<td>01.01.99</td>
<td>Other Agricultural Economics (Specify)</td>
</tr>
</tbody>
</table>

#### 01.02 AGRICULTURAL ENGINEERING (See 08—Engineering and Engineering Technology)

#### 01.03 AGRICULTURAL TECHNOLOGY

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.03.01</td>
<td>Agricultural Design, Construction, and Maintenance</td>
</tr>
</tbody>
</table>

#### 01.04 ANIMAL SCIENCES

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.04.01</td>
<td>Animal Anatomy and Physiology</td>
</tr>
<tr>
<td>01.04.02</td>
<td>Animal or Animal Products Selection and Evaluation</td>
</tr>
<tr>
<td>01.04.03</td>
<td>Animal Diseases, Parasites, and Insects</td>
</tr>
<tr>
<td>01.04.04</td>
<td>Animal Genetics and Reproduction</td>
</tr>
<tr>
<td>01.04.05</td>
<td>Animal Health and Care</td>
</tr>
<tr>
<td>01.04.06</td>
<td>Animal Management and Production</td>
</tr>
<tr>
<td>01.04.07</td>
<td>Animal Nutrition</td>
</tr>
<tr>
<td>01.04.99</td>
<td>Other Animal Sciences (Specify)</td>
</tr>
</tbody>
</table>

#### 01.05 ORNAMENTAL HORTICULTURE

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.05.01</td>
<td>Arboriculture</td>
</tr>
<tr>
<td>01.05.02</td>
<td>Floriculture</td>
</tr>
<tr>
<td>01.05.03</td>
<td>Greenhouse and Nursery</td>
</tr>
<tr>
<td>01.05.04</td>
<td>Landscaping</td>
</tr>
<tr>
<td>01.05.05</td>
<td>Turf Grass</td>
</tr>
<tr>
<td>01.05.99</td>
<td>Other Ornamental Horticulture (Specify)</td>
</tr>
</tbody>
</table>

#### 01.06 PLANT SCIENCES

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.06.01</td>
<td>Plant Anatomy and Physiology</td>
</tr>
<tr>
<td>01.06.02</td>
<td>Plant Genetics and Reproduction</td>
</tr>
<tr>
<td>01.06.03</td>
<td>Plant Insects and Control</td>
</tr>
<tr>
<td>01.06.04</td>
<td>Plant Management and Production</td>
</tr>
<tr>
<td>01.06.05</td>
<td>Production of Field Crops</td>
</tr>
<tr>
<td>01.06.06</td>
<td>Production of Fruits</td>
</tr>
<tr>
<td>01.06.07</td>
<td>Production of Specialty Crops</td>
</tr>
<tr>
<td>01.06.08</td>
<td>Production of Vegetables</td>
</tr>
<tr>
<td>01.06.09</td>
<td>Plant Nutrition</td>
</tr>
<tr>
<td>01.06.10</td>
<td>Plant Pathogens and Prevention</td>
</tr>
<tr>
<td>01.06.99</td>
<td>Other Plant Sciences (Specify)</td>
</tr>
</tbody>
</table>

#### 01.07 SOIL SCIENCES

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.07.01</td>
<td>Soil Chemistry</td>
</tr>
<tr>
<td>01.07.02</td>
<td>Soil Classification</td>
</tr>
</tbody>
</table>
02 ARCHITECTURE AND ENVIRONMENTAL DESIGN

Subject-matter elements in this area deal with the design of environments as well as the management of construction. Virtually all subject matter related to environmental planning has been included in this subject-matter area. Engineering theory and design involved in building and environmental systems are found in the area of Engineering and Engineering Technology. Elements relating to construction skills can be found in the subject-matter area of Industrial Arts, Trades, and Technology.

02.01 ENVIRONMENTAL DESIGN

02.01 01 Architectural Design
02.01 02 Landscape Architectural Design
02.01 02 01 Grading
02.01 02 02 Planning
02.01 03 Interior Design
02.01 04 Urban Design
02.01 05 Graphic Design
02.01 09 Other Environmental Design (Specify)

02.02 DESIGN AND PLANNING TECHNOLOGY

02.02 01 Design Programming
02.02 02 Budgeting and Cost Analysis
02.02 03 Site Analysis
02.02 04 Landscape Assessment
02.02 05 Codes and Controls
02.02 06 Design Specializations
02.02 06 01 Marine Architecture
02.02 06 02 Recreation and Sports Area Design
02.02 06 03 Temporary Structures
02.02 06 04 Preservation and Restoration
02.02 09 Other Design and Planning Technology (Specify)

02.03 CONSTRUCTION AND DESIGN IMPLEMENTATION

02.03 01 Construction Technology
02.03 02 Construction Management
02.03 09 Other Construction (Specify)

02.04 COMMUNICATION IN ARCHITECTURE AND ENVIRONMENTAL DESIGN

02.04 01 Graphic Communication
02.04 02 Architectural Drafting
02.04 03 Rendering
02.04 04 Model Building
02.04 05 Contract Documents
02.04 06 01 Construction Drawings
02.04 06 02 Specifications
02.04 09 Other Communication in Architecture and Environmental Design (Specify)

NOTE.—Combinations of subject matter in Architecture and Environmental Design should be identified as multiple subject matter and should be coded, recorded, and reported according to the directions given in appendix E.
STRUCTURAL TECHNOLOGY
0.02.05 01  Steel Structures
0.02.05 02  Concrete Structures
0.02.05 03  Wood Structures
0.02.05 04  Unit Masonry
0.02.05 05  Combined Structures
0.02.05 09  Other Structural Technology (Specify)

ENVIRONMENTAL TECHNOLOGY
0.02.06 01  Environmental and Energy Systems
0.02.06 02  Air Conditioning
0.02.06 03  Lighting (Interior and Exterior)
0.02.06 04  Plumbing
0.02.06 05  Irrigation
0.02.06 06  Alternative Energy Systems
0.02.06 07  Acoustics
0.02.06 08  Building Transportation Systems
0.02.06 09  Other Environmental Technology (Specify)

MATERIALS OF ARCHITECTURE AND ENVIRONMENTAL DESIGN
0.02.07 01  Construction Materials
0.02.07 02  Plant Materials
0.02.07 03  Interior Components
0.02.07 09  Other Materials of Architecture and Environmental Design (Specify)

GENERAL PERSPECTIVES OF ARCHITECTURE AND ENVIRONMENTAL DESIGN
0.02.08 01  History of Environments
0.02.08 02  Architectural History
0.02.08 03  Landscape Architectural History
0.02.08 04  Interior Architectural History
0.02.08 05  Planning History
0.02.08 06  Professional Practices in Architecture and Environmental Design
0.02.08 07  Post-Construction Management
0.02.08 09  Other General Perspectives of Architecture and Environmental Design (Specify)

PLANNING
0.02.09 01  Community Development Planning
0.02.09 02  Housing Planning
0.02.09 03  Land Use Planning
0.02.09 04  Natural Resource Planning
0.02.09 05  Open Space Planning
0.02.09 06  Recreation Resource Planning
0.02.09 07  Social Planning
0.02.09 08  Economic Planning
0.02.09 09  Transportation Planning

0.02.09 10  Urban, Regional and Other Planning
0.02.09 11  Water Resources Planning
0.02.09 12  Environmental Planning
0.02.09 13  Historic Preservation Planning
0.02.09 99  Other Planning (Specify)

0.02.99  OTHER ARCHITECTURE AND ENVIRONMENTAL DESIGN (SPECIFY)
### Playwriting
- Technical Theatre and Design
- Theatre Studies
- Theatre Theory and Criticism
- Theatre History
- Dramatic Literature
- Theatre in Education
- Other Theatre Arts (Specify)

### Technical Theatre and Design

### Theatre Studies
- Fine Arts
- Craft
- Foundations of Visual Arts Design
- Application of Visual Arts Design
- Visual Arts Studies
- Art History and Appreciation
- Art Theory and Criticism
- Visual Arts in Education
- Art Restoration, Preservation, Exhibition, and Cataloging
- Other Visual Arts (Specify)

### Related Arts
- Related Arts Studio and Production
- Multimedia Production
- Music Theatre
- Related Arts Studies
- Humanities
- Allied Arts
- Ethnic Arts
- Related Arts and Aesthetic Education
- Related Arts Management and Administration
- Other Related Arts (Specify)

### Arts Therapy
- Art Therapy
- Dance Therapy
- Drama Therapy
- Music Therapy
- Other Arts Therapy (Specify)

### Other Arts Therapy (Specify)

### Other Arts, Visual and Performing (Specify)

### Business

Subject matter that is a part of Distributive Education and Career Education Programs can be found in this area under Marketing. Also, selected subject matter in this classification is applicable to office occupations. Although the knowledge of Economics is an integral part of business, it is listed in the subject matter area of Social Sciences and Social Studies and not here. The knowledge of the skills involved in many occupational programs is found in this area even though differences may exist in the form and substance of the subject matter as it is presented to students. This is particularly true for elements listed under Administrative and Office Services such as Typewriting. The use of additional dimensions, such as type of program, can help to differentiate the subject matter where it is necessary to do so.

### Accounting
- Accounting Principles
- Accounting Systems
- Auditing
- Bookkeeping
- Controllership and Budgeting
- Cost Accounting
- Data Processing Accounting
- General Accounting
- Governmental and Institutional Accounting
- Machine Bookkeeping
- Managerial Accounting
- Payroll Accounting
- Payroll Recordkeeping
- Recordkeeping
- Tax Accounting
- Other Accounting (Specify)

### Administrative and Office Services
- Administrative Procedures
- Clerical Procedures
- Secretarial Procedures
- Office Machines
- Records Management
- Filing
- Micrographics
- Reprographics
- Shorthand and Transcription
- Specialized Secretarial Services
- Bilingual Secretarial
- Legal Secretarial
- Medical Secretarial
- Technical Secretarial
- Typewriting
- Word Processing
- Other Administrative and Office Services (Specify)

### Banking and Finance
- Business and Corporate Finance
- Consumer Finance
- Credit and Collections
- Financial Institutions
- International Banking and Finance
04.03 06 Investments and Securities
04.03 07 Monetary and Fiscal Policy
04.03 08 Money and Banking
04.03 09 Mortgage Brokerage
04.03 10 Negotiable Instruments
04.03 11 Principles and Theory of Finance
04.03 12 Public Finance
04.03 13 Savings and Loan
04.03 14 Supervision and Regulation of Banking and Finance
04.03 99 Other Banking and Finance (Specify)

04.04 BUSINESS DATA SYSTEMS

04.05 ENTREPRENEURSHIP
04.05 01 Minority Enterprises
04.05 02 Private Ownership
04.05 02 01 Corporation
04.05 02 02 Partnership
04.05 02 03 Proprietorship
04.05 03 Public Ownership
04.05 03 01 Nonprofit Public Corporation
04.05 03 02 Profitmaking Public Corporation
04.05 99 Other Entrepreneurship (Specify)

04.06 INFORMATION COMMUNICATIONS
04.06 01 Business Communication
04.06 02 Business Communication Systems
04.06 03 Information Communication Systems
04.06 03 01 United States Postal System
04.06 03 02 Private Delivery Systems
04.06 03 03 Telecommunications Systems
04.06 04 Business Report Writing
04.06 99 Other Information Communications (Specify)

04.07 INSURANCE AND RISK MANAGEMENT
04.07 01 Actuarial Science
04.07 02 Casualty Insurance
04.07 03 Estate Planning
04.07 04 Fiduciary Trusts and Annuities
04.07 05 Accident and Health Insurance
04.07 06 Liability Insurance
04.07 07 Life Insurance
04.07 08 Principles of Insurance
04.07 09 Property Insurance
04.07 10 Risk Management
04.07 11 Group Security and Social Insurance
04.07 12 Personal Insurance
04.07 13 Insurance Law
04.07 14 Insurance Enterprise
04.07 99 Other Insurance and Risk Management (Specify)

04.08 INTERNATIONAL BUSINESS

04.09 MANAGEMENT
04.09 01 Business Policy
04.09 02 Management Applications
04.09 02 01 Administrative Management
04.09 02 02 Industrial Management
04.09 02 03 Institutional Management
04.09 02 04 Middle Management
04.09 02 05 Production Management
04.09 02 06 Small Business Management
04.09 02 07 Transportation Management
04.09 03 Organizational Development and Behavior
04.09 04 Principles and Theory of Management
04.09 05 Principles and Theory of Organization
04.09 99 Other Management (Specify)

04.10 MARKETING
04.10 01 General Marketing
04.10 02 Marketing Economics
04.10 03 Marketing Functions
04.10 03 01 Buying
04.10 03 02 Financing
04.10 03 03 Marketing Research
04.10 03 04 Risk
04.10 03 05 Selling, Promotion, and Advertising
04.10 03 06 Standardsization and Grading
04.10 03 07 Storage
04.10 03 08 Transportation
04.10 04 Marketing Management
04.10 04 01 Place Management
04.10 04 02 Price Management
04.10 04 03 Product Management
04.10 04 04 Promotion Management
04.10 05 Marketing of Products
04.10 05 01 Agriculture Products
04.10 05 02 Consumer Products
04.10 05 03 Industrial Products
04.10 06 Marketing of Services
04.10 06 01 Business Services
04.10 06 02 Professional Services
04.10 06 03 Health Services
04.10 06 04 Insurance Services
04.10 06 05 Personal Services
04.10 06 06 Real Estate Services
04.10 07 Organization of Marketing
04.10 07 01 International Marketing
04.10 07 02 Manufacturing and Production
04.10 07 03 Marketing Integration
04.10 07 04 Retailing
04.10 07 05 Wholesaling
04.10 07 99 Other Marketing (Specify)

04.11 PERSONNEL MANAGEMENT AND ADMINISTRATION
04.11 01 Compensation
04.11 02 Evaluation Techniques
04.11 03 Human Relations
04.11 04 Labor-Management Relations
04.11 04 01 Collective Bargaining
04.11 04 02 Contract Administration
Recruitment, Selection, and Separation  04.11.05
Supervision  04.11.06
Training and Development  04.11.07
Welfare and Safety  04.11.08
Other Personnel Management and Administration (Specify)  04.11.99

Quantitative Methods  04.12
Business Research Methods  04.12.01
Management Science  04.12.02
Operations Research  04.12.03
Other Quantitative Methods (Specify)  04.12.99

Real Estate  04.13
Appraisal and Valuation  04.13.01
Land Use Controls  04.13.02
Principles of Real Estate  04.13.03
Property Management  04.13.04
Real Estate Economics  04.13.05
Real Estate Finance  04.13.06
Real Estate Investments  04.13.07
Real Estate Law  04.13.08
Real Estate Practice  04.13.09
Other Real Estate (Specify)  04.13.99

Other Business (Specify)  04.99

Communication  05
Film as Communication in this subject-matter area is considered as a means of transmitting messages. In contrast, Film as Art in the area of Arts, Visual and Performing, is considered as an artistic medium. Journalism and Speech Communication are both found in this subject-matter area and not in the area of Language, Linguistics, and Literature with which they are closely related and often reported.

Advertising  05.01
Advertising Evaluation  05.01.01
Advertising Media  05.01.02
Advertising Production  05.01.03
Copywriting  05.01.04
Other Advertising (Specify)  05.01.99

Communication Technology  05.02
Communication Networking  05.02.01
Print Publication Technology  05.02.02
Satellite Communication  05.02.03
Other Communication Technology (Specify)  05.02.99

Film as Communication  05.03
Film and Public Policy  05.03.01

NOTE: Combinations of subject matter in Communication should be identified as multiple subject matter and should be coded, recorded, and reported according to the directions given in appendix E.

Film in Education  05.03.02
Film Production  05.03.03
Acting in Film  05.03.03.01
Cinematography  05.03.03.02
Directing for Film  05.03.03.03
Editing for Film  05.03.03.04
Film Graphics  05.03.03.05
Film Sound  05.03.03.06
Production Management in Film  05.03.03.07
Writing for Film  05.03.03.08
History of Film as Communication  05.03.04
Theory and Criticism of Film as Communication  05.03.05
Other Film as Communication (Specify)  05.03.99

Innovative Communication  05.04
Nonprint Media  05.04.01
Technical Communication  05.04.02
Other Innovative Communication (Specify)  05.04.99

International Communication  05.05
International Negotiations  05.05.01
International Propaganda  05.05.02
Other International Communication (Specify)  05.05.99

Journalism  05.06
Editorial Processes  05.06.01
Critical and Persuasive Writing  05.06.02
Electronic Journalism  05.06.03
Evaluation Writing  05.06.04
Feature and Indepth Writing  05.06.05
Journalism History  05.06.06
Journalism Laboratory  05.06.07
News Reporting and Writing  05.06.08
Photographic Journalism  05.06.09
Other Journalism (Specify)  05.06.99

Print Media  05.07

Professional Practices in Communication  05.08

Public Relations  05.09

Radio  05.10
Radio and Public Policy  05.10.01
Radio Production  05.10.02
Radio Programming  05.10.03
Writing for Radio  05.10.04
Other Radio (Specify)  05.10.99

Speech Communication  05.11
Code Systems  05.11.01
Intercultural Communication  05.11.02
Interpersonal Communication  05.11.03
Conflict Management  05.11.99

Other Business (Specify)  05.19

Film and Public Policy  05.13.01
Organizational Communication
Oral Interpretation
Aesthetics of Literature in Performance
Criticism of Literature in Performance
Group Performance
Oral Tradition
Pragmatic Communication
Argumentation
Debate and Forensics
Discussion and Conference
Parliamentary Procedure
Persuasion
Public Address
Rhetorical and Communication Theory
Rhetorical Criticism
Communication Development
Oral Communication Skills
Instructional Communication
Speech and Hearing Science
Biological Aspects of Speech and Hearing
Phonological and Phonometric Aspects of Speech and Hearing
Physical Aspects of Speech and Hearing
Other Speech Communication (Specify)
Braille
Manual Communication
Speech Reading
Other Special Communication (Specify)
Community Television
Television and Public Policy
Writing for Television
Television Production
Television Programming
Other Television (Specify)
Central Processing Units
Communication Control Devices
Memory Hierarchies
Microprocessors
Peripheral Devices
Unit Record Equipment
Other Computer Hardware (Specify)
Data Base Specifications
Data Base Management Systems
Data Base Security
File Organization and Manipulation
Generalized Report Techniques
Information Retrieval and Search Techniques
Relational Data Bases
Other Information and Data Base Systems (Specify)
Computational Algorithms
Computational Error Analysis
Mathematical Software
Other Numerical Computations (Specify)
06.07 PROGRAMMING LANGUAGES
06.07.01 Command Languages
06.07.02 Decision Tables Languages
06.07.03 List Processing Languages
06.07.04 Problem or Special Purpose Languages
06.07.05 Procedure Oriented Languages
06.07.06 Simulation Languages
06.07.07 Symbolic and Algebraic Manipulation Languages
06.07.08 Instructional Programming and Author Languages
06.07.99 Other Programming Languages (Specify)

06.08 PROGRAMMING SYSTEMS
06.08.01 Assemblers
06.08.02 Compilers
06.08.03 Interpreters
06.08.04 Job Control Languages
06.08.05 Macrolanguages
06.08.06 Operating Systems
06.08.07 Performance Measurement and Evaluation Systems
06.08.08 Systems Security
06.08.09 Virtual Memory Systems
06.08.99 Other Programming Systems (Specify)

06.09 SOFTWARE METHODOLOGY
06.09.01 Coding and Testing
06.09.02 Documentation and Documentation Standards
06.09.03 Programing Techniques
06.09.04 Systems Analysis
06.09.05 Systems Design
06.09.06 Time, Cost, and Feasibility Studies
06.09.99 Other Software Methodology (Specify)

06.10 THEORY OF COMPUTATION
06.10.01 Analysis of Algorithms
06.10.02 Computability and Decidability
06.10.03 Formal Languages
06.10.04 Proof of Program Correctness
06.10.05 Theory of Code Optimization
06.10.06 Theory of Automata
06.10.99 Other Theory of Computation (Specify)

06.11 EDUCATIONAL, SOCIETAL, AND CULTURAL CONSIDERATIONS
06.11.01 Computer Literacy
06.11.02 History of Computer Science and Data Processing
06.11.03 Basic Concepts of Computer Science
06.11.04 Basic Concepts of Data Processing
06.11.99 Other Educational, Societal, and Cultural Considerations (Specify)

06.99 OTHER COMPUTER SCIENCE AND DATA PROCESSING (SPECIFY)
07.04 CURRICULUM AND INSTRUCTION – GENERAL
07.04 01 Principles and Theories of Curriculum and Instruction
07.04 02 Management and Supervision of Curriculum and Instruction
07.04 03 Teacher Training
07.04 04 Teacher Methods
07.04 99 Other Curriculum and Instruction – General (Specify)

07.05 CURRICULUM AND INSTRUCTION – SUBJECT MATTER (Using the Structure of the Classification of Educational Subject Matter)
07.05 01 Agriculture and Renewable Natural Resources
07.05 02 Architecture and Environmental Design
07.05 03 Arts, Visual Arts, and Performing
07.05 04 Business
07.05 05 Communication
07.05 06 Computer Science and Data Processing
07.05 07 Education
07.05 08 Engineering and Engineering Technology
07.05 09 Health Care and Health Sciences
07.05 10 Home Economics
07.05 11 Industrial Arts, Trades, and Technology
07.05 12 Language, Linguistics, and Literature
07.05 13 Law
07.05 14 Libraries and Museums
07.05 15 Life Sciences and Physical Sciences
07.05 16 Mathematical Sciences
07.05 17 Military Sciences
07.05 18 Philosophy, Religion, and Theology
07.05 19 Physical Education, Health Education, and Leisure
07.05 20 Psychology
07.05 21 Public Administration and Social Services
07.05 22 Social Sciences and Social Studies
07.05 99 Other Curriculum and Instruction – Subject Matter (Specify)

07.06 CURRICULUM AND INSTRUCTION – PROGRAMS
07.06 01 Agricultural Occupations
07.06 02 Career Education
07.06 03 Cooperative Education
07.06 04 Distributive Education
07.06 05 Health Occupations
07.06 06 Home Economics Occupations
07.06 07 Office Occupations
07.06 08 Technical Education
07.06 09 Trade and Industrial Occupations
07.06 10 Reading and Language Arts Programs
07.06 11 Bilingual Education Programs
07.06 12 Co-curricular Activities
07.06 13 Driver Education Programs
07.06 14 Industrial Arts Education Programs
07.06 99 Other Curriculum and Instruction – Programs (Specify)

07.07 COUNSELING AND GUIDANCE
07.07 01 Principles and Theories of Counseling and Guidance
07.07 02 Academic Counseling and Guidance
07.07 03 Career Information and Counseling
07.07 04 Clinical Experience
07.07 05 Counseling Services
07.07 06 Group Processes and Procedures
07.07 07 Organization and Administration of Counseling and Guidance
07.07 08 Professional Development
07.07 99 Other Counseling and Guidance (Specify)

07.08 SPECIAL EDUCATION
07.08 01 Early Education of the Handicapped
07.08 02 Emotionally Handicapped
07.08 03 Gifted and Talented
07.08 04 Hearing Handicapped
07.08 05 Learning Disabled
07.08 06 Mentally Handicapped
07.08 07 Multiple Handicapped
07.08 08 Physically Handicapped
07.08 09 Severely Handicapped
07.08 10 Socially Handicapped
07.08 11 Speech Handicapped
07.08 12 Visually Handicapped
07.08 99 Other Special Education (Specify)

07.09 COMMUNITY SERVICE
07.09 01 Communication and Dissemination
07.09 02 Community Relations
07.09 03 Community Facilities and Activities
07.09 99 Other Community Service (Specify)

07.10 EDUCATIONAL DEVELOPMENT
07.10 01 Experimentation and Innovation
07.10 02 Staff Development
07.10 99 Other Educational Development (Specify)

07.11 EDUCATIONAL EVALUATION AND RESEARCH
07.11 01 Design and Planning
07.11 02 Methodology
07.11 03 Principles and Theory of Evaluation and Research
07.11 99 Other Educational Evaluation and Research (Specify)

07.12 EDUCATIONAL TECHNOLOGY AND MEDIA
07.12 01 Computer Applications to Education
07.12 02 Instructional Systems Design
07.12 03 Educational Media and Material Production
07.12 04 Educational Media and Resource Centers
07.12 05 Television Applications to Education
07.12 99 Other Educational Technology and Media (Specify)
08 ENGINEERING AND ENGINEERING TECHNOLOGY

Identical subject matter elements can be used to identify the basic units of instruction in Engineering and in Engineering Technology. When recording or reporting data about the two, differentiations can be made by using the additional dimension of type of instructional program. The five elements listed and defined below may be applied uniformly throughout the Engineering and Engineering Technology structure to many second- and third-order elements to obtain a greater degree of detail if needed by local educational agencies or institutions.

41 - Research and Development: The study of the techniques of seeking and applying new knowledge to solve simple and complex engineering problems.

42 - Design and Systems: The study of the techniques of analyzing and synthesizing the various elements in simple and complex engineering problems to provide optimal solutions using various criteria.

43 - Operations: The study of the techniques of producing, constructing, and maintaining products, processes, structures, and energy systems.

44 - Engineering Management: The study of the techniques of determining, implementing, and evaluating goals, policies, and criteria involving technical and personnel problems.

45 - Sales and Applications: The study of the techniques of analyzing client requirements for engineering products, services, and systems, estimating costs and services, and making recommendations regarding acquisition, operation, and maintenance.

The additional two digits should be added in the seventh and eighth positions as shown below:

08.02 00 41 Agricultural Engineering and Technology, Research and Development

The five elements can also be reported individually as subject matter elements in Engineering and Engineering Technology as follows:

08.00 00 41 Research and Development
08.00 00 42 Design and Systems
08.00 00 43 Operations
08.00 00 44 Engineering Management
08.00 00 45 Sales and Applications

08.01 AEROSPACE AND AERONAUTICAL ENGINEERING AND TECHNOLOGY

08.01 01 Aerodynamics
08.01 02 Aeronautics
08.01 03 Astronautics
08.01 04 Air Frame Structures
08.01 05 Ground and Air Support

NOTE.—Combinations of subject matter in Engineering and Engineering Technology should be identified as multiple subject matter and should be coded, recorded, and reported according to the directions given in appendix E.
<table>
<thead>
<tr>
<th>Code</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>08.09</td>
<td>ELECTRICAL ENGINEERING AND TECHNOLOGY</td>
</tr>
<tr>
<td>08.09 01</td>
<td>Electromechanical Circuits</td>
</tr>
<tr>
<td>08.09 02</td>
<td>Electromechanical Controls</td>
</tr>
<tr>
<td>08.09 03</td>
<td>Electronics</td>
</tr>
<tr>
<td>08.09 04</td>
<td>Fields and Waves</td>
</tr>
<tr>
<td>08.09 05</td>
<td>Electronic Information Theory</td>
</tr>
<tr>
<td>08.09 06</td>
<td>Electrical Instrumentation</td>
</tr>
<tr>
<td>08.09 07</td>
<td>Power and Energy</td>
</tr>
<tr>
<td>08.09 99</td>
<td>Other Electrical Engineering and Technology (Specify)</td>
</tr>
<tr>
<td>08.10</td>
<td>GRAPHICS AND DRAFTING FOR ENGINEERING AND TECHNOLOGY</td>
</tr>
<tr>
<td>08.11</td>
<td>ENGINEERING MECHANICS</td>
</tr>
<tr>
<td>08.11 01</td>
<td>Continuum Mechanics</td>
</tr>
<tr>
<td>08.11 02</td>
<td>Fluid Mechanics</td>
</tr>
<tr>
<td>08.11 03</td>
<td>Solid Mechanics</td>
</tr>
<tr>
<td>08.11 04</td>
<td>Statics and Dynamics</td>
</tr>
<tr>
<td>08.11 99</td>
<td>Other Engineering Mechanics (Specify)</td>
</tr>
<tr>
<td>08.12</td>
<td>ENVIRONMENTAL ENGINEERING AND TECHNOLOGY</td>
</tr>
<tr>
<td>08.13</td>
<td>AIR POLLUTION CONTROL</td>
</tr>
<tr>
<td>08.13 01</td>
<td>Noise Pollution Control</td>
</tr>
<tr>
<td>08.13 02</td>
<td>Solid Waste Control</td>
</tr>
<tr>
<td>08.13 03</td>
<td>Water and Sewage Control</td>
</tr>
<tr>
<td>08.13 99</td>
<td>Other Environmental Engineering and Technology (Specify)</td>
</tr>
<tr>
<td>08.14</td>
<td>GEOLOGICAL ENGINEERING</td>
</tr>
<tr>
<td>08.15</td>
<td>INDUSTRIAL ENGINEERING AND TECHNOLOGY</td>
</tr>
<tr>
<td>08.15 01</td>
<td>Facilities Layout</td>
</tr>
<tr>
<td>08.15 02</td>
<td>Human Factors in Industry</td>
</tr>
<tr>
<td>08.15 03</td>
<td>Operations Research (See 04.12 03 — Operations Research)</td>
</tr>
<tr>
<td>08.15 04</td>
<td>Production Planning and Control</td>
</tr>
<tr>
<td>08.15 05</td>
<td>Quality Assurance</td>
</tr>
<tr>
<td>08.15 06</td>
<td>Work Measurement</td>
</tr>
<tr>
<td>08.15 99</td>
<td>Other Industrial Engineering and Technology (Specify)</td>
</tr>
<tr>
<td>08.16</td>
<td>INSTRUMENTATION ENGINEERING AND TECHNOLOGY</td>
</tr>
<tr>
<td>08.17</td>
<td>MANUFACTURING ENGINEERING AND TECHNOLOGY</td>
</tr>
<tr>
<td>08.17 01</td>
<td>Manufacturing Processes</td>
</tr>
<tr>
<td>08.17 02</td>
<td>Materials Handling</td>
</tr>
<tr>
<td>08.17 03</td>
<td>Packaging Engineering</td>
</tr>
<tr>
<td>08.17 04</td>
<td>Production Engineering</td>
</tr>
<tr>
<td>08.18</td>
<td>MARINE ENGINEERING AND NAVAL ARCHITECTURE</td>
</tr>
<tr>
<td>08.18 01</td>
<td>Marine Equipment</td>
</tr>
<tr>
<td>08.18 02</td>
<td>Navigation</td>
</tr>
<tr>
<td>08.18 03</td>
<td>Marine Propulsion</td>
</tr>
<tr>
<td>08.18 04</td>
<td>Ship Structures</td>
</tr>
<tr>
<td>08.18 05</td>
<td>Underwater Techniques</td>
</tr>
<tr>
<td>08.18 99</td>
<td>Other Marine Engineering and Naval Architecture (Specify)</td>
</tr>
<tr>
<td>08.19</td>
<td>MATERIALS ENGINEERING AND TECHNOLOGY</td>
</tr>
<tr>
<td>08.20</td>
<td>MECHANICAL ENGINEERING AND TECHNOLOGY</td>
</tr>
<tr>
<td>08.21</td>
<td>METALLURGICAL ENGINEERING AND TECHNOLOGY</td>
</tr>
<tr>
<td>08.22</td>
<td>MINING ENGINEERING AND TECHNOLOGY</td>
</tr>
<tr>
<td>08.23</td>
<td>NUCLEAR ENGINEERING AND TECHNOLOGY</td>
</tr>
</tbody>
</table>
08.23 03 Radiation Control
08.23 04 Radiation Damage
08.23 05 Reactor Engineering
08.23 06 Reactor Operation
08.23 89 Other Nuclear Engineering and Technology (Specify)

08.24 OCEAN ENGINEERING

08.25 PETROLEUM ENGINEERING
08.25 01 Petroleum Exploration
08.25 02 Petroleum Refining
08.25 99 Other Petroleum Engineering (Specify)

08.26 SURVEYING AND MAPPING
08.26 01 Land Surveying and Subdivision
08.26 02 Engineering and Construction Surveying
08.26 03 Geodesy and Geodetic Surveying
08.26 04 Photogrammetry and Topographic Surveying
08.26 05 Remote Sensing and Environmental Surveying
08.26 06 Cartography
08.26 99 Other Surveying and Mapping (Specify)

08.99 OTHER ENGINEERING AND ENGINEERING TECHNOLOGY (Specify)

09 HEALTH CARE AND HEALTH SCIENCES

Under Basic Health Care Sciences are those elements of knowledge which come from the Biological Sciences, but whose emphasis is directed toward the care and treatment of humans and animals. General knowledge, not specific to the restoration or preservation of health, is included in the subject-matter area of Life Sciences and Physical Sciences. Where appropriate, cross-references are shown in this structure.

Clinical Health Sciences lists those elements of knowledge that are related to diseases, injuries, or deformities. The list is divided into five subjectively established categories: 1) knowledge related to body organs or localized parts of the body, 2) knowledge of disorders or general conditions of the body, 3) knowledge that is specific to an age group or type of patient, 4) knowledge of health care approaches that are not unique to areas of the body or type of patient, but focus instead on the treatment itself, and 5) knowledge of special purposes health care and health sciences. The list is a division of future elements within categories.

Many of the elements in this subject-matter area can apply either to humans or animals. Additional dimensions as to type of program can be added that will differentiate between animal and human medicine.

NOTE: Combinations of subject matter in Health Care and Health Sciences should be identified as multiple subject matter and should be coded, recorded, and reported according to the directions given in appendix E.
09.07 PUBLIC HEALTH
09.07 01 Biometry
09.07 02 Community Medicine
09.07 03 Environmental Health Administration
09.07 04 Human Ecology
09.07 05 Industrial Health Administration
09.07 06 Maternal and Child Health Administration
09.07 07 Mental Health Administration
09.07 08 Occupational Medicine
09.07 09 Physiological Hygiene
09.07 10 Public Health Administration
09.07 99 Other Public Health (Specify)

09.08 VETERINARY MEDICAL SCIENCES
09.08 01 Veterinary Animal Medicine
09.08 02 Aquatic Animal Medicine
09.08 03 Avian Animal Medicine
09.08 04 Bovine Animal Medicine
09.08 05 Caprine Animal Medicine
09.08 06 Equine Animal Medicine
09.08 07 Feline Animal Medicine
09.08 08 Food Animal Medicine
09.08 09 Laboratory Animal Medicine
09.08 10 Orphan Animal Medicine
09.08 11 Zoo, Wildlife, and Exotic Animal Medicine
09.08 02 Veterinary Pathology
09.08 03 Veterinary Public Health
09.08 04 Veterinary Theriogenology
09.08 99 Other Veterinary Medical Sciences (Specify)

09.09 GENERAL PERSPECTIVES OF HEALTH CARE AND HEALTH SCIENCES
09.09 01 Health Planning
09.09 02 History of Health Care and Health Sciences
09.09 03 Professional Practices in Health Care and Health Sciences
09.09 03 01 Dental Professional Practices
09.09 03 02 Medical Professional Practices
09.09 03 03 Veterinary Professional Practices
09.09 04 Ethics and Jurisprudence in Health Care and Health Sciences
09.09 05 Clinical Practices in Health Care and Health Sciences
09.09 05 01 Dental Clinical Techniques
09.09 05 02 Medical Clinical Techniques
09.09 05 03 Veterinary Clinical Techniques
09.09 99 Other General Perspectives in Health Care and Health Sciences (Specify)

09.98 OTHER HEALTH CARE AND HEALTH SCIENCES (SPECIFY)

10.01 CLOTHING AND TEXTILES
10.01 01 Clothing and Textile Maintenance
10.01 02 Clothing and Textile Merchandising
10.01 03 Clothing and Textile Selection
10.01 04 Clothing and Construction and Alterations
10.01 05 Clothing Design
10.01 06 Clothing Economics
10.01 07 Fashion Design
10.01 08 History of Clothing and Textiles
10.01 09 Sociopsychological Aspects of Clothing and Textiles
10.01 10 Textile Design
10.01 11 Textile Production
10.01 11 01 Textile Fibers
10.01 11 02 Textile Finishes
10.01 99 Other Clothing and Textiles (Specify)

10.02 CONSUMER EDUCATION
10.02 01 Consumer Choice
10.02 02 Consumer Economics
10.02 03 Consumer Problems
10.02 04 Consumer Resources
10.02 05 Consumer Rights and Responsibilities
10.02 06 Personal and Family Finance
10.02 07 Consumer Information
10.02 09 Other Consumer Education (Specify)

10.03 FOOD AND NUTRITION
10.03 01 Community Nutrition
10.03 02 Dietetics
10.03 02 01 Clinical Dietetics
10.03 02 02 Therapeutic Dietetics
10.03 03 Experimental Foods
10.03 04 Food Habits and Patterns
10.03 05 Food Production Technology
10.03 06 Food Regulations
10.03 07 Food Related Equipment
10.03 08 Food Selection
10.03 09 Food Service
10.03 10 Food Storage and Preservation
10.03 11 History of Food and Nutrition
10.03 12 Nutrition Education
10.03 13 Nutrition
10.03 14 Preparation of Food
10.03 99 Other Food and Nutrition (Specify)

10.04 HOME MANAGEMENT
10.04 01 Decisionmaking
10.04 02 Resource Management

NOTE: Combinations of subject matter in Home Economics should be identified as multiple subject matter and should be coded, recorded, and reported according to the directions given in appendix E.
10.04  Management of Work  
10.04  Work Simplification  
10.04  Special Needs  
10.04  Other Home Management (Specify)

10.05  HOUSING  
10.05  Home Furnishings  
10.05  Home Maintenance and Repair  
10.05  Home Planning and Interior Design  
10.05  Household Equipment  
10.05  Other Housing (Specify)

10.06  HUMAN DEVELOPMENT AND FAMILY STUDIES  
10.06  Child Development  
10.06  Care and Guidance of Children  
10.06  Parent Education  
10.06  Special Needs of Children  
10.06  Family Development  
10.06  Community Influences and Natural Resources  
10.06  Family Crises  
10.06  Gerontology  
10.06  Personal Development  
10.06  Other Human Development and Family Studies (Specify)

10.07  INSTITUTIONAL HOUSEKEEPING AND FOOD SERVICE MANAGEMENT  
10.07  Housekeeping Management  
10.07  Food Service Management  
10.07  Other Institutional Housekeeping and Food Service Management (Specify)

10.99  OTHER-HOME ECONOMICS (SPECIFY)

11  INDUSTRIAL ARTS, TRADES, AND TECHNOLOGY  

The elements in this subject-matter area can be used to record or report data in two distinct ways. One would be to consider knowledge or understanding about the elements that are listed. The second would be to consider the knowledge and skills that are related to the techniques and methods that the elements represent. For example, the subject-matter element of Carpentry may be used to code a basic unit of instruction that is designed to teach people about the trade. In another unit of instruction, Carpentry may involve teaching a student how to become a carpenter. Much of the subject matter of Industrial Arts falls under the first approach. Knowledge of the Trades and Technology falls under the second. The additional dimension of type of instructional program can further serve to differentiate the two.

NOTE: Combinations of subject matter in Industrial Arts, Trades, and Technology should be identified as multiple subject matter and should be coded, recorded, and reported according to the directions given in appendix E.

Although there are many Personal service trades, those that are included in this subject-matter area are those which are commonly taught in educational agencies and institutions.

11.01  CONSTRUCTION  
11.01  Carpentry  
11.01  Concrete  
11.01  Drywall Installation  
11.01  Electrical  
11.01  Environmental Systems  
11.01  Estimating  
11.01  Glazing  
11.01  Heavy Equipment  
11.01  Ironworking  
11.01  Landscaping  
11.01  Masonry  
11.01  Millwork  
11.01  Painting and Decorating  
11.01  Plastering and Lathing  
11.01  Plumbing  
11.01  Roofing  
11.01  Sheetmetal  
11.01  Site Surveying  
11.01  Welding  
11.01  Other Construction (Specify)

11.02  MANUFACTURING (PRODUCT GENERATION)  
11.02  Ceramics  
11.02  Foundry  
11.02  Glass Products  
11.02  Health Devices  
11.02  Leather and Hide Processing  
11.02  Metalworking  
11.02  Needle Trades  
11.02  Paper and Fabrication  
11.02  Plastics  
11.02  Product Development  
11.02  Production Systems  
11.02  Textile Production  
11.02  Tool and Die  
11.02  Wood Products  
11.02  Other Manufacturing (Specify)

11.03  POWER SYSTEMS  
11.03  Atomic Power  
11.03  Chemical Power  
11.03  Electrical Power  
11.03  Mechanical Power  
11.03  Radiant Power  
11.03  Thermic Power  
11.03  Power Mechanics  
11.03  Power and Energy Sources  
11.03  Other Power Systems (Specify)

11.04  PRODUCT SERVICE (MAINTENANCE)  
11.04  Aircraft Maintenance  
11.04  Aircraft Power Plant
11.04 02 Appliance Repair
11.04 03 Building Maintenance
11.04 04 Business Machine Maintenance and Repair
11.04 05 Custodial Services
11.04 06 Fabric Maintenance and Repair
11.04 07 Heating and Cooling Maintenance and Repair
11.04 08 Instrument Maintenance and Repair
11.04 09 Marine Repair
11.04 10 Millwrighting
11.04 11 Radio-Television Maintenance and Repair
11.04 12 Small Engine Repair
11.04 13 Vehicle Maintenance and Repair
11.04 13 01 Chassis Repair
11.04 13 02 Power and Drive Repair
11.04 13 03 Vehicle Specialties Repair
11.04 99 Other Product Service (Specify)

11.05 GRAPHIC ARTS
11.05 01 Bindery
11.05 02 Copy Preparation
11.05 02 01 Cold Type
11.05 02 02 Hot Type
11.05 03 Drawing
11.05 04 Photography
11.05 05 Printing
11.05 05 01 Gravure (intaglio)
11.05 05 02 Letterpress
11.05 05 03 Offset Lithography
11.05 05 04 Stencil
11.05 05 05 Xerography
11.05 99 Other Graphic Arts (Specify)

11.06 TRANSPORTATION
11.06 01 Flight Operations
11.06 02 Ground Operations
11.06 03 Heavy Equipment Operations
11.06 04 Maritime Service
11.06 05 Recreational Vehicle Operations
11.06 99 Other Transportation (Specify)

11.07 PERSONAL SERVICE
11.07 01 Barbering
11.07 02 Cosmetology
11.07 03 Electrolysis
11.07 04 Esthetic Skin Care
11.07 05 Massage
11.07 06 Mortuary Science
11.07 99 Other Personal Service (Specify)

11.99 OTHER INDUSTRIAL ARTS, TRADERS, AND TECHNOLOGY (SPECIFY)

12 LANGUAGE, LINGUISTICS, AND LITERATURE

This subject-matter area features an interlay structure which permits the recording and reporting of detailed data about several specific languages while using a condensed structure. In 12.03, The Study and Uses of the English Language, the interlay has been applied to all recognized subject-matter categories in English. The interlay can also be used with any of the languages that are listed from 12.04 through 12.27. The second two digits of the language element code should be inserted in the appropriate blank space for the study and use code as shown below:

12.01 LINGUISTICS (DIACHRONIC AND SYNCHRONIC)
12.01 01 Applied Linguistics
12.01 01 01 Bilingualism
12.01 01 02 Computational Linguistics
12.01 01 03 Contrastive Linguistics
12.01 01 04 Language Error Analysis
12.01 01 05 Lexicography

12.01 02 History of Linguistics
12.01 03 Language Analysis
12.01 03 01 Lexicology
12.01 03 02 Morphology
12.01 03 03 Phonetics
12.01 03 04 Phonology
12.01 03 05 Semantics
12.01 03 06 Syntax (Grammar)

12.01 04 Language Universals
12.01 05 Linguistic Theories
12.01 05 01 Generative and Transformational Theories
12.01 05 02 Structural and Descriptive Theories
12.01 05 03 Traditional Grammatical Theories (Latinate)
12.01 06 Psycholinguistics
12.01 07 Sociolinguistics
12.01 07 01 Diachology
12.01 07 02 Language Planning
12.01 07 03 Language Variation
12.01 99 Other Linguistics (Specify)

12.02 LITERARY STUDIES
12.02 01 Comparative Literature
12.02 02 Literary Aesthetics and Appreciation
12.02 03 Literary Bibliography
12.02 04 Literary Criticism

NOTE: Combinations of subject-matter in Language, Linguistics, and Literature should be identified as multiple subject matters and should be coded, recorded, and reported according to the directions given in appendix E.
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.02 05</td>
<td>Literary Theories</td>
</tr>
<tr>
<td>12.02 99</td>
<td>Other Literary Studies (Specify)</td>
</tr>
<tr>
<td>12.03</td>
<td>THE STUDY AND USES OF THE ENGLISH LANGUAGE</td>
</tr>
<tr>
<td>12.03 01</td>
<td>Dialects of the English Language</td>
</tr>
<tr>
<td>12.03 02</td>
<td>History of the English Language</td>
</tr>
<tr>
<td>12.03 03</td>
<td>English Language and Civilization</td>
</tr>
<tr>
<td>12.03 04</td>
<td>English Language and Contemporary Culture</td>
</tr>
<tr>
<td>12.03 05</td>
<td>English Language Structure and Grammar</td>
</tr>
<tr>
<td>12.03 06</td>
<td>Listening Comprehension in English</td>
</tr>
<tr>
<td>12.03 07</td>
<td>English Language Literature</td>
</tr>
<tr>
<td>12.03 07 01</td>
<td>Literature in English by Author</td>
</tr>
<tr>
<td>12.03 07 02</td>
<td>Literature in English by Genre</td>
</tr>
<tr>
<td>12.03 07 03</td>
<td>Literature in English by Period</td>
</tr>
<tr>
<td>12.03 07 04</td>
<td>Literature in English by Place</td>
</tr>
<tr>
<td>12.03 07 05</td>
<td>Literature in English by Theme</td>
</tr>
<tr>
<td>12.03 07 06</td>
<td>Literature in English by Other Categories</td>
</tr>
<tr>
<td>12.03 08</td>
<td>Reading in the English Language</td>
</tr>
<tr>
<td>12.03 08 01</td>
<td>Beginning Reading in English</td>
</tr>
<tr>
<td>12.03 08 02</td>
<td>Developmental Reading in English</td>
</tr>
<tr>
<td>12.03 08 03</td>
<td>Reading Readiness in English</td>
</tr>
<tr>
<td>12.03 08 04</td>
<td>Remedial Reading in English</td>
</tr>
<tr>
<td>12.03 09</td>
<td>Speaking the English Language</td>
</tr>
<tr>
<td>12.03 10</td>
<td>Writing the English Language</td>
</tr>
<tr>
<td>12.03 10 01</td>
<td>English Language Composition</td>
</tr>
<tr>
<td>12.03 10 02</td>
<td>English Language Creative Writing</td>
</tr>
<tr>
<td>12.03 10 03</td>
<td>English Language Rhetoric and Style</td>
</tr>
<tr>
<td>12.03 10 04</td>
<td>English Language Technical Writing</td>
</tr>
<tr>
<td>12.03 10 05</td>
<td>English Language Writing Conventions and Usage</td>
</tr>
<tr>
<td>12.03 99</td>
<td>Other Study and Uses of the English Language (Specify)</td>
</tr>
<tr>
<td>12.04</td>
<td>AFRICANLANGUAGES</td>
</tr>
<tr>
<td>12.05</td>
<td>ARABIC</td>
</tr>
<tr>
<td>12.05 41</td>
<td>Classical Arabic</td>
</tr>
<tr>
<td>12.05 42</td>
<td>Modern Standard Arabic</td>
</tr>
<tr>
<td>12.06</td>
<td>ARTIFICIAL LANGUAGES</td>
</tr>
<tr>
<td>12.07</td>
<td>CHINESE</td>
</tr>
<tr>
<td>12.08</td>
<td>DANISH</td>
</tr>
<tr>
<td>12.09</td>
<td>FINNISH</td>
</tr>
<tr>
<td>12.10</td>
<td>FRENCH</td>
</tr>
<tr>
<td>12.11</td>
<td>GERMAN</td>
</tr>
<tr>
<td>12.12</td>
<td>GREEK</td>
</tr>
<tr>
<td>12.12 41</td>
<td>Classical Greek</td>
</tr>
<tr>
<td>12.12 42</td>
<td>Modern Greek</td>
</tr>
<tr>
<td>12.12 43</td>
<td>New Testament Greek</td>
</tr>
<tr>
<td>12.13</td>
<td>HEBREW</td>
</tr>
<tr>
<td>12.13 41</td>
<td>Classical Hebrew</td>
</tr>
<tr>
<td>12.13 42</td>
<td>Modern Hebrew</td>
</tr>
<tr>
<td>12.14</td>
<td>ITALIAN</td>
</tr>
<tr>
<td>12.15</td>
<td>JAPANESE</td>
</tr>
<tr>
<td>12.16</td>
<td>LATIN</td>
</tr>
<tr>
<td>12.16 41</td>
<td>Classical Latin</td>
</tr>
<tr>
<td>12.16 42</td>
<td>Medieval Latin</td>
</tr>
<tr>
<td>12.17</td>
<td>NATIVE AMERICAN</td>
</tr>
<tr>
<td>12.18</td>
<td>NORWEGIAN</td>
</tr>
<tr>
<td>12.19</td>
<td>PORTUGUESE</td>
</tr>
<tr>
<td>12.20</td>
<td>RUSSIAN</td>
</tr>
<tr>
<td>12.21</td>
<td>SANSKRIT</td>
</tr>
<tr>
<td>12.22</td>
<td>SLAVIC LANGUAGES</td>
</tr>
<tr>
<td>12.23</td>
<td>SOUTH ASIAN LANGUAGES</td>
</tr>
<tr>
<td>12.24</td>
<td>SOUTHEAST ASIAN LANGUAGES</td>
</tr>
<tr>
<td>12.25</td>
<td>SPANISH</td>
</tr>
<tr>
<td>12.26</td>
<td>SWEDISH</td>
</tr>
<tr>
<td>12.27</td>
<td>YIDDISH</td>
</tr>
<tr>
<td>12.28</td>
<td>THE STUDY AND USES OF LANGUAGE* (INTERLAY)</td>
</tr>
<tr>
<td>12._01</td>
<td>Dialects of a Language (Synchronous and Diachronic)</td>
</tr>
<tr>
<td>12._02</td>
<td>History of a Language</td>
</tr>
<tr>
<td>12._03</td>
<td>A Language and a Civilization</td>
</tr>
<tr>
<td>12._04</td>
<td>Language and a Contemporary Culture</td>
</tr>
<tr>
<td>12._05</td>
<td>Language Structure and Grammar</td>
</tr>
<tr>
<td>12._06</td>
<td>Listening Comprehension in a Language</td>
</tr>
<tr>
<td>12._07</td>
<td>Literature of a Language</td>
</tr>
<tr>
<td>12._07 01</td>
<td>Literature by Author</td>
</tr>
<tr>
<td>12._07 02</td>
<td>Literature by Genre</td>
</tr>
<tr>
<td>12._07 03</td>
<td>Literature by Period</td>
</tr>
<tr>
<td>12._07 04</td>
<td>Literature by Place</td>
</tr>
<tr>
<td>12._07 05</td>
<td>Literature by Theme</td>
</tr>
<tr>
<td>12._07 06</td>
<td>Literature by Other Categories</td>
</tr>
<tr>
<td>12._08</td>
<td>Reading a Language</td>
</tr>
<tr>
<td>12._08 01</td>
<td>Beginning Reading</td>
</tr>
<tr>
<td>12._08 02</td>
<td>Developmental Reading</td>
</tr>
</tbody>
</table>

*The blank is used to code the appropriate language.
<table>
<thead>
<tr>
<th>Subject</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.08.03</td>
<td>Reading Readiness</td>
</tr>
<tr>
<td>12.08.04</td>
<td>Remedial Reading</td>
</tr>
<tr>
<td>12.08.09</td>
<td>Speaking a Language</td>
</tr>
<tr>
<td>12.10.01</td>
<td>Writing a Language</td>
</tr>
<tr>
<td>12.10.02</td>
<td>Composition</td>
</tr>
<tr>
<td>12.10.03</td>
<td>Creative Writing</td>
</tr>
<tr>
<td>12.10.04</td>
<td>Rhetoric and Style</td>
</tr>
<tr>
<td>12.10.05</td>
<td>Technical Writing</td>
</tr>
<tr>
<td>12.99.00</td>
<td>Other Study and Uses of Language (Specify)</td>
</tr>
</tbody>
</table>

### Reading Readiness

<table>
<thead>
<tr>
<th>Sub-Subject</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.08.03</td>
<td>Reading Readiness</td>
</tr>
<tr>
<td>12.08.04</td>
<td>Remedial Reading</td>
</tr>
</tbody>
</table>

### Writing a Language

<table>
<thead>
<tr>
<th>Sub-Subject</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.10.01</td>
<td>Writing a Language</td>
</tr>
<tr>
<td>12.10.02</td>
<td>Composition</td>
</tr>
<tr>
<td>12.10.03</td>
<td>Creative Writing</td>
</tr>
<tr>
<td>12.10.04</td>
<td>Rhetoric and Style</td>
</tr>
<tr>
<td>12.10.05</td>
<td>Technical Writing</td>
</tr>
</tbody>
</table>

### Language, Linguistics, and Literature (Specify)

<table>
<thead>
<tr>
<th>Subject</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.01</td>
<td>Civil and Administrative Procedure</td>
</tr>
<tr>
<td>13.02</td>
<td>Commercial Law</td>
</tr>
<tr>
<td>13.03</td>
<td>Constitutional Law</td>
</tr>
<tr>
<td>13.04</td>
<td>Criminal Law</td>
</tr>
<tr>
<td>13.05</td>
<td>Governmental Regulation of Business</td>
</tr>
<tr>
<td>13.06</td>
<td>International Law</td>
</tr>
<tr>
<td>13.07</td>
<td>Law of Business and Other Organizations</td>
</tr>
<tr>
<td>13.08</td>
<td>Perspectives on Law</td>
</tr>
<tr>
<td>13.09</td>
<td>Property Law</td>
</tr>
<tr>
<td>13.10</td>
<td>Regulation of Employment Relations</td>
</tr>
<tr>
<td>13.11</td>
<td>Regulation of the Environment</td>
</tr>
</tbody>
</table>

**NOTE:** Combinations of subject matter in Law should be identified as multiple subject matter and should be coded, recorded, and reported according to the directions given in Appendix E.
13.12 TXRATAXATION LAWS
13.12 01 Federal Estate and Gift Tax Law
13.12 02 Federal Income Tax Law
13.12 03 State and Local Taxation Laws
13.12 09 Other Taxation Law (Specify)

13.13 TORTS
13.13 01 Intentional Torts
13.13 02 Negligence
13.13 03 Strict Liability
13.13 04 Products Liability
13.13 05 Unfair Trade
13.13 06 Reputational Tort
13.13 99 Other Torts (Specify)

13.14 LEGAL PROFESSION
13.14 01 Professional Responsibility
13.14 02 Legal Ethics
13.14 03 Structure of the Legal Profession
13.14 99 Other Legal Profession (Specify)

13.15 LEGAL SKILLS
13.15 01 Case and Statutory Analysis
13.15 02 Legal Bibliography
13.15 03 Interviewing and Counseling
13.15 04 Drafting of Legal Instruments
13.15 05 Negotiation and Mediation
13.15 06 Advocacy
13.15 99 Other Legal Skills (Specify)

13.16 DOMESTIC RELATIONS LAW

13.17 ADMIRALTY LAW

13.18 LAW OF STATE AND LOCAL GOVERNMENTS

13.19 PUBLIC WELFARE LAW

13.99 OTHER LAW (SPECIFY)

14 LIBRARIES AND MUSEUMS

The elements in this subject-matter area represent the substance of knowledge that has been determined to be applicable to Libraries and Museums.

14.01 LIBRARY SCIENCE
14.01 01 History of Libraries
14.01 02 History of Printing and Books
14.01 99 Other Library Science (Specify)

14.02 MUSEOLOGY

14.03 ADMINISTRATION OF LIBRARIES AND MUSEUMS
14.03 01 Academic Library Administration
14.03 02 Art Gallery Administration
14.03 03 Library Administration
14.03 04 Multilibrary Systems Administration
14.03 05 Museum Administration
14.03 06 Public Library Administration
14.03 07 School Library and Media Center Administration
14.03 08 Special Library Administration
14.03 99 Other Administration of Libraries and Museums (Specify)

14.04 COLLECTION MANAGEMENT
14.04 01 Cataloging of Collections
14.04 02 Classification of Collections
14.04 03 Maintenance of Collections
14.04 04 Preservation of Collections
14.04 05 Registration and Documentation of Collections
14.04 06 Restoration of Collections
14.04 07 Security of Collections
14.04 08 Selection and Acquisition of Collections
14.04 09 Storage of Collections
14.04 10 Automated Collection Management Systems
14.04 99 Other Collection Management (Specify)

14.05 EQUIPMENT FOR LIBRARIES AND MUSEUMS
14.05 01 Audio Equipment
14.05 02 Video and Visual Equipment
14.05 99 Other Equipment for Libraries and Museums (Specify)

14.06 FACILITIES FOR LIBRARIES AND MUSEUMS
14.06 01 Environmental Requirements
14.06 02 Space Requirements
14.06 99 Other Facilities for Libraries and Museums (Specify)

14.07 MATERIALS FOR LIBRARIES AND MUSEUMS
14.07 01 Archives
14.07 02 Artifacts and Specimens
14.07 03 Bibliographies

NOTE.—Combinations of subject matter in Libraries and Museums should be identified as multiple subject matter and should be coded, recorded, and reported according to the directions given in appendix E.
### 14.07 Books
- 14.07 04
- 14.07 05
- 14.07 06
- 14.07 07
- 14.07 08
- 14.07 09
- 14.07 99

### 14.08 Library and Museum Services and Functions
- 14.08 01
- 14.08 02
- 14.08 03
- 14.08 04
- 14.08 05
- 14.08 99

### 14.09 Library and Museum User Groups
- 14.09 01
- 14.09 02
- 14.09 03
- 14.09 04
- 14.09 05
- 14.09 06
- 14.09 07
- 14.09 08
- 14.09 09
- 14.09 10
- 14.09 11
- 14.09 12
- 14.09 99

### 14.99 Other Libraries and Museums (Specify)

### 15 Life Sciences and Physical Sciences

The arrangement of elements within the subject-matter category of Biology includes those which could be aggregated into Botany and Zoology as well. To have broken them out would have required another level of coding and two additional digits.

Many of the elements within Biology have been cross-referenced to identical titles in Health Care and Health Sciences. The related elements differ in that the subject matter of Health Care and Health Sciences emphasizes the restoration and preservation of health. Subject matter in Life Sciences and Physical Sciences is not as specific and can be related to a broad range of units of instruction.

NOTE:—Combinations of subject matter in Life Sciences and Physical Sciences should be identified as multiple subject matter and should be coded, recorded, and reported according to the directions given in appendix E.
### GEOLOGY
- 15.05 01 Geomorphology
- 15.05 02 Hydrology (See 08.07 03 - Hydrology)
- 15.05 03 Mineralogy
- 15.05 04 Paleontology
- 15.05 05 Petroleum
- 15.05 06 Seismology
- 15.05 99 Other Geology (Specify)

### OCEANOLOGY
- 15.06

### PHYSICS
- 15.07 01 Acoustics
- 15.07 02 Astrophysics
- 15.07 03 Biophysics (See 08.05 05 - Biophysics)
- 15.07 04 Electricity
- 15.07 05 Geophysics
- 15.07 06 Optics
- 15.07 07 Particle Physics
- 15.07 08 Quantum Physics
- 15.07 09 Solid State Physics
- 15.07 10 Physical Thermodynamics
- 15.07 99 Other Physics (Specify)

### GENERAL PHYSICAL SCIENCES
- 15.08 01 Cryogenics
- 15.08 02 Metallurgy
- 15.08 03 Mechanics
- 15.08 04 Nuclear Science
- 15.08 99 Other General Physical Sciences (Specify)

### GENERAL EARTH-SPACE SCIENCE
- 15.09

### OTHER LIFE SCIENCES AND PHYSICAL SCIENCES (SPECIFY)
- 15.99

### OTHER LIFE SCIENCES AND PHYSICAL SCIENCES (SPECIFY)
- 15.99

### MATHEMATICAL SCIENCES
Every attempt was made to include in this subject-matter area all subject-matter elements that have their genesis in mathematics. Accordingly, the elements within Probability and Statistics, in particular, will be combined with several other elements in other subject-matter areas. Because the nature of the unit of instruction will remain concerned with the knowledge of the Mathematical Sciences, however, the recording and reporting of data will be characterized by codes from this subject-matter area.

### MATHEMATICS, GENERAL PERSPECTIVES
- 16.01 01 Philosophy of Mathematics
- 16.01 02 History of Mathematics

### Content of Mathematics
- 16.01 03 Other Mathematics, General Perspectives (Specify)

### LOGIC, SETS, AND FOUNDATIONS
- 16.02 01 Intuitive Logic and Sets
- 16.02 02 Mathematical Logic
- 16.02 03 Finite Sets
- 16.02 04 Graph Theory
- 16.02 05 Combinatorics
- 16.02 06 Infinite Sets
- 16.02 99 Other Logic, Sets, and Foundations (Specify)

### ARITHMETIC AND ALGEBRA
- 16.03 01 Arithmetic
- 16.03 02 Algebra
- 16.03 03 Number Theory
- 16.03 04 Algebraic Number Theory
- 16.03 05 Algebraic Structures
- 16.03 06 Linear and Multilinear Algebra
- 16.03 07 Universal Algebra
- 16.03 08 Group Theory
- 16.03 09 Other Arithmetic and Algebra (Specify)

### CLASSICAL ANALYSIS
- 16.04 01 Calculus
- 16.04 02 Real Analysis
- 16.04 03 Measure and Integration
- 16.04 04 Complex Analysis
- 16.04 05 Special Functions
- 16.04 06 Ordinary Differential Equations
- 16.04 07 Partial Differential Equations
- 16.04 08 Finite Differences and Functional Equations
- 16.04 09 Ergodic Theory
- 16.04 10 Fourier Series and Integrals
- 16.04 11 Integral Equations and Transforms
- 16.04 12 Calculus of Variations
- 16.04 99 Other Classical Analysis (Specify)

### FUNCTIONAL ANALYSIS
- 16.05 01 Hilbert Spaces and Operators
- 16.05 02 Topological Vector Spaces
- 16.05 03 Abstract Harmonic Analysis
- 16.05 04 Topological Groups
- 16.05 05 Topological Algebras
- 16.05 06 Convexity
- 16.05 07 Distributions (Generalized Functions)
- 16.05 99 Other Functional Analysis (Specify)

### GEOMETRY AND TOPOLOGY
- 16.06 01 Plane and Solid Geometry
- 16.06 02 Trigonometry
- 16.06 03 Analytic Geometry
- 16.06 04 Geometries
- 16.06 05 Convex Bodies
- 16.06 06 Differential Geometry
- 16.06 07 Manifolds and Cell Complexes

### NOTE:
Combinations of subject matter in Mathematical Sciences should be identified as multiple subject-matter and should be coded, recorded, and reported according to the directions given in appendix E.
16.07 PROBABILITY
16.07.01 Finite Probability
16.07.02 Theory of Probability
16.07.03 Limit Theorems
16.07.04 Markov Processes
16.07.05 Stochastic Processes
16.07.06 Foundations of Probability
16.07.07 Monte Carlo Methods
16.07.99 Other Probability (Specify)

16.08 STATISTICS
16.08.01 Descriptive Statistics
16.08.02 Applied Statistics
16.08.03 Mathematical Statistics
16.08.04 Parametric Inference
16.08.05 Nonparametric Inference
16.08.06 Linear Models
16.08.07 Multivariate Analysis
16.08.08 Experimental Design
16.08.09 Sample Surveys
16.08.10 Occlusion Theory
16.08.11 Time Series Analysis
16.08.12 Reliability and Quality Control
16.08.99 Other Statistics (Specify)

16.09 NUMERICAL ANALYSIS AND APPROXIMATION THEORY
16.09.01 Numerical Analysis
16.09.01.01 Matrix Numerical Analysis
16.09.01.02 Numerical Integration
16.09.01.03 Error Analysis
16.09.02 Approximation Theory
16.09.02.01 Interpolation
16.09.09 Other Numerical Analysis and Approximation Theory (Specify)

16.10 CLASSICAL APPLIED MATHEMATICS (PHYSICAL SYSTEMS)
16.10.01 Mechanics of Particles and Systems
16.10.01.01 Statics in Rigid Bodies
16.10.01.02 Kinematics of Particles and Rigid Bodies
16.10.02 Mechanics of Solids
16.10.03 Fluid Mechanics
16.10.04 Optics and Electromagnetic Theory
16.10.05 Relativity
16.10.06 Quantum Mechanics
16.10.07 Statistical Mechanics
16.10.08 Classical Thermodynamics
16.10.09 Mathematical Astronomy, Astrophysics, and Cosmology

16.10.10 Mathematical Geophysics and Meteorology
16.10.99 Other Classical Applied Mathematics (Specify)

16.11 APPLICATIONS OF MATHEMATICS (GENERAL)
16.11.01 Mathematics of Business and Finance
16.11.02 Actuarial Mathematics
16.11.03 Mathematics of Economics
16.11.04 Game Theory
16.11.05 Mathematical Programming (Linear and Nonlinear)
16.11.06 Control Theory and Optimal Control
16.11.07 Mathematical and Statistical Biology
16.11.08 Mathematical and Statistical Psychology
16.11.09 Mathematical and Statistical Sociology
16.11.10 Communication Theory
16.11.10.01 Mathematical Information Theory
16.11.10.02 Cybernetics
16.11.11 Multivariate Data Analysis
16.11.99 Other Applications of Mathematics (Specify)

16.12 USER ORIENTED MATHEMATICS
16.12.01 Business Mathematics
16.12.02 Consumer Mathematics
16.12.99 Other User Oriented Mathematics (Specify)

16.99 OTHER MATHEMATICAL SCIENCES (SPECIFY)

17 MILITARY SCIENCES
17.01 MILITARY HISTORY
17.01.01 History of Warfare
17.01.02 American Military History
17.01.03 Aerospace History
17.01.04 Army History
17.01.05 Naval History
17.01.99 Other Military History (Specify)

17.02 MILITARY ORGANIZATION
17.02.01 Organization of the Air Force
17.02.02 Organization of the Army
17.02.03 Organization of the Marine Corps
17.02.04 Organization of the Navy
17.02.99 Other Military Organization (Specify)

17.03 MILITARY MANAGEMENT, AND LEADERSHIP

17.04 NATIONAL SECURITY AND DEFENSE

NOTE: Combinations of subject matter in Military Sciences should be identified as multiple subject matter and should be coded, recorded, and reported according to the directions given in appendix E.
| 17.05 | MILITARY LAW | 18.02.03 | Philosophy of Social Science |
| 17.06 | INTERNATIONAL MILITARY SYSTEMS | 18.02.99 | Other Epistemology (Specify) |
| 17.07 | MILITARY COMMUNICATIONS | 18.03 | ETHICS |
| 17.08 | FIELD TRAINING, CAMPS, AND CRUISES | 18.03.01 | Personal Moralities |
| 17.09 | DRILL, COMMANDS, AND CEREMONIES | 18.03.02 | Social Ethics |
| 17.10 | WEAPONRY AND MARKSMANSHIP | 18.03.03 | Ethics of Professions |
| 17.11 | MILITARY FIRST AID AND HEALTH EDUCATION | 18.03.04 | Metaethical Theories |
| 17.12 | AIR FORCE | 18.03.99 | Other Ethics (Specify) |
| 17.12.01 | Military Aeronautics | 18.04 | HISTORY AND TRADITIONS OF PHILOSOPHY |
| 17.12.02 | Military Aerospace | 18.04.01 | Ancient Western Philosophy |
| 17.12.03 | Military Astronautics | 18.04.02 | Medieval Western Philosophy |
| 17.12.99 | Other Air Force (Specify) | 18.04.03 | Modern Western Philosophy |
| 17.13 | ARMY | 18.04.04 | Contemporary Western Philosophy |
| 17.13.01 | Military Tactics | 18.04.05 | Oriental Philosophy |
| 17.13.02 | Land Navigation and Map Reading | 18.04.06 | African Philosophy |
| 17.13.99 | Other Army (Specify) | 18.04.07 | Jewish Philosophy |
| 17.14 | MARINE CORPS | 18.04.99 | Other History of Philosophy (Specify) |
| 17.15 | NAVY | 18.05 | LOGIC AND PHILOSOPHICAL METHODOLOGY |
| 17.15.01 | Maritime Heritage and Affairs | 18.05.01 | Informal Logic |
| 17.15.02 | Navigation and Naval Operations | 18.05.02 | Symbolic Logic |
| 17.15.03 | Seamanship | 18.05.03 | Metaphysics |
| 17.15.04 | Naval Ship Systems | 18.05.04 | Philosophy of Language |
| 17.15.99 | Other Navy (Specify) | 18.05.05 | Philosophy of Mathematics |
| 17.16 | OTHER MILITARY SCIENCES (SPECIFY) | 18.05.06 | Theories of Value Criteria |
| 17.17 | OTHER MILITARY SCIENCES (SPECIFY) | 18.05.99 | Other Logic and Philosophical Methodology (Specify) |
| 18 | PHILOSOPHY, RELIGION, AND THEOLOGY | 18.06 | METAPHYSICS |
| 18.01 | AESTHETICS | 18.06.01 | Cosmology (See 15.01.01 — Cosmology) |
| 18.01.01 | Philosophy of Art | 18.06.02 | Ontology |
| 18.01.02 | Philosophy of Creativity | 18.06.03 | Existentialism |
| 18.01.03 | Philosophy of Criticism | 18.06.04 | Phenomenology |
| 18.01.04 | Philosophy in Literature | 18.06.05 | Philosophical Anthropology |
| 18.01.99 | Other Aesthetics (Specify) | 18.06.06 | Philosophy of Action |
| 18.02 | EPISTEMOLOGY | 18.06.07 | Philosophy of Life |
| 18.02.01 | Philosophy of Psychology | 18.06.08 | Philosophy of Mind |
| 18.02.02 | Philosophy of Natural Science | 18.06.09 | Philosophy of Religion |
| 18.02.99 | Other Epistemology (Specify) | 18.06.99 | Other Metaphysics (Specify) |
| 18.07 | SOCIAL AND POLITICAL PHILOSOPHY | 18.07 | SOCIAL AND POLITICAL PHILOSOPHY |
| 18.07.01 | Philosophy of Social and Political Theories | 18.07.01 | Philosophy of Social and Political Theories |
| 18.07.02 | Philosophy of Education | 18.07.02 | Philosophy of Education |
| 18.07.03 | Philosophy of History | 18.07.03 | Philosophy of History |
| 18.07.04 | Philosophy of Law | 18.07.04 | Philosophy of Law |
| 18.07.05 | Philosophy of Medicine | 18.07.05 | Philosophy of Medicine |
| 18.07.99 | Other Social and Political Philosophy (Specify) | 18.07.99 | Other Social and Political Philosophy (Specify) |
| 18.08 | PHILOSOPHICAL FOUNDATIONS | 18.08 | PHILOSOPHICAL FOUNDATIONS |
| 18.09 | SPECIFIC RELIGIONS | 18.09 | SPECIFIC RELIGIONS |
| 18.09.01 | Buddhism | 18.09.01 | Buddhism |

NOTE: Combinations of subject matter in Philosophy, Religion, and Theology should be identified as multiple subject matter and should be coded, recorded, and reported according to the directions given in appendix E.
| 18.08 02 | Christianity |
| 18.08 02 01 | Orthodoxy |
| 18.08 02 02 | Roman Catholicism |
| 18.08 02 03 | Protestantism |
| 18.09 03 | Hinduism |
| 18.09 04 | Islam |
| 18.09 05 | Judaism |
| 18.09 06 | Tribal Religions |
| 18.09 99 | Other Specific Religions (Specify) |

| 18.10 | PHENOMENOLOGY OF RELIGION |
| 18.10 01 | Anthropology of Religion |
| 18.10 02 | Comparative Religions |
| 18.10 03 | Psychology of Religion |
| 18.10 04 | Sociology of Religion |
| 18.10 99 | Other Phenomenology of Religion (Specify) |

| 18.11 | RELIGION AND HUMAN EXPERIENCE |
| 18.11 01 | Religion and Science |
| 18.11 02 | Religion and Personality Studies |
| 18.11 03 | Religion and Social Issues |
| 18.11 04 | Religion and Culture |
| 18.11 99 | Other Religion and Human Experience (Specify) |

| 18.12 | SACRED WRITINGS |
| 18.12 01 | Sacred Writings of the Jewish Faith |
| 18.12 02 | Sacred Writings of the Christian Faith |
| 18.12 99 | Other Sacred Writings (Specify) |

| 18.13 | HISTORICAL THEOLOGY |
| 18.13 01 | Ancient Near East Theology |
| 18.13 02 | Early Christian and Rabbinic Theology |
| 18.13 03 | Medieval Theology |
| 18.13 04 | Modern Theology |
| 18.13 99 | Other Historical Theology (Specify) |

| 18.14 | SYSTEMATIC THEOLOGY |
| 18.14 01 | God |
| 18.14 02 | Theological Anthropology |
| 18.14 03 | Mysticism |
| 18.14 04 | Ecclesiology |
| 18.14 05 | Sacramental Theology |
| 18.14 06 | Christology |
| 18.14 07 | Soteriology |
| 18.14 08 | Pneumatology |
| 18.14 09 | Eschatology |
| 18.14 99 | Other Systematic Theology (Specify) |

| 18.15 | MORAL AND ETHICAL STUDIES |
| 18.15 01 | Moral and Ethical Principles |
| 18.15 02 | Moral and Ethical Issues |
| 18.15 99 | Other Moral and Ethical Studies (Specify) |

| 18.16 | PASTORAL STUDIES |
| 18.16 01 | Homiletics |
| 18.16 02 | Pastoral Care and Counseling |
| 18.16 03 | Religious Education |
| 18.16 04 | Religious Social Action |
| 18.16 05 | Worship and Liturgy |
| 18.16 06 | Sacred Music |
| 18.16 07 | Church Administration and Leadership |
| 18.16 08 | Missiology |
| 18.16 09 | Ecclesiastical Law and Polity |
| 18.16 99 | Other Pastoral Studies (Specify) |

| 18.99 | OTHER PHILOSOPHY, RELIGION, AND THEOLOGY (SPECIFY) |

| 19 | PHYSICAL EDUCATION, HEALTH EDUCATION, AND LEISURE |

Dance is listed both in Physical Education, Health Education, and Leisure and in Arts, Visual and Performing. As an art form, it is more concerned with aesthetics than with physical movement, although both factors are involved. In recording or reporting data about Dance, care should be taken to make clear distinctions as to which subject-matter area is represented.

Health Education deals with the knowledge that individuals use to maintain good health as members of society. Specific knowledge relating to the restoration and preservation of health is included in the subject-matter area of Health Care and Health Sciences.

| 19.01 | PHYSICAL EDUCATION |
| 19.01 01 | Movement Education |
| 19.01 02 | Exercise |
| 19.01 02 01 | Training and Conditioning |
| 19.01 02 02 | Developmental Exercise |
| 19.01 02 03 | Therapeutic Exercise |
| 19.01 02 04 | Relaxation |
| 19.01 03 | Group Games, Contests, and Self-Testing Activities |
| 19.01 04 | History of Physical Education |
| 19.01 05 | Philosophy of Physical Education |
| 19.01 06 | Physical Education Administration |
| 19.01 07 | Physical Education Curriculum |
| 19.01 08 | Physical Education Instruction |
| 19.01 09 | Physical Education Supervision |
| 19.01 10 | Measurement and Evaluation in Physical Education |
| 19.01 99 | Other Physical Education (Specify) |

| 19.02 | KINESIOLOGY |
| 19.02 01 | Biomechanics (See 08.05 03 - Biomechanics) |
| 19.02 02 | Neuromuscular Anatomy |

Note: Combinations of subject matter in Physical Education, Health Education, and Leisure should be identified as multiple subject-matter and should be coded, recorded, and reported according to the directions given in appendix E.
19.02 03 Performance Physiology
19.02 03 01 Neuromuscular Physiology
19.02 03 02 Cardiorespiratory Physiology
19.02 04 Psychomotor Behavior
19.02 04 01 Motor Learning
19.02 04 02 Perceptual Motor Development
19.02 05 Sports Medicine
19.02 05 01 Athletic Facilities and Equipment
19.02 05 02 Athletic Training
19.02 05 03 Diagnostic Procedures
19.02 05 04 Ergonomics
19.02 05 05 Exercise Prescription
19.02 05 06 Injury Prevention and Treatment
19.02 09 Other Kinesiology (Specify)

19.03 SPORT
19.03 01 Sport in Schools and Colleges
19.03 01 01 Athletics
19.03 01 02 Intramurals
19.03 02 Sport in Community Agencies
19.03 03 Sport History
19.03 04 Sport Sociology
19.03 05 Sport Philosophy
19.03 06 Sport Psychology
19.03 07 International and Comparative Sport
19.03 08 Administration of Sport
19.03 09 Evaluation of Sport
19.03 10 Supervision of Sport
19.03 11 Instruction and Coaching of Sport
19.03 12 Sport Activities
19.03 12 01 Aquatics
19.03 12 02 Team Sports
19.03 12 03 Self-Defense
19.03 12 04 Individual Sports
19.03 12 05 Dual Sports
19.03 12 06 Adventure and Challenge Sports
19.03 12 07 Gymnastics
19.03 99 Other Sport (Specify)

19.04 DANCE (See 03.01 — Dance)
19.04 01 Dance Choreography
19.04 02 Dance Notation
19.04 03 Dance Production
19.04 04 Dance Activities and Forms
19.04 05 Dance History
19.04 06 Dance Philosophy
19.04 99 Other Dance (Specify)

19.05 HEALTH EDUCATION
19.05 01 Drugs and Other Substances
19.05 02 Community Health Education
19.05 03 Consumer Health Education
19.05 04 Disease Prevention and Control
19.05 05 Environmental Health Education
19.05 06 Family Health Education
19.05 07 Mental Health Education
19.05 08 Nutrition Education
19.05 09 Personal Health Education
19.05 10 Physical Fitness
19.05 11 Safety Education
19.05 12 Sex Education
19.05 13 Administration of Health Education
19.05 14 Health Education Curriculum
19.05 15 Health Education Instruction
19.05 16 Supervision in Health Education
19.05 17 Measurement and Evaluation in Health Education
19.05 99 Other Health Education (Specify)

19.06 DRIVER AND SAFETY EDUCATION
19.06 01 Alcohol, Drugs, and Driving
19.06 02 Characteristics of Drivers
19.06 03 Development of Driving Judgment
19.06 04 Behind-the-Wheel Driving Skills
19.06 05 Motor Bikes and Bicycles
19.06 06 Motor Vehicles and Engineering
19.06 07 Simulation Driving Experience
19.06 08 Student Patrol
19.06 09 Traffic Accidents
19.06 10 Traffic Citizenship
19.06 11 Traffic Laws and Ordinances
19.06 99 Other Driver Education (Specify)

19.07 LEISURE STUDIES
19.07 01 Resource Management in Leisure Studies
19.07 02 Populations and Leisure Services
19.07 03 Leadership in Leisure Studies
19.07 04 Recreation Activities
19.07 05 Recreation Activities
19.07 06 01 Arts and Crafts
19.07 06 02 Dramatics
19.07 06 03 Social Recreation
19.07 06 04 Recreational Sports and Physical Activities
19.07 06 History of Leisure Studies
19.07 07 Philosophy of Leisure Studies
19.07 08 Sociology of Leisure Studies
19.07 09 International and Comparative Leisure Studies
19.07 99 Other Leisure Studies (Specify)

19.99 OTHER PHYSICAL EDUCATION, HEALTH EDUCATION, AND LEISURE (SPECIFY)

20 PSYCHOLOGY
20.01 FOUNDATIONS OF PSYCHOLOGY
20.01 01 Ethical Principles of Psychology
20.01 02 Historical Perspectives of Psychology

NOTE:—Combinations of subject matter in Psychology should be identified as multiple subject matter and should be coded, recorded, and reported according to the directions given in Appendix E.
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.01.03</td>
<td>Systems of Psychology</td>
</tr>
<tr>
<td>20.01.04</td>
<td>Theories in Psychology</td>
</tr>
<tr>
<td>20.01.99</td>
<td>Other Foundations of Psychology (Specify)</td>
</tr>
<tr>
<td>20.02</td>
<td><strong>BIOPSYCHOLOGY</strong></td>
</tr>
<tr>
<td>20.02.01</td>
<td>Behavioral Genetics</td>
</tr>
<tr>
<td>20.02.02</td>
<td>Comparative Psychology: Evolution of Behavior</td>
</tr>
<tr>
<td>20.02.03</td>
<td>Biochemistry of Behavior</td>
</tr>
<tr>
<td>20.02.03.01</td>
<td>Pharmacology</td>
</tr>
<tr>
<td>20.02.04</td>
<td>Physiological Psychology</td>
</tr>
<tr>
<td>20.02.04.01</td>
<td>Neurophysiology</td>
</tr>
<tr>
<td>20.02.04.02</td>
<td>Sensory Psychophysics</td>
</tr>
<tr>
<td>20.02.04.03</td>
<td>Psychophysiology and Biofeedback</td>
</tr>
<tr>
<td>20.02.99</td>
<td>Other Biopsychology (Specify)</td>
</tr>
<tr>
<td>20.03</td>
<td><strong>ENVIRONMENTAL PSYCHOLOGY</strong></td>
</tr>
<tr>
<td>20.03.01</td>
<td>Architectural Psychology</td>
</tr>
<tr>
<td>20.03.02</td>
<td>Spatial Behavior</td>
</tr>
<tr>
<td>20.03.99</td>
<td>Other Environmental Psychology (Specify)</td>
</tr>
<tr>
<td>20.04</td>
<td><strong>EXPERIMENTAL PSYCHOLOGY</strong></td>
</tr>
<tr>
<td>20.04.01</td>
<td>Behavior Analysis</td>
</tr>
<tr>
<td>20.04.02</td>
<td>Decisionmaking</td>
</tr>
<tr>
<td>20.04.03</td>
<td>Human Information Processing</td>
</tr>
<tr>
<td>20.04.04</td>
<td>Motivation</td>
</tr>
<tr>
<td>20.04.05</td>
<td>Psycholinguistics</td>
</tr>
<tr>
<td>20.04.06</td>
<td>Psychology of Learning</td>
</tr>
<tr>
<td>20.04.06.01</td>
<td>Learning, Conditioning</td>
</tr>
<tr>
<td>20.04.06.02</td>
<td>Retention and Recall</td>
</tr>
<tr>
<td>20.04.06.03</td>
<td>Programmed Learning, P3</td>
</tr>
<tr>
<td>20.04.07</td>
<td>Psychology of Sensory Processes and Perception</td>
</tr>
<tr>
<td>20.04.08</td>
<td>Psychology of Thinking and Problem Solving</td>
</tr>
<tr>
<td>20.04.99</td>
<td>Other Experimental Psychology (Specify)</td>
</tr>
<tr>
<td>20.05</td>
<td><strong>PSYCHOLOGY OF THE INDIVIDUAL</strong></td>
</tr>
<tr>
<td>20.05.01</td>
<td>Abnormal Psychology</td>
</tr>
<tr>
<td>20.05.02</td>
<td>Career Development</td>
</tr>
<tr>
<td>20.05.03</td>
<td>Clinical Psychology (Specify)</td>
</tr>
<tr>
<td>20.05.03.01</td>
<td>Behavior Modification</td>
</tr>
<tr>
<td>20.05.03.02</td>
<td>Crisis Intervention</td>
</tr>
<tr>
<td>20.05.03.03</td>
<td>Assessment</td>
</tr>
<tr>
<td>20.05.03.04</td>
<td>Psychotherapeutic Method</td>
</tr>
<tr>
<td>20.05.04</td>
<td>Developmental Psychology</td>
</tr>
<tr>
<td>20.05.04.01</td>
<td>Psychology of Age Groupings (Child, Adult, Aged)</td>
</tr>
<tr>
<td>20.05.05</td>
<td>Psychology of Adjustment</td>
</tr>
<tr>
<td>20.05.06</td>
<td>Psychology of Death</td>
</tr>
<tr>
<td>20.05.07</td>
<td>Psychology of Disadvantaged Persons (Culturally or Physically Handicapped)</td>
</tr>
<tr>
<td>20.05.07.01</td>
<td>Exceptional Development</td>
</tr>
<tr>
<td>20.05.08</td>
<td>Psychology of Identifiable Sets (Women, Blacks, Others)</td>
</tr>
<tr>
<td>20.06</td>
<td><strong>PSYCHOMETRICS</strong></td>
</tr>
<tr>
<td>20.06.01</td>
<td>Differential Psychology</td>
</tr>
<tr>
<td>20.06.02</td>
<td>Psychological Assessment</td>
</tr>
<tr>
<td>20.06.03</td>
<td>Psychological Testing</td>
</tr>
<tr>
<td>20.06.04</td>
<td>Survey Techniques</td>
</tr>
<tr>
<td>20.06.09</td>
<td>Other Psychometrics (Specify)</td>
</tr>
<tr>
<td>20.07</td>
<td><strong>SOCIAL PSYCHOLOGY</strong></td>
</tr>
<tr>
<td>20.07.01</td>
<td>Attitudes</td>
</tr>
<tr>
<td>20.07.02</td>
<td>Group Processes</td>
</tr>
<tr>
<td>20.07.03</td>
<td>Organizational Psychology</td>
</tr>
<tr>
<td>20.07.99</td>
<td>Other Social Psychology (Specify)</td>
</tr>
<tr>
<td>20.08</td>
<td><strong>PSYCHOLOGICAL PROGRAMS (APPLIED AND PROFESSIONAL)</strong></td>
</tr>
<tr>
<td>20.08.01</td>
<td>Community Psychology</td>
</tr>
<tr>
<td>20.08.02</td>
<td>Counseling Psychology</td>
</tr>
<tr>
<td>20.08.03</td>
<td>Consulting Psychology</td>
</tr>
<tr>
<td>20.08.04</td>
<td>Educational Psychology</td>
</tr>
<tr>
<td>20.08.05</td>
<td>School Psychology</td>
</tr>
<tr>
<td>20.08.06</td>
<td>Academic Remediation</td>
</tr>
<tr>
<td>20.08.07</td>
<td>Behavior Management</td>
</tr>
<tr>
<td>20.08.99</td>
<td>Other Psychological Programs (Specify)</td>
</tr>
<tr>
<td>20.09</td>
<td><strong>PSYCHOLOGY IN ECONOMICS, INDUSTRY, AND GOVERNMENT</strong></td>
</tr>
<tr>
<td>20.09.01</td>
<td>Industrial Psychology</td>
</tr>
<tr>
<td>20.09.02</td>
<td>Personnel Psychology</td>
</tr>
<tr>
<td>20.09.03</td>
<td>Military Psychology</td>
</tr>
<tr>
<td>20.09.04</td>
<td>Organizational Psychology</td>
</tr>
<tr>
<td>20.09.05</td>
<td>Consumer Psychology</td>
</tr>
<tr>
<td>20.09.06</td>
<td>Human Engineering</td>
</tr>
<tr>
<td>20.09.06.01</td>
<td>Man-Machine Systems</td>
</tr>
<tr>
<td>20.09.06.02</td>
<td>Work Environments</td>
</tr>
<tr>
<td>20.09.06.03</td>
<td>Work Performance</td>
</tr>
<tr>
<td>20.09.07</td>
<td>Program Evaluation</td>
</tr>
<tr>
<td>20.09.99</td>
<td>Other Psychology in Economics, Industry, and Government (Specify)</td>
</tr>
<tr>
<td>20.99</td>
<td><strong>OTHER PSYCHOLOGY (Specify)</strong></td>
</tr>
<tr>
<td>21.01</td>
<td><strong>PUBLIC ADMINISTRATION AND SOCIAL SERVICES</strong></td>
</tr>
<tr>
<td>21.01.01</td>
<td>Administrative Theory</td>
</tr>
<tr>
<td>21.01.02</td>
<td>Organizational Theory and Behavior</td>
</tr>
</tbody>
</table>

**NOTE:** Combinations of subject matter in Public Administration and Social Services should be identified as multiple subject matter and should be coded, recorded, and reported according to the directions given in appendix E.
21.01 03 Administrative Management
21.01 03 01 Administration of Public Buildings and Lands
21.01 03 02 Personnel and Labor Relations in Government
21.01 03 03 Financial Administration
21.01 03 04 Information Systems
21.01 04 Regulatory Administration
21.01 05 Comparative Public Administration
21.01 06 International Administration
21.01 07 Legislative Administration
21.01 08 Court Administration
21.01 09 Professional Practices in Public Administration
21.01 10 Public Policy and Science and Technology
21.01 11 Public Policy and Natural Resources and Environment
21.01 12 Policy Sciences
21.01 13 Public Policy Analysis and Evaluation
21.01 14 Quantitative and Nonquantitative Analysis in Public Administration
21.01 99 Other Public Administration (Specify)

21.02 PUBLIC WORKS
21.02 01 Public Transportation
21.02 01 01 Public Mass Transit
21.02 01 02 Public Streets and Highways
21.02 01 03 Public Ports, Harbors, and Terminals
21.02 02 Public Sanitation
21.02 03 Management of Public Facilities and Buildings
21.02 04 Public Utilities
21.02 99 Other Public Works (Specify)

21.03 SAFETY AND CORRECTIONAL SERVICES
21.03 01 Correctional Services
21.03 01 01 Organization and Administration of Correctional Services
21.03 01 02 Correctional Techniques and Procedures
21.03 01 03 Parole and Probation
21.03 01 04 Penology
21.03 02 Fire Protection
21.03 03 Industrial and Occupational Safety Services
21.03 04 Law Enforcement
21.03 04 01 Criminal Investigation and Evidence
21.03 04 02 Law Enforcement Technology
21.03 04 03 Organization and Administration of Law Enforcement
21.03 04 04 Police Management
21.03 04 05 Police Problems
21.03 04 06 Police Procedures and Tactics
21.03 05 Protective Services
21.03 05 06 Other Safety and Correctional Services

21.04 SOCIAL WORK
21.04 01 Social Welfare
21.04 01 01 History of Social Welfare
21.04 01 02 Philosophy of Social Welfare
21.04 01 03 Organization of Social Welfare Services
21.04 01 04 Social Welfare Policy Formulation
21.04 02 Social Work Practice
21.04 02 01 History and Philosophy of Social Work
21.04 02 02 Organization and Administration of Social Work
21.04 02 03 Social Work Research and Evaluation
21.04 02 04 Professional Practices in Social Work
21.04 02 05 Public and Private Social Work Practice
21.04 02 06 Social Work and Other Subject Matter

21.04 03 Social Work Methods
21.04 03 01 Social Case Work
21.04 03 02 Social Group Work
21.04 03 03 Community Organization and Development
21.04 03 04 Prevention of Social Problems
21.04 03 05 Social Work Consultation
21.04 03 06 Social Work Supervision

21.04 04 Fields of Social Work
21.04 04 01 Social Work of Age Groupings
21.04 04 02 Social Work of Identifiable Sets of People
21.04 04 03 Social Work of Social Environments
21.04 04 04 Social Work in Occupational Settings
21.04 04 05 Social Work and Health Care
21.04 04 06 Multiple Fields of Social Work
21.04 05 Social Environments and Human Behavior
21.04 05 01 Human Development
21.04 05 02 Deviant Behavior
21.04 05 03 Family Dynamics and Relationships
21.04 05 04 Social Impact of Institutions
21.04 05 05 Physical and Mental Illness
21.04 05 06 Social Impact of Environments
21.04 05 07 Social Problems
21.04 99 Other Social Work (Specify)

21.05 PUBLIC RECREATION
21.05 01 Recreational Environments
21.05 02 Community Recreation
21.05 03 Public Recreation Administration
21.05 99 Other Public Recreation (Specify)

21.99 OTHER PUBLIC ADMINISTRATION AND SOCIAL SERVICES (SPECIFY)

22 SOCIAL SCIENCES AND SOCIAL STUDIES

Although the nature of the subject matter in Social Sciences may differ from that in Social Studies, the same subject-matter elements can be used in data recording and reporting activities. If distinctions need to be made, they can be accomplished through the use of program descriptions or other educational dimensions.

22.01 ANTHROPOLOGY
22.01 01 Archaeology
22.01 01 01 Ethnoarchaeology
22.01 01 02 Environmental Archaeology
22.01 01 03 Regional Archaeology

NOTE: Combinations of subject matter in Social Sciences and Social Studies should be identified as multiple subject matter and should be coded, recorded, and reported according to the directions given in appendix E.
# Cultural Anthropology
- Ethnography
- Ethnology
- Linguistics in Anthropology
- Physical Anthropology
- Social Anthropology
- Research Methodology
- Laboratory Techniques
- Field Methodology
- Topical Anthropology
- Other Anthropology (Specify)

# Econometrics
- Principles and Theory of Economics
- Comparative Economic Systems
- Economics of Human Resources
- Labor and Manpower Economics
- Economics of Natural Resources
- Business and Industrial Economics
- Industrial Organization
- Industry Studies
- Economics of Industrial Change
- International Economics
- International Finance
- International Trade
- Social Economics
- Urban and Rural Economics
- Quantitative Economics
- Econometrics
- Economic Forecasting
- Other Economics (Specify)

# Geography
- Cultural Geography
- Political Geography
- Social Geography
- Economic Geography
- Agricultural Environments
- Industrial Environments
- Locational Analysis
- Historical Geography
- Geographic Research Methods and Techniques
- Cartography
- Geographic Field Methods
- Remote Sensing
- Physical Geography
- Biogeography
- Geomorphology
- Oceanography
- Soils Geography
- Regional Geography
- Specialized Regional Environments
- Specialized Regional Land Masses
- Specialized Regional Political States
- Transportation Geography
- Urban Geography
- Other Geography (Specify)
| 22.05 03 03 | Communist Political Systems                            | 22.06 05 | Marriage and Family                                        |
| 22.05 03 04 | Latin American Political Systems                       | 22.06 05 01 | Marriage and Family Counseling                              |
| 22.05 03 06 | Middle Eastern Political Systems                        | 22.06 05 02 | Sociology of Marriage                                       |
| 22.05 03 08 | Western European Political Systems                      | 22.06 05 03 | Sociology of Family                                         |
| 22.05 04 | Contemporary World Affairs                             | 22.06 05 04 | Principles and Theory of Sociology                         |
| 22.05 05 | International Relations                                 | 22.06 05 05 | Comparative Sociology                                       |
| 22.05 05 01 | American Foreign Policy                                 | 22.06 05 06 | History and Development of Sociology                       |
| 22.05 05 02 | Comparative Foreign Policy                             | 22.06 05 07 | Theory of Social Conflict                                  |
| 22.05 05 03 | Foreign Policy Formulation                              | 22.06 05 08 | Theory of Social Structures                                |
| 22.05 05 04 | International Organizations                            | 22.06 05 09 | Political Behavior                                         |
| 22.05 06 | Political Behavior                                     | 22.06 06 01 | Psychological Sociology                                     |
| 22.05 07 | Political Parties and Public Opinion                    | 22.06 06 02 | Collective Behavior                                         |
| 22.05 08 | Political Socialization                                | 22.06 06 03 | Socialization                                              |
| 22.05 09 | Political Structures                                   | 22.06 06 04 | Rural Sociology                                             |
| 22.05 10 | Political Theory                                       | 22.06 06 05 | Quantitative Methods                                       |
| 22.05 10 01 | American Political Theory                              | 22.06 06 06 | Social Control and Deviance                                 |
| 22.05 10 02 | Communism                                               | 22.06 06 07 | Social Institutions                                        |
| 22.05 10 03 | Ethics and Politics                                    | 22.06 06 08 | Social Organization and Change                              |
| 22.05 10 04 | Political Ideology                                     | 22.06 06 09 | Social Structure                                           |
| 22.05 11 | State and Local Government                             | 22.06 06 10 | Social Movements                                           |
| 22.05 99 | Other Political Science and Government (Specify)        | 22.06 06 11 | Social Problems                                            |
| 22.06 | SOCIOLOGY                                              | 22.06 06 12 | Urban Sociology                                             |
| 22.06 01 | Community Sociology                                     | 22.06 06 13 | Sociology of Groups                                        |
| 22.06 02 | Criminology                                             | 22.06 06 14 | Black Studies                                              |
| 22.06 03 | Demography and Human Ecology                            | 22.06 06 15 | Race and Minority Group Relations                          |
| 22.06 03 01 | Population Change                                      | 22.06 06 16 | Women Studies                                              |
| 22.06 03 02 | Population Problems                                   | 22.06 06 17 | Small Groups                                               |
| 22.06 03 03 | Population Theory                                     | 22.06 06 99 | Other Sociology (Specify)                                  |
| 22.06 04 | Juvenile Delinquency                                   | 22.06 07 | Other Social Sciences and Social Studies (Specify)         |
CHAPTER 3
DEFINITIONS OF EDUCATIONAL SUBJECT MATTER

This chapter contains definitions for the elements that are contained in the Classification of Educational Subject Matter. The definitions are arranged in the same subject-matter areas found in the previous chapter. Combinations of subject matter should be identified as multiple subject matter and coded, recorded, and reported according to the directions given in appendix E.

01 AGRICULTURE AND RENEWABLE NATURAL RESOURCES
Subject matter concerned with the production of food and fiber, and the conservation and development of the resources of arable and nonarable land, forests, soil, wildlife, ranges, fisheries, water, and outdoor recreation.

01.01 AGRICULTURAL ECONOMICS
The study of the transformation of limited agricultural resources, products, and services, and their influence upon prices, world trade, the economy, land values, multinational corporations, and the effect of these factors upon agriculture.

01.01.01 Agricultural Appraisal
The study of methods and techniques for determining the value of agricultural property.

01.01.02 Agricultural Credit and Finance
The study of the factors, sources, and policies that are applied to the control of the financial aspects of operating and managing an agricultural enterprise.

01.01.03 Agricultural Marketing
The study of the various marketing functions involved with the sale, processing, and distribution of agricultural products, including the study of commodity and terminal markets, cooperatives, and futures trading.

01.01.04 Agricultural Organizations
The study of current national, regional, State, and local agricultural organizations including their development and purposes.

01.01.05 Agricultural Supplies
The study of the use of supplies, materials, and services in the production phase of agriculture, and the development and use of managerial tools for control and analysis.

01.01.06 Economic Development and International Trade
The study of the nature and effect of policies, processes, and trends of agricultural marketing upon national and world markets.

01.01.07 Farm and Ranch Management
The study of the techniques of farm and ranch management including resource analysis, accounting, production, financing, resource acquisition, purchasing, performance records, contracts, and marketing to obtain optimum returns.

01.01.08 Public Policy and Agriculture
The study of the relationship, impact, and administration of government policies within the agricultural community.

01.01.99 Other Agricultural Economics (Specify)

01.02 AGRICULTURAL ENGINEERING (See 08 – Engineering and Engineering Technology)

01.03 AGRICULTURAL TECHNOLOGY
The study of the application of scientific and engineering knowledge and methods, and technical skills and abilities to the needs of agricultural enterprises.

01.03.01 Agricultural Design, Construction, and Maintenance
The study of skills and abilities involved in the planning, layout, fabrication, and maintenance of agricultural equipment and facilities.

01.03.02 Agricultural Electrification
The study of techniques and procedures for making effective use of electricity and electrical equipment on farms.
ranches, and other agricultural establishments, including the principles of electricity, maintenance and operation of equipment, and safety factors related to electrification.

01.03 03 Agricultural Materials Handling
The study of the methods and techniques for handling by mechanical, electronic, or other means, materials used in agriculture enterprises.

01.03 04 Agricultural Mechanics
The study of the processes involved in the selection, operation, maintenance, and use of agricultural power, machinery, and equipment, soil and water management, and mechanics shops, including sales and services.

01.03 05 Agricultural Processing
The study of the principles and techniques for readying agricultural commodities for consumption.

01.03 06 Agricultural Storage
The study of the methods and technology for preserving and maintaining agricultural products through such means as refrigeration, packaging, drying, and chemical pressurization.

01.03 07 Agricultural Transportation
The study of the methods of moving agricultural products from one location to another, giving consideration to such things as economics and quality preservation.

01.03 08 Agricultural Waste Control
The study of the processes involved in constructing, using, maintaining, and controlling agricultural waste systems in compliance with established standards.

01.03 99 Other Agricultural Technology (Specify)

01.04 ANIMAL SCIENCES
The study of the theories, principles, and application of appropriate technical skills that apply to the production and management of animals and animal products.

01.04 01 Animal Anatomy and Physiology
The study of the anatomical structure, and body processes and functions that relate to agricultural animal production, such as lactation, reproduction (including artificial insemination and heat detection), egg production, digestion, growth, and wool production.

01.04 02 Animal or Animal Products Selection and Evaluation
The study of the principles involved in the selection of animals or animal products through the identification of desirable characteristics related to the production performance, anatomy, and quality of the meat, milk, eggs, or fiber produced.

01.04 03 Animal Diseases, Parasites, and Insects
The study of methods of identification of diseases, parasites, or insect infestations in agricultural animals, and the application of preventative and curative measures.

01.04 04 Animal Genetics and Reproduction
The study of the principles of inheritance and their applications for the improvement of agricultural animals through breeding and selection.

01.04 05 Animal Health and Care
The study of the environment, drugs, antibiotics, vaccinations, blood tests, and other management factors that affect the prevention and control of diseases in agricultural animals.

01.04 06 Animal Management and Production
The study of the relationship between animal husbandry and the products obtained from animal growth, plus the approved practices associated with these relationships such as dairy production, beef production, and poultry production.

01.04 07 Animal Nutrition
The study of the relationship in agricultural animals of proteins, fats, carbohydrates, water, minerals, vitamins, and feed additives in the production of meat, milk, eggs, and wool.

01.04 99 Other Animal Sciences (Specify)

01.05 ORNAMENTAL HORTICULTURE
The study of the culture and production of ornamental flowers, plants, shrubs, and trees, and the establishment, development, and management of ornamental horticulture enterprises.

01.05 01 Arboriculture
The study of the principles and practices involved in the culture and maintenance of woody plants used for decoration and shade purposes.

01.05 02 Floriculture
The study of the principles and practices involved in field or greenhouse production of flowers and the arrangement of such flowers for ornamental purposes.

01.05 03 Greenhouse and Nursery
The study of the principles and practices involved in producing plants under glass and in other artificial environments, including production of turf, plants, shrubs or trees for the purposes of transplanting or propagating them, including nursery operation, maintenance, and management.

01.05 04 Landscaping
The study of the principles and practices involved in locating, planting, and maintaining turf, plants, shrubs, trees, or
devices for the beautification of home grounds and other areas of human habitation and recreation.

01.05 05 Turf Grass
The study of the principles and practices in growing, establishing, managing, and maintaining grass for beautification of homes, grounds, and other areas of human habitation or recreation.

01.06 01 Other Ornamental Horticulture (Specify)

01.06 PLANT SCIENCES
The study of the principles and practices involved in the culture of plants for the production of food and fiber and soil conservation.

01.06 01 Plant Anatomy and Physiology
The study of the structure of agricultural plants, its relationship to life processes in plants, and the subsequent implications on production principles and practices.

01.06 02 Plant Genetics and Reproduction
The study of principles of inheritance and their applications for the improvement of plants through breeding and selection.

01.06 03 Plant Insects and Control
The study of beneficial and harmful insects, spiders, snails, slugs, ticks, and mites, and their impact on plant production and control methods.

01.06 04 Plant Management and Production
The study of the relationship between growth stimulants and physical characteristics of plants and the cultural management of this relationship in such techniques as irrigation and pest control.

01.06 04 01 Production of Field Crops
The study of the cultural principles and practices involved in the production and use of field crops, including the topics of genetics, nutrition, soils, plant pathology, entomology, and disease and pest control.

01.06 04 02 Production of Fruits
The study of the cultural principles and practices involved in the production of citrus fruits, apples, peaches, strawberries, and other kinds of fruit.

01.06 04 03 Production of Specialty Crops
The study of the cultural principles and practices of specialty agriculture crops such as peanuts, cotton, tobacco, silk worm, and mulberry.

01.06 04 04 Production of Vegetables
The study of the cultural principles and practices involved in the production of potatoes, tomatoes, beans, seed corn, peas, and other vegetable crops.

01.06 05 Plant Nutrition
The study of the relationship of various substances such as nitrates and potash in the production of grains, fibers, and other forms of agricultural plant life.

01.06 06 Plant Pathogens and Prevention
The study of symptoms, causes, and control of agricultural plant diseases, infestations, and injuries, and the chemical, physical, biological, cultural, and genetic methods of control of plant diseases and associated plant pathogens.

01.06 06 07 Plant of Plant Products Selection and Evaluation
The study of plant taxonomy and plant products emphasizing qualitative aspects such as field crops judging, seed selection, or plant oil products comparisons.

01.06 99 Other Plant Sciences (Specify)

01.07 SOIL SCIENCES
The study of the physical, chemical, biological, and fertility principles and properties of soils in relation to their management for crop production and other agricultural operations.

01.07 01 Soil Chemistry
The study of the composition and changes in the various elementary forms of soil matter, such as the determination of the amount of nitrogen compounds in a soil.

01.07 02 Soil Classification
The study of the identification and systematic categorization of soil according to soil growth potential, soil slope, and physical properties of soil.

01.07 03 Soil Conservation and Land Use
The study of the principles and practices involved in maintaining soil stability and productivity, including the prevention of erosion, pollution, waterlogging, plant nutrient exhaustion, and the accumulation of pollutants.

01.07 04 Soil Fertility
The study of soil composition and nutrient capabilities necessary for plant growth, including the identification of differences between available and required plant growth nutrients.

01.07 05 Soil Physics
The study of the physical properties and interactions of matter and the energy of soils.
01.07 06 Soil Texture
The study of the characteristic physical structure of soil composition, such as sand, clay, or loam.

01.07 99 Other Soil Sciences (Specify)

01.08 FISHERIES
The study of the principles and practices involved in protecting, breeding, and harvesting fish for sport and commercial purposes.

01.08 01 Fisheries Biology
The study of the life processes of waterlife, including age and rate of growth, populations and habitat, reproduction, and mortality.

01.08 02 Fisheries Management
The study of the principles and practices involved in the conservation, development, and harvesting of waterlife, including hatcheries operations and related law enforcement practices.

01.08 02 01 Commercial Fisheries
The study of the commercial processing and marketing of waterlife for food and other purposes.

01.08 02 02 Nonedible Water Life
The study of plant and animal waterlife from which medicinals, minerals, and other chemicals are extracted.

01.08 02 03 Sport Fisheries
The study of the processing and harvesting of fish for game and recreation fishing.

01.08 99 Other Fisheries (Specify)

01.09 FORESTRY
The study of the science, art, and practice of managing and using for human benefit the natural resources that occur on and in association with forest lands.

01.09 01 Forest Management and Administration
The study of the theory, principles, and practices of organizing, planning, and controlling the utilization of forest lands, including study of the political and legal processes relating to forest management.

01.09 01 01 Forest Economics
The study of financial considerations involved in the use of forest resources for the production of goods and services.

01.09 01 02 Forest Harvesting
The study of techniques for harvesting and transporting products from forest lands to mills, including cartography, land surveying, and road, trail, and facilities construction.

01.09 01 03 Forest Fire Control and Use
The study of prevention and suppression of wild fire and the application of prescribed burning of forest resources.

01.09 01 04 Forest Land-Use Planning
The study of the development of alternative ways of allocating the use of forest land, and the identification of the consequences of each alternative for the purpose of guiding decision-makers.

01.09 01 06 Forest Measurements
The study of the quantification and inventory of forest resources.

01.09 02 01 Forest Biology
The study of plant and animal life in the forest, including ecological relationships; identification, classification, and habitat of trees and shrubs; the art of growing trees in managed stands; and the application of plant genetics to tree improvement.

01.09 02 02 Silvics
The study of the life history and general characteristics of forest trees and stands with reference to local factors as a basis for the practice of silviculture.

01.09 02 03 Silviculture
The study of the science and art of growing and tending forest crops based on a knowledge of silvics.

01.09 02 04 Tree Improvement
The study of the application of plant genetics to the development of trees with superior inherited traits.

01.09 03 Forest Products and Wood Technology
The study of products that are generated from resources removed from the forest, or that are manufactured from fiber harvested in the forest.
01.09 03 01  Lumber Manufacturing
The study of the techniques involved in the conversion of logs into boards.

01.09 03 02  Paper Manufacturing
The study of the techniques involved in the conversion of wood pulp into newsprint, kraft, and other paper grades.

01.09 03 03  Plywood Manufacturing
The study of the techniques involved in the conversion of logs into laminated sheets.

01.09 03 04  Pulp Manufacturing
The study of the techniques involved in the conversion of logs into cellulose.

01.09 04  Physical Properties of Wood
The study of the structure of wood, its composition, identification, and preservation.

01.09 04 01  Wood Anatomy
The study of the micro and macro structure of wood.

01.09 04 02  Wood Chemistry
The study of the elemental composition and compound derivatives of tree components.

01.09 04 03  Wood Identification
The study of features of wood structure vital to classification of tree species.

01.09 04 04  Wood Preservation
The study of chemical treatments of wood products, including the preservation of posts, poles, and piling for durability.

01.09 99  Other Forestry (Specify)

01.10  Outdoor Recreation
The study of techniques of planning and maintaining outdoor recreation sites and programs in the woodland environment.

01.11  Range Science
The study of the theories, principles, and practices involved in the management of range lands.

01.11 01  Range Administration
The study of the decision making processes that determine optimum use of the various components of wildland grazing sites.

01.11 02  Range Biology
The study of the plant and animal life on the range, including the range ecological system, analysis of range flora, analysis of range soils, and methods of range soil conservation.

01.11 99  Other Range Science (Specify)

01.12  Wildlife
The study of the principles and practices involved in protecting, breeding, and harvesting game and nongame animals.

01.12 01  Wildlife Biology
The study of life processes of wild game and nongame animals, including the study of wildlife population dynamics and wildlife reproduction.

01.12 02  Wildlife Management
The study of the principles and practices involved in the preservation and improvement of habitat for game and nongame wildlife, including relevant law enforcement procedures.

01.12 99  Other Wildlife (Specify)

01.13  Land Reclamation
The study of the techniques of reclaiming waste, desert, marshy, or submerged land for cultivation or other use.

01.14  Renewable Natural Resources
The study of the general principles and processes involved in the conservation and improvement of renewable natural resources such as land, minerals, air, vegetation, and water for economic, recreational, and conservation purposes.

01.19  Other Agriculture and Renewable Natural Resources (Specify)
Subject matter that cannot be subsumed under an aggregate, general, or introductory element that already exists within the above structure.

For consideration of coding, recording, and reporting multiple subject matter (interdisciplinary) in agriculture and renewable natural resources, see Appendix E.

02  Architecture and Environmental Design
Subject matter concerned with the methods by which man attempts to create, adapt, alter, preserve, and control his physical and social surroundings.

02.01  Environmental Design
The study of processes that promote the creation of aesthetic patterns, forms, and structures in harmony with the contextual environment to further human purposes.
02.01 Architectural Design
The study of the systematic process of creating architectural environments, synthesizing knowledge of functional relationships, human behavior, structural and environmental systems and technologies, and aesthetic sensitivity.

02.01.02 Landscape Architectural Design
The study of design processes as applied to the ordering of man-made structures and objects and animate and inanimate natural materials on the landscape to further human purposes, synthesizing knowledge of functional relationships, human behavior, ecology, land form, construction technology, and aesthetic sensitivity.

02.01.02.01 Grading
The study of the techniques of utilizing the nature of earth and earth movement in establishing the design of a grade or slope, synthesizing functional needs and aesthetic sensitivity.

02.01.02.02 Planning
The study of plant materials, their optimum growing conditions, and their use in climatic modification, for visual enhancement of physical developments, both interior and exterior, and for other functional and aesthetic purposes.

02.01.03 Interior Design
The study of techniques of synthesizing color, form, space, line, and textural elements for architectural environments emphasizing aesthetic considerations.

02.01.04 Urban Design
The study of the systematic process of creating and modifying those physical elements which constitute a city, synthesizing function, aesthetic sensitivity, technology, and social, psychological, and economic well-being.

02.01.05 Graphic Design
The study of the use of interior and exterior graphic elements for identifying, directing, informing, and controlling the movement of people within an environment.

02.01.09 Other Environmental Design (Specify)

02.02 DESIGN AND PLANNING TECHNOLOGY
The study of the processes, procedures, observations, and techniques that are essential to the development of designs for interior and exterior environments.

02.02.01 Design Programming
The study of the methods through which data about the needs of an ultimate facility are determined and expressed for the instruction of the designer in the development of a design solution.

02.02.02 Budgeting and Cost Analysis
The study of the techniques of quantity survey, cost estimating, scheduling, and project controls used in forecasting the construction costs and methods of financing projects.

02.02.03 Site Analysis
The study of the techniques of analyzing and evaluating the physical, ecological, and visual attributes or restraints of an individual site, including the visual and cultural attributes or restraints of the contextual environments.

02.02.04 Landscape Assessment
The study of the techniques of analyzing and evaluating the physical, ecological, and visual attributes of the landscape.

02.02.05 Codes and Controls
The study of all codes, standards, zoning, and ordinances that are applicable to the design and planning of structures and spaces.

02.02.06 Design Specializations
The study of specific technology which is relevant only to a particular field of design.

02.02.06.01 Marine Architecture
The study of the materials and technological knowledge required to design marine facilities.

02.02.06.02 Recreation and Sports Area Design
The study of design processes specific to recreation and sports areas, including parks and golf courses, that synthesize knowledge of recreation needs, games and game space requirements, land form, construction and maintenance technologies, and aesthetic sensitivity.

02.02.06.03 Temporary Structures
The study of the materials and methods of fabrication required in the design of relocatable structures such as air, tent, and geodesic structures, movable classrooms, and mobile homes.

02.02.06.04 Preservation and Restoration
The study of the technology required in planning, funding, and implementing projects for historic preservation, restoration, and adapted use of buildings, landscape, and neighborhoods.

02.02.99 Other Design and Planning Technology (Specify)

02.03 CONSTRUCTION AND DESIGN IMPLEMENTATION
The study of the methods of fabrication and erection of structural systems, life support systems, and other elements.
essential to the execution of designed spaces and structures, including the management of such execution.

02.03 01 Construction Technology
The study of the coordinated methods of construction which, when executed in accordance with an environmental design, results in the completion of interior and exterior environments. These methods may be applied to such factors as foundations, waterproofing, paving, structural systems, fireproofing, masonry, roofing, planting, and lighting.

02.03 02 Construction Management
The study of the procedures and techniques involved in all phases of construction, including estimating and bidding, scheduling and control, contract document interpretation, building systems, construction practices, and labor and safety practices.

02.03 99 Other Construction (Specify)

02.04 COMMUNICATION IN ARCHITECTURE AND ENVIRONMENTAL DESIGN
The study of the methods of organizing, recording, and transmitting information relevant to the formulation and execution of architectural design, including the development of skills in drafting, drawing, and rendering, and the construction of scale models and renderings for buildings, landscapes, and other environmental elements.

02.04 01 Graphic Communication
The study of the methods, materials, and techniques involved in the communication of ideas, concepts, relationships, and envisioned design projects through the use of diagrams, graphs, drawings, and other graphic forms.

02.04 02 Architectural Drafting
The study of the theories of projection, the materials, the techniques, and the symbols used to communicate explicit information about envisioned design projects.

02.04 03 Rendering
The study of the materials and techniques used in specialized types of drawing which are intended to bring out the spirit and visual effect of envisioned design projects.

02.04 04 Model Building
The study of the materials and techniques used in the construction of small-scale, three-dimensional prototypes of envisioned design projects.

02.04 05 Contract Documents
The study of legal documents used in construction, including construction drawings, specifications, contracts, bonds, addenda, change orders, leases, authorizations for payment, substantial completion agreements, and warranties.

02.04 05 01 Construction Drawings
The study of the materials, techniques, and symbols used in the preparation of drawings of a design which will facilitate construction and design implementation.

02.04 05 02 Specifications
The study of written instructions that describe in detail the construction work to be undertaken, or the materials, furnishings, and plantings to be purchased and installed.

02.04 99 Other Communication in Architecture and Environmental Design (Specify)

02.05 STRUCTURAL TECHNOLOGY
The study of the behavior and utilization of structural materials in building construction.

02.05 01 Steel Structures
The study of the fundamentals of structural design in steel.

02.05 02 Concrete Structures
The study of the fundamentals of structural design in concrete.

02.05 03 Wood Structures
The study of the fundamentals of structural design in wood.

02.05 04 Unit Masonry
The study of the fundamentals of structural design in unit masonry.

02.05 05 Combined Structures
The study of the fundamentals of structural design in the fabrication of structures which incorporate a combination of materials.

02.05 99 Other Structural Technology (Specify)

02.06 ENVIRONMENTAL TECHNOLOGY
The study of the methods and materials required to provide these environmental elements that affect the physical well-being of the occupants of the space being modified or constructed.

02.06 01 Environmental and Energy Systems
The study of the theory and application of environmental-mechanical principles involved with comfort technology, waste disposal techniques, electrical systems, and lighting systems.
02.06 01 01 Heating, Ventilating, and Air Conditioning

The study of the utilization of temperature and air flow systems in interior and exterior environments of a residential, commercial, recreational, industrial, or institutional nature.

02.06 01 02 Lighting

The study of the utilization of illumination or lighting systems in interior and exterior environments of a residential, commercial, recreational, industrial, or institutional nature.

02.06 01 03 Plumbing

The study of the utilization of water, liquid waste, or plumbing systems in interior and exterior environments of a residential, commercial, recreational, industrial, or institutional nature.

02.06 01 04 Storm Drainage

The study of the utilization of rain, snow, or hail removal systems in interior and exterior environments of a residential, commercial, recreational, industrial, or institutional nature.

02.06 01 05 Irrigation

The study of the utilization of systems for the artificial application of water in interior and exterior environments of a residential, commercial, recreational, industrial, or institutional nature.

02.06 01 06 Alternative Energy Systems

The study of the utilization of alternative energy systems in interior and exterior environments of a residential, commercial, recreational, industrial, or institutional nature.

02.06 01 07 Acoustics

The study of the techniques and materials used in controlling sound; both objectionable and desirable, in interior and exterior environments.

02.06 01 08 Building Transportation Systems

The study of the design principles governing the selection of appropriate transportation systems for various settings, and the principles governing the aesthetic and functional utilization of the system on the site.

02.06 01 09 Elevators

The study of the utilization of elevator systems in interior and exterior environments of a residential, commercial, recreational, industrial, or institutional nature.

02.06 01 10 Escalators

The study of the utilization of escalators in interior and exterior environments of a residential, commercial, recreational, industrial, or institutional nature.

02.06 03 Moving Walkway's

The study of the utilization of moving walkways in interior and exterior environments of a residential, commercial, recreational, industrial, or institutional nature.

02.06 09 Other Environmental Technology (Specify)

02.07 MATERIALS OF ARCHITECTURE AND ENVIRONMENTAL DESIGN

The study of natural and artificial substances such as earth, wood, metal, and plastic used in various parts of building structures and in interior and exterior environments.

02.07 01 Construction Materials

The study of the materials that are used in various parts of buildings and outdoor structures.

02.07 02 Plant Materials

The study of the trees, shrubs, evergreens, flowers, turf, erosion control plants, and other related materials that are used in the construction of interior and exterior environments.

02.07 03 Interior Components

The study of the materials, methods, and equipment that are utilized in the execution of interior environments, including such things as furniture, drapes, and carpeting.

02.07 09 Other Materials in Architecture and Environmental Design (Specify)

02.08 GENERAL PERSPECTIVES OF ARCHITECTURE AND ENVIRONMENTAL DESIGN

The study of the historical aspects of architecture and environmental planning, the development of professional practice, and the responsibilities that follow construction.

02.08 01 History of Environments

The study of the development, change, and trends in human interaction with the environment.

02.08 01 01 Architectural History

The study of the development, change, and trends of architecture in the past, and the influence architecture has had on cultural and social development.

02.08 01 02 Landscape Architectural History

The study of the development, change, and trends of landscape architecture in the past, and the influence landscape architecture has had on cultural and social development.

02.08 01 03 Interior Architectural History

The study of the development, change, and trends of architectural interiors, and the influence interior architecture has had on cultural and social development.
02.08 02 Professional Practices in Architecture and Environmental Design
The study of office practices, including an analysis of the principal divisions of service and office procedures, and the responsibilities, ethics, and behavior of the professions within architecture and environmental design.

02.08 03 Post-Construction Management
The study of management techniques of occupying or operating a facility upon completion of its construction.

02.08 99 Other General Perspectives of Architecture and Environmental Design (Specify)

02.09 PLANNING
The study of the processes involved in the development of alternative ways of achieving various societal goals, including the identification of the consequences of each alternative, for the purpose of guiding decision-makers in their deliberations.

02.09 01 Community Development Planning
The study of the application of the planning process to the maintenance, development, or revitalization of a community.

02.09 02 Housing Planning
The study of the application of the planning process to the problems of housing.

02.09 03 Land-Use Planning
The study of the application of the planning process to the development of land-use regulations.

02.09 04 Natural-Resource Planning
The study of the application of the planning process to the development, utilization, and conservation of natural resources.

02.09 05 Open Space Planning
The study of the application of the planning process to the development, utilization, and maintenance of open spaces.

02.09 06 Recreation Resources Planning
The study of the application of the planning process to the development, utilization, and maintenance of recreational resources.

02.09 07 Social Planning
The study of the application of the planning process to the development of environmental programs designed to deal with major social needs related to such things as person power, criminal justice, health, and education.

02.09 08 Economic Planning
The study of the application of the planning process to the development of environmental programs designed to deal with major economic needs.

02.09 09 Transportation Planning
The study of the application of the planning process to the development of programs designed to deal with transportation needs.

02.09 09 01 Vehicular
The study of the application of design principles to solve environmental problems created by vehicle traffic.

02.09 09 02 Pedestrian
The study of the application of design principles to solve environmental problems created by pedestrian traffic.

02.09 09 03 Mass Transit
The study of the application of design principles to solve environmental problems created by the conveyance or transportation of large numbers of persons or goods.

02.09 10 Urban, Regional and Other Area Planning
The study of the application of the planning process to the development of environmental programs designed to deal with urban, regional, and other geographically distinct areas.

02.09 11 Water Resources Planning
The study of the application of the planning process to the development, utilization, and conservation of water resources.

02.09 12 Environmental Planning
The study of the application of the planning process to the development of programs concerned with environmental problems, needs, and concerns.

02.09 13 Historic Preservation Planning
The study of the application of the planning process to the development, utilization, and conservation of historic districts and communities.

02.09 99 Other Planning (Specify)

02.99 OTHER ARCHITECTURE AND ENVIRONMENTAL DESIGN (SPECIFY)
Subject matter that cannot be subsumed under an aggregate, general, or introductory element that already exists within the above structure.

FOR CONSIDERATION OF CODING, RECORDING, AND REPORTING MULTIPLE SUBJECT MATTER
03 ARTS, VISUAL AND PERFORMING

Subject matter concerned with the creation and perception of auditory, kinesthetic, and visual phenomena which express ideas and emotions in various form, subject to aesthetic criteria and related functions.

03.01 DANCE (See 19.04 — Dance)

The study of the history, criticism, theory, choreography, and performance of dance, and the development of dance skills and techniques.

03.01.01 Dance Studio and Performance

The study of the performance, choreography, and development of skills for any of the various kinds of dance which may include, but not limited to, ballet, modern, jazz, ethnic, and folk dance.

03.01.02 Dance Studies

The study of dance as an art form through its literature, history, theory, and composition.

03.01.03 Dance in Education

The study of those aspects of dance which have specific relevance to educational settings.

03.01.99 Other Dance (Specify)

03.02 FILM AS ART (See 05.03 — Film as Communication)

The study of the historic development, aesthetic qualities, and creative process of the moving image as a means of artistic expression.

03.02.01 Art Film Production

The study and practice of the technique and skills involved in the creation of motion pictures as an art form.

03.02.02 Art Film Studies

The study of the historical, critical, theoretical, and educational aspects of motion pictures as an art medium.

03.02.99 Other Film as Art (Specify)

03.03 MUSIC

The study of the art and science of combining sounds of various timbre in harmonic, rhythmic, or melodic forms which are artistically expressive.

03.03.01 Music Studio and Performance

The applied study of and performance on musical instruments, or the applied study of voice and vocal performance, either solo or in ensemble.

03.03.01.01 Applied Instrumental and Vocal Music

The study of performance and repertory on a solo instrument, the study of performance and repertory in voice, or the study of instrumental or vocal solo performance and repertory.

03.03.01.02 Ensembles

The study of performance and repertory involving two or more players and/or singers.

03.03.02 Music Studies

The study of music as an art form through its literature, history, criticism, theory and composition, including the study of conducting.

03.03.02.01 Music Literature

The study of repertory from earliest notation to the present.

03.03.02.02 Music History, Musicology, and Criticism

The study of the history, role, and significance of music to provide an understanding and appreciation of various musical forms in different cultures.

03.03.02.03 Music Theory

The study of the principles, forms, and foundations of music.

03.03.02.04 Music Composition

The study of techniques of creating and arranging tonal combinations and sequences, including the creation itself. This applies also to electronic music.

03.03.02.05 Music Conducting

The study of conducting techniques, interpretation, and style that may lead to a musical performance.

03.03.02.06 Ethnomusicology

The study of music as it relates to the culture and background of a given group or people.

03.03.02.07 Church Music

The study of music composition and performance for religious or sacred purposes.

03.03.03 Music in Education

The study of the aspects of music which have specific relevance to educational settings.
03.03 04  Commercial Music
The study of music as it pertains to recording, television, radio, publishing, and related industries.

03.03 05  Musical Instrument Design, Maintenance, and Repair
The study of the techniques of designing, maintaining, and repairing musical instruments.

03.03 99  Other Music (Specify)

03.04  THEATRE ARTS
The study of the development, theory, and processes of creating live performances through human expressive modalities.

03.04 01  Theatre Arts Studio and Performance
The study of and engagement in the processes of live performance in the theatre.

03.04 01 01  Acting
The study of such elements as stage voice, stage movement, mime, and dramatic improvisation to create characters for presentation on the stage.

03.04 01 02  Directing
The study of the planning, staging, and implementing of dramatic productions.

03.04 01 03  Playwriting
The study and creation of form, structure, and style in the written play.

03.04 01 04  Technical Theatre and Design
The study of the physical aspects of theatrical production, including the design and realization of scenery, costumes, lighting, makeup, sound, properties, and surrounding environment.

03.04 02  Theatre Studies
The study of the theatre as an art form through its literature, history, theory, criticism, composition, and practice.

03.04 02 01  Theatre Theory and Criticism
The study of the aesthetic bases of theatre, emphasizing questions of artistic value and merit, their relationship to relevant social and behavioral studies, and to other aspects of contemporary life and times.

03.04 02 02  Theatre History
The study of the development of dramatic literature, criticism, the physical theatre, the elements of production, and the artists and craftsmen who have contributed to the theatrical heritage.

03.04 02 03  Dramatic Literature
The study of the types, forms, and styles of plays from the past and present.

03.04 03  Theatre in Education
The study of various aspects of theatre arts such as creative dramatics, developmental drama, and informal drama which have specific relevance to educational settings including schools, community arts centers, museums, and various social and recreational settings.

03.04 99  Other Theatre Arts (Specify)

03.05 VISUAL ARTS
The study of subject matter concerned with visual phenomena which embody aesthetic content and creative effort.

03.05 01  Visual Arts Studio and Production
The study of the organization of materials and media for two or three-dimensional visual effects that communicate ideas and express motions subject to aesthetic and functional considerations.

03.05 01 01  Fine Arts
The study and development of the skills and abilities that are necessary for the production of unique works of visual art that express purely artistic intention including the art forms of drawing, painting, and printmaking, sculpture in a variety of media, and photography and electronic imagery.

03.05 01 02  Crafts
The study of activities relating to the conception and production of one-of-a-kind objects which have aesthetic merit and which demonstrate creative effort, including those in wood, metal, clay, fiber, and other materials.

03.05 01 03  Foundations of Visual Arts Design
The study of the principles of visual organization which emphasize aesthetic qualities such as light, color, shape, and pattern.

03.05 01 04  Application of Visual Arts Design
The study of the utilization of visual design skills for applied arts purposes including drawing, the organization of two or three-dimensional materials, and the selection of materials for artistic and functional purposes, as well as study of the fields of illustration, graphic design, interior design, industrial design, technical and mechanical illustration, and electronic imagery.
03.06 02 Visual Arts Studies
The study of historical, social, psychological, philosophical, critical, and educational aspects of the visual arts.

03.06 02 01 Art History and Appreciation
The study of the history of the visual arts and their relationship to concurrent events, the evolution of artistic styles, the lives of artists, and the role of the visual arts in human affairs, including contemporary times.

03.06 02 02 Art Theory and Criticism
The study of the aesthetic bases of the visual arts emphasizing questions of artistic value and merit, including their relationship to relevant social and behavioral studies and other aspects of contemporary life and times.

03.06 03 Visual Arts in Education
The study of various aspects of the visual arts which have specific relevance to educational settings, including schools, community art centers, museum programs, and social and recreational settings.

03.06 04 Art Restoration, Preservation, Exhibition, and Cataloging
The study of the theory and practice of maintaining, restoring, repairing, exhibiting, and cataloging works of visual art.

03.06 99 Other Visual Arts (Specify)

03.06 RELATED ARTS
The study of the arts, their relationship to each other, and their humanistic concerns.

03.06 01 Related Arts Studio and Production
The study of processes and performances that involve two or more of the visual and performing arts.

03.06 01 01 Multimedia Production
The study of the combination of two or more of the visual and performing arts.

03.06 01 02 Music Theatre
The study of the type of multi-media utilization that combines aspects of music, dance, and theatre such as "musical comedy" and opera.

03.06 02 Related Arts Studies
The study of the theory, techniques, history, and development of the related arts.

03.06 02 01 Humanities
The study of subjects or courses that embrace a humanistic relationship among ideas as expressed through the visual, performing, and other arts.

03.06 02 02 Allied Arts
The study of the relationship of the arts within such contexts as principles, techniques, elements, style, structure, subject, function, and media.

03.06 02 03 Ethnic Arts
The study of areas of the arts that emphasize or reflect geographical, racial, ideological, political, religious, or social aesthetic concepts.

03.06 03 Related Arts and Aesthetic Education
The study of those areas of the arts that are concerned with the personal development of aesthetic perception, response, and sensitivity.

03.06 04 Related Arts Management and Administration
The study of the techniques of planning, organizing, and controlling artistic productions such as art shows, film festivals, theatrical productions, concert series, and recitals.

03.06 99 Other Related Arts (Specify)

03.07 ARTS THERAPY
The study of the utilization of the visual and performing arts as a diagnostic and therapeutic mode concerned with mental and physical health.

03.07 01 Art Therapy
The study of the utilization of art as a diagnostic and therapeutic mode concerned with mental and physical health.

03.07 02 Dance Therapy
The study of the utilization of dance as a diagnostic and therapeutic mode concerned with mental and physical health.

03.07 03 Drama Therapy
The study of the utilization of drama as a diagnostic and therapeutic mode concerned with mental and physical health.

03.07 04 Music Therapy
The study of the utilization of music as a diagnostic and therapeutic mode concerned with mental and physical health.

03.07 99 Other Arts Therapy (Specify)
04 BUSINESS

Subject matter concerned with processes of purchasing, selling, producing, and interchanging of goods, commodities, and services for the purpose of gaining profit, advantage, or benefit. Included in this classification is subject matter applicable to both Distributive Education and office occupations.

04.01 ACCOUNTING

The study of the principles, procedures, and theory of organizing, maintaining, and auditing business and financial transactions.

04.01.01 Accounting Principles

The study of the principles, procedures, and theory of accounting, including the preparation, maintenance, and auditing of financial records and the preparation and analysis of statements.

04.01.02 Accounting Systems

The study and analysis of techniques and procedures used to evaluate and improve existing accounting systems.

04.01.03 Auditing

The study of the concepts, objectives, and ethics applicable to auditing, including audit plans, internal control, sampling, and specific auditing procedures concerned with such items as cash, investments, receivables, inventories, plant, equipment, expenses, and writing an audit report.

04.01.04 Bookkeeping

The study of the fundamental principles involved in the preparation and maintenance of financial records that are concerned with management and operations.

04.01.05 Controllership and Budgeting

The study of the theories and practices of regulating expenditures, of planning for capital spending, of establishing cash budgets, and dealing with other accounting problems.

04.01.06 Cost Accounting

The study of procedures and practices involved in accounting for materials, labor, overhead, and burden, by job-order, process, or operation, including systems of accounting related to sales and accounting used as a tool of managerial control.

04.01.07 Data Processing Accounting

The study of the principles and techniques of utilizing modern electronic data processing applications for accounting records and systems.

04.01.08 General Accounting

The study of principles, procedures, and theory of organizing, maintaining, interpreting, reporting, and auditing financial transactions of business and industry.

04.01.09 Governmental and Institutional Accounting

The study of the principles and procedures of applying fund accounting and budget control to governmental units and nonprofit institutions.

04.01.10 Machine Bookkeeping

The study of the principles and procedures of using bookkeeping machines to post accounts receivable and other control account data.

04.01.11 Managerial Accounting

The study of the principles and procedures of using accounting reports for managerial decisionmaking.

04.01.12 Payroll Accounting

The study of the principles and procedures of payroll accounting and control, including the study of Federal and State laws and their interpretations, and the preparation of reports required by governmental agencies.

04.01.12.01 Payroll Recordkeeping

The study of Federal and State laws that affect payroll, of basic payroll forms and records and their interpretations, of payroll procedures for calculating hours worked, overtime, gross and net pay, and deductions of employees; and of practices of preparing records and required government reports.

04.01.13 Recordkeeping

The study of the principles and procedures of using sub-systems of accounting to prepare and maintain records for cash and banking, payroll, billing, inventory, accounts receivable, accounts payable, and other similar records within the total accounting system.

04.01.14 Tax Accounting

The study of accounting principles, procedures, and regulations applicable to the maintenance of records and the preparation and filing of income tax returns for individuals, partnerships, corporations, and other types of organizations.
04.01 99  Other Accounting (Specify)

04.02  ADMINISTRATIVE AND OFFICE SERVICES

The study of the techniques and procedures for collecting, classifying, processing, computing, communicating, reporting, storing, and retrieving information in an organization.

04.02 01  Administrative Procedures

The study of the principles and techniques of administration and supervision that are employed in a variety of organizational settings.

04.02 01 01  Administrative Office Procedures

The study of the principles and procedures of office administration, including organization of the office, office design, office procedures, personnel administration, employee training, records management, work simplification, management of accounting activities, and data processing functions.

04.02 01 02  Clerical Procedures

The study of the principles and procedures of using the skills of filing, recordkeeping, typewriting, telephone usage, human relations, office machine operation, and mail processing in a variety of organizations.

04.02 01 03  Secretarial Procedures

The study of the principles and procedures involved in the application and integration of secretarial skills in dictation-transcription, records management, communication, telephone usage, research and use of reference materials, and human relations.

04.02 02  Office Machines

The study of the principles and procedures of developing proficiency in the use of office machines, and of applying machine skills to office problems.

04.02 03  Records Management

The study of information storage and retrieval processes, including automated and non-automated filing, microfilming systems, retention and disposal of records, equipment and space layout, and the supervision, standards, and work measurement in the records division of an organization.

04.02 03 01  Filing

The study of the principles and procedures of coding, indexing, and filing, including the application of established rules to alphabetic, numeric, geographic, and subject filing systems.

04.02 03 02  Micrographics

The study of the principles and procedures of applying microforms to office operations, including the storage and retrieval of records on microfilm and microfiche.

04.02 04  Reprographics

The study of modern office duplication and copying equipment and systems, including the capabilities, feasibility, and use of various types of equipment and the techniques of master copy preparation.

04.02 05  Shorthand and Transcription

The study of the principles and techniques of recording dictation in symbol or other abbreviated form and the conversion of these abbreviated forms to typewritten documents using acceptable formats and correct spelling, punctuation, and grammar.

04.02 06  Specialized Secretarial Services

The study of the principles and techniques of applying secretarial procedures to specialized fields.

04.02 06 01  Bilingual Secretarial

The study of the principles and techniques necessary to satisfactorily perform the secretarial function in situations where fluency in speaking and writing two languages is required.

04.02 06 02  Legal Secretarial

The study of the special knowledge and skills needed by secretaries employed in law firms, court rooms, or other legal related situations, and the application of secretarial skills to legal office settings.

04.02 06 03  Medical Secretarial

The study of the special knowledge and skills needed by secretaries employed in medical offices, hospitals, and other medical-related situations, and the application of secretarial skills to medical office settings.

04.02 06 04  Technical Secretarial

The study of the knowledge and skills necessary to perform secretarial functions in scientific, technological, or other technical office situations.

04.02 07  Typewriting

The study of the knowledge and skills necessary to operate a typewriter to produce personal and business correspondence and documents.

04.02 08  Word Processing

The study of the knowledge and skills needed to operate automated typing and transcription equipment, including the planning and production of correspondence, reports, and other documents.

04.02 99  Other Administrative and Office Services (Specify)
04.03  **BANKING AND FINANCE**

The study of the financial management of industrial and commercial enterprises; of commercial, savings, and mortgage banking; and of investment analysis and portfolio selection.

- **04.03 01 Business and Corporate Finance**
  The study of financial decision analysis, including alternatives for the allocation, valuation, and management of financial resources.

- **04.03 02 Consumer Finance**
  The study of the effect on the consumer of consumer budgeting, credit buying, borrowing money, risk protection, investment programs, home ownership, and retirement plans.

- **04.03 03 Credit and Collections**
  The study of the factors influencing and determining loan policies, methods of credit investigations and analysis, credit techniques, collection methods, and credit and collection problems.

- **04.03 04 Financial Institutions**
  The study of the purposes, principles, practices, and procedures of banks, savings and loan institutions, credit unions, stock exchanges, stock brokers, consumer finance agencies, and other financial institutions.

- **04.03 05 International Banking and Finance**
  The study of the balance of payments problems, exchange rates, exchange controls, the contemporary international monetary systems, and institutional characteristics of international financing of trade.

- **04.03 06 Investments and Securities**
  The study of the securities market, investments concepts, and the effects of economic business cycles on investments, including the study of stocks, mutual funds, bonds, listed and unlisted securities, and yield changes as they affect long-term holdings.

- **04.03 07 Monetary and Fiscal Policy**
  The study of the functions of money, bank creation of deposits and credit, Federal Reserve control of the money supply, and alternative policies in monetary and fiscal control.

- **04.03 08 Money and Banking**
  The study of monetary systems and financial institutions, including a study of the characteristics and functions of various types of banks, economic stabilization, governmental fiscal policy, balance of payments, and foreign exchange.

- **04.03 09 Mortgage Brokerage**
  The study of the organization and control of mortgage brokers, loan application procedures, credit analysis, appraisal of collateral, legal aspects, interim financing, and fundamentals of mortgage servicing.

- **04.03 10 Negotiable Instruments**
  The study of the provisions of the uniform negotiable instruments of law, including bills of lading, stock certificates, bonds, certificates of deposit, trade acceptances, warehouse receipts, and other similar banking instruments.

- **04.03 11 Principles and Theory of Finance**
  The study of the creation, allocation, and utilization of money, and the effect of monetary policy upon individuals, business, and national and international economies, including the study of investment characteristics of stocks and bonds, the securities market, and inflation and deflation.

- **04.03 12 Public Finance**
  The study of the principles and procedures of collective actions; State, Federal, and local revenues and expenditures; borrowing, grants-in-aid, and negative and progressive taxation as they affect the public sector.

- **04.03 13 Savings and Loan**
  The study of savings and loan organizations, including collection principles, liquidity, supervision, government agencies and home financing, customer services, and the system of financial flows of income to capital investment.

- **04.03 14 Supervision and Regulation of Banking and Finance**
  The study of the role of the Federal Reserve System, Federal and State legislation, and governmental regulations and controls in the operations of financial institutions.

- **04.03 99 Other Banking and Finance (Specify)**

04.04  **BUSINESS DATA SYSTEMS**

The study of the theories and applications of management information systems, systems-analysis, and other information systems that deal with business data and are generally characterized by logical patterns of clerical work flow from the point of original data gathering to completion of necessary reports and retrieval displays.

04.05  **ENTREPRENEURSHIP**

The study of all the facets of starting and conducting an enterprise or business, while assuming full control and risk.

- **04.05 01 Minority Enterprises**
  The study of the special skills and knowledge needed to undertake the formation of a business enterprise by members of a minority group, including a study of the special legislation intended to aid such enterprises.
04.05 02  Private Ownership
The study of that part of the economic system that is not
owned by the government, characterized by corporations,
partnerships, and proprietorships.

04.05 02 01  Corporation
The study of the principles, practices, and expertise needed
to form, manage, and control a corporation, including the dis-
tribution of corporate powers, the financing of corporations,
and the role of directors and shareholders.

04.05 02 02  Partnership
The study of the nature and purposes of businesses which
are owned by two or more people, including their formation,
obligations, management, and dissolution.

04.05 02 03  Proprietorship
The study of the nature and purpose of a business enter-
prise which is completely owned, controlled, and managed by
a single individual or a small group of people.

04.05 03  Public Ownership
The study of those corporations which offer goods or serv-
ices to the public and the bulk of whose stock is held by quasi-
governmental bodies under either profit or nonprofit charters.

04.05 03 01  Nonprofit Public Corporation
The study of the principles which govern the distribution
of shares in a nonprofit corporation which operates under a
policy by which no shareholder or trustee shares in the profits
or losses of the enterprise.

04.05 03 02  Profitmaking Public Corporation
The study of the principles which govern the distribution
of the shares of stock in a publicly held company, including issu-
ance of stock certificates, granting of options to employees,
and payment of dividends.

04.05 99  Other Entrepreneurship (Specify)

04.06  INFORMATION COMMUNICATIONS
The study of the principles and techniques of obtaining
and giving information in a business setting.

04.06 01  Business Communications
The study of the principles and techniques of composing
business correspondence and reports.

04.06 02  Business Communication Systems
The study of the principles and techniques of operating
message centers and other communication systems in a busi-
ness setting.

04.06 03  Information Communication Systems
The study of the nature and structure of organizations that
specialize in transmitting information from senders to receiv-
ers, including an analysis of the services they provide.

04.06 03 01  United States Postal System
The study of the organization, management, functions,
methods, procedures, and services of the United States Postal
Service.

04.06 03 02  Private Delivery Systems
The study of the organization, management, methods, and
services of private communication delivery systems.

04.06 03 03  Telecommunications Systems
The study of the services, methods, and procedures of orga-
nizations that provide electrical impulse communication sys-
tems such as telephone and telegraph.

04.06 04  Business Report Writing
The study of the principles and procedures of researching,
organizing, and interpreting information for business reports.

04.06 99  Other Information Communications (Specify)

04.07  INSURANCE AND RISK MANAGEMENT
The study of risk analysis and personal and business insur-
ance and their applications to life, disability, property, lia-
Bility, and fiduciary trust and annuity underwriting.

04.07 01  Actuarial Science
The study of the principles of applying probability theory
to insurance, including the basic principles of life, property,
and casualty contingencies and the determination of annuity
and insurance benefits, premiums, reserves, and expenses.

04.07 02  Casualty Insurance
The study of casualty coverages involved in automobile
insurance; business, professional and personal liability insur-
ance; burglary, robbery, and theft insurance; fidelity and surety
bonds, disability insurance, and multiple line contracts.

04.07 03  Estate Planning
The study of life underwriting and programming problems,
and the principles and methods of integrating life insurance,
wills, trusts, business continuation agreements, and social se-
curity benefits into unified estate plans.

04.07 04  , Fiduciary Trusts and Annuities
The study of various trusts and annuities as related to fi-
nancial planning, including premium calculation, compound
interest functions, and mortality tables.
04.07 05 Accident and Health Insurance
The study of the risk of economic loss by accident or disease and the various methods of handling such risks through health, hospitalization, or accident insurance.

04.07 06 Liability Insurance
The study of the principles of underwriting and, of legal analysis of liability insurance contracts, ratemaking, financial reserves, and claims adjustment.

04.07 07 Life Insurance
The study of the principles of life insurance, including analysis of policies, contract provisions, premiums and reserves, selection and underwriting, reinsurance, and legal considerations.

04.07 08 Principles of Insurance
The study of major types of insurance, including life, fire, accident, and health, automobile, workmen's compensation, transportation, and fidelity and surety bonds.

04.07 09 Property Insurance
The study of the principles of fire insurance, including the protection of mortgagee's interest, consequential loss coverage, allied fire lines and fire insurance rates, ocean and inland marine insurance, multiple line contracts, contract analysis, underwriting, and loss adjustment.

04.07 10 Risk Management
The study of risk management methods applicable to both personal and business non-speculative risk arising from life and health, as well as property and liability contingencies, including the role of government relative to non-speculative risk.

04.07 11 Group Security and Social Insurance
The study of factors affecting economic security and the insurance mechanisms, both private and public, designed to meet economic security needs on a group basis, including social insurance, group insurance, medicare and medicaid, social security, and retirement systems.

04.07 12 Personal Insurance
The study of the principles of insurance as they apply to the average citizen, with emphasis on the types of policies available and the matching of policies to the needs and financial position of policyholders.

04.07 13 Insurance Law
The study of the legal doctrines and concepts that are applicable to the field of insurance, including contract law; parties to the contract; insurable interest; agency powers; waiver and estoppel; warranties, representation and concealments, the rights of the beneficiary, and provisions controlling and limiting loss.

04.07 14 Insurance Enterprise
The study of the principles of managing insurance companies and other risk bearing enterprises, including self-insurance and captive insurance organizations.

04.07 99 Other Insurance and Risk Management (Specify)

04.08 INTERNATIONAL BUSINESS
The study of export sales, trade controls, foreign operations, attitudes, monetary problems, and other areas of concern in the international business environment as it affects, or is affected by, a company's policies, procedures, and products.

04.09 MANAGEMENT
The study of planning, organizing, and controlling a business, including organizational and human aspects, with emphasis on various theories of management, the knowledge and understanding necessary for managing people and functions, and decisionmaking.

04.09 01 Business Policy
The study of the nature and development of the principles and goals by which a company conducts its business.

04.09 02 Management Applications
The study of the application of management methods and techniques to all kinds and sizes of business and other organizations.

04.09 02 01 Administrative Management
The study of the theory, principles, and practice of organizing, planning, and controlling the work of an organization.

04.09 02 02 Industrial Management
The study of the nature and application of management methods and techniques related to manufacturing companies.

04.09 02 03 Institutional Management
The study of the nature and application of management methods and techniques related to specific kinds of institutions.

04.09 02 04 Middle Management
The study and analysis of the management responsibilities of junior executives and supervisory personnel, including employee-management relations, administration of company policies, interpretation of records, profit controls, and product movement.

04.09 02 05 Production Management
The study of the systematic regulation and control of the manufacturing, fabricating, extracting, or processing of goods.
04.09 02 06  Small Business Management
The study of management functions, policies, and procedures that are characteristic of small business concerns.

04.09 02 07  Transportation Management
The study of the management principles and procedures that are involved in moving goods from one place to another by rail, truck, bus, or other conveyance.

04.09 03  Organizational Development and Behavior
The study of the behavior and motivations of individuals functioning in groups, the influence of styles of leadership that may be used by managers, and the means of intervention that may be used to improve interpersonal relations and team behavior.

04.09 04  Principles and Theory of Management
The study of the conceptual basis, and principles and theories of controlling, planning, and regulating business and other organizations.

04.09 05  Principles and Theory of Organization
The study of the concepts, principles, and theories of the interrelationships of the structure, authority, goals, and operations of business and other organizations.

04.10  MARKETING
The study of the principles, practices, and concepts involved in the performance of business activities which direct the transfer of goods and the acquisition of services from producer to consumer or user, including the study of marketing functions and institutions, activities having to do with effecting change in ownership and possession of goods and services, and the study of applied economics relating to the creation of time, place, and possession utility.

04.10 01  General Marketing
The study of introductory marketing principles, practices, procedures, and concepts.

04.10 02  Marketing Economics
The study of the economic principles of marketing, including the study of microeconomics and macroeconomics and economic decisionmaking of the individual business firm in relation to the industry of which it is a part.

04.10 03  Marketing Functions
The study of the principles, practices, and concepts involved in the major specialized activities and economic services inherent in directing the flow of goods from producer to consumer or user, including the functions of exchange, physical supply, and the facilitating functions.

04.10 03 01  Buying
The study of the process of concentrating or controlling goods to facilitate sale, purchase, production, or use, including buying for institutional consumption, for resale, for business use or industrial purposes, and procurement by governmental agencies.

04.10 03 02  Financing
The study of the principles and concepts involved in providing and managing funds and credit which directly relate to the transactions involved in the flow of goods and services from producer to consumer or industrial user, including the provision and management of funds needed to finance the carrying of stocks and the granting of mercantile and retail credit, including installment credit.

04.10 03 03  Marketing Research
The study of the principles, procedures, and concepts involved in gathering, recording, and analyzing facts about problems relating to the sale and transfer of goods and services from producer to consumer, including the study of relationships and adjustments between production and consumption, preparation of commodities for sale, physical distribution, wholesale and retail merchandising, and financial problems.

04.10 03 04  Risk
The study of the principles and concepts involved in the assumption of financial responsibility for loss, including the study of risk classifications, methods of handling risks, and risk management.

04.10 03 05  Selling, Promotion, and Advertising
The study of the principles, practices, and concepts involved in the process of assisting and persuading a prospective customer to purchase a product or service, including personal selling, advertising, display, and sales promotion.

04.10 03 06  Standardization and Grading
The study of the principles and concepts involved in the determination of basic specifications to which manufactured products must conform, and of classes into which the products of agriculture and extractive industries must be sorted, and the study of the process of sorting units of a product into the grades or classes established.

04.10 03 07  Storage
The study of the principles, practices, and concepts involved in the function of holding and preserving goods from the time of production to the time of final sale or remanufacture, including the study of the creation of time, form, and place utility, standards, and types of storage.

04.10 03 08  Transportation
The study of the physical transfer of products from the place of production to the place of consumption, or to and
from any intermediary points, including the study of the creation of place and time utility, and the planning, selection, and direction of the means and methods of transportation involved in the movement of goods in the marketing process.

04.10 04 Marketing Management

The study of the concepts, principles, practices, and procedures involved in planning, directing, and controlling the entire marketing activity of a firm or division of a firm, including the formulation of marketing objectives, policies, programs, and strategies.

04.10 04 01 Place Management

The study of the concepts, principles, and practices involved in the development of marketing management policies and strategies relating to the selection of distribution channels, distribution patterns, and channel supervision.

04.10 04 02 Price Management

The study of the concepts, principles, and practices involved in the development of marketing management policies relating to the pricing of products, including the study of pricing procedures, policies, and related legislation.

04.10 04 03 Product Management

The study of the concepts, principles, and practices involved in the development of marketing management policies relating to product planning, product identification, diversification, and product-line strategy.

04.10 04 04 Promotion Management

The study of the concepts, principles, and practices involved in the development of marketing management policies relating to the organization and management of personal selling, advertising, and sales promotion strategies, activities, and techniques.

04.10 05 Marketing of Products

The study of the principles, practices, procedures, and concepts of marketing individual or homogeneous classes of industrial, agricultural, and consumer products from the point of production or extraction to the point of consumption or use.

04.10 05 01 Agriculture Products

The study of the principles, practices, and concepts involved in the transfer or flow of agricultural products from the producers to the central markets, processors, middlemen, and final consumers, including the study of agricultural product classifications, cooperatives, commodity exchanges, auctions, and related legislation.

04.10 05 02 Consumer Products

The study of the principles, practices, and concepts inherent in and incident to the transfer and movement of consumer products from the point of production to the point of final consumption, including the study of consumer goods classification, consumer legislation, product management, pricing, promotion, and the physical distribution of individual or homogeneous classes of consumer products, including the facilitating functions of marketing.

04.10 05 03 Industrial Products

The study of the principles, practices, and concepts involved in the transfer or movement of industrial products from the initial producer or extractor to the final producer or industrial user, including the study of industrial goods classification, demand analysis, marketing channels, pricing, promotion, and related legislation.

04.10 06 Marketing of Services

The study of the principles, practices, procedures, and concepts of marketing intangibles that are bought and sold to industrial, agricultural, business, or home users, including activities, benefits, or satisfactions which are offered for sale or are provided in connection with the sale of goods.

04.10 06 01 Business Services

The study of the principles, practices, and concepts involved in marketing services to businesses, including such services as sales, promotion, buying, marketing research, marketing management and consulting, office, security, maintenance, and employment.

04.10 06 02 Financial Services

The study of the principles, practices, and concepts involved in the marketing of services performed by banks, finance companies, stock exchanges, brokerage firms, mortgage companies, and insurance and investment companies in providing financial services to businesses and personal consumers, including allocation, valuation, and management of financial resources.

04.10 06 03 Hospitality Services

The study of the principles, practices, and concepts involved in the marketing of services performed by restaurants, hotels, motels, travel agencies, and the recreation and tourism industry for business and personal consumers.

04.10 06 04 Insurance Services

The study of the principles, practices, and concepts involved in the marketing of risk protection for life, health, property, and liability losses to businesses and personal consumers.

04.10 06 05 Personal Services

The study of the principles, practices, and concepts in marketing services of a personal nature which serve the needs of individual consumers.
04.10 08 06 Real Estate Services

The study of the principles, practices, and concepts involved in buying, selling, appraising, renting, managing, and leasing of real property.

04.10 07 Organization of Marketing

The study of the principles, practices, and concepts of marketing activity as conducted at various institutional levels and bases of geographical scope, including the study of the organization of the flow of ownership.

04.10 07 01 International Marketing

The study of the principles, practices, and concepts of marketing involved in exporting and importing, including the study of tariffs, embargoes, cartels, exchange rates, foreign markets, foreign investments, the role of foreign aid, and related legislation.

04.10 07 02 Manufacturing and Production

The study of the principles, practices, concepts, and functions of marketing, as conducted by the manufacturer or producer in directing the flow of goods to the industrial user or ultimate customer.

04.10 07 03 Marketing Integration

The study of the principles, practices, and concepts inherent in the process of vertical and horizontal integration of marketing activities and functions as related to industrial or business ownership.

04.10 07 04 Retailing

The study of the principles, practices, concepts, and functions of marketing, as conducted by the retailer in concentrating and selling products and services from the producer or middleman to the ultimate consumer.

04.10 07 05 Wholesaling

The study of the principles, practices, concepts, and functions of marketing, as conducted by the wholesaler in concentrating and dispersing products from the producer to the industrial user, retailer, or ultimate consumer.

04.10 09 Other Marketing (Specify)

04.11 PERSONNEL MANAGEMENT AND ADMINISTRATION

The study of the methods, principles, procedures, and understandings necessary to manage and administer programs that are directed to the welfare and working conditions of employees in a business or other organization.

04.11 01 Compensation

The study of the salaries of executives and managers, the commissions earned by salesmen, and the wages of workers in factories, mines, stores, restaurants, and all other forms of economic organizations.

04.11 02 Evaluation Techniques

The study of the principles and procedures for implementing job evaluation programs, including systems of organized evaluation, job ranking, rating devices, performance reviews, and the effect of evaluation on personnel supervision and administration.

04.11 03 Human Relations

The study of the principles and techniques of measuring and improving an employee's effectiveness in relating to customers, to other employees, and to persons outside the work environment.

04.11 04 Labor-Management Relations

The study of the history and development of the labor movement, including an analysis and interpretation of Federal and State legislation, union contracts, labor negotiation, conciliation, arbitration, and grievance procedures.

04.11 04 01 Collective Bargaining

The study of the process in which workers bargain as a unit with management in regard to wages, hours, and basic conditions of employment.

04.11 04 02 Contract Administration

The study of the methods, techniques, and process by which union-management contracts are carried out.

04.11 05 Recruitment, Selection, and Separation

The study of the various methods and practices by which business organizations find the personnel which they need, and by which employment is terminated.

04.11 06 Supervision

The study of superior-subordinate relationships and practices in business and industry, including techniques of employee induction, morale building, followup and evaluation, correction, grievances, and an analysis of leadership and motivation.

04.11 07 Training and Development

The study of the principles, organization, and techniques of individual and group training, including the development of initial and followup programs, department and sales meetings, practice training in skills, and acquisition of information.

04.11 08 Welfare and Safety

The study of the principles and practices followed by an employer for promoting the health, safety, and welfare of the employees through better work procedures, machinery, and rest periods.
04.11 99 Other Personnel Management and Administration (Specify)

04.12 QUANTITATIVE METHODS
The study of the mathematical and statistical methods and models which business organizations use to understand themselves and the environment, and to gain the maximum effectiveness and efficiency of their resources.

04.12 01 Business Research Methods
The study of the principles and methods of investigating business facts and problems to find more effective means of conducting a business.

04.12 02 Management Science
The study of the application of mathematical and analytical techniques such as modeling, programming, forecasting, and analysis in the design, implementation, monitoring, and control of organizational processes and operations to determine their purpose and effectiveness, and means for attaining maximum efficiency.

04.12 03 Operations Research (See 08.15 03 - Operations Research)
The study of the principles and procedures of analyzing management problems utilizing probability theory, continuous distributions, mathematical programming, queuing theory, Markov processes, replacement maintenance and inventory models, other mathematical models, and simulation and game theory.

04.12 99 Other Quantitative Methods (Specify)

04.13 REAL ESTATE
The study of the theory and techniques of buying, selling, appraising, renting, managing, and leasing of real property.

04.13 01 Appraisal and Valuation
The study of the techniques of general appraisal of the real estate market, including factors that affect the value of land, construction costs per square foot and cubic foot, factors in residential and commercial appraisals, and the translation of rental income to present value.

04.13 02 Land Use Controls
The study of the various means of regulating, controlling, or directing the way in which real property is used.

04.13 03 Principles of Real Estate
The study of the principles and procedures involved in the ownership and transfer of real property, including titles, liens, mortgages, contracts, brokerage, and laws governing real estate.

04.13 04 Property Management
The study of the principles and methods of managing office buildings, apartment houses, shopping centers, small properties, and other investment property.

04.13 05 Real Estate Economics
The study of the economic trends and factors which affect the value of real estate, including the nature and classification of land, property, development, construction, subdivision, real estate evaluation, real estate cycles and business fluctuations, residential market trends, real property, and special purpose property trends.

04.13 06 Real Estate Finance
The study of principles and practices governing real estate financing, including mortgage and equity financing, sources of loans, loan procedures, and legislation governing mortgage lending.

04.13 07 Real Estate Investments
The study of the principles and procedures of selecting various types of commercial property for investment purposes, and analyzing location, income, operating expense, depreciation, and obsolescence to determine actual net income.

04.13 08 Real Estate Law
The study of the legal principles governing real estate transactions; including sales contracts, deeds, mortgages, title insurance, and State laws.

04.13 09 Real Estate Practice
The study of the day-to-day operations in real estate, including listing, prospecting, advertising, financing, sales techniques, escrow, and ethics.

04.13 99 Other Real Estate (Specify)

04.99 OTHER BUSINESS (SPECIFY)
Subject matter that cannot be subsumed under an aggregate, general, or introductory element that already exists within the above structure.

FOR CONSIDERATION OF CODING, RECORDING, AND REPORTING MULTIPLE SUBJECT MATTER (INTERDISCIPLINARY) IN BUSINESS, SEE APPENDIX E.

05 COMMUNICATION
Subject matter concerned with the creation, transmission, and evaluation of messages.

05.01 ADVERTISING
The study of the creation, execution, transmission, and evaluation of commercial messages concerned with the promotion and sale of products and services.
05.01 Advertising Evaluation
The study of the measurement of advertising messages using primary data, media research data, and surveys to determine the success of product or service functions in advertising campaigns.

05.01 Advertising Media
The study of the selection and implementation of the various vehicles for advertising messages, including the role of advertising agencies.

05.01 Advertising Production
The study of methods and application of concepts in producing and transmitting messages in advertising through print, electronic, direct mail media, and point of purchase situations.

05.01 Copywriting
The study of the techniques of reproducing written matter or art work in printed form for advertisements or publicity releases.

05.01 Other Advertising (Specify)

05.02 COMMUNICATION TECHNOLOGY
The study of the application of technology to communication.

05.02 Communication Networking
The study of the process of interconnecting communication equipment, often involving the geographic distribution of diverse communication systems.

05.02 Print Publication Technology
The study of optical scanning of copy and electronic editing methods used to eliminate errors and speed production in the newsroom.

05.02 Satellite Communication
The study of man-made celestial bodies that orbit the earth and their use in public and private communication.

05.02 Other Communication Technology (Specify)

05.03 FILM AS COMMUNICATION (See 03.02 Film as Art)
The study of the historical development, aesthetic qualities, and creative process of the motion picture image as a narrative, documentary, or experimental form.

05.03 Film and Public Policy
The study of the laws and regulations governing motion pictures as a public medium.

05.03 Film in Education
The study of the nature, history, and use of the motion picture as an educational instrument.

05.03 Film Production
The study and exercise of the principles and techniques of creating motion pictures.

05.03 Acting in Film
The study of the principles and techniques used in performing the role of a living character before a motion picture camera.

05.03 Cinematography
The study and practice of reproducing images on motion picture film.

05.03 Directing for Film
The study and practice of planning, coordinating, and implementing scenes before a motion picture camera.

05.03 Editing for Film
The study and practice of selecting and arranging motion picture film footage to achieve a creative expression.

05.03 Film Graphics
The study and practice of creating motion pictures through the manipulation of inanimate materials.

05.03 Film Sound
The study and practice of recording, mixing, and joining sound to motion pictures.

05.03 Production Management in Film
The study and practice of organizing materials and personnel to achieve a complete motion picture.

05.03 Writing for Film
The study and practice of principles and techniques used in creating written material for motion picture film.

05.03 History of Film as Communication
The study of the evolution and development of the motion picture medium as a socioeconomic-cultural phenomenon.

05.03 Theory and Criticism of Film as Communication
The study of the methods and standards for judging the quality of motion picture film and film making as an instrument of mass communication.
05.04 INNOVATIVE COMMUNICATION
The study of innovative forms of mass communication, including technical and science writing and nonprint media.

05.04 01 Nonprint Media
The study of the development and use of nonprint communication materials, forms, and media such as microfilm slides and audio and video tapes.

05.04 02 Technical Communication
The study of principles and methods used in oral or written exposition of scientific and technical materials.

05.04 09 Other Innovative Communication (Specify)

05.05 INTERNATIONAL COMMUNICATION
The study of the principles and methods of imparting or interchanging between countries, thoughts, opinions, or information by speaking, writing, codes, and other means.

05.05 01 International Negotiations
The study of the acts or processes involved in communications which seek to settle or make arrangements or agreements suitable to countries or nation-states.

05.05 02 International Propaganda
The study of the communication employed by a nation in an effort to further its cause or to damage an opposing cause.

05.05 09 Other International Communication (Specify)

05.06 JOURNALISM
The study of the principles and methods of gathering, processing, evaluating, and disseminating, through mass media, information about current events and issues.

05.06 01 Editorial Processes
The study of principles and methods of selecting, processing, and evaluating news and editorial content in the mass media, particularly in the light of audience or readership needs and responses.

05.06 02 Critical and Persuasive Writing
The study of the principles and techniques which can be effectively employed in such written forms as editorials, reviews, and interpretive analyses for evaluative or persuasive purposes.

05.06 03 Electronic Journalism
The study of the principles and techniques of planning, creating, and transmitting informational or news-related messages through the electronic media, particularly by radio and television.

05.06 04 Evaluative Writing
The study of the methods of implementing the Fair Comment and Criticism provisions of the First Amendment through editorial writing and critical reviews of public performances.

05.06 05 Feature and Indepth Writing
The study of the principles and techniques of gathering and disseminating, through mass media, facts, opinions, and ideas which are primarily interesting, explanatory, or analytical.

05.06 06 Journalism History
The study of the beginnings, development, and changes which have occurred in the mass media, and the economic, political, social, and technical influences which have affected them.

05.06 07 Journalism Laboratory
The study of the methods, techniques, and theories of journalism, performed in a laboratory environment to simulate real-life conditions.

05.06 08 News Reporting and Writing
The study of the nature and importance of news and the methods for obtaining and preparing news for transmission through mass media.

05.06 09 Photographic Journalism
The study of the theory and processes of using sensitized film to create visual and informational images for the transmission of messages.

05.06 09 Other Journalism (Specify)

05.07 PRINT MEDIA
The study of the principles, techniques, and requirements of using the printed media in the communication process, including, but not restricted to, pamphlets, newspapers, periodicals, and books.

05.08 PROFESSIONAL PRACTICES IN COMMUNICATION
The study of the history and status of legal, ethical, and societal restraints on, and the guarantees for, the communicator.

05.09 PUBLIC RELATIONS
The study of planned efforts to influence and maintain favorable public opinion through acceptable performance, honestly presented, with reliance on two-way communication and substantial use of the mass media.

05.10 RADIO
The study of the history, theories, and functions of radio in reaching mass audiences.
05.10 01 Radio and Public Policy
The study of the laws and regulations governing radio broadcasting as a public medium.

05.10 02 Radio Production
The study and exercise of principles and techniques used in creating radio programs.

05.10 03 Radio Programming
The study of the principles and techniques used in developing formats for, scheduling radio broadcasts and evaluating audience response.

05.10 04 Writing for Radio
The study and practice of the principles and techniques used in creating written materials for radio broadcast.

05.10 05 Other Radio (Specify)

05.11 SPEECH COMMUNICATION
The study of the nature, processes, and effects of human symbolic interaction.

05.11 01 Code Systems
The study of the uses of verbal and nonverbal symbols and signs in human communication.

05.11 02 Intercultural Communication
The study of communication among individuals of different cultural backgrounds.

05.11 03 Interpersonal Communication
The study of communicative interaction occurring in person-to-person and small group situations.

05.11 03 01 Conflict Management
The study of the role of communication in the creation and control of conflict.

05.11 04 Organizational Communication
The study of interrelated behaviors, technologies, and systems functioning within an organization.

05.11 05 Oral Interpretation
The study of literature through performance involving the development of skilled verbal and nonverbal expression based on critical analysis of written texts.

05.11 05 01 Aesthetics of Literature in Performance
The study of the philosophy of art as it applies to and enhances the performance and evaluation of literature.

05.11 05 02 Criticism of Literature in Performance
The study of the analysis and evaluation of literary texts in performance.

05.11 05 03 Group Performance
The study of modes of adaptation and oral presentation of literary texts by two or more persons including performances utilizing music, sound, dance, and other paralinguistic effects.

05.11 05 04 Oral Tradition
The study of the performance of various forms of verbal art in nonliterate and literate societies.

05.11 06 Pragmatic Communication
The study and practice of communication, the object of which is to influence or facilitate decision making.

05.11 06 01 Argumentation
The study of the processes involved in the development of ideas through reasoned discourse.

05.11 06 02 Debate and Forensics
The study of the application of forms of argument to test ideas or reach decisions.

05.11 06 03 Discussion and Conference
The study of the principles and procedures employed in problem-solving and decision-making groups.

05.11 06 04 Parliamentary Procedure
The study of codes and rules for the conduct of meetings or organizations in a democratic society, including, but not limited to, legislative bodies.

05.11 06 05 Persuasion
The study of the principles and strategies of communication that are intended to modify attitudes and actions.

05.11 07 Public Address
The study of speakers and speeches, including the historical and social context of platforms, campaigns, and movements.

05.11 08 Rhetorical and Communication Theory
The study of the principles that account for human communicative experiences and behavior.

05.11 08 01 Rhetorical Criticism
The study of the application of theoretical and evaluative principles to communicative experiences and behavior.
<table>
<thead>
<tr>
<th>Code</th>
<th>Subject Matter</th>
</tr>
</thead>
<tbody>
<tr>
<td>05.11.09</td>
<td>Speech Communication Education</td>
</tr>
<tr>
<td>The study of speech communication in pedagogical contexts.</td>
<td></td>
</tr>
<tr>
<td>05.11.09.01</td>
<td>Communication Development</td>
</tr>
<tr>
<td>The study of the acquisition and use of speech communication skills by normal children.</td>
<td></td>
</tr>
<tr>
<td>05.11.09.02</td>
<td>Oral Communication Skills</td>
</tr>
<tr>
<td>The study of strategies for improving individual competencies in speaking and listening.</td>
<td></td>
</tr>
<tr>
<td>05.11.09.03</td>
<td>Instructional Communication</td>
</tr>
<tr>
<td>The study of communicative factors involved in the teaching-learning process.</td>
<td></td>
</tr>
<tr>
<td>05.11.10</td>
<td>Speech and Hearing Science</td>
</tr>
<tr>
<td>The study of the physiological and acoustical correlates of speech and hearing behavior.</td>
<td></td>
</tr>
<tr>
<td>05.11.10.01</td>
<td>Biological Aspects of Speech and Hearing</td>
</tr>
<tr>
<td>The study of the anatomy and physiology of speech and hearing mechanisms.</td>
<td></td>
</tr>
<tr>
<td>05.11.10.02</td>
<td>Phonological and Phonetic Aspects of Speech and Hearing</td>
</tr>
<tr>
<td>The study of the production and perception of verbal and nonverbal human sounds.</td>
<td></td>
</tr>
<tr>
<td>05.11.10.03</td>
<td>Physical Aspects of Speech and Hearing</td>
</tr>
<tr>
<td>The study of acoustic characteristics of motor speech production and of auditory perception.</td>
<td></td>
</tr>
<tr>
<td>05.11.99</td>
<td>Other Speech Communication (Specify)</td>
</tr>
<tr>
<td>05.12</td>
<td>SPECIAL COMMUNICATION</td>
</tr>
<tr>
<td>The study of special communication needs and the systems designed to enhance communicative abilities for persons handicapped in one or more of the modes of communication.</td>
<td></td>
</tr>
<tr>
<td>05.12.01</td>
<td>Braille</td>
</tr>
<tr>
<td>The study of a system of raised dots for touch reading and writing by the blind, derived from an arrangement of six dots referred to as the braille cell.</td>
<td></td>
</tr>
<tr>
<td>05.12.02</td>
<td>Manual Communication</td>
</tr>
<tr>
<td>The study of communication by means of systematic use of signs and symbols, made with the hands and body, including various signed language systems and finger spelling to convey and receive information.</td>
<td></td>
</tr>
<tr>
<td>05.12.03</td>
<td>Speech Reading</td>
</tr>
<tr>
<td>The study of knowledge and skills designed to develop student competencies in understanding the speaker's message through visual attention.</td>
<td></td>
</tr>
<tr>
<td>05.12.99</td>
<td>Other Special Communication (Specify)</td>
</tr>
<tr>
<td>05.13</td>
<td>TELEVISION</td>
</tr>
<tr>
<td>The study of the history, theories, and functions of television in reaching mass audiences.</td>
<td></td>
</tr>
<tr>
<td>05.13.01</td>
<td>Community Television</td>
</tr>
<tr>
<td>The study of CATV systems, their cause and effect and legal implications in reaching the mass viewing audiences.</td>
<td></td>
</tr>
<tr>
<td>05.13.02</td>
<td>Television and Public Policy</td>
</tr>
<tr>
<td>The study of the laws and regulations governing television as a public medium.</td>
<td></td>
</tr>
<tr>
<td>05.13.03</td>
<td>Writing for Television</td>
</tr>
<tr>
<td>The study and practice of the principles and techniques of creating written material for television.</td>
<td></td>
</tr>
<tr>
<td>05.13.04</td>
<td>Television Production</td>
</tr>
<tr>
<td>The study and exercise of the principles and techniques of creating television programs.</td>
<td></td>
</tr>
<tr>
<td>05.13.05</td>
<td>Television Programming</td>
</tr>
<tr>
<td>The study of the principles and techniques of developing and scheduling television programs and of evaluating audience response.</td>
<td></td>
</tr>
<tr>
<td>05.13.99</td>
<td>Other Television (Specify)</td>
</tr>
<tr>
<td>05.99</td>
<td>OTHER COMMUNICATION (Specify)</td>
</tr>
<tr>
<td>Subject matter that cannot be subsumed under an aggregate, general, or introductory element that already exists within the above structure.</td>
<td></td>
</tr>
<tr>
<td>06</td>
<td>COMPUTER SCIENCE AND DATA PROCESSING</td>
</tr>
<tr>
<td>Subject matter concerned with the coding, processing, and storage of data through repetitive and highly complex mathematical operations at high speed, and in accordance with strictly defined systems and procedures.</td>
<td></td>
</tr>
<tr>
<td>06.01</td>
<td>APPLICATIONS IN COMPUTER SCIENCE AND DATA PROCESSING</td>
</tr>
</tbody>
</table>
  | The study of the application of computer science and data processing to induction and hypothesis formulation, cognitive...
and perceptual processes, learning and adaptive systems, problem solving, or simulation of natural systems.

06.01 01  Artificial Intelligence

The study of the execution by automatic means of procedures or operations associated with human intelligence including perception, recognition, organization, action, and assessment of impact.

06.01 02  Computer Graphics

The study of the input, construction, storage, retrieval, manipulation, alteration, and analysis of pictorial data.

06.01 03  Instructional Applications

The study of the use of computers for instructional purposes as in computer-assisted instruction, computer-based instruction, and test analysis.

06.01 04  Pattern Recognition

The study of the identification of shapes, forms, or configurations by means of computers as used in fingerprint analysis and character recognition.

06.01 99  Other Applications in Computer Science and Data Processing (Specify)

06.02  COMPUTER OPERATIONS AND OPERATIONS CONTROL

The study of the procedures necessary for managing, securing, and operating computer equipment and for processing data.

06.02 01  Computer Operation

The study of the physical tasks required to operate a computer and its related peripheral equipment.

06.02 02  Data Control

The study of techniques of managing the flow of input and output documents through a computer center.

06.02 03  Data Entry

The study of the techniques of converting original data to a machine-readable form such as keypunching or other forms of data transcription.

06.02 04  Records Management

The study of techniques designed to provide economy and efficiency in the creation, organization, maintenance, use, and disposition of recorded data.

06.02 05  Unit Record Operation

The study of techniques of operating equipment that processes data recorded in punched cards such as card sorters, collators, and tabulators.

06.02 99  Other Computer Operations and Operations Control (Specify)

06.03  COMPUTER HARDWARE SYSTEMS

The study of the use of, and interrelationships between computers, input and output devices, data storage devices, control units, and related equipment.

06.03 01  Computer Architecture

The study of the techniques of design and assembly of computing logic units and devices into a computing system.

06.03 02  Networking

The study of the process of interconnecting computing equipment, often involving geographic distribution of user terminals and diverse computer systems.

06.03 03  Processing Nodes

The study of distinct computing methods such as card-oriented batch processing, keyboard-oriented batch processing, remote job entry, timesharing, interactive computing, on-line inquiry, and message switching.

06.03 99  Other Computer Hardware Systems (Specify)

06.04  COMPUTER HARDWARE

The study of the mechanical, magnetic, electrical, electronic, and other devices and components of computers and other data processing equipment.

06.04 01  Central Processing Units

The study of that part of a computing system which contains the circuits that control and perform the execution of instructions, usually containing the main storage and arithmetic and logic units.

06.04 02  Communication Control Devices

The study of message switching equipment, remote terminal controllers, concentrators, multiplexers, and other electronic message handling devices.

06.04 03  Memory Hierarchies

The study of the functional and performance characteristics of various storage media and their relationships within a computer system.

06.04 04  Microprocessors

The study of the architecture, logic, and program characteristics of central processing units which are implemented on single or, at most, very few large-scale integrated circuits.

06.04 05  Peripheral Devices

The study of various units and devices that usually are connected to and used in combination with a central processor.
such as input and output devices and storage devices, including tape and disk drives, terminals, card readers and punches, printers, and plotters.

06.04 06 Unit Record Equipment
The study of equipment which processes data recorded in punched cards, including card sorters, collators, and tabulators.

06.04 99 Other Computer Hardware (Specify)

06.05 INFORMATION AND DATA BASE SYSTEMS
The study of methods for creating, organizing, storing, and accessing organized files of information.

06.05 01 Data Base Specifications
The study of the computer specifications and standardizations of data system's languages, such as through the Conference on Data Systems Languages (CODASYL).

06.05 02 Data Base Management Systems
The study of computer software systems which handle the storage, changing, and retrieval of records in an organized file.

06.05 03 Data Base Security
The study of the procedures required to protect data bases from unauthorized access, modification, or destruction.

06.05 04 File Organization and Manipulation
The study of procedures used for organizing data elements and files to develop optimum use of storage and ensure rapid retrieval such as sequential, random, and indexed access methods, and indexed file structures.

06.05 06 Generalized Report Techniques
The study of methods for developing software that processes specific words and symbols used to define any of a variety of report formats, resulting in the generation of computer instructions that produce the defined report, utilizing previously established data files.

06.05 08 Relational Data Bases
The study of the relationships that are defined among various data record types.

06.05 99 Other Information and Data Base Systems (Specify)

06.06 NUMERICAL COMPUTATIONS
The study of methods for obtaining useful quantitative solutions to problems that have been expressed mathematically, including the study of the errors and bounds on errors in obtaining such solutions.

06.06 01 Computational Algorithms
The study of methods for achieving solutions to classes of numerical problems using the computer.

06.06 02 Computational Error Analysis
The study of the cause and effect of errors that result from computer arithmetic, rounding, or truncation.

06.06 03 Mathematical Software
The study of methods for producing reliable, portable, quality programs designed to solve classes of mathematical or numerical problems.

06.06 99 Other Numerical Computations (Specify)

06.07 PROGRAMMING LANGUAGES
The study of different sets of symbols and the rules for combining them into instructions which can ultimately be used by a computer.

06.07 01 Command Languages
The study of the programming language which is recognized by the computer, to make it operate.

06.07 02 Decision Tables Languages
The study of the programming language that is a part of a decision table programming system.

06.07 03 List Processing Languages
The study of specific languages developed for manipulation of symbols and strings of symbols such as LISP and SNOBOL.

06.07 04 Problem or Special Purpose Languages
The study of programming languages designed for a single objective, and programming languages which define, specify, and solve problems, such as RPG.
06.07 05 Procedure Oriented Languages
The study of programming languages that are particularly suited to the process of solving general problems, such as FORTRAN, BASIC, COBOL, and APL.

06.07 06 Simulation Languages
The study of programming languages that are designed for modeling specific kinds of systems, such as GASP, DYNAMO, and SIMSCRIPT.

06.07 07 Symbolic and Algebraic Manipulation Languages
The study of programming languages that are used for manipulating algebraic or symbolic expressions; such as ALTRAN and FORMAC.

06.07 08 Instructional Programming and Author Languages
The study of languages designed for programming computers to assist with instruction, often providing special features for authors of computer-based learning materials—such as COURSEWRITER, PLAN IT, and TUTOR.

06.07 99 Other Programming Languages (Specify)

06.08 PROGRAMMING SYSTEMS
The study and design of programs, programming languages, and sets of coded instructions directing a computer to perform a series of operations.

06.08 01 Assemblers
The study of machine-dependent computer programs that translate structured symbolic statements into machine instructions.

06.08 02 Compilers
The study of computer programs that translate machine-dependent, structured, symbolic language statements into machine instructions.

06.08 03 Interpreters
The study of computer programs that translate structured symbolic statements for immediate statement-by-statement processing.

06.08 04 Job Control Languages
The study of computer programming languages which aid users of a specific data processing system to describe the requirements of a task, or series of tasks, to that system.

06.08 05 Macrolanguages
The study of computer programming languages that make use of sets of machine-language instructions to perform specific data processing functions by aggregation into simpler instructions (macros).

06.08 06 Operating Systems
The study of organized collections of techniques and procedures for allocating resources within a computer system.

06.08 07 Performance Measurement and Evaluation
The study of techniques for testing and comparing the performance of computer systems by the use of such techniques as benchmarking and simulation.

06.08 08 Systems Security
The study of computer programs designed to maintain the integrity of programming systems and to prevent unauthorized access or damage to such systems.

06.08 09 Virtual Memory Systems
The study of techniques that permit a computer user to treat secondary storage as an extension of main memory, thus giving the appearance of a larger memory system.

06.08 99 Other Programming Systems (Specify)

06.09 SOFTWARE METHODOLOGY
The study of the methods and techniques of designing and producing computer programs.

06.09 01 Coding and Testing
The study of methods of preparing in code, or pseudocode, a list of the successive operations (computer program) required to solve a specific problem; and techniques for verifying the correctness of the computer programs.

06.09 02 Documentation and Documentation Standards
The study of the procedures for providing a record of the function, data requirements, output, usage, and description of a computer program or system of programs, and the standards for such procedures.

06.09 03 Programming Techniques
The study of methods and procedures for the efficient development of well structured programs, such as typically structured programming, modular programming, top-down programming.

06.09 04 Systems Analysis
The study of the principles and techniques involved in the design of large-scale computer programs including modeling, flowcharting, data organization, and the impact of the programs on organizational objectives.

06.09 05 Systems Design
The study of the procedures for generating detailed specifications of the steps outlined by a systems analyst.
06.09 06  Time, Cost, and Feasibility Studies
The study of procedures for estimating the length of time and the cost required to produce a computer program, such as the use of Program Evaluation Review Techniques (PERT) and other critical path methods.

06.09 99  Other Software Methodology (Specify)

06.10  THEORY OF COMPUTATION
The study of abstract mathematical models of computing machines.

06.10 01  Analysis of Algorithms
The study of algorithm complexity and problem complexity. The former is concerned with consideration of a specific algorithm for solving a problem and the analysis of its behavior with respect to the amount of memory and other resources used. The latter is concerned with the class of algorithms for solving a particular problem and the determination of the minimum requirements of the problem with respect to time, memory, or other resources.

06.10 02  Computability and Decidability
The study of conditions under which a given problem can be solved on a given abstract machine and the conditions under which it is possible to make such determinations.

06.10 03  Formal Languages
The study of abstract mathematical objects used to model the syntax of programming languages or of natural languages such as English.

06.10 04  Proof of Program Correctness
The study of mathematical techniques for providing that a given computer program actually solves a specific problem.

06.10 05  Theory of Automata
The study of the abstract mathematical models which are idealized machines called "automata", such as Turing machines.

06.10 99  Other Theory of Computation (Specify)

06.11  EDUCATIONAL, SOCIETAL, AND CULTURAL CONSIDERATIONS
The study of any aspects of computer science and data processing which impact education, society, and culture, such as legal implications, right to privacy, and computer theft.

06.11 01  Computer Literacy
The study of the non-technical aspects of the capabilities and limitations of computers, including some of the social, cultural, vocational, economic, and educational implications of computers.

06.11 02  History of Computer Science and Data Processing
The study of the historical development of computers, of computer science, and data processing.

06.11 03  Basic Concepts of Computer Science
The study of basic concepts of computers, computer systems, programming, and programming systems.

06.11 04  Basic Concepts of Data Processing
The study of computers and computer programming, especially as they apply to the problems arising from business and commercial applications.

06.11 99  Other Educational, Societal, and Cultural Considerations (Specify)

06.99  OTHER COMPUTER SCIENCE AND DATA PROCESSING (SPECIFY)
Subject matter that cannot be subsumed under an aggregate, general, or introductory element that already exists within the above structure.

FOR CONSIDERATION OF CODING, RECORDING, AND REPORTING MULTIPLE SUBJECT MATTER UNDER COMPUTER SCIENCE AND DATA PROCESSING, SEE APPENDIX E.

07  EDUCATION
Subject matter concerned with the art or process of imparting knowledge, developing the powers of reasoning and judgment, and preparing others intellectually for a mature life.

07.01  FOUNDATIONS OF EDUCATION
The study of the historical, psychological, sociological, philosophical, and comparative aspects of education, and of the basic concepts upon which American education is based.

07.01 01  Comparative Education
The study of similarities and differences between educational theory and practice in different countries and various cultures for the purpose of deepening understanding and solving educational problems.

07.01 02  Educational Theory
The study of the theoretical foundations of education, including historical, philosophical, political, and psychological perspectives.
07.01 03 Socioeconomic Foundations
The study of the impact and relationship between the economic aspects of society and education.

07 01 99 Other Foundations of Education (Specify)

07.02 EDUCATIONAL ADMINISTRATION
The study of principles and techniques of planning, organizing, developing, staffing, coordinating, managing, researching, evaluating, financing, and controlling educational institutions and agencies.

07.02 01 Principles and Theory of Educational Administration
The study of the basic theories and principles of organizing, managing, developing, staffing, and financial educational institutions and agencies.

07.02 02 Educational Business Management
The study of the principles and techniques of applying business management principles and methods to organizing, planning, and controlling the daily operations of an educational institution or agency, including factors related to personnel, facilities, and finances.

07.02 03 Educational Facilities and Material
The study of the principles and practices of planning, organizing, staffing, maintaining, purchasing, coordinating, and managing the physical plant and equipment of educational institutions and agencies.

07.02 04 Educational Finance
The study of the principles and practices of obtaining and allocating educational finances, of evaluating local, State, and Federal education finance systems, and of analyzing foundation aid formulas and procedures for the disbursement of educational monies.

07.02 05 Educational Leadership and Management
The study of the theories, methods, principles, and practices of directing, controlling, and administering the personnel resources of educational institutions and agencies.

07.02 06 Educational Organization and Governance
The study of the theories, methods, principles, and practices of organizing and governing the constellation of informal and formal activities that characterize educational institutions and agencies.

07.02 07 Educational Personnel and Staffing
The study of the principles and practices of interviewing, selecting, motivating, compensating, and terminating the professional and support personnel of educational institutions and agencies.

07.02 08 Educational Planning
The study of the theories, methods, and techniques for making judgments and predictions about the future of educational institutions and agencies.

07.02 09 Student Personnel Administration
The study of the principles and techniques of managing, directing, and developing an organized unit providing student services within an educational institution.

07.02 99 Other Educational Administration (Specify)

07.03 SYSTEMS OF EDUCATION
The study of the historical, theoretical, social, and economic principles upon which designated systems, plans, methods, and structures for providing instruction are established and maintained.

07.03 01 Preelementary Education Systems
The study of the historical, theoretical, social, and economic principles upon which designated preelementary education systems are established and maintained.

07.03 02 Elementary Education Systems
The study of the historical, theoretical, social, and economic principles upon which designated elementary education systems are established and maintained.

07.03 03 Secondary Education Systems
The study of the historical, theoretical, social, and economic principles upon which designated secondary education systems are established and maintained.

07.03 04 Middle School Education Systems
The study of the historical, theoretical, social, and economic principles upon which designated middle school education systems are established and maintained.

07.03 05 Community and Junior College Education Systems
The study of the historical, theoretical, social, and economic principles upon which designated community and junior college education systems are established and maintained.

07.03 06 Vocational-Technical Education Systems
The study of the historical, theoretical, social, and economic principles upon which designated vocational-technical education systems are established and maintained.

07.03 07 Higher Education Systems
The study of the historical, theoretical, social, and economic principles upon which designated higher education systems are established and maintained.
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>07.03 08</td>
<td><strong>Parochial Education Systems</strong>&lt;br&gt;The study of the historical, theoretical, social, and economic principles upon which designated parochial or religious education systems are established and maintained.</td>
</tr>
<tr>
<td>07.03 09</td>
<td><strong>Adult-Continuing Education Systems</strong>&lt;br&gt;The study of the historical, theoretical, social, and economic principles upon which designated adult and continuing education systems are established and maintained to meet the unique needs of adults and youth who are beyond the age of compulsory school attendance and who have either completed or interrupted their formal education.</td>
</tr>
<tr>
<td>07.03 99</td>
<td><strong>Other Systems of Education (Specify)</strong></td>
</tr>
<tr>
<td>07.04</td>
<td><strong>CURRICULUM AND INSTRUCTION—GENERAL</strong>&lt;br&gt;The study of the theories, methods, and procedures for designing, controlling, developing, and integrating educational activities and programs.</td>
</tr>
<tr>
<td>07.04 01</td>
<td><strong>Principles and Theories of Curriculum and Instruction</strong>&lt;br&gt;The study of the principles and theories of designing, developing, integrating, and controlling curriculum and instruction.</td>
</tr>
<tr>
<td>07.04 02</td>
<td><strong>Management and Supervision of Curriculum and Instruction</strong>&lt;br&gt;The study of the principles and practices of administering, controlling, and directing the development and implementation of curriculum instructional activities and programs.</td>
</tr>
<tr>
<td>07.04 03</td>
<td><strong>Teacher Training</strong>&lt;br&gt;The study of the principles and techniques of preparing teachers to perform instructional activities, including the activities of practice teaching.</td>
</tr>
<tr>
<td>07.04 04</td>
<td><strong>Teaching Methods</strong>&lt;br&gt;The study of the development and use of alternative ways of providing instructional activities to students.</td>
</tr>
<tr>
<td>07.04 99</td>
<td><strong>Other Curriculum and Instruction—General (Specify)</strong></td>
</tr>
<tr>
<td>07.05</td>
<td><strong>CURRICULUM AND INSTRUCTION—SUBJECT MATTER</strong>&lt;br&gt;The study of the theory, methods, and techniques involved in teaching specific subject matter (Using the Structure of the Classification of Educational Subject Matter).</td>
</tr>
<tr>
<td>07.05 01</td>
<td><strong>Agriculture and Renewable Natural Resources</strong>&lt;br&gt;The study of the theory, methods, and techniques involved in teaching the subject matter of Agriculture and Renewable Natural Resources.</td>
</tr>
<tr>
<td>07.05 02</td>
<td><strong>Architecture and Environmental Design</strong>&lt;br&gt;The study of the theory, methods, and techniques involved in teaching the subject matter of Architecture and Environmental Design.</td>
</tr>
<tr>
<td>07.05 03</td>
<td><strong>Arts, Visual and Performing</strong>&lt;br&gt;The study of the theory, methods, and techniques involved in teaching the subject matter of Arts, Visual and Performing.</td>
</tr>
<tr>
<td>07.05 04</td>
<td><strong>Business</strong>&lt;br&gt;The study of the theory, methods, and techniques involved in teaching the subject matter of Business.</td>
</tr>
<tr>
<td>07.05 05</td>
<td><strong>Communication</strong>&lt;br&gt;The study of the theory, methods, and techniques involved in teaching the subject matter of Communication.</td>
</tr>
<tr>
<td>07.05 06</td>
<td><strong>Computer Science and Data Processing</strong>&lt;br&gt;The study of the theory, methods, and techniques involved in teaching the subject matter of Computer Science and Data Processing.</td>
</tr>
<tr>
<td>07.05 07</td>
<td><strong>Education</strong>&lt;br&gt;The study of the theory, methods, and techniques involved in teaching the subject matter of Education.</td>
</tr>
<tr>
<td>07.05 08</td>
<td><strong>Engineering and Engineering Technology</strong>&lt;br&gt;The study of the theory, methods, and techniques involved in teaching the subject matter of Engineering and Engineering Technology.</td>
</tr>
<tr>
<td>07.05 09</td>
<td><strong>Health Care and Health Sciences</strong>&lt;br&gt;The study of the theory, methods, and techniques involved in teaching the subject matter of Health Care and Health Sciences.</td>
</tr>
<tr>
<td>07.05 10</td>
<td><strong>Home Economics</strong>&lt;br&gt;The study of the theory, methods, and techniques involved in teaching the subject matter of Home Economics.</td>
</tr>
<tr>
<td>07.05 11</td>
<td><strong>Industrial Arts, Trades, and Technology</strong>&lt;br&gt;The study of the theory, methods, and techniques involved in teaching the subject matter of Industrial Arts, Trades, and Technology.</td>
</tr>
<tr>
<td>07.05 12</td>
<td><strong>Language, Linguistics, and Literature</strong>&lt;br&gt;The study of the theory, methods, and techniques involved in teaching the subject matter of Language, Linguistics, and Literature.</td>
</tr>
<tr>
<td>07.05 13</td>
<td><strong>Law</strong>&lt;br&gt;The study of the theory, methods, and techniques involved in teaching the subject matter of Law.</td>
</tr>
</tbody>
</table>
07.05 14 Libraries and Museums
   The study of the theory, methods, and techniques involved in teaching the subject matter of Libraries and Museums.

07.05 15 Life Sciences and Physical Sciences
   The study of the theory, methods, and techniques involved in teaching the subject matter of Life Sciences and Physical Sciences.

07.05 16 Mathematical Sciences
   The study of the theory, methods, and techniques involved in teaching the subject matter of Mathematical Sciences.

07.05 17 Military Sciences
   The study of the theory, methods, and techniques involved in teaching the subject matter of Military Sciences.

07.05 18 Philosophy, Religion, and Theology
   The study of the theory, methods, and techniques involved in teaching the subject matter of Philosophy, Religion, and Theology.

07.05 19 Physical Education, Health Education, and Leisure
   The study of the theory, methods, and techniques involved in teaching the subject matter of Physical Education, Health Education, and Leisure.

07.05 20 Psychology
   The study of the theory, methods, and techniques involved in teaching the subject matter of Psychology.

07.05 21 Public Administration and Social Services
   The study of the theory, methods, and techniques involved in teaching the subject matter of Public Administration and Social Services.

07.05 22 Social Sciences and Social Studies
   The study of the theory, methods, and techniques involved in teaching the subject matter of Social Sciences and Social Studies.

07.05 99 Other Curriculum and Instruction - Subject Matter (Specify)

07.06 CURRICULUM AND INSTRUCTION - PROGRAMS
   The study of the theory, methods, and techniques of designing, implementing, and evaluating instructional programs, or programs of interrelated activities in an educational setting.

07.06 01 Agricultural Occupations
   The study of the theory, methods, and techniques of designing, implementing, and evaluating programs which prepare, upgrade, and retrain students in agricultural occupations.

07.06 02 Career Education
   The study of the theory, methods, and techniques of designing, implementing, and evaluating programs which provide assistance to students in planning and preparing for a career.

07.06 03 Cooperative Education
   The study of the theory, methods, and techniques of designing, implementing, and evaluating programs which provide students with on-the-job training and coordinated school instruction.

07.06 04 Distributive Education
   The study of the theory, methods, and techniques of designing, implementing, and evaluating programs which provide students with various combinations of subject matter and learning experiences related to the flow of goods and services from the producer to the consumer or ultimate user.

07.06 05 Health Occupations
   The study of the theory, methods, and techniques of designing, implementing, and evaluating programs which prepare, upgrade, and retrain students in a wide range of health maintenance and health care occupations.

07.06 06 Home Economics Occupations
   The study of the theory, methods, and techniques of designing, implementing, and evaluating programs which prepare, upgrade, and retrain students for occupations requiring the knowledge and skills of home economics subject matter.

07.06 07 Office Occupations
   The study of the theory, methods, and techniques of designing, implementing, and evaluating programs which prepare, upgrade, and retrain students in selected office occupations.

07.06 08 Technical Education
   The study of the theory, methods, and techniques of designing, implementing, and evaluating programs which prepare, upgrade, or retrain students for a cluster of job opportunities in specialized, technical fields or occupations.

07.06 09 Trade and Industrial Occupations
   The study of the theory, methods, and techniques of designing, implementing, and evaluating programs which prepare, upgrade, or retrain students in a wide range of trade and industrial occupations.
07.06 10 Reading and Language Arts Programs
The study of the theory, methods, and techniques of designing, implementing, and evaluating programs which prepare, upgrade, or retrain students in reading and the language arts.

07.06 11 Bilingual Education Programs
The study of the theory, methods, and techniques of designing, implementing, and evaluating programs which prepare, upgrade, or retrain students in English and another language which may be their native tongue.

07.06 12 Cocurricular Activity Programs
The study of the theory, methods, and techniques of designing, implementing, and evaluating programs which are under the sponsorship of a school, but for which participation is generally not required and credit is generally not awarded.

07.06 13 Driver Education Programs
The study of the theory, methods, and techniques of designing, implementing, and evaluating programs which prepare, upgrade, or retrain students in the skills and learning experiences necessary for the safe operation of a motor vehicle.

07.06 99 Other Curriculum and Instruction – Programs (Specify)

07.07 COUNSELING AND GUIDANCE
The study of the theory, methods, functions, operations, and services involved in the personal, social, educational, and vocational development of students.

07.07 01 Principles and Theories of Counseling and Guidance
The study of the principles, theories, and methods of serving the personal, social, educational, and vocational needs of students.

07.07 02 Academic Counseling and Guidance
The study of the theory, methods, functions, operations, and services that are provided to students who seek assistance in making specific choices regarding their educational progress towards a career.

07.07 03 Career Information and Counseling
The study of the theory, methods, functions, operations, and services that are provided to students who seek assistance in selecting and pursuing a career.

07.07 04 Clinical Experience
The study of the principles and techniques of applying counseling and guidance theories, methods, functions, operations, and services to student clients in educational settings.

07.07 05 Counseling Services
The study of the nature and characteristics of programs, operations, and services that are provided to students in educational institutions and other agencies for the purpose of helping them to direct their judgment or conduct.

07.07 06 Group Processes and Procedures
The study of the theories, methods, and techniques for leading, organizing, and conducting counseling activities that involve several student clients at the same time.

07.07 07 Organization and Administration of Counseling and Guidance
The study of the principles and techniques of structuring, managing, directing, and controlling organizations, institutions, agencies, and departments that provide counseling and guidance services.

07.07 08 Professional Development
The study of principles and techniques of providing continuing education experiences to further professional growth in counseling and guidance personnel.

07.07 99 Other Counseling and Guidance (Specify)

07.08 SPECIAL EDUCATION
The study of the theory, methods, and techniques of designing, implementing, and evaluating organized learning activities for students whose physical, emotional, mental, or social needs require a special curriculum and educational setting.

07.08 01 Early Education of the Handicapped
The study of the theory, methods, and techniques of designing, implementing, and evaluating organized learning activities for handicapped students whose ages range from birth to the time a child would normally complete the third grade.

07.08 02 Emotionally Handicapped
The study of the theory, methods, and techniques of designing, implementing, and evaluating organized learning activities for handicapped students whose ages range from birth to the time a child would normally complete the third grade, which adversely affects educational performance: (a) an inability to learn which cannot be explained by intellectual, sensory or health factors; (b) an inability to build or maintain satisfactory interpersonal relationships with peers and teachers, (c) inappropriate types of behavior or feelings under normal circumstances, (d) a general pervasive mood of unhappiness or depression; or (e) a tendency to develop physical symptoms or fears associated with personal or school problems. This category includes children who are schizophrenic or autistic. This category does not include children who are socially maladjusted, unless it is determined that they are emotionally disturbed.
07.08.03 Gifted and Talented

The study of the theory, methods, and techniques for designing, implementing, and evaluating organized learning activities for students capable of high performance, including those with demonstrated achievement or ability in any one or more of these areas—general intellectual ability, specific academic aptitude, creative or productive thinking, leadership ability, visual and performing arts, or psychomotor ability.

07.08.04 Hearing Handicapped

The study of the theory, methods, and techniques of designing, implementing, and evaluating organized learning activities for students who have an impairment in hearing, as follows: (a) "deaf" means a hearing impairment which is so severe that the child is impaired in processing linguistic information through hearing, with or without amplification, which adversely affects educational performance, (b) "hard of hearing" means a hearing impairment, whether permanent or fluctuating, which affects a child's educational performance but which is not included under the definition of "deaf" in this section.

07.08.05 Learning Disabled

The study of the theory, methods, and techniques of designing, implementing, and evaluating organized learning activities for students who have disorders in one or more of the basic psychological processes involved in understanding or in the use of language, spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, spell, or to do mathematical calculations. This category includes such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. This category does not include children who have learning problems which are primarily the result of visual, hearing, or motor handicaps, of mental retardation, or of environmental, cultural or economic disadvantage.

07.08.06 Mentally Handicapped

The study of the theory, methods, and techniques for designing, implementing, and evaluating organized learning activities for students whose impaired mental development adversely affects their educational performance.

07.08.07 Multiple Handicapped

The study of the theory, methods, and techniques for designing, implementing, and evaluating organized learning activities for students who have a combination of handicaps that adversely affects their educational performance.

07.08.08 Physically Handicapped

The study of the theory, methods, and techniques for designing, implementing, and evaluating organized learning activities for students who have severe physical impairments which adversely affect their educational performance.

07.08.09 Severely Handicapped

The study of the theory, methods, and techniques for designing, implementing, and evaluating organized learning activities for students who, because of the intensity of their physical, mental, or emotional problems, or a combination of such problems, need educational, social, psychological and medical services beyond those which are traditionally offered by regular and special educational programs in order to maximize their full potential for useful and meaningful participation in society.

07.08.10 Socially Handicapped

The study of the theory, methods, and techniques for designing, implementing, and evaluating organized learning activities for students whose behavior may be in conflict with norms of home, school or community but is not in conflict with subgroup norms and is not related to personal distress.

07.08.11 Speech Handicapped

The study of the theory, methods, and techniques for designing, implementing, and evaluating organized learning activities for students who have a speech impairment or a language impairment which adversely affects their educational performance.

07.08.12 Visually Handicapped

The study of the theory, methods, and techniques for designing, implementing, and evaluating organized learning activities for students who have a visual impairment which adversely affects their educational performance.

07.09 Other Special Education (Specify)

07.09.01 Communication and Dissemination

The study of the theory, methods, and techniques of utilizing available media to disseminate information about educational activities throughout the community.

07.09.02 Community Relations

The study of the principles and techniques involved in planning, supervising, and utilizing the school plant for community

07.09.03 Community Facilities and Activities

The study of the principles and techniques involved in planning, supervising, and utilizing the school plant for community
activities and programs which usually take place outside the normal school day.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>07.09 99</td>
<td>Other Community Service (Specify)</td>
</tr>
</tbody>
</table>

## Educational Development

The study of the theory, methods, and techniques of evaluating and implementing change processes into the organization, programs, personnel, operations, and activities of educational systems.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>07.10 01</td>
<td>Experimentation and Innovation</td>
</tr>
<tr>
<td>07.10 02</td>
<td>Staff Development</td>
</tr>
<tr>
<td>07.10 03</td>
<td>Other Educational Development (Specify)</td>
</tr>
</tbody>
</table>

## Educational Evaluation and Research

The study of the principles and procedures of searching for new knowledge and providing information about educational programs, personnel, methods, and theories.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>07.11 01</td>
<td>Design and Planning</td>
</tr>
<tr>
<td>07.11 02</td>
<td>Methodology</td>
</tr>
<tr>
<td>07.11 03</td>
<td>Principles and Theory of Evaluation and Research</td>
</tr>
<tr>
<td>07.11 04</td>
<td>Other Educational Evaluation and Research</td>
</tr>
</tbody>
</table>

## Educational Technology and Media

The study of the design, construction, operation, and maintenance of various mechanical and electronic devices, tools, and applications that are intended to contribute to the educational process.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>07.12 01</td>
<td>Computer Applications to Education</td>
</tr>
</tbody>
</table>

## Other Education (Specify)

Subject matter that cannot be subsumed under an aggregate, general, or introductory element that already exists within the above structure.

## Engineering and Engineering Technology

Subject matter aimed at preparation for the practice of Engineering — the profession in which knowledge of the mathematical and natural sciences is gained by study, experience, and practice and is applied with judgment to develop ways to economically utilize the materials and forces of nature for the benefit of mankind; and Engineering Technology — that part of the technological field which requires the application of scientific and engineering knowledge and methods combined with technical skills in support of engineering activities and which lies in the occupational spectrum between the craftsman and the engineer.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>08.01</td>
<td>Aerospace and Aeronautical Engineering and Technology</td>
</tr>
</tbody>
</table>

The study of the design, construction, operation, and maintenance of aircraft, space vehicles, and power units, and to the
special problems of flight in both the earth's atmosphere and space, including the flight of air vehicles and the launching, guidance, and control of missiles, earth satellites, and space vehicles and probes.

08.01 01 Aerodynamics

The study of the motion of air and other gaseous fluids and the forces acting on bodies when they move through such fluids, or when such fluids move against or around the bodies.

08.01 02 Aeronautics

The study of the structure and flight of aircraft.

08.01 03 Astronautics

The study of spacecraft thrust systems such as propulsion, launching, orbiting, and rendezvous; spaceflight; solar-system destinations; and biological effects that travel in space has on man or other organisms.

08.01 04 Air Frame Structures

The study of the techniques of constructing an airplane, spacecraft, or missile, including the fuselage, wings, empennage, nacelle, and landing gear, but not power plants, furnishings, or equipment.

08.01 05 Ground and Air Support

The study of the construction, operation, and use of flight maintenance vehicles and support units.

08.01 06 Vehicle Guidance

The study of the control devices used in guidance of an aircraft, spacecraft, or missile, including the fuselage, wings, empennage, nacelle, and landing gear, but not power plants, furnishings, or equipment.

08.01 99 Other Aerospace and Aeronautical Engineering and Technology (Specify)

08.02 Agricultural Engineering AND Technology

The study of the design, construction, operation, and maintenance of equipment, structures, machinery, and energy devices for the purpose of improving the production of food and fiber.

08.02 01 Agricultural Energy and Power

The study of the principles and techniques for making effective use of energy such as electricity and wind on farms, ranches, and other agricultural establishments, including the development, maintenance, and operation of energy and power equipment.

08.02 02 Farm Machinery

The study of the principles and techniques involved in the production, selection, operation, and maintenance of agricultural machinery and equipment.

08.02 03 Farm Structures

The study of the principles and techniques of planning, designing, fabricating, and maintaining farm and other agricultural buildings.

08.02 04 Food Processing Machinery

The study of the principles and techniques involved in the production, selection, operating, and maintenance of machinery used in gathering, treating, packaging, and distributing agricultural products.

08.02 05 Soil and Water Resources

The study of the principles and techniques involved in the artificial application of water to arable land for agricultural use, maintenance of soil fertility, and utilization of water resources.

08.02 99 Other Agricultural Engineering and Technology (Specify)

08.03 Architectural Engineering AND TECHNOLOGY

The study of the design and application of materials, components, and structural systems for buildings, including environmental control equipment.

08.03 01 Building Construction

The study of the application of engineering and architectural knowledge to the design and construction of building structures with attention given to economics and organizational control.

08.03 02 Building Equipment

The study of the design, installation, and maintenance of electrical and mechanical equipment for environmental control and movement within buildings.

08.03 99 Other Architectural Engineering and Technology (Specify)

08.04 Automotive Engineering AND Technology

The study of the techniques of designing and producing land transportation vehicles such as automobiles, trucks, and tracked units.

08.05 Bioengineering AND Technology

The study of the application of engineering and technological concepts, principles, and practices to human and other living systems.
08.05 01  Biochemistry (See 15.04 03 – Biochemistry)
The study of the chemical composition and processes of living matter and biological phenomena.

08.05 02  Biomaterials
The study of the physical properties of materials related to living matter and biological phenomena.

08.05 03  Biomechanics (See 19.02 01 – Biomechanics)
The study of the mechanics of living things.

08.05 04  Biomedical Systems
The study of the interrelation of the elements of biology, medical technology, and life support systems.

08.05 05  Biophysics (See 15.07 03 – Biophysics)
The study of the relationship between the physical principles and methods of the structures of living organisms and the mechanics of life processes.

08.05 99  Other Bioengineering and Technology (Specify)

08.06  CHEMICAL ENGINEERING AND TECHNOLOGY
The study of the nature of chemical processes, heat and mass transfer, the handling and treatment of liquids and gases, and physical and physical-chemical operations.

08.06 01  Polymers
The study of the nature and development of substances made of giant molecules that are formed by the union of simple molecules.

08.06 02  Process Control and Simulation
The study of the principles and techniques of forcing change in chemical-physical properties and imitating chemical reactions and processes.

08.06 03  Thermodynamics and Kinetics
The study of the principles and application of the chemical aspects of heat and mechanical changes in physical systems.

08.06 04  Unit Operations
The study of the principles and techniques of purifying and separating petroleum, ores, or chemical mixtures into their component parts.

08.06 05  Transport Phenomena
The study of the principles of heat, mass, momentum, and energy transport or transfer.

08.06 99  Other Chemical Engineering and Technology (Specify)

08.07  CIVIL ENGINEERING AND TECHNOLOGY
The study of the conception, analysis, design, testing, construction, and operation of structures, transportation components and systems, water resource and conveyance systems, pollution control systems, water treatment systems, and appurtenant works.

08.07 01  Construction Engineering
The study of the techniques of planning, executing, and controlling construction operations for such projects as highways, dams, buildings, and other heavy structures.

08.07 02  Highway Engineering
The study of the techniques of surveying, laying out routes, testing roadway materials, recommending alternate locations, and preparing plans and specifications for the construction of highways.

08.07 03  Hydrology (See 15.05 02 – Hydrology)
The study of the occurrence, circulation, distribution, and properties of the waters of the earth, and their reaction with the environment.

08.07 04  Materials of Construction
The study of the characteristics, properties, and use of various substances in the construction of civil engineering projects.

08.07 05  Sanitation Engineering
The study of the techniques and methods of protecting and promoting public health through water purification and sewage treatment.

08.07 06  Soil Mechanics and Foundations
The study of the application of the laws of solid and fluid mechanics to soils and similar granular materials as a basis for the design, construction, and maintenance of stable foundations and earth structures.

08.07 07  Structural Engineering
The study of techniques of structural analysis, design, and synthesis of materials such as reinforced concrete.

08.07 08  Transportation Engineering
The study of the movement of goods and people utilizing highways, water, rails, subways, and pipelines, including traffic regulations and safety.

08.07 99  Other Civil Engineering and Technology (Specify)

08.08  COMPUTER ENGINEERING AND TECHNOLOGY
The study of the principles and techniques of designing and producing the mechanical, magnetic, electrical, and electronic elements of computer hardware and supporting systems.
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>08.09</td>
<td><strong>ELECTRICAL ENGINEERING AND TECHNOLOGY</strong></td>
</tr>
<tr>
<td>08.09 01</td>
<td>Electromechanical Circuits</td>
</tr>
<tr>
<td>08.09 02</td>
<td>Electromechanical Controls</td>
</tr>
<tr>
<td>08.09 03</td>
<td>Electronics</td>
</tr>
<tr>
<td>08.09 04</td>
<td>Fields and Waves</td>
</tr>
<tr>
<td>08.09 05</td>
<td>Electronic Information Theory</td>
</tr>
<tr>
<td>08.09 06</td>
<td>Electrical Instrumentation</td>
</tr>
<tr>
<td>08.09 07</td>
<td>Power and Energy</td>
</tr>
<tr>
<td>08.09 08</td>
<td>Other Electrical Engineering and Technology (Specify)</td>
</tr>
<tr>
<td>08.10</td>
<td><strong>GRAPHICS AND DRAFTING FOR ENGINEERING AND TECHNOLOGY</strong></td>
</tr>
<tr>
<td>08.11</td>
<td><strong>ENGINEERING MECHANICS</strong></td>
</tr>
<tr>
<td>08.11 01</td>
<td>Continuum Mechanics</td>
</tr>
<tr>
<td>08.11 02</td>
<td>Fluid Mechanics</td>
</tr>
<tr>
<td>08.11 03</td>
<td>Solid Mechanics</td>
</tr>
<tr>
<td>08.11 04</td>
<td>Statics and Dynamics</td>
</tr>
<tr>
<td>08.11 05</td>
<td>Other Engineering Mechanics (Specify)</td>
</tr>
<tr>
<td>08.12</td>
<td><strong>ENGINEERING SCIENCE</strong></td>
</tr>
<tr>
<td>08.13</td>
<td><strong>ENVIRONMENTAL ENGINEERING AND TECHNOLOGY</strong></td>
</tr>
<tr>
<td>08.13 01</td>
<td>Air Pollution Control</td>
</tr>
<tr>
<td>08.13 02</td>
<td>Noise Pollution Control</td>
</tr>
<tr>
<td>08.13 03</td>
<td>Solid Waste Control</td>
</tr>
<tr>
<td>08.13 04</td>
<td>Water and Sewage Control</td>
</tr>
<tr>
<td>08.13 05</td>
<td>Other Environmental Engineering Technology (Specify)</td>
</tr>
</tbody>
</table>
08.14 GEOLOGICAL ENGINEERING
The study and practical application of scientific principles related to the physical history of the earth, the rocks and soils of which it is composed, and the physical changes in its structure.

08.15 01 Facilities Layout
The study of the techniques of conceiving and planning production facilities and processes, including the structural and parametric values of the system.

08.15 02 Human Factors in Industry
The study of the response characteristics of the human mind and body, and the influence of those characteristics on the interaction of people and machines.

08.15 03 Operations Research (See 04.12 03 — Operations Research)
The study of the application of mathematical modeling and feedback control theory to the interactions which occur in processes involving people, machines, and organizations.

08.15 04 Production Planning and Control
The study of the techniques and systems used to predict production schedules and completions, and to measure and maintain control over the processes of production.

08.15 05 Quality Assurance
The study of the testing and inspection of all, or a portion of, the final product, to insure that desired product quality reaches the customer.

08.15 06 Work Measurement
The study of the techniques of creating, describing, and measuring the integrated duties, skills, knowledge, and responsibilities assigned to an employee or employees in a work setting.

08.15 99 Other Industrial Engineering and Technology (Specify)

08.16 INSTRUMENTATION ENGINEERING AND TECHNOLOGY
The study of the techniques of designing, manufacturing, and utilizing display devices and systems for detection, observation, measurement, control, computation, communication, or data processing.

08.17 MANUFACTURING ENGINEERING AND TECHNOLOGY
The study of the design, construction, and application of machinery, tools, and processes used in manufacturing.

08.17 01 Manufacturing Processes
The study of the design, construction, and application of machinery and techniques in a continuous and predetermined manner for the production of goods and services.

08.17 02 Materials Handling
The study of the processes and equipment used in handling manufacturing materials with emphasis on mechanization and automation.

08.17 03 Packaging Engineering
The study of the techniques of providing protection for an article or group of articles against damage during shipment or storage.

08.17 04 Production Engineering
The study of the application of planning and optimization techniques to the processes and devices used in the production of goods and services.

08.17 05 Tool Engineering
The study of the design, production, and integration of machines, machine tools, and special dies, jigs, and instruments used in manufacturing.

08.17 99 Other Manufacturing Engineering and Technology (Specify)

08.18 MARINE ENGINEERING AND NAVAL ARCHITECTURE
The study of the principles and techniques of design, construction, installation, maintenance, and operation of vehicles and equipment operating on or in the water.

08.18 01 Marine Equipment
The study of the principles and techniques of designing, producing, and maintaining equipment that is intended for use in a marine environment.

08.18 02 Navigation
The study of the principles and technology involved in directing the movement of a watercraft so that it will reach its intended destinations, including position fixing, dead reckoning, piloting, and homing.

08.18 03 Marine Propulsion
The study of the design, production, operation, and maintenance of engines and related equipment used in powering watercraft.
08.18 04 Ship Structures
The study of the structural characteristics of ships, including such elements as strength, flexibility, access, and capacity.

08.18 05 Underwater Techniques
The study of the special characteristics of marine equipment and processes that are used in underwater operations.

08.19 99 Other Marine Engineering and Naval Architecture
(Specify)

08.19 MATERIALS ENGINEERING AND TECHNOLOGY
The study of the structure, reactions, functions, and synthesis of metals, ceramics, plastics, textiles, pulp and paper, wood, and other materials, including the effects of their properties on systems and objects that are constructed from the specified materials.

08.19 01 Ceramics Engineering and Technology
The study of techniques of designing, developing, and controlling processes that are involved in the manufacture of clay and ceramic ware, porcelain, china, pottery, and related substances.

08.19 02 Metals Engineering and Technology
The study of the structure, reactions, functions, properties, and synthesis of metals and alloys.

08.19 03 Paper and Pulp Engineering and Technology
The study of the structure, reactions, functions, properties, and synthesis of paper and pulp.

08.19 04 Plastics Engineering and Technology
The study of the structure, reactions, functions, properties, and synthesis of polymeric materials.

08.19 05 Textiles Engineering and Technology
The study of the structure, reactions, functions, properties, and synthesis of textiles.

08.19 99 Other Materials’ Engineering and Technology
(Specify)

08.20 MECHANICAL ENGINEERING AND TECHNOLOGY
The study of the design, construction, maintenance, and operation of mechanical products and related systems, including production machinery, energy conversion devices, and vehicles.

08.20 01 Air Conditioning, Heating, Ventilation, and Refrigeration Engineering
The study of the design, development, manufacture, and maintenance of equipment which uses processes to control and adjust temperature, humidity, and air circulation.

08.20 02 Automatic Control
The study of the techniques of controlling equipment by the use of preset or feedback methods in order to receive a desired equipment performance.

08.20 03 Energy Conversion
The study of processes by which energy is transformed into useful work, including steam engineering, fuel and combustion analysis, steam and gas turbines, industrial power plant equipment, and internal combustion engines.

08.20 04 Fluid Power
The study of hydraulics and pneumatics, including power conversion, transmission, utilization, and control in both stationary and mobile installations.

08.20 05 Manufacturing Processes
The study of the design, construction, and application of machinery and techniques in a continuous and predetermined manner for the creation of products.

08.20 06 Mechanical Design
The study of the design, development, manufacture, and maintenance of mechanical and other equipment as required for complete machine performance.

08.20 07 Power Engineering
The study of the generation, transmission, and utilization of energy, including the theory, maintenance, and servicing of machines and devices for the conversion of energy into useful forms.

08.20 08 Thermal and Fluid Sciences
The study of the properties of heat and fluids and the use of these properties to secure optimum performance in equipment and processes.

08.20 99 Other Mechanical Engineering and Technology
(Specify)

08.21 METALLURGICAL ENGINEERING AND TECHNOLOGY
The study of the development and control of processes for extraction of metals from their ores and metal refining; the properties of metals and alloys, and the manufacturing and processing of metals.
08.21 01 Engineering Welding
The study of the principles and techniques involved in joining two ferrous and nonferrous metals and alloys by applying heat to melt and fuse them.

08.21 02 Extraction Metallurgy
The study of the techniques of extracting metals from their ores by various chemical, mechanical, and other methods.

08.21 03 Metal Forming
The study of the techniques of shaping metals by means of casting, extrusion, and stamping.

08.21 04 Physical Metallurgy
The study of the crystals, micro structure, and properties of ferrous and nonferrous metals and alloys.

08.21 99 Other Metallurgical Engineering and Technology (Specify)

08.22 MINING ENGINEERING AND TECHNOLOGY
The study of the techniques and procedures for locating and appraising mineral deposits, and for designing the equipment and the operating processes for extracting minerals.

08.22 01 Mineral Dressing
The study of the techniques of improving the chemical or physical properties of an ore so that metal or other valuable material can be recovered at a profit.

08.22 02 Mineral Exploration
The study of the techniques and methods involved in locating and appraising of mineral deposits.

08.22 03 Mineral Processing
The study of the design, operation, and maintenance of equipment for enriching ores to the endproduct stage.

08.22 99 Other Mining Engineering and Technology (Specify)

08.23 NUCLEAR ENGINEERING AND TECHNOLOGY
The study of the design, development, manufacture, construction, installation, maintenance, and repair of mechanical plants and equipment for the release, control, and utilization of nuclear energy.

08.23 01 Fuel Separation and Reprocessing
The study of the techniques of separating isotopes and removing poisons from fissionable materials.

08.23 02 Nuclear Instrumentation
The study of the design and construction of instruments for detection, observation, measurement, and automatic control of nuclear processes.

08.23 03 Radiation Control
The study of the methods, procedures, and techniques for maintaining a safe level of radiation external to the reactor, by making use of a comparison with a standard.

08.23 04 Radiation Damage
The study of the effects of nuclear bombardment of materials within reactors.

08.23 05 Reactor Engineering
The study of the characteristics and arrangement of devices containing fissionable material in sufficient quantity as to be capable of maintaining a controlled, self-sustaining nuclear fission chain reaction.

08.23 06 Reactor Operation
The study of the techniques necessary to ensure efficient and safe operation of reactors, at the same time achieving maximum flux and output.

08.23 99 Other Nuclear Engineering and Technology (Specify)

08.24 OCEAN ENGINEERING
The study of wave action upon sea structures, equipment, and materials, including the development of instrumentation to determine the forces and accelerations of such action.

08.25 PETROLEUM ENGINEERING
The study of the processes of recovering and refining crude oil and gas, including the design, development, construction, installation, maintenance, and repair of related physical facilities.

08.25 01 Petroleum Exploration
The study of the techniques involved in discovering oil or gas from petroleum reserves.

08.25 02 Petroleum Refining
The study of the techniques of obtaining usable fractions through the processing of complex crude oils.

08.25 99 Other Petroleum Engineering (Specify)

08.26 SURVEYING AND MAPPING
The study of the determination and identification of the shape, contour, location, and dimensions of land or water and their features.
08.26 01 Land Surveying and Subdivision
The study of the techniques of measuring land and its features and the utilization of land, including planning, layout, description, and setting of land boundaries.

08.26 02 Engineering and Construction Surveying
The study and use of surveying techniques in engineering and construction processes.

08.26 03 Geodesy and Geodetic Surveying
The study and measurement of large portions of the earth's surface, using astronomical, cartographical, and surveying methods.

08.26 04 Photogrammetry and Topographic Surveying
The study and making of maps using photographic methods.

08.26 05 Remote Sensing and Environmental Surveying
The study of geographic and environmental features utilizing information from aerial photography, satellites, and related optoelectronic devices and systems.

08.26 06 Cartography
The study of the principles and techniques involved in designing, planning, and constructing maps.

08.26 99 Other Surveying and Mapping (Specify)

08.99 OTHER ENGINEERING AND ENGINEERING TECHNOLOGY (SPECIFY)
Subject matter that cannot be subsumed under an aggregate, general, or introductory element that already exists within the above structure.

FOR CONSIDERATION OF CODING, RECORDING, AND REPORTING MULTIPLE SUBJECT MATTER (INTERDISCIPLINARY) IN ENGINEERING AND ENGINEERING TECHNOLOGY, SEE APPENDIX E.

09. HEALTH CARE AND HEALTH SCIENCES
Subject matter concerned with the restoration or preservation of health through the use of drugs, surgical operations, manipulations, or other curative or remedial methods.

09.01 BASIC HEALTH CARE SCIENCES
The study of the bodily structures and functions of humans and animals, the principles and techniques of identifying and classifying diseases which affect them, and the foundation of scientific knowledge that is essential to the restoration and preservation of health.

09.01 01 Health Care Anatomy
The study of the structure and parts of the human body, including the bones, tissues, organs, and systems, and their relationship to the restoration and preservation of good health.

09.01 01 01 Dental Anatomy
The study of the structure and macroscopic and microscopic analysis of human teeth and the interrelationship of their parts.

09.01 01 02 Gross Anatomy
The study of the structure of all regions of the human body by means of dissection and X-ray.

09.01 01 03 Microanatomy
The study of the structure of the human body, including the organization of cells, tissues, and organs, using stained sections, light microscopy, and electron micrographs.

09.01 01 04 Ocular Anatomy
The study of the structure and parts of the human eye, and their interrelationship to the process of seeing.

09.01 02 Biochemistry (See 5.04 03 Biochemistry)
The study of the nature and chemical composition of the substances that make up the human body, the changes in these substances, and the energy associated with those changes.

09.01 03 Clinical Chemistry
The study of the application of chemical knowledge and techniques to specimens from the human body to provide information to aid in the prevention, diagnosis, prognosis, and treatment of disease.

09.01 04 Diagnostics
The study of the principles and techniques of determining, by examination, the nature and circumstances of a diseased condition in animals or humans.

09.01 05 Embryology (See 15.03 05 Embryology)
The study of the formation, development, structure, and functional activities of embryos, organisms in the earlier stage of development as before emerged from the egg or before metamorphosis.

09.01 06 Epidemiology
The study of the nature and treatment of epidemic diseases which affect large numbers of people at the same time, spreading from person to person in localities where it was not prevalent previously.

09.01 07 Medical Genetics
The study of the resemblances and differences of related organisms resulting from the interaction of their genes and their environment, and the application of such knowledge to the restoration and preservation of good health.
09.01 08  Hematology
The study of the nature, functions, and diseases of blood and blood-forming organs and tissues in animals and humans.

09.01 09  Histology (See 15.03 08 - Histology)
The study of the microscopic structure, composition, and function of organic tissues in animals and humans.

09.01 10  Dental/Oral Hygiene
The study of techniques of providing oral prophylaxis, applying medication, and providing dental health education services, both for chairside patients and in community health programs, under the supervision of a dentist.

09.01 11  Medical Hygiene
The study of the conditions and practices that are conducive to the preservation of good health in humans and animals.

09.01 12  Immunology
The study of the phenomena of immunity from disease, the production of such immunity in humans and animals, induced sensitivity, and allergy.

09.01 13  Infectious Diseases
The study of the nature and treatment of diseases which are communicable by infection from one human or animal to another, or from one part of the body to another.

09.01 14  Microbiology (See 15.03 11 - Microbiology)
The study of the nature and properties of harmful microorganisms and of the disease processes they induce in humans and animals.

09.01 14 01  Bacteriology (See 15.03 17 - Bacteriology)
The study of the growth, morphology, physiology, taxonomy, ecology, and host-parasite relationships of bacteria which cause disease in humans or animals.

09.01 14 02  Mycology (See 15.03 18 - Mycology)
The study of the morphology, physiology, taxonomy, and ecology of fungi that cause disease in humans or animals.

09.01 14 03  Parasitology (See 15.03 13 - Parasitology)
The study of animal parasites that live on or in an organism of another species, from the body of which it obtains nutrient, and to which it frequently spreads disease.

09.01 14 04  Virology
The study of the morphology, genetics, physicochemical properties, and ecology of viruses and the diseases they cause in humans and animals.

09.01 15  Health Care Nutrition
The study of the act or process by which humans and animals take in and utilize food material, and the health consequences of lacking good nutrition.

09.01 16  Oral Biology
The study of the development, aging, structure, and function of the oral-facial region of the human body.

09.01 17  Pathology
The study of the cause and effect of diseases with emphasis on the structural and functional changes which develop during the disease process, and the systematic methods of detecting these changes.

09.01 17 01  Cytology
The study of the structure, form, and functions of cells, and of the technique of microscopic examination of cells taken from a body surface to detect malignant cellular change.

09.01 17 02  Neuropathology
The study of the pathology of the nervous system, including the study of functional and structural changes and diseases that affect the nerves of humans and animals.

09.01 17 03  Ocular Pathology
The study of the functional and structural changes and diseases that affect the eyes.

09.01 17 04  Oral Pathology
The study of the functional and structural changes and diseases that affect the area of the mouth.

09.01 18  Pharmacology
The study of the therapeutic and toxic effects of drugs, including pharmacodynamic behavior, metabolism, interactions with other chemicals, and the biochemical and physiological effects on the human body.

09.01 19  Health Care Physiology
The study of the organic processes or functions of living organisms or their parts, and their relationship to the restoration and preservation of good health.

09.01 20  Radioisotopy
The study of the principles and techniques of using radioactive tracers and radiation detection methods to measure biological activity in the bloodstream or tissues of humans and animals.

09.01 21  Radiobiology
The study of the effects of light and ultraviolet and ionizing radiations on living tissues of organisms.
09.01 22 Serology
The study of the properties of serums, and their preparation and use in the diagnosis, prevention, and treatment of disease.

09.01 23 Toxicology
The study of the nature, source, identification, and characteristics of poisons, toxic substances, and exogenous chemical agents which can cause death, illness, or injury upon contact with, or ingestion into the body, including the detection and measurement of their effects and the use of antidotes and other curatives.

09.01 99 Other Basic Health Care Sciences (Specify)

09.02 CLINICAL HEALTH SCIENCES
The study of the principles and procedures used in the observation, diagnosis, care, and treatment of illness, disease, injury, deformity, or other anomalies in humans and animals.

09.02 01 Cardiology
The study of the structure of the heart and its functions in health and disease.

09.02 02 General Dentistry
The study of the prevention, diagnosis, and treatment of diseases of the teeth and gums and related parts, including the replacement of missing teeth.

09.02 03 Dental Materials
The study of the substances used in the care and repair of teeth, gums, and other structures in the oral cavity.

09.02 04 Endodontics
The study of the etiology, diagnosis, prevention, and treatment of conditions that affect the dental pulp and other periodontal tissues, including pulp canal therapy and root canal therapy.

09.02 05 Occlusion
The study of the principles and techniques of fitting together the teeth of the lower jaw with the corresponding teeth of the upper jaw.

09.02 06 Operative Dentistry
The study of the techniques and principles of cavity preparation, manipulation of restorative materials, instrumentation, and filling or fitting.

09.02 07 Oral Diagnosis and Medicine
The study of the techniques and procedures for examining patients for the signs or symptoms of oral disease.

09.02 08 Orthodontics
The study of the principles and techniques involved in the prevention and correction of dental and oral anomalies.

09.02 09 Periodontology and Periodontics
The study of the nature and treatment of diseases which affect the mucous membranes and other structures which surround and support the teeth.

09.02 10 Programmatic Pain Control
The study of the principles and techniques for administering to patients substances which reduce pain or raise pain threshold limits in the course of dental work.

09.02 11 Prosthodontics
The study of the principles and techniques of constructing artificial devices, and the restoration and maintenance of oral function by the replacement of missing teeth and other oral structures with such artificial devices.

09.02 12 Dermatology
The study of the skin, its structures, functions, diseases, and the treatment of skin diseases.

09.02 13 Endocrinology
The study of the endocrine glands and their secretions in relation to their processes or functions, including their care and treatment.

09.02 14 Gastroenterology
The study of the structures, functions, disorders, and care and treatment of the stomach and intestines.

09.02 15 Internal Medicine
The study of the principles and procedures involved in the diagnosis and nonsurgical treatment of diseases of the body.

09.02 16 Nephrology
The study of the structure, function, diseases, and care and treatment of the kidneys.

09.02 17 Neurology
The study of the structure, function, disorders and diseases, and care and treatment of the nervous system.

09.02 18 Ophthalmology
The study of the anatomy, physiology, diseases and disorders, and care and treatment of the eye.

09.02 19 Optometry
The study of the principles and techniques for testing, determining defects, and prescribing corrective means for decreasing deficiencies in an individual's vision.
Orthopedics
The study of the principles and techniques of correcting or curing deformities and diseases of the spine, bones, joints, muscles, or other parts of the skeletal system.

Otorhinolaryngology
The study of the anatomy, physiology, disorders and diseases, and care and treatment of the ear, nose, and the throat.

Podiatry
The study of the anatomy, physiology, disorders and diseases, and care and treatment of the feet.

Proctology
The study of the anatomy, physiology, disorders and diseases, and care and treatment of the rectum and anus.

Psychiatry
The study of the diagnosis, treatment, and prevention of disorders of the mind.

Urology
The study of the anatomy, physiology, disorders and diseases, and care and treatment of the genitourinary tract.

Allergy
The study of the diagnosis, care, and treatment of the condition of hypersensitivity of the body to specific substances that result in various types of distressful reactions.

Oncology
The study of the diagnosis, development, characteristics, and treatment of tumors.

Rheumatology
The study of the diagnosis, development, characteristics, and treatment of conditions or disease which involves painful inflammation and stiffness of the muscles and joints.

Geriodontics
The study of the principles and techniques of diagnosing and treating the dental conditions of aging and aged persons.

Gerontology
The study of the process of aging, and of the care and treatment of the special problems of aged people.

Gynecology
The study of the nature and treatment of diseases of women, especially those affecting the reproductive system.

Obstetrics
The study of the process of childbirth, and of the care and treatment of women in childbirth and during the period before and after delivery.

Pediatrics
The study of the principles and techniques associated with the medical and hygienic care of children and of the diagnosis and treatment of children's diseases.

Periodontics and Pediatric Dentistry
The study of the principles and techniques of diagnosing and treating the dental and mouth conditions of young children.

Acupuncture
The study of the principles and techniques of the Chinese medical practice that attempts to cure illness or reduce pain by puncturing specified areas of the skin with needles.

Anesthesiology
The study of the principles and practices of administering substances that produce general or local insensibility to pain and other sensations.

Health Care Assisting
The study of the principles and techniques of assisting health care professional in carrying out their tasks and responsibilities in a variety of health care settings.

Dental Assisting
The study of the techniques of providing assistance to a supervising dentist, including chairside procedures during dental operatory, reception and clerical work, and selected laboratory work.

Medical Assisting
The study of the techniques of providing assistance to medical doctors in clinics, offices, and other health care settings.

Nursing Assisting
The study of techniques for performing designated tasks involved in the personal care of individuals receiving nursing service, under the supervision of a nurse.

Veterinary Assisting
The study of techniques for providing assistance to a supervising veterinary physician in administering appropriate medical care and treatment to animals.
09.02 54  Chiropractic

The study of the principles and techniques for relieving disorders believed due to abnormal function of the nervous system by manipulation and treatment of the structures of the body, especially those of the spinal column.

09.02 54 01  Chiropractic Adjusting Techniques

The study of the principles and methods used to manually restore normal motion or nerve function that has been impaired by a partial dislocation or sprain.

09.02 54 02  Chiropractic Clinical Applications

The study of the principles and techniques involved in diagnostic evaluation, case management, and adjunctive applications in the practice of chiropractic.

09.02 54 03  Chiropractic Roentgenology

The study of the principles and techniques of using X-ray for diagnostic or analytical purposes to determine the presence or absence of subluxation, the need for proper corrective adjustments, to discover contraindications to chiropractic care, and for referral to other health care practitioners.

09.02 55  Nursing

The study of techniques and procedures for providing care for sick, disabled, infirm, or other individuals; including the administering of medications and treatments, assisting a physician during treatments and explanations, and planning education for health maintenance.

09.02 55 01  Primary Nursing

The study of the principles and techniques of providing nursing care to people who seek health information, who have a chronic or progressive illness requiring supportive management and periodic evaluations, who have a common and usually simple episodic illness, and who require immediate emergency care and referral for care of serious disease and trauma.

09.02 55 02  Secondary Nursing

The study of the principles and techniques of providing nursing care to people who have an illness or disability evidencing rapid onset, severe symptoms, and a short course.

09.02 55 03  Tertiary Nursing

The study of the principles and techniques of providing nursing care to people who have long-term reversible illnesses requiring intermittent manipulations of therapeutic regimens, or who have chronic irreversible illnesses requiring on-going comprehensive management.

09.02 56  Osteopathy

The study of the system of therapy utilizing accepted physical, medical, and surgical methods, of diagnosis and therapy, and emphasizing the importance of normal body mechanics and manipulation methods of detecting and correcting faulty body structure.

09.02 57  Physiatri, Physical Medicine

The study of the principles and techniques of medicine which deal with the diagnosis, treatment, and prevention of disease with the aid of physical agents, such as light, heat, cold, water, and electricity, or with mechanical apparatus.

09.02 58  Preventive Health Care

The study of the principles and techniques that are used on a regular and planned basis to prevent the occurrence of disease or injury, and to maintain health through established methods.

09.02 58 01  Preventive Dentistry

The study of the principles and techniques of substances which are used to avoid dental disease, and which are a part of an ongoing program of prevention and care.

09.02 58 02  Preventive Medicine

The study of the principles and techniques of medicine which deal with the promotion of physical and mental health, the prevention of disease, and the prolongation of life, as opposed to the mere treatment of existing disease.

09.02 58 03  Veterinary Preventive Medicine

The study of the methods and techniques for maintaining animal health through diet, inoculations, care, and other preventive practices.

09.02 59  Radiology

The study of the principles and techniques of using roentgen rays and radioactive substances for diagnostic and therapeutic purposes.

09.02 60  Surgery

The study of the principles and techniques of treating diseases, injuries, or deformities by manual operation and manipulation or by using instruments and appliances.

09.02 60 01  Abdominal Surgery

The study of the principles and techniques of treating diseases, injuries, or deformities of the abdomen and adjacent areas by manual manipulation or by using instruments and appliances.

09.02 60 02  Broncho-Esophagology

The study of the principles and techniques of treating diseases, injuries, or deformities of the trachea and esophagus and adjacent areas by manual manipulation or by using instruments and appliances.
09.02 60 03 Burns Therapy
The study of the principles and techniques of treating injuries caused by heat, abnormal cold, chemicals, poison gas, electricity, or lightning by manual manipulation or by using instruments and appliances.

09.02 60 04 Cardiac Thoracic Surgery
The study of the principles and techniques of treating diseases, injuries, or deformities of the heart and chest and adjacent areas by manual manipulation or by using instruments and appliances.

09.02 60 05 Colon and Rectal Surgery
The study of the principles and techniques of treating diseases, injuries, or deformities of the colon and rectum and adjacent areas by manual manipulation or by using instruments and appliances.

09.02 60 06 Hand Surgery
The study of the principles and techniques of treating diseases, injuries, or deformities of the hands by manual manipulation or by using instruments and appliances.

09.02 60 07 Head and Neck Surgery
The study of the principles and techniques of treating diseases, injuries, or deformities of the head and neck and adjacent areas by manual manipulation or by using instruments and appliances.

09.02 60 08 Maxillo-Facial Prosthetics
The study of the principles and techniques of performing restorative surgery to the area of the jaws and face.

09.02 60 09 Neurological Surgery
The study of the principles and techniques of treating diseases, injuries, or deformities of the nervous system by manual manipulation or by using instruments and appliances.

09.02 60 10 Operating Room Technology
The study of the principles and techniques of providing general technical assistance on the surgical team while in the operating room.

09.02 60 11 Oral Surgery
The study of the principles and techniques of treating diseases, injuries, or deformities of the jaws and associated structures by manual manipulation or by using instruments and appliances.

09.02 60 12 Pediatric Surgery
The study of the principles and techniques of treating diseases, injuries, or deformities of children by manual manipulation or by using instruments and appliances.

09.02 60 13 Plastic Surgery
The study of the principles and techniques of repairing or replacing malformed, injured, or lost organs or tissues using surgical methods.

09.02 60 14 Thoracic Surgery
The study of the principles and techniques of treating diseases, injuries, or deformities of the region of the chest by manual manipulation or by using instruments and appliances.

09.02 60 15 Urologic Surgery
The study of the principles and techniques of treating diseases, injuries, or deformities of the genitourinary tract by manual manipulation or by using instruments and appliances.

09.02 71 Aerospace Medicine
The study of the integration and application of the fundamentals of medicine and the basic sciences to aerospace travel, including such things as biological problems peculiar to aerospace travel, and the adaptation of individuals to the conditions of aerospace travel.

09.02 72 Family Medicine
The study of the prevention, diagnosis, and treatment of diseases and injuries that commonly occur in the general population.

09.02 73 Forensics
The study of the relationship and application of medical facts to legal problems.

09.02 73 01 Forensic Dentistry
The study of the relationship and application of dental facts to legal problems, as in using the teeth to identify the dead.

09.02 73 02 Forensic Medicine
The study of the relationship and application of medical facts to legal problems of civil and criminal law, especially in court proceedings.

09.02 73 03 Forensic Psychiatry
The study of the relationship and application of psychiatric knowledge and techniques to legal problems of civil and criminal law, as in determining legal insanity.

09.02 74 Hospital Dentistry
The study of dental treatment procedures in the hospital emergency room and dental procedures in the operating room.

09.02 75 Industrial Medicine
The study of the principles and techniques of providing medical care for illnesses and injuries that are found in business and industrial settings.
09.02 76 Nuclear Medicine
The study of the principles and techniques of medicine that deal with the diagnosis and treatment of illnesses and injuries that are peculiar to atomic energy devices and installations.

09.02 77 Tropical Medicine
The study of the principles and techniques of medicine that deal with the diagnosis and treatment of diseases and other conditions that occur in the tropics.

09.02 99 Other Clinical Health Sciences (Specify)

09.03 REHABILITATION AND THERAPY
The study of the principles and techniques used in assisting persons who are handicapped by illness or injury to overcome or compensate for any loss of function, and to restore their physical or mental health to an optimum level.

09.03 01 Audiology and Speech Pathology
The study of the nature and treatment of hearing and speech diseases and disorders, including the principles and techniques of providing therapy that restores or partially restores normal functioning.

09.03 02 Dietetics and Nutrition
The study of the principles and techniques of using food and drink for therapeutic purposes to promote good health and to eliminate disease.

09.03 03 Occupational Therapy
The study of the principles and techniques of providing therapy that offers mental diversion for the patient, and frequently serves to exercise an affected part of the body, and gives vocational training that would enable them to enter the work force.

09.03 04 Orthotics
The study of the principles and techniques of writing specifications for making and fitting braces and appliances for body deformities and disorders, following the prescription of a qualified medical practitioner.

09.03 05 Physical Therapy
The study of the principles and techniques of treating disease, bodily weakness, or physical defects by physical remedies, including massage and gymnastics.

09.03 06 Prosthetics
The study of the principles and techniques of writing specifications for making and fitting artificial limbs, following the prescription of a qualified practitioner.

09.03 07 Radiation Therapy
The study of the principles and techniques of using radiation producing devices to administer therapeutic treatments as prescribed by a radiologist.

09.03 08 Recreation Therapy
The study of the principles and techniques of treating illness, disease, or injury through participation in recreation activities.

09.03 09 Respiratory Therapy
The study of the principles and techniques of treating illness, disease, or injury through the use of breathing methods and apparatus, including the administration of oxygen and other sustaining gases.

09.03 10 Special Therapy
The study of the principles and techniques of using specially designed therapeutic procedures to treat a specific illness, disease, or injury.

09.03 99 Other Rehabilitation and Therapy (Specify)

09.04 PHARMACEUTICAL SCIENCE
The study of the principles and procedures of procuring, preparing, compounding, recommending, administering, and dispensing drugs, medicines and devices used in the diagnosis, treatment, or prevention of disease.

09.04 01 Biopharmaceutics
The study of the factors that affect the extent and rate of absorption of drugs from various dosage forms.

09.04 02 Drug Distribution Systems
The study of the systems for the distribution of drug products and devices from the manufacturer to the ultimate consumer, including drug distribution, economics of the pharmaceutical industry, and record and control systems.

09.04 03 Drug and Drug Abuse Information
The study of the principles and procedures associated with the collection, storage, evaluation, and communication of drug information in response to patient health care problems.

09.04 04 Drug Regulation and Control
The study of statutes, regulations, and case law that are applicable to the procuring, manufacturing, administering, prescribing, storing, and dispensing of drugs, including pharmacy law, Federal Food and Drug control, pharmaceutical jurisprudence, and legal aspects of pharmacy management.

09.04 05 Industrial Pharmacy
The study of the application of pharmaceutical, physicochemical, and engineering principles and technologies to the
development of various pharmaceutical dosage forms on an industrial scale, including cosmetic technology, sterile products, product development, and manufacturing pharmacy.

09.04 06 Nuclear Pharmacy
The study of the preparation, dispensing, and advising of drugs that are used in diagnosis and treatment of disease, some of whose constituent atoms are radioactive, including clinical radiopharmacy and radionuclides.

09.04 07 Pharmaceutical Chemistry
The study of the chemical and physical properties of organic and inorganic compounds which have medical or pharmaceutical uses, including the synthesis of organic drugs and inorganic pharmaceutical chemistry.

09.04 07 01 Organic Pharmaceutical Chemistry
The study of the organic compounds which have medical or pharmaceutical uses, the relationships between chemical structure and pharmacological activity, and the principles of drug design, including the chemistry of synthetic drugs, heterocyclics, drug design, and organic medicinal chemistry.

09.04 07 02 Analytical Pharmaceutical Chemistry
The study of the principles and procedures of applying analytical chemistry to the analysis of pharmaceutical dosage form systems which includes drugs and dosage form excipients, packaging materials, and the qualitative and quantitative determination of drugs or drug metabolites in biological fluids and tissues, including qualitative pharmaceutical chemistry, pharmaceutical quality control, and bioassay.

09.04 08 Pharmacognosy
The study of the drugs and chemicals which have their origin in or are derived from plant and animal sources, including the history, collection, identification, preparation, composition, and use of these drugs and chemicals.

09.04 10 Pharmacokinetics
The study of the kinetics of absorption, distribution, metabolism, and excretion of drugs and chemicals.

09.04 11 Pharmacy Practices and Management
The study of the knowledge, techniques, and procedures needed for the delivery of pharmaceutical services, including pharmaceutical marketing, professional accounting, pharmacy practice, financial management of pharmacy practice, pharmacy management, clinical pharmacy, health care accessories and appliances, and non-prescription drugs.

09.04 11 01 Community Pharmacy
The study of the knowledge, techniques, and procedures needed for the delivery of pharmaceutical services in the community, including community pharmacy administration, ethics, and community practice.

09.04 11 02 Institutional Pharmacy
The study of the knowledge, techniques, and procedures needed for the delivery of pharmaceutical services in institutions, such as hospitals, extended care facilities, U.S. Public Health Service, Community Health Centers, including hospital pharmacy administration, hospitalized patient care, sterile products formulation, and organization of pharmacy services in health care facilities.

09.04 12 Physical Pharmacy
The study of the application of physicochemical principles to pharmaceutical systems, including kinetics of drug degradation and stabilization, pharmaceutical colloids, dispersed systems, and equilibrium phenomena.

09.05 EMERGENCY SERVICES
The study of the methods, procedures, and techniques of providing health care services to persons who need emergency treatment and are not housed in a health care facility.

09.05 01 Cardiopulmonary Resuscitation
The study of the principles and techniques for reviving the actions of the heart and lungs from a state of apparent death or unconsciousness, using mechanical devices or hands-on techniques.

09.05 02 Emergency Extrication
The study of the techniques and procedures required to respond to medical emergency calls, to evaluate the nature of the emergencies, to take appropriate prompt action to reduce the medical hazards to the receiving station, and to assist the emergency room staff of general hospitals.

09.05 03 Emergency Medical Communications
The study of the development and use of electrical and electronic devices, sensors, and other equipment used in communicating between the hospital or care center and the emergency unit in the field.

09.05 04 First Aid
The study of the skills necessary in times of emergency, to prevent the death, or further injury, of a person until the
09.06 HOSPITAL AND HEALTH CARE ADMINISTRATION

The study of the principles and procedures of planning, organizing, and controlling a hospital or health care facility.

09.06 01 Hospital Organization and Management

The study of the principles and procedures of applying management methods and techniques to hospitals, including problem solving, executive role, personnel management, financial management, patient care, and support services.

09.06 01 01 Long-term Care Facilities

The study of the principles and procedures of planning, organizing, and directing a nursing home or other long-term care facility.

09.06 01 02 Patient Care Management

The study of the principles of applying the concepts of management, organizational behavior, personnel management, legal aspects, budgeting, policy development, and continuing education as they relate to patient care in a hospital or health care facility.

09.06 02 Health Care Delivery Systems

The study of the principles and practices of providing health care services through alternate delivery systems, including their characteristics, costs, utilization, and efficacy.

09.06 03 Health Organizations, Standards, and Evaluation

The study of the characteristics of health organizations, the current standards in the health care field, and the relationship of standards to health care evaluation.

09.06 09 Other Hospital and Health Care Administration

09.07 PUBLIC HEALTH

The study of the formulation and delivery of public preventive and curative health services.

09.07 01 Biometry

The study of the application of biometric methods for analyzing community health delivery systems.

09.07 02 Community Medicine

The study of the techniques and procedures for providing health care and services to the community through public agencies.

09.07 03 Environmental Health Administration

The study of the methods and procedures for eliminating or controlling air and water pollution, waste and sewage, noise, vibration, fungi, and other environmental hazards.

09.07 04 Human Ecology

The study of the relationship between a person's biologic functioning and the environment.

09.07 05 Industrial Health Administration

The study of the theories and techniques for meeting the health and environmental problems which occur in the industrial setting.

09.07 06 Maternal and Child Health Administration

The study of the methods and procedures for providing health care for mothers and children.

09.07 07 Mental Health Administration

The study of the methods and procedures for providing community mental health programs and for providing care for mentally ill persons.

09.07 08 Occupational Medicine

The study of the techniques and procedures for providing care to persons who sustain injury on the job.

09.07 09 Physiological Hygiene

The study of nutrition, tests and measurements of physical fitness, gerontology, adaptation in health and disease, body composition, circulatory dynamics, and related topics.

09.07 10 Public Health Administration

The study of the methods of administering, planning, and coordinating the health service needs of communities.

09.07 99 Other Public Health (Specify)

09.08 VETERINARY MEDICAL SCIENCES

The study of the nature, prevention, and treatment of animal diseases and the medical and surgical treatment of animals.

09.08 01 Veterinary Animal Medicine

The study of the practices of medicine as applied to animals.

09.08 01 01 Aquatic Animal Medicine

The study of the techniques and procedures for diagnosis and treatment of medical problems of water-related animals.

09.08 01 02 Avian Animal Medicine

The study of the techniques and procedures for diagnosis and treatment of medical problems of birds.
09.08 01 03  Bovine Animal Medicine
The study of the techniques and procedures for diagnosis and treatment of medical problems of oxen and cows.

09.08 01 04  Canine Animal Medicine
The study of the techniques and procedures for diagnosis and treatment of medical problems of dogs.

09.08 01 05  Caprine Animal Medicine
The study of the techniques and procedures for diagnosis and treatment of medical problems of goats.

09.08 01 06  Equine Animal Medicine
The study of the techniques and procedures for diagnosis and treatment of medical problems of horses.

09.08 01 07  Feline Animal Medicine
The study of the techniques and procedures for diagnosis and treatment of medical problems of cats.

09.08 01 08  Food Animal Medicine
The study of the techniques and procedures for diagnosis and treatment of medical problems of animals used for food.

09.08 01 09  Laboratory Animal Medicine
The study of the techniques and procedures for diagnosis and treatment of medical problems of animals for laboratory use.

09.08 01 10  Ovine Animal Medicine
The study of the techniques and procedures for diagnosis and treatment of medical problems of sheep.

09.08 01 11  Zoo, Wildlife, and Exotic Animal Medicine
The study of the techniques and procedures for diagnosis and treatment of medical problems of zoo animals and wildlife.

09.08 02  Veterinary Pathology
The study of the nature and effect of diseases of animals, including their diagnosis, treatment, and prevention.

09.08 03  Veterinary Public Health
The study of the liaison between public health officials and owners of animals with the intent of keeping animals healthy and safe, and of detecting and stopping animal epidemics.

09.08 04  Veterinary Theriogenology
The study of the principles of animal breeding, including the development of mixed and pure breeds and artificial insemination.

09.08 09  Other Veterinary Medical Sciences (Specify)

09.09  GENERAL PERSPECTIVES OF HEALTH CARE AND HEALTH SCIENCES
The study of the history and role of health care and health sciences in human culture and their relationship to other fields of knowledge, including concern for the means by which the affiliated professions are conducted.

09.09 01  Health Planning
The study of the processes involved in the development of alternative ways of achieving the health goals and expectations of society, including the identification of the consequences of each alternative for the purpose of guiding decision makers in their deliberations.

09.09 02  History of Health Care and Health Sciences
The study of the development, changes, past events, discoveries, trends, individuals, institutions, ideas, artifacts, and the systematic accounting of other phenomena associated with health care and health sciences.

09.09 03  Professional Practices in Health Care and Health Sciences
The study of the principles and procedures of observing, diagnosing, and treating of injuries or illnesses in clinical practice.
settings, including hospitals, offices, and health care centers.

09.09.05.01 Dental Clinical Practices
The study of the principles and procedures of observing, diagnosing, and treating dental illnesses or injuries in clinical settings.

09.09.05.02 Medical Clinical Practices
The study of the principles and practices in observing, diagnosing, and treating medical illnesses of injuries in a clinical setting.

09.09.05.03 Veterinary Clinical Practices
The study of the principles and practices of observing, diagnosing, and treating illnesses or injuries of animals in clinical settings.

09.09.99 Other General Perspectives of Health Care and Health Sciences (Specify).

09.99 OTHER HEALTH CARE AND HEALTH SCIENCES (SPECIFY)
Subject matter that cannot be subsumed under an aggregate, general, or introductory element that already exists within the above structure.

FOR CONSIDERATION OF CODING, RECORDING, AND REPORTING MULTIPLE SUBJECT MATTER (INTERDISCIPLINARY) IN HEALTH CARE AND HEALTH SCIENCES, SEE APPENDIX E.

10.01 CLOTHING AND TEXTILES
The study of ways of meeting psychological, sociological, economic and physiological needs for clothing and textiles, including techniques of production, distribution, marketing, consumption, refurbishing, and relevant legislation.

10.01.01 Clothing and Textile Maintenance
The study of the principles and procedures for care, cleaning, and repair of clothing and textiles in their use by individuals, families, and institutions.

10.01.02 Clothing and Textile Merchandising
The study of the characteristics of clothing and textile products, and the techniques of buying, advertising, displaying, and selling these goods for use by individuals, families, and institutions.

10.01.03 Clothing and Textile Selection
The study of the principles and procedures for choosing clothing and textile products for individuals, families, and institutions to meet aesthetic, economic, psychological, and social needs.

10.01.04 Clothing Construction and Alterations
The study of the principles and techniques of individual and mass production of garments and their modification for use by individuals.

10.01.05 Clothing Design
The study of the techniques of creating wearing apparel or garments through use of structural and decorative lines to meet varying needs of individuals.

10.01.06 Clothing Economics
The study of the transformation of limited natural or man made fiber resources into clothing and textile products, and their use by individuals, families, and institutions for satisfaction of human needs.

10.01.07 Fashion Design
The study of the creative combination of line, form, and fabric in the production of garments and accessories for the high fashion field.

10.01.08 History of Clothing and Textiles
The study of the development, changes, and trends in the design, production, distribution, and use of clothing and textile products by individuals, families, and institutions in relation to other historical phenomena.

10.01.09 Sociopsychological Aspects of Clothing and Textiles
The study of sociopsychological and environmental factors that influence clothing behavior, and the relation of clothing to development of self-concept, interpersonal communication, and other human interaction.

10.01.10 Textile Design
The study of the processes used to create the structure, coloration, and function of fabrics that will be used by individuals, families, and institutions.

10.01.11 Textile Production
The study of the relationship between materials and processes in the manufacture of textiles.
Textiles Fibers

The study of the physical and chemical properties of textile fibers in relation to the performance of fabrics and other textile products manufactured from them.

Textile Finishes

The study of the chemical and mechanical finishes applied to textiles in relation to their performance in clothing and other textile products.

Other Clothing and Textiles (Specify)

Consumer Education

The study of attitudes, concepts, skills, and understandings of consumers which contribute to their satisfaction in their choice and utilization of goods and services.

Consumer Choice

The study of the skills, concepts, processes, and attitudes involved in the selection of goods and services.

Consumer Economics

The study of the interrelationship of the economy and of management by individuals in the provision and utilization of goods and services.

Consumer Problems

The study of issues and problems facing the individual and collective consumers in society.

Consumer Resources

The study of the development and utilization of human and material means through which desired life styles may be achieved by individuals, families, and communities.

Consumer Rights and Responsibilities

The study of legislation, the channels of information, and ameliorative actions and processes that consumers can follow to protect their rights and fulfill their responsibilities.

Personal and Family Finance

The study of income and distribution patterns that meet individual and family needs and wants, together with the means of achieving financial security.

Consumer Information

The study of the availability and types of consumer information and the uses consumers make of it.

Other Consumer Education (Specify)

Food and Nutrition

The study of the role of food and nutrition in personal and family living, and in commercial and institutional food services, with emphasis being placed on food handling techniques, purchase and storage of food, planning, preparing, and serving meals to meet the needs of individuals and families.

Community Nutrition

The study of the methods of assessing the nutritional status of individuals or population groups and of devising and implementing methods to change nutritional patterns and food selection if necessary.

Dietetics

The study of the science and art of human nutritional care, including the management of group feeding, and extending and imparting knowledge about foods which will provide nutrients throughout the life cycle that are sufficient for optimum health and disease control and eradication.

Clinical Dietetics

The study and application of principles of normal nutrition to clinical problems including descriptions of altered nutrient requirements in human disease.

Therapeutic Dietetics

The study of the modification of diet in disease or deficiency states including patient rehabilitation and education.

Experimental Foods

The study of the application of principles of food chemistry to the creation and testing of foods for individuals, families, and institutional use.

Food Habits and Patterns

The study of the relationship of the food practices of various groups of people as influenced by cultures, religion, knowledge, attitudes, education, and socioeconomic level.

Food Production Technology

The study of the biological and chemical principles essential for food processing, as well as the equipment and procedures used in the production and distribution of food.

Food Regulations

The study and analysis of the role of local, State, and Federal laws and agencies in governing production and distribution of food, including sanitation and safety, nutrition labeling, and other food labeling regulations.

Food Related Equipment

The study of the functions, use, and care of equipment used in food production.

Food Selection

The study of the principles and methods of planning and purchasing food for individuals, families, and institutions.
10.03 09 Food Service
The study of the techniques of food presentation, table settings, etiquette, and table service for various types of individual, family, and institutional dining and entertainment.

10.03 10 Food Storage and Preservation
The study of the principles and techniques of storing, preserving, and preparing food in order to retain nutrients and quality for individual, family, and institutional use.

10.03 11 History of Food and Nutrition
The study of the discoveries, development, changes, issues, and trends in food, food supply, and nutrition as they relate to other historical phenomena and world issues.

10.03 12 Nutrition Education
The study of nutritional and educational concepts and their application through the development of techniques and materials to be used to educate the public to change nutritional behavior of individuals and families.

10.03 13 Nutrition
The study of the science of food, the nutrients and other substances of food, and the processes by which the organism ingests, digests, absorbs, transports, utilizes, and excretes food substances in relationship to human needs.

10.03 14 Preparation of Food
The study of the principles and processes of food production that result in products with designated or specified characteristics.

10.03 99 Other Food and Nutrition (Specify)

10.04 HOME MANAGEMENT
The study of the concepts, skills, and processes through which decisions about the use of resources are directed toward goal achievement in home and family living. The subject matter involves an understanding of goal formulation and of management functions and processes through which the household and financial activities of individuals and families are accomplished.

10.04 01 Decisionmaking
The study of factors and processes involved in arriving at decisions about managing a home.

10.04 02 Resource Management
The study of the relationship between human and material resources, such as time, energy, money, talent, and management of the home.

10.04 03 Management of Work
The study of the principles and procedures used to organize the work of the home to meet the needs of family members.

10.04 04 Work Simplification
The study of the principles and procedures used for reducing time and energy costs of the work of the home.

10.04 05 Special Needs
The study of the application of managerial processes in special situations of individual and family need as for the handicapped, elderly, single heads, and low income.

10.05 HOUSING
The study of psychosociocultural and aesthetic aspects of the selection of housing, home furnishings, household equipment, and interior design, and of the maintenance and repair of the home.

10.05 01 Home Furnishings
The study of the selection, use, and care of furniture, carpeting, accessories, and other articles in the home.

10.05 02 Home Maintenance and Repair
The study of the basic techniques for maintaining and repairing a home and its furnishings, including upholstery, slipcovering, and draperies.

10.05 03 Home Planning and Interior Design
The study of art principles, space planning, functional analysis, traffic patterns, and total home design in relation to individual lifestyles.

10.05 04 Household Equipment
The study of the purpose, selection, care, use, and maintenance of equipment used in the home.

10.05 99 Other Housing (Specify)

10.06 HUMAN DEVELOPMENT AND FAMILY STUDIES
The study of family interrelationships and processes of creating environments for the development of humans within a family setting.

10.06 01 Child Development
The study of processes and principles of the growth and development of children from conception through young adulthood, within the context of cultural, educational, and familial influences, with emphasis on social, emotional, physical, intellectual, and motor development, legislation, programs and support services relating to children.
10.06 01 01 Care and Guidance of Children
The study of the behavior of children and the principles, processes, and techniques of attending and guiding children in family and group situations.

10.06 01 02 Parenting Education
The study of the development of attitudes, concepts, and skills necessary to be an effective parent.

10.06 01 03 Special Needs of Children
The study of the physical, intellectual, social, and emotional characteristics of exceptional children and the strategies for guiding development of such children.

10.06 02 Family Development
The study of the family throughout the life cycle with emphasis on family structures, functions, interactions, and roles of family members.

10.06 02 01 Community Influences and Natural Resources
The study of cultural, social, and technological influences on the family in changing societies, including family programs and support services that are available.

10.06 02 02 Family Crises
The study of factors affecting marital relationships, parent-child relationships, and the functioning of the family as a whole, including economic problems, separation and divorce, death, exceptional children, and illness.

10.06 03 Gerontology
The study of the characteristics, attitudes, and behavior of older people in family settings, including physical, social, economic, and psychological needs and concerns; related legislation; and community resources.

10.06 04 Personal Development
The study of the self-development and actualization of individuals through the family, including physiological and psychological aspects of human sexuality, personal hygiene, grooming, value development, interpersonal relationships, and patterns of adult living.

10.06 99 Other Human Development and Family Studies (Specify)

10.07 Institutional Housekeeping and Food Service Management
The study of the theory and practices involved in the operation of food service and housekeeping departments of institutions.

10.07 01 Housekeeping Management
The study of principles and procedures related to providing home health services and homemaker and housekeeping services in homes and institutions.

10.07 02 Food Service Management
The study of principles and procedures related to institutional and commercial food services that are found in hospitals, child care centers, homes for the elderly, schools, hotels, motels, and restaurants.

10.07 99 Other Institutional Housekeeping and Food Service Management (Specify)

10.99 OTHER HOME ECONOMICS (SPECIFY)
Subject matter that cannot be subsumed under an aggregate, general, or introductory element that already exists within the above structure.

FOR CONSIDERATION OF CODING, RECORDING, AND REPORTING MULTIPLE SUBJECT MATTER (INTERDISCIPLINARY) IN HOME ECONOMICS, SEE APPENDIX E.

11 INDUSTRIAL ARTS, TRADES, AND TECHNOLOGY
Subject matter concerned with knowledge about mechanical work; a business, a livelihood, or occupation or that requires the development of special skills, especially of a manual or technical nature for individuals seeking occupational entry, upgrading, or retraining.

11.01 CONSTRUCTION
The study of the principles and techniques of erecting, installing, maintaining, or repairing buildings, highways, airports, missile sites, and earth and other structures, using such materials as metal, wood, stone, brick, glass, asphalt, concrete, or composition substances.

11.01 01 Carpentry
The study of the principles and techniques of layout, fabrication, assembly, installation, and repair of structural units, including the care and use of hand and power tools and the knowledge of equipment and materials, common systems of frame construction, and the principles of drafting, blueprint reading, and applied mathematics.

11.01 02 Concrete
The study of the techniques of preparing, mixing, forming, setting, testing, pouring, and finishing of substance composed of sand, gravel, and cement or similar substances.

11.01 03 Drywall Installation
The study of the principles and techniques of installing and bonding wallboard, plasterboard, or other interior structural surfaces.
11.01 04  Electrical
The study of the principles and techniques associated with the layout, assembly, installation, and testing of electrical fixtures, apparatus, and wiring used in electrical systems.

11.01 05  Environmental Systems
The study of the principles and techniques of installing, operating, and testing various types of heating, air cooling, and air quality control equipment, including humidifiers, filters, and fans.

11.01 06  Estimating
The study of the principles and techniques of calculating and estimating the probable costs of a proposed construction project.

11.01 07  Glazing
The study of the principles and techniques of preparing, fitting, and installing glass in structures and other openings of buildings such as windows, doors, and partitions, or in objects such as display cases and table tops.

11.01 08  Heavy Equipment
The study of the principles and techniques of operating and maintaining heavy-duty equipment such as bulldozers, cranes, graders, tractors, concrete mixers, crawler-mounted shovels, trailer-mounted compressors, and the gasoline or diesel engines powering the equipment.

11.01 09  Ironworking
The study of the principles and techniques of manufacturing, assembling, testing, and repairing of parts, mechanisms, machines, and structures in which iron is cast, formed, shaped, molded, heat treated, cut, twisted, bent, pressed, stamped, fused, marked, or otherwise worked upon.

11.01 10  Landscaping
The study of the principles and practices involved in locating, planting, and maintaining turf, plants, shrubs, trees, or other aesthetic plants used for the beautification of home grounds and other areas of human habitation and recreation, usually done in support of a landscape architect.

11.01 11  Masonry
The study of the principles and techniques of cutting, chipping, and positioning concrete blocks, brick, and glass blocks, using bonding materials and hand tools.

11.01 12  Millwork
The study of the principles and techniques of fabricating finished carpentry work in a mill, including such things as windows, doors, and molding.

11.01 13  Painting and Decorating
The study of the principles and techniques of preparing and finishing exterior and interior surfaces by the application of protective or decorative coating materials such as lacquer, paint, wallpaper, or related materials.

11.01 14  Plastering and Lathing
The study of the principles and techniques of applying plaster, stucco, lathing, and similar materials to interior and exterior surfaces of structures.

11.01 15  Plumbing
The study of the principles and techniques involved in layout, assembly, installing, altering, and repairing piping systems, including related fixtures and fittings in structures, by the use of pipe cutting, bending, and threading tools; welding, soldering, and brazing equipment; and other hand and power tools and equipment.

11.01 16  Roofing
The study of the principles and techniques of covering roofs and exterior walls of structures with waterproofing or insulating materials, such as asphalt, aluminum, slate, wood, and related composition materials.

11.01 17  Sheetmetal
The study of the principles and techniques of pattern development, layout, operations, and related information concerned with forming and fabricating sheet metal products.

11.01 18  Site Surveying
The study of the principles and techniques of determining legal location, form, or boundaries of a tract of land by measuring the lines and angles in accordance with the principles of geometry and trigonometry, usually done in support of a professional surveyor.

11.01 19  Welding
The study of the principles and techniques of cutting, fusing, and fabricating metal products with various types of welding equipment.

11.01 99  Other Construction (Specify)

11.02  MANUFACTURING (PRODUCT GENERATION)
The study of the principles and techniques of planning and controlling the production of goods and articles in a factory, shop, or plant as opposed to on-site manufacture.

11.02 01  Ceramics
The study of the principles, techniques, processes, and materials used to prepare and convert clay into products, including molding, throwing, jiggling, baking, firing, trimming, and glazing.
11.02 02 Foundry
The study of the principles, techniques, processes, and materials used to pattern, mold, core, cast, and found molten metal, and to shake out or remove mold and finish metal products.

11.02 03 Glass Products
The study of the principles, techniques, processes, and materials used in the production of glass or refractory products, including casting, tempering, blowing, sumping, coating, coloring, cutting, rolling, and polishing.

11.02 04 Health Devices
The study of the principles, techniques, processes, and materials used in the custom fabrication of devices to aid the health and well-being of individuals, including dental prosthesis, artificial limbs, and braces and other devices used by persons with physical handicaps.

11.02 05 Leather and Hide Processing
The study of the principles, techniques, processes, and materials used to convert animal hide into leather products, including curing, tanning, dyeing, cutting, sewing, and gluing.

11.02 06 Metalworking
The study of the principles, techniques, processes, and materials used to shape metal products by cutting, forming, finishing, assembling, and heat treating and including rolling, extension milling, sawing, turning, drilling, boring, grinding, pressing, plating, drawing, bending, and hardening.

11.02 07 Needle Trades
The study of the principles, techniques, processes, and materials used in the hand and machine production of garments, including pattern making, cutting, sewing, and finishing.

11.02 08 Paper and Fabrication
The study of the principles, techniques, processes, and materials used to convert wood or cloth into pulp, paper, and paper products in roll or sheet form, including calendaring, texturing, coating, embossing, corrugating, and laminating.

11.02 09 Plastics
The study of the principles, techniques, processes, and materials used to generate raw plastic in liquid, granular, or sheet form and to convert those forms into products, including blowing, casting, extension, coating, rolling, bending, and cutting.

11.02 10 Product Development
The study of the principles, techniques, processes, and materials used in the generation of new products, including the determination of product feasibility, resource requirements, machine engineering and design, consumer demand, and finishing processes.

11.02 11 Production Systems
The study of the principles and alternative techniques and processes of producing goods and articles, including evaluation of time and space requirements, costs, and quality and quantity of output.

11.02 12 Textile Production
The study of the principles, techniques, processes, and materials used in the fabrication of textiles from raw fiber, including yarn making, dyeing, weaving, knitting, preshrinking, and finishing.

11.02 13 Tool and Die
The study of the principles, techniques, processes, and materials used to fabricate devices which hold, position, guide, press, blank, shear, pattern, or bend product parts during their production.

11.02 14 Wood Products
The study of the principles, techniques, processes, and materials used to fabricate products from wood forms other than pulp, including operations such as sawing, planing, sanding, finishing, laminating, bonding, and compressing.

11.02 99 Other Manufacturing (Specify)

11.03 POWER SYSTEMS
The study of the principles and practices of fabricating, adjusting, operating, maintaining, and repairing mechanisms or systems which are used to generate energy, transform energy forms, or convert energy into work.

11.03 01 Atomic Power
The study of the principles, processes, materials, and techniques used in the fabrication, operation, and rebuilding of equipment and systems designed to convert, transmit, or generate power from atomic fission or fusion including such components as piles and reactors.

11.03 02 Chemical Power
The study of the principles, processes, materials, and techniques used in the fabrication, operation, and rebuilding of equipment and systems designed to convert, transmit, or generate power primarily from the chemical reactions of elements, including such chemical components as batteries and internal combustion systems.

11.03 03 Electrical Power
The study of the principles, processes, materials, and techniques used in the fabrication, operation, and rebuilding of equipment and systems designed to convert, transmit, or generate power from the movement or flow of electrical current, including such electrical components as generators, motors, vacuum tubes, capacitors, transformers, switches, fuses, transistors, and electrical circuitry.
11.03 04 Mechanical Power
The study of the principles, processes, materials, and techniques used in the fabrication, operation, and rebuilding of equipment for systems designed to convert, transmit, or generate power from linear and circular motion or position, including such mechanical components as purifiers, shafts, levers, wheels, belts, gears, hydraulics, pneumatics, chains, couplings, and clutches.

11.03 05 Radiant Power
The study of the principles, processes, materials, and techniques used in the fabrication, operation, and rebuilding of equipment and systems designed to convert, transmit, or generate power from wave forms, including light, sound, and rays.

11.03 06 Thermic Power
The study of the principles, processes, materials, and techniques used in the fabrication, operation, and rebuilding of equipment and systems designed to convert, transmit, or generate power from molecular movement or excitement which creates heat, including steam, jets, and engines.

11.03 07 Power Mechanics
The study of the principles, techniques, processes, and materials of energy conversion and power generation through control and transmission, using conventional products and systems.

11.03 08 Power and Energy Sources
The study of the principles and techniques of exploring the forces of energy that can be put to work in useful power systems.

11.03 99 Other Power Systems (Specify)

11.04 PRODUCT SERVICE (MAINTENANCE)
The study of the principles and techniques of repairing, preserving, and maintaining products, equipment, and appliances for continued use in efficient operating conditions.

11.04 01 Aircraft Maintenance
The study of the principles and techniques of inspection, repair, servicing, and overhauling of all airplane parts.

11.04 01 01 Air Frame
The study of the principles and techniques of maintaining and repairing the framework and external covering of an aircraft, including fuel and oil tanks, control devices, and hydraulic units.

11.04 01 02 Aircraft Power Plant
The study of the principles and techniques of maintaining and repairing aircraft power plants, including propellers, instruments, and engines.

11.04 02 Appliance Repair
The study of the principles and techniques of applying the theory of electrical circuitry, simple gearing, linkages, and lubrication to the operation, maintenance, and repair of switches, pumps, and agitators used in appliances, such as washers, dryers, vacuum cleaners, toasters, water heaters, and stoves.

11.04 03 Building Maintenance
The study of the principles and techniques of maintaining the interior and exterior surfaces of residential, commercial, industrial, and recreational buildings, including the use of preventive measures.

11.04 04 Business Machine Maintenance and Repair
The study of the principles and techniques of maintaining and repairing a variety of office machines, such as typewriters, dictation machines, calculators, data processing equipment, used for recording and processing data, and duplicating and mailing machines.

11.04 05 Communications Equipment Maintenance and Repair
The study of the principles and techniques of maintaining and repairing communications equipment, including transmitters, antennas, receivers, connectors, displays, and processors.

11.04 06 Custodial Services
The study of the principles and techniques used in the care and cleaning of all types of buildings, including their fixtures and furnishings.

11.04 07 Fabric Maintenance and Repair
The study of the principles and techniques of all phases of fabric maintenance, including plant management and processing for dry cleaning, laundering, sterilization, and other such services.

11.04 08 Heating and Cooling Maintenance and Repair
The study of the principles and techniques of maintaining and repairing heating systems, air conditioning systems, and combustion heating and cooling systems.

11.04 09 Instrument Maintenance and Repair
The study of the principles and techniques of maintaining and repairing meters, instruments, watches and clocks, and other physical measuring devices.

11.04 10 Marine Repair
The study of the principles and techniques of maintaining and repairing the hull, deck and deck structures, sails, steerage, and related components of water craft.
11.04 11  Millwright
The study of the principles and techniques of maintaining and repairing electrical equipment, plumbing, carpentry, general machining, and other various maintenance tasks within a small or industrial plant.

11.04 12  Radio-Television Maintenance and Repair
The study of the principles and techniques of maintaining and repairing radios, televisions, two-way mobile communication devices, stereo-phonographs, and tape recording and playback systems.

11.04 13  Small Engine Repair
The study of the principles and techniques of maintaining and repairing small engines, including those for snowmobiles, motorboats, lawn mowers, compressors, and generators.

11.04 14  Vehicle Maintenance and Repair
The study of the principles and techniques of maintaining and repairing vehicles used to transport materials, people, and products.

11.04 14.01  Chassis Repair
The study of the principles and techniques of maintaining and repairing the vehicle chassis, including damaged bodies and fenders, painting, and replacement of body components such as trim.

11.04 14.02  Power and Drive Repair
The study of the principles and techniques of maintaining and repairing diesel- and gasoline-engines, transmissions, and differential gearing for buses, trucks, ships, railroad trains, construction machinery, and similar equipment.

11.04 14.03  Vehicle Specialties Repair
The study of the principles and techniques of maintaining and repairing to include tune-ups, brakes, emission control, and other components.

11.04 99  Other Product Service (Specify)

11.05  GRAPHIC ARTS
The study of the principles and techniques of image origination, preparation, and graphic reproduction, and providing multiple copies, cards, and covers for private or business and industrial purposes.

11.05 01  Bindery
The study of the principles and techniques of gathering pages, forms, and related materials and assembling them into books or pamphlets, including techniques concerned with binding and repairing books and documents, and in collating, cutting, and fastening.

11.05 02  Copy Preparation
The study of the principles and techniques of preparing photo or copy ready sheets, plates, or masters by hand or mechanical processes.

11.05 02.01  Cold Type
The study of the principles and techniques of preparing copy by either mechanical or electronic means.

11.05 02.02  Hot Type
The study of the principles and techniques of preparing proofs, either by hand or mechanical processes, for the purpose of reproducing impressions on plates or bed presses.

11.05 03  Drawing
The study of the principles and techniques of depicting ideas, messages, or data, through the use of pictures or lines, using pencil, pen, crayon, or other substances.

11.05 03.01  Drafting
The study of the principles, techniques, standards, and conventions for conveying ideas or illustrations graphically through drawings, charts, sketches, maps, and graphs.

11.05 03.02  Illustration
The study of the principles and techniques of conveying information or ideas by two dimensional means, using a variety of materials.

11.05 03.03  Blueprinting
The study of the principles and techniques of photographic printing which produces a white line on a blue background, and is used chiefly in copying architectural and mechanical drawings.

11.05 04  Photography
The study of the principles, techniques, tools, materials, and processes used in photography with emphasis on industrial and commercial uses, including the use of movie and still cameras, developing negatives, and making contact prints, enlargements, and mountings.

11.05 05  Printing
The study of the principles and techniques involved in a graphic reproduction from an original plate or master onto a material surface such as paper or cloth.

11.05 06.01  Gravure (Intaglio)
The study of the principles and techniques of printing from an etched or sunken surface.
11.05 02 Letterpress
The study of the principles and techniques involved in the graphic reproduction of impressions on paper or other stock from a metal plate or hot typeface.

11.05 03 Offset Lithography
The study of the principles and techniques involved in the graphic reproduction of images onto paper or other substances from an original, plate, or master, using an offset duplicator or press.

11.05 04 Stenciling
The study of the principles and techniques of applying a pattern, design, or words to a surface by rubbing, brushing, or pressing a coloring substance through perforations cut into a thin sheet of cardboard, metal, or other material.

11.05 05 Xerography
The study of principles and techniques of preparing graphic reproductions of original materials by using photochemical processes.

11.05 99 Other Graphic Arts (Specify)

11.06 TRANSPORTATION
The study of the principles and techniques of steering or otherwise controlling a vehicle for commercial or public use in the air, on land, or in water, for the purpose of moving people or things from one place to another.

11.06 01 Flight Operations
The study of the principles and procedures of in-flight operation of commercial planes, including piloting and navigating.

11.06 02 Ground Operations
The study of the principles and procedures of ground support of commercial planes, including aircraft preflight service and flight control, but excluding passenger service.

11.06 03 Heavy Equipment Operations
The study of the principles and techniques of safely operating off-the-road heavy vehicles, including bulldozers, graders, and scrapers.

11.06 04 Maritime Service
The study of the principles and techniques of seamanship, including the maintenance and operation of large and small commercial or public vessels.

11.06 05 Recreational Vehicle Operations
The study of the principles and techniques of operating recreational vehicles such as snowmobiles, sailboats, and other pleasure craft.

11.06 99 Other Transportation (Specify)

11.07 PERSONAL SERVICE
The study of the principles and techniques that relate to the care, treatment, and disposition of the human body, with emphasis on the physical appearance of individuals.

11.07 01 Barbersing
The study of the principles and techniques of haircutting, shaving, shampooing, massaging, and styling hair and hairpieces.

11.07 02 Cosmetology
The study of the principles and techniques of caring for and beautifying hair, skin, and nails for personal enhancement, including permanent waving, hairshaping, and tainting.

11.07 03 Electrolysis
The study of the principles and techniques involved in the removal of superfluous hair from any area of the body by the use of electric current.

11.07 04 Esthetic Skin Care
The study of the principles and procedures associated with specialized topical skin analysis and recommended treatment and care of skin.

11.07 05 Massage
The study of the principles and techniques of treating the body by rubbing or kneading to stimulate circulation, increase suppleness, promote healing, and induce relaxation.

11.07 06 Mortuary Science
The study of the principles and techniques of preparing a person for burial, including embalming, cremating, and other sanitary methods for interment in conformity with legal requirements, and the principles and procedures involved in conducting funerals.

11.07 99 Other Personal Service (Specify)

11.99 OTHER INDUSTRIAL ARTS, TRADES, AND TECHNOLOGY
Subject matter that cannot be subsumed under an aggregate, general, or introductory element that already exists within the above structure.

FOR CONSIDERATION OF CODING, RECORDING, AND REPORTING MULTIPLE SUBJECT MATTER (INTERDISCIPLINARY) IN INDUSTRIAL ARTS, TRADES, AND TECHNOLOGY, SEE APPENDIX E.
12 LANGUAGE, LINGUISTICS, AND LITERATURE

Subject matter concerned with the structure and use of words that are common or indigenous to people of the same community or nation, the same geographical area, or the same cultural traditions; including such features as sounds, literature, syntax, phonology, morphology, semantics, sentences, prose and verse, as well as the development of skills and attitudes used in communicating and valuing thoughts and feelings through oral and written language.

12.01 LINGUISTICS (DIACHRONIC AND SYNCHRONIC)

The study of the descriptive, historical, and theoretical aspects of language, its nature, structure, varieties, and development, including especially the sound system (phonology), grammatical system (morphology, syntax), lexical system (vocabulary, semology), and writing system.

12.01.01 Applied Linguistics

The study of the techniques of applying linguistic theory to human uses of language, including teaching.

12.01.01.01 Bilingualism

The study of the linguistic phenomena associated with the acquisition and use of two languages, either coordinated or compound bilingualism.

12.01.01.03 Computational Linguistics

The study of the quantitative methods used in the analysis of language.

12.01.01.03 Contrastive Linguistics

The systematic study of the structure and meaning of two or more languages or dialects.

12.01.01.04 Language Error Analysis

The study of the techniques used in systematically discovering and classifying errors in language.

12.01.01.05 Lexicography

The study of the principles and techniques used in the making of dictionaries.

12.01.02 History of Linguistics

The study of the methodology of tracing and establishing the development of the phonology, morphology, syntax, and semantics of a language or language group.

12.01.03 Language Analysis

The study of the various means of analyzing languages, including morphology, phonology, and syntax.

12.01.03.01 Lexicology

The study of the meanings of words and idiomatic combinations.

12.01.03.02 Morphology

The study of the meaningful word-forms, including affixes which contribute meaning to a word.

12.01.03.03 Phonetics

The study of speech sounds, their production and combination, and their representation by written symbols.

12.01.03.04 Phonology

The study of the sound system of a language which may be based on a phonemic or phonetic description.

12.01.03.05 Semantics

The study of meanings that are attributed to word-forms, words, immediate constituents, phrase-structures, and sentences.

12.01.03.06 Syntax (Grammars)

The study of groupings of words and word-forms into meaningful constituents and phrase structures.

12.01.04 Language Universals

The study of the elements of language which are common to all languages or to groups of languages.

12.01.05 Linguistic Theories

The study of the systems of word structures and word arrangements of a language.

12.01.05.01 Generative and Transformational Theories

The study of the grammatical theory which uses a set of rules, in a required order, capable of generating all possible grammatically acceptable sentences of a language. The rules are commonly expressed as formulas composed of symbols that represent linguistic units and operations; constructions may be derived from others by the process of structural change without change of meaning as by transformations.

12.01.05.02 Structural and Descriptive Theories

The study of grammar which objectively describes and analyzes the structure of a language in terms of formally identifiable units in a hierarchy of increasingly complex combinations and the immediate and ultimate constituents of sentences; sometimes the study of any kind of grammar that is derived inductively from objective observation of a body of utterances in a language.

12.01.05.03 Traditional Grammatical Theories (Latinate)

The study of grammar based on classical Latin grammar, generally using terminology from Latin grammar.
12.01.06  Psycholinguistics
  The study of the mental (psychological) processes involved in
  the production and reception (encoding and decoding) of
  language.

12.01.07  Sociolinguistics
  The study of the use of language in different social environ-
  ments.

12.01.07 01  Dialectology
  The study of dialects, their underlying linguistic systems,
  and their use.

12.01.07 02  Language Planning
  The study of the determination of the official language(s)
  of an area and the implementation of literary skills.

12.01.07 03  Language Variation
  The study of variations within a language or a group of
  languages, such as jargon or deviations from the standard.

12.01.09  Other Linguistics (Specify)

12.02  LITERARY STUDIES
  The study of the approaches used to analyze literature and
  of the tools used to facilitate practical criticism, emphasizing
  bibliographical techniques, aesthetics, and the formal study of
  such theories as Formalism, Structuralism, and the "New
  Criticism."

12.02.01  Comparative Literature
  The study of the comparison of various aspects of litera-
  ture, based on selected dimensions such as genre, theme,
  literary period, and language source.

12.02.02  Literary Aesthetics and Appreciation
  The study of the development of an appreciation of liter-
  ature as an art form.

12.02.03  Literary Bibliography
  The study of retrieval or creation of a systematic compila-
  tion of information relating to publication data of various
  media relating to literature.

12.02.04  Literary Criticism
  The study of the methods and standards for judging the
  quality of literature.

12.02.05  Literary Theories
  The study of the theoretical foundations of literature in-
  cluding historical, philosophical, political, and psychological
  perspectives.

12.02.06  Other Literary Studies (Specify)

12.03  THE STUDY AND USES OF THE ENGLISH LANGUAGE
  The study of the skills and techniques essential to learning
  the English language.

12.03.01  Dialects of the English Language (Synchronic
  and Diachronic)
  The study of the written or spoken features of English such
  as sounds, forms, constructions, and words, as they vary indi-
  vidually or in related groups with respect to their geographic
  or social distribution. The study may be synchronic (of a
  single point in time) or diachronic (historical).

12.03.02  History of the English Language
  The study of the ways in which the various dialects devel-
  oped in the course of time into the English language, includ-
  ing the influence of nonlinguistic factors such as social and
  political change and the processes of general language change
  as they affected the English language.

12.03.03  English Language and Civilization
  The study of the history of selected events, individuals,
  groups, institutions, artifacts, ideas, and other phenomena
  associated with the development of peoples and countries in
  which the English language predominates.

12.03.04  English Language and Contemporary Culture
  The study of the patterns of behavior and beliefs commonly
  understood and shared by the people of those socio-
  economic milieus or geographical locations where English is
  the dominant language.

12.03.05  English Language Structure and Grammar
  The study of the meaning bearing units of the English lan-
  guage such as words, phrases, and sentences; and their identifi-
  cation and relationships.

12.03.06  Listening Comprehension in English
  The study of the skills and techniques used to improve and
  measure what is heard and understood in learning the English
  language.

12.03.07  English Language Literature
  The study of all writings in prose or verse, especially those
  of an imaginative or critical character, including biography,
  drama, essay, fiction, poetry, myths, and legends.

12.03.07 01  Literature in English by Author
  The study of the approach to English literature through
  various authors.
12.03 07 02 Literature in English by Genre
The study of the approach to English literature through the various kinds or types of works such as drama, poetry, fiction, and essay.

12.03 07 03 Literature in English by Period
The study of the approach to English literature through the various time periods, such as 18th century or 20th century.

12.03 07 04 Literature in English by Place
The study of the approach to English literature according to geographical location, such as a country or city.

12.03 07 05 Literature in English by Theme
The study of the approach to English literature according to themes, such as freedom, courage, and sentimentality.

12.03 07 06 Literature in English by Other Categories
The study of English literature organized by other categories.

12.03 08 Reading in the English Language
The study of the theory, methods, and techniques in reading the English language.

12.03 08 01 Beginning Reading in English
The study of the activities involved in teaching pupils to read, following necessary readiness activities designed to develop understanding of the relationship between oral and written language, recognition of symbols (letters) and symbol-sound relationships, and appreciation of the reading process.

12.03 08 02 Developmental Reading in English
The study of the methods and techniques designed to help pupils sequentially develop all aspects of reading proficiency needed by a mature reader.

12.03 08 03 Reading Readiness in English
The study of the methods and techniques of developing in children the mental, physical, and emotional maturity prerequisite to instruction in reading, emphasizing direct and vicarious experiences involving oral language, such as listening, speech habits and patterns, sequential organization of ideas, vocabulary development, and experience with books and stories.

12.03 08 04 Remedial Reading in English
The study of the nature and use of diagnostic and remedial activities for individual pupils or groups of pupils, designed to correct and prevent further reading difficulties which interfere with the pupil's expected progress in developing reading skills, understandings, and appreciations.

12.03 09 Speaking the English Language
The study of the theory, methods, and skills that are essential for the proper speaking of the English language.

12.03 10 Writing the English Language
The study of the theory, methods, and skills that are needed for writing the English language.

12.03 10 01 English Language Composition
The study of the principles and techniques of selecting, combining, arranging, and developing ideas, and expressing them in appropriate written forms such as narration, description, exposition, or persuasion.

12.03 10 02 English Language Creative Writing
The study of the techniques of composition that involve some degree of spontaneity and exercise of the imagination on the part of the writer such as found in short stories, verse, drama, and personal forms of writing.

12.03 10 03 English Language Rhetoric and Style
The study and analysis of the effective use of language, including an examination of the patterned use of language for its effect.

12.03 10 04 English Language Technical Writing
The study of the theory, methods, and skills needed for writing scientific, research, or formal English.

12.03 10 05 English Language Writing Conventions and Usage
The study of the techniques of using basic writing skills, including handwriting, spelling, capitalization, punctuation, and appropriate word choice.

12.03 99 Other Study and Uses of the English Language
(Specify).

12.04 AFRICAN LANGUAGES
The study of the language, literature, and culture of African peoples, such as Coptic, Berber, Ibo, Yoruba, Amharic, Hausa, Egyptian, and Swahili.

12.05 ARABIC
The study of the language, literature, and culture of Arabic-speaking peoples in the ancient and modern world.

12.05 41 Classical Arabic
The study of the language, literature, and culture of the ancient Arabic world.

12.05 40 Modern Standard Arabic
The study of the language, literature, and culture of Arabic-speaking people in the modern world.
ARTIFICIAL LANGUAGES
The study of and development of skills in reading, writing, and conversing in artificial languages such as Esperanto and Volapuk.

CHINESE
The study of the language, literature, and culture of Chinese-speaking people including Cantonese and Mandarin.

DANISH
The study of the language, literature, and culture of Danish-speaking people.

FINNISH
The study of the language, literature, and culture of Finnish-speaking people.

FRENCH
The study of the language, literature, and culture of French-speaking people.

ITALIAN
The study of the language, literature, and culture of Italian-speaking people.

JAPANESE
The study of the language, literature, and culture of Japanese-speaking people.

LATIN
The study of the language, literature, and culture of the ancient and medieval Roman world.

Classical Latin
The study of the language, literature, and culture of the ancient Roman world.

Medieval Latin
The study of the language, literature, and culture of the medieval European world.

NATIVE AMERICAN
The study of the languages, literatures, and cultures of the Indians of North America.

GERMAN
The study of the languages, literatures, and cultures of the German-speaking people.

GREEK
The study of the language, literature, and culture of Greek-speaking people, ancient and modern.

Classical Greek
The study of the language, literature, and culture of the ancient Greek world.

Modern Greek
The study of the language, literature, and culture of Greek-speaking people in the modern world.

New Testament Greek
The study of the Greek language as used in the New Testament.

HEBREW
The study of the language, literature, and culture of Hebrew-speaking people, ancient and modern.

Classical Hebrew
The study of the language, literature, and culture of the ancient Hebrew world.

Modern Hebrew
The study of the language, literature, and culture of the Hebrew-speaking people of the modern world.

HEBREW
The study of the language, literature, and culture of Hebrew-speaking people, ancient and modern.

Classical Hebrew
The study of the language, literature, and culture of the ancient Hebrew world.

Modern Hebrew
The study of the language, literature, and culture of the Hebrew-speaking people of the modern world.

NORWEGIAN
The study of the language, literature, and culture of Norwegian-speaking people.

PORTUGUESE
The study of the language, literature, and culture of Portuguese-speaking people.

RUSSIAN
The study of the language, literature, and culture of Russian-speaking people of the Soviet Union.

SANSKRIT
The study of the language and literature of Sanskrit.

SLAVIC LANGUAGES
The study of the languages, literatures, and cultures of Slavic peoples, including Polish, Czech, Serbo-Croatian, Slovenian, Bulgarian, and Ukrainian.

SOUTH ASIAN LANGUAGES
The study of the languages, literatures, and cultures of South Asian peoples, such as Bengali and Hindi.

SOUTHEAST ASIAN LANGUAGES
The study of the languages, literatures, and cultures of Southeast Asian peoples, such as Laotian, Cambodian, Thai, and Vietnamese.
12.25 **SPANISH**
The study of the language, literature, and culture of the Spanish-speaking people.

12.26 **SWEDISH**
The study of the language, literature, and culture of the Swedish-speaking people.

12.27 **YIDDISH**
The study of the language, literature, and culture of the Yiddish-speaking people.

12.07 **THE STUDY AND USES OF LANGUAGE** (INTERLAY)
The study of the skills and techniques essential to learning a language.

12.07.01 **Dialects of a Language (Synchronic and Diachronic)**
The study of the written or spoken features of a language such as sounds, forms, constructions, and words, as they vary individually or in related groups with respect to their geographic or social distribution. The study may be synchronic (of a single point in time) or diachronic (historical).

12.07.02 **History of a Language**
The study of the ways in which the various dialects developed in the course of time into a language, including the influence of nonlinguistic factors such as social and political change and the processes of general language change as they affected a specific language.

12.07.03 **A Language and a Civilization**
The study of the history of selected events, individuals, groups, institutions, artifacts, ideas, and other phenomena associated with the development of peoples and countries in which a language is predominant.

12.07.04 **Language and a Contemporary Culture**
The study of the patterns of behavior and beliefs commonly understood and shared by the people of a given socioeconomic milieu or geographical location in which a language is predominant.

12.07.05 **Language Structure and Grammar**
The study of the meaning-bearing units of a language such as morphemes, words, phrases, and sentences, and their identification and relationships.

12.07.06 **Listening Comprehension in a Language**
The study of the skills and techniques used to improve and measure what is heard and understood in learning a language.

12.07.07 **Literature of a Language**
The study of all writings in prose or verse, especially those of an imaginative or critical character, including biography, drama, essay, fiction, poetry, myths, and legends.

12.07.08 **Literature by Author**
The study of the approach to literature through various authors.

12.07.09 **Literature by Genre**
The study of the approach to literature through the various kinds or types of works such as drama, poetry, fiction, and essay.

12.07.10 **Literature by Period**
The study of the approach to literature through the various time periods, such as 18th century or 20th century.

12.07.11 **Literature by Place**
The study of the approach to literature according to geographical location, such as a country or city.

12.07.12 **Literature by Theme**
The study of the approach to literature according to themes, such as freedom, courage, and sentimentality.

12.07.13 **Literature by Other Categories**
The study of literature organized by other categories.

12.08 **Reading a Language**
The study of the theory, methods, and techniques in reading a language.

12.08.01 **Beginning Reading**
The study of the activities involved in teaching pupils to read, following necessary readiness activities designed to develop understanding of the relationship between oral and written language, recognition of symbols (letters) and symbol-sound relationships, and appreciation of the reading process.

12.08.02 **Developmental Reading**
The study of the methods and techniques designed to help pupils sequentially develop all aspects of reading proficiency needed by a mature reader.

12.08.03 **Reading Readiness**
The study of the methods and techniques of developing in children the mental, physical, and emotional maturity prerequisite to instruction in reading, emphasizing direct and vicarious experiences involving oral language, such as listening, speech habits and patterns, sequential organization of ideas, vocabulary development, and experience with books and stories.
12.08 Remedial Reading

The study of the nature and use of diagnostic and remedial activities for individual pupils or groups of pupils, designed to correct and prevent further reading difficulties which interfere with the pupil's expected progress in developing reading skills, understandings, and appreciations.

12.09 Speaking a Language

The study of the theory, methods, and skills that are essential for the proper speaking of a language.

12.10 Writing a Language

The study of the theory, methods, and skills that are needed for writing a language.

12.10.01 Composition

The study of the principles and techniques of selecting, combining, arranging and developing ideas, and expressing them in appropriate written forms such as narration, description, exposition, or persuasion.

12.10.02 Creative Writing

The study of the techniques of composition that involve some degree of spontaneity and exercise of the imagination on the part of the writer such as found in short stories, verse, drama, and personal forms of writing.

12.10.03 Rhetoric and Style

The study and analysis of the effective use of language, including an examination of the patterned use of language for its effect.

12.10.04 Technical Writing

The study of the theory, methods, and skills needed for writing scientific, research, or formal language.

12.10.05 Writing Conventions and Usage

The study of the techniques of using basic writing skills, including handwriting, spelling, capitalization, punctuation, and appropriate word choice.

12.99 Other Study and Uses of Language (Specify)

12.99 OTHER LANGUAGE, LINGUISTICS, AND LITERATURE (SPECIFY)

Subject matter that cannot be subsumed under an aggregate, general, or introductory element that already exists within the above structure.

FOR CONSIDERATION OF CODING, RECORDING, AND REPORTING MULTIPLE SUBJECT MATTER (INTERDISCIPLINARY) IN LANGUAGE, LINGUISTICS, AND LITERATURE, SEE APPENDIX E.

13 LAW

Subject matter concerned with the principles and procedures developed and enforced by institutions of government, for the social order, in the form of legislation, decisions, regulations, and orders.

13.01 CIVIL AND ADMINISTRATIVE PROCEDURE

The study of the jurisdiction, procedures, and remedies of civil courts and administrative agencies.

13.01.01 Administrative Law

The study of administrative agencies created by government, especially the procedures employed by such agencies and the legal and political control of agency authority.

13.01.02 Conflict of Laws

The study of the jurisdiction of tribunals, the choice of rules of law, and the force of judgments, in cases involving transactions touching two or more states or nations.

13.01.03 Evidence

The study of the manner in which facts are proved at trial or in hearings in courts or administrative agencies, including the introduction and exclusion of evidence, through witnesses and documents.

13.01.04 Federal Courts

The study of the manner in which judicial and lawmaking authority is allocated between Federal and State courts, and the rules of jurisdiction and procedure in the Federal courts.

13.01.05 Remedies: Legal and Equitable

The study of the remedies issued by courts and administrative agencies to redress legal wrongs, including those historically administered by law courts, such as damages, and by equity courts, such as injunctions and specific performance.

13.01.99 Other Civil and Administrative Procedure (Specify)

13.02 COMMERCIAL LAW

The study of the law of agreements, other transactions and related matters in trade or business.

13.02.01 Law of Commercial Paper

The study of the laws governing the use and form of notes, drafts, checks, certificates of deposits, transfer, rights of holders, liability of parties, and discharge.

13.02.02 Law of Contracts

The study of the formation and legal effect of agreements, including their interpretation, enforcement, performance, and remedies for their breach.
The study of the law concerned with the constitutional systems of the United States in terms of the judicial function in constitutional cases, federalism and the respective powers of the Federal and State governments, separation of powers among the three branches of the Federal government, and the limitations imposed upon the power of the Federal and State governments for the protection of individual rights.

13.04 01 Crimes

The study of criminal offenses and the rules and procedures governing the investigation, prosecution, and disposition of those charged with such offenses.

13.04 02 Criminal Procedure and Evidence

The study of the legal rules governing the operation of the criminal justice system and the application of substantive criminal law to the individual, such as a consideration of the prerogatives of and limitations upon the State in the restraint of an individual's liberty, the acquisition and use of facts, the filing of criminal pleadings, and the conduct of the trial proceedings.

13.04 03 Juvenile Justice

The study of the laws and procedures which are applied to and administered regarding those who, by statute, have not reached adulthood, including a consideration of courts, intake facilities, clinical services, community service agencies, and correctional institutions specifically created to deal with youths accused of criminal offenses.

13.04 04 Sentencing, Probation, and Parole

The study of the law relating to the determination of when, to whom, and what sanctions should be imposed on those deemed guilty of criminal offenses, and when and under what conditions and by whom a release from those sanctions should occur.

13.05 01 Anti-Trust Law

The study of control, through law, of private economic power for the purpose of promoting and regulating certain powers, while preserving the political integrity of each of its parts.

13.03 99 Other Constitutional Law (Specify)
competition, including common law remedies against restraints on trade and statutes to control monopolies, price discrimination, boycotts, cartels, patents; tie-in arrangements, price fixing, refusal to deal, resale price maintenance, price leadership, vertical restraints, mergers, consent judgments, remedies, and dissolution.

13.05 02 Law of Regulated Industries
The study of the law governing the regulation of various industries including licensing, rates and fair returns, quality of service, control of service, coordination of services, mergers, and financial practices.

13.05 03 Securities Regulation Law
The study of the laws regulating distribution and trading in stocks, bonds, and other securities.

13.05 99 Other Governmental Regulation of Business (Specify)

13.06 INTERNATIONAL LAW
The study of the law concerned with the rules, institutions, and procedures governing transactions, relationships, and events that affect two or more nation-states or cut across national boundaries.

13.06 01 Public International Law
The study of the law concerned with the rules, institutions, and procedures governing international relations and the conduct of nation-states and other entities, including the process of law creation through custom and treaty; jurisdiction of states over territory, resources, and persons; the law of the sea; the law governing the use of force, war, and neutrality; international protection of human rights; and procedures for settling international disputes.

13.06 02 Private International Law
The study of the legal rules and processes by which the courts of one country give effect to the laws and adjudications of courts in other countries and other entities, and to international rules governing commercial transactions that cut across national boundaries.

13.06 03 Law of International Organizations
The study of the laws, agreements, and other accords relating to the structure, procedures, and functioning of multinational organizations established by nation-states, including rights of membership and participation, authority and jurisdiction, legal effects of decisions, immunities and privileges, voting procedures, and relationships to national legal systems.

13.06 99 Other International Law (Specify)

13.07 01 Agency Law
The study of the law concerning the relationship between two persons whereby one is given authority to act on behalf of, and to create rights and liabilities for, the other.

13.07 02 Law of Associations
The study of variously chartered or unchartered business organizations which persons form and join to carry out a particular purpose.

13.07 03 Law of Corporations
The study of the characteristics, purposes, and powers of corporations and their organization, financing, control, and management.

13.07 04 Law of Partnerships
The study of the nature, purposes, formation, and dissolution of partnerships, and of the rights and liabilities of the partnership and its members.

13.07 99 Other Law of Business and Other Organizations (Specify)

13.08 PERSPECTIVES ON LAW
The study of law or of a particular legal system in a broader context, including historical, philosophical, or comparative analysis.

13.08 01 Comparative Law
The comparative study of the sources, concepts, and methods of different historical or contemporary legal systems.

13.08 02 Jurisprudence
The study of philosophical issues relating to the nature, sources, and purposes of the law, including the nature of legal reasoning, justice and social order, welfare, legal and political obligation, and punishment.

13.08 03 Legal History
The study of the development of law and legal institutions, giving attention to the political, social, economic, and intellectual factors determining such development.

13.08 04 Foreign Legal Systems
The study of legal systems other than those of the United States.
<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.08 05</td>
<td>Roman Law</td>
<td>The study of the laws and the legal system developed by ancient Rome.</td>
</tr>
<tr>
<td>13.08 06</td>
<td>Jewish Law</td>
<td>The study of the Hebrew legal heritage from earliest times to the present with special emphasis on Talmudic Law.</td>
</tr>
<tr>
<td>13.08 99</td>
<td>Other Perspectives on Law (Specify)</td>
<td></td>
</tr>
<tr>
<td>13.09 01</td>
<td>Property Law</td>
<td>The study of the legal rules pertaining to the acquisition, management, transfer, inheritance, and financing of interests in real and personal property.</td>
</tr>
<tr>
<td>13.09 02</td>
<td>Law of Possession and Title</td>
<td>The study of the fundamentals of common law rules relative to the acquisition and protection of interests in property, including rights of finders, bailment, accession, confusion, estates in land, joint tenancies, easements, and restrictive covenants.</td>
</tr>
<tr>
<td>13.09 03</td>
<td>Transfer of Property Law</td>
<td>The study of the law affecting the inter vivos transfer of interests in property and the rights of the parties thereto, including gifts, sales contracts, deeds, warranties, and the recording acts.</td>
</tr>
<tr>
<td>13.09 04</td>
<td>Landlord-Tenant Law</td>
<td>The study of the laws and regulations affecting the rights, duties, and responsibilities of landlords and tenants, including rights to possession, creation and termination of leases, assignments and subleases, rent control laws, duty to make repairs, and liability for injuries on the premises.</td>
</tr>
<tr>
<td>13.09 05</td>
<td>Community Property Law</td>
<td>The study of the laws in certain States which grant special rights to spouses with respect to property acquired during marriage, including rights on dissolution of marriage by death or divorce, management powers during marriage, and provisions for debt satisfaction during and after marriage.</td>
</tr>
<tr>
<td>13.09 06</td>
<td>Law of Real Estate Financing</td>
<td>The study of the law regulating the interests of moneylenders, sellers, and buyers in and to real property purchased on time, including mortgages, installment contracts, vendor's liens, and commercial developments of land.</td>
</tr>
<tr>
<td>13.09 09</td>
<td>Other Property Law (Specify)</td>
<td></td>
</tr>
<tr>
<td>13.10 01</td>
<td>Regulation of Employment Relations</td>
<td>The study of the legal rules and procedures which regulate the relationships between employers and employees.</td>
</tr>
<tr>
<td>13.10 02</td>
<td>Employment Discrimination Laws</td>
<td>The study of constitutional and other legal limitations on discrimination in employment on the basis of race, national origin, sex, or age, including the procedures and remedies used to implement those limitations.</td>
</tr>
<tr>
<td>13.10 03</td>
<td>Fair Labor Standards</td>
<td>The study of wage and hour laws, including minimum and overtime pay, child labor standards, and the pertinent record-keeping and enforcement machinery.</td>
</tr>
<tr>
<td>13.10 04</td>
<td>Retirement Benefits Law</td>
<td>The study of the legal regulation of social security and other pension plans, both private and governmental, available to workers whose employment is terminated by reason of age.</td>
</tr>
<tr>
<td>13.10 05</td>
<td>Safety and Health Law</td>
<td>The study of the legal rules designed to secure a safe and healthy work environment, including the procedures and remedies used to implement those rules.</td>
</tr>
<tr>
<td>13.10 06</td>
<td>Law of Unionization and Collective Bargaining</td>
<td>The study of the legal rules and procedures for the regulation of employers, employees, and unions in their industrial relations, including the formation and operation of unions, the use of strikes, lockouts, picketing and other economic weapons, and the establishment of working conditions through collective bargaining.</td>
</tr>
</tbody>
</table>
13.11 REGULATION OF THE ENVIRONMENT
The study of legal rules and regulations governing the use of property by government, business organizations, and individuals, as such use affects the condition, appearance, and enjoyment of the environment.

13.11 01 Environmental Law
The study of State and Federal rules and regulations affecting the quality of the environment, including common law concept of nuisance, clean air acts, water quality acts, and environmental policy acts.

13.11 02 Law of Land Use Planning
The study of local, State, and Federal rules and regulations affecting the private use of real property, including zoning, subdivision regulation, comprehensive planning and Federal control of interstate sales of real property.

13.11 99 Other Regulation of the Environment (Specify)

13.12 TAXATION LAW
The study of the laws and regulations promulgated by State and Federal government imposing a charge for the support of that government—on the acquisition, use, and transfer of property, goods, and services, and the determination of an amount for the charge.

13.12 01 Federal Estate and Gift Tax Law
The study of the Federal laws which assess a tax upon the transfer of property during life by gift, or upon the transfer of property that a decedent owned or had an interest in at death.

13.12 02 Federal Income Tax Law
The study of the Federal laws which assess a tax upon the income earned by an individual, trust, partnership, association, or corporation.

13.12 03 State and Local Taxation Laws
The study of the State and local laws which assess a tax upon the receipt of income earned by an individual, trust, partnership, association, or corporation, the purchase and use of goods, the ownership of personal and real property, the right to engage in specific occupations, and the right to obtain services provided by State or local governments.

13.12 99 Other Taxation Law (Specify)

13.13 TORTS
The study of wrongful acts other than breaches of contract, resulting in damage or threatened damage to persons or property covered under the areas of intent, negligence, or strict liability, as well as the areas of nuisance, misrepresentation, defamation and slander, invasion of privacy, products liability, and interference with business relationships, including unfair competition.

13.13 01 Intentional Torts
The study of laws regarding compensation for injury to persons or property resulting from intentional misconduct or interferences.

13.13 02 Negligence
The study of laws relating to compensation for injury to persons or property resulting from the unreasonable conduct or negligent interference of others.

13.13 03 Strict Liability
The study of laws relating to compensation in the absence of any negligence or any intent which the law finds wrongful for injury to persons or property resulting from the management or control of activities regarded as useful but highly dangerous.

13.13 04 Products Liability
The study of laws relating to compensation for injury to persons or property resulting from the manufacture or sale of defective products.

13.13 05 Unfair Trade
The study of laws relating to compensation for injury to persons, property, or reputation arising out of business activities regarded as improper.

13.13 06 Reputational Torts
The study of laws relating to compensation for injury to reputation or property resulting from the libellous or slanderous misconduct, or defamation of others.

13.13 99 Other Torts (Specify)

13.14 LEGAL PROFESSION
The study of the organized bar, the delivery of legal services to the public, and the professional responsibilities of the attorney.

13.14 01 Professional Responsibility
The study of the ethical obligations and standards of conduct applicable to members of the legal profession in their relations with clients, the courts, other lawyers, and the public, including the role of lawyers in an adversarial system, questions arising from rules providing for confidentiality of disclosures made to lawyers by clients, conflicts of interest problems confronted by lawyers, and the role of lawyers in providing for the provision of legal services to the public.
13.14 02 Legal Ethics
The study of the ethical obligations and standards of conduct applicable to members of the legal profession in their relations with clients, the courts, other lawyers, and the public.

13.14 03 Structure of the Legal Profession
The study of the history, structure, and functions of the legal profession, including the methods employed for delivering legal services to the public.

13.14 99 Other Legal Profession (Specify)

13.15 LEGAL SKILLS
The study and development of the techniques and skills employed by members of the legal profession in the pursuit of the profession.

13.15 01 Case and Statutory Analysis
The study and development of the skills employed by members of the legal profession in the analysis and interpretation of primary legal sources such as judicial and administrative opinions, statutes, and regulations.

13.15 02 Legal Bibliography
The study and development of the skills employed by members of the legal profession in the use of library and other research materials.

13.15 03 Interviewing and Counseling
The study and development of the skills employed by members of the legal profession in the interviewing and counseling of clients.

13.15 04 Drafting of Legal Instruments
The study and development of the skills employed by members of the legal profession in the preparation of written instruments.

13.15 05 Negotiation and Mediation
The study and development of the skills employed by members of the legal profession in resolving disputed claims or adjusting conflicting interests through negotiation or through third-party mediation and conciliation.

13.15 06 Advocacy
The study and development of the skills employed by members of the legal profession in presenting arguments in support of a client’s position before agencies empowered to determine legal rights and duties, such as courts, administrative tribunals, and arbitrators.

13.15 99 Other Legal Skills (Specify)

13.16 DOMESTIC RELATIONS LAW
The study of the law which affects relationships between husband and wife, and parent and child, including the obligations imposed by marriage, divorce, dissolution of marriage, or separation, such as the support of spouses and children during marriage and division of property and support of children and former spouses upon divorce. Paternity and adoption of children is included in the study.

13.17 ADMIRALTY
The study of the body of legal rules and practices governing the business of carrying goods and passengers at sea.

13.18 LAW OF STATE AND LOCAL GOVERNMENTS
The study of the structure, financing, territorial definition, and scope and distribution of power of State and local government units, and the legal issues arising from the administration of State and local governments.

13.19 PUBLIC WELFARE LAW
The study of the laws and regulations governing the administration of public assistance to welfare recipients and the legal problems arising therefrom.

13.99 OTHER LAW (SPECIFY)
Subject matter that cannot be subsumed under an aggregate, general, or introductory element that already exists within the above structure.

FOR CONSIDERATION OF CODING, RECORDING, AND REPORTING MULTIPLE SUBJECT MATTER (INTERDISCIPLINARY) IN LAW, SEE APPENDIX E.

14 LIBRARIES AND MUSEUMS
Subject matter concerned with the knowledge and skills required to develop, organize, store, retrieve, administer, and facilitate the use of collections of information in such formats as books, documents, manuscripts, machine readable data bases, filmed and recorded materials, specimens, artifacts, and other objects of permanent value.

14.01 LIBRARY SCIENCE
The study of those subjects concerned with the attitudes, knowledge, and skills required to develop, organize, administer, store and retrieve, and facilitate the use of library materials and libraries.

14.01 01 History of Libraries
The study of the sequential development and evolution of libraries as repositories of books, documents, manuscripts, publications, and other materials for reading, study, or reference, including the functional design and utilization of such facilities.
14.01 02 History of Printing and Books
The study of the sequential development and evolution of the process of marking or making impressions from inked type, blocks, and plates, and of the use and purpose of the written products of such processes, including books.

14.01 09 Other Library Science (Specify)

14.02 MUSEOLOGY
The study of those subjects concerned with the attitudes, knowledge, and skills required to develop, organize, administer, store and retrieve, and facilitate the use of museums and museum materials including art galleries and zoological gardens.

14.03 ADMINISTRATION OF LIBRARIES AND MUSEUMS
The study of management applications and trends, organizational structure, decisionmaking processes, economic trends, and management of personnel and finance in libraries and museums.

14.03 01 Academic Library Administration
The study of the organization and administration of learning resource centers and libraries in postsecondary institutions and research centers.

14.03 02 Art Gallery Administration
The study of the administration of art galleries and their services, including collecting, restoring, preserving, maintaining and exhibiting art objects, artifacts, paintings, portraits and other artistic renditions, and furnishing information of historical, artistic, and general public interest.

14.03 03 Library Administration
The study of the administration of libraries and related services including collecting, preserving, maintaining, and furnishing information of historical, artistic, scientific, or technological significance, or of general public interest.

14.03 04 Multilibrary Systems Administration
The study of the organization and administration of interlibrary organizational arrangements such as consortia, networks, and cooperative plans among libraries and among other information agencies.

14.03 05 Museum Administration
The study of the administration of museums, art galleries, and botanical and zoological gardens and related services, including collecting, authenticating, preserving, maintaining, exhibiting, and furnishing information on collections of historical, artistic, scientific, or technological significance, or of general public interest.

14.03 06 Public Library Administration
The study of the organization and administration of the public library as a governmental administrative and service agency. Included for study are economic trends, forms of control, structure, adult education standards, and problems of measurement.

14.03 07 School Library and Media Center Administration
The study of the organization and administration of school libraries and media centers, including supervision and functional requirements of libraries and media centers at local, district, and regional levels, and standards and problems of measurement.

14.03 08 Special Library Administration
The study of the organization and administration of libraries devoted to specific disciplines or users.

14.03 08 01 Art Library Administration
The study of the organization and administration of art libraries, including art research methods and materials.

14.03 08 02 Business Library Administration
The study of the organization and administration of business libraries, including business research methods and materials.

14.03 08 03 Law Library Administration
The study of the organization and administration of law libraries, including legal research methods and materials.

14.03 08 04 Medical Library Administration
The study of the organization and administration of medical libraries, including medical research methods and materials.

14.03 08 05 Music Library Administration
The study of the organization and administration of music libraries, including music research methods and materials.

14.03 08 06 Science and Technology Library Administration
The study of the organization and administration of science and technology libraries, including scientific and technical research methods and materials.

14.03 08 07 Theological Library Administration
The study of the organization and administration of theological libraries, including theological research methods and materials.

14.03 09 Zoological Garden Administration
The study of the organization and administration of zoological gardens, including current trends, modern techniques of communication, research, evaluation, and planning for future services.
14.04 COLLECTION MANAGEMENT
The study of the preparation, classification, maintenance, and cataloging of materials in libraries and museums.

14.04.01 Cataloging of Collections
The study of the principles, techniques, and skills necessary to describe the physical characteristics and identify the subject relationship of information resources in libraries and museums.

14.04.02 Classification of Collections
The study of the principles, techniques, and skills necessary to organize all library and museum formats of information resources for retrieval.

14.04.03 Maintenance of Collections
The study of the principles and techniques of keeping library and museum materials in all formats in usable condition.

14.04.04 Preservation of Collections
The study of the principles and techniques of protecting library and museum materials in all formats from destruction.

14.04.05 Registration and Documentation of Collections
The study of the principles and techniques of officially recording library and museum formats and verifying their authenticity.

14.04.06 Restoration of Collections
The study of the principles and techniques of renewing or returning library or museum materials to their former, normal, or original unimpaired condition.

14.04.07 Security of Collections
The study of the principles and techniques of protection and precaution for reducing the risks of theft, vandalism, fire, or other damage to persons or objects in libraries and museums.

14.04.08 Selection and Acquisition of Collections
The study of the principles, techniques, and skills necessary for acquiring all formats of library or museum information resources, including the principles and processes necessary for identification, evaluation, and selection.

14.04.09 Storage of Collections
The study of the principles and techniques of depositing usable library and museum materials not readily in use for safe keeping.

14.04.10 Automated Collection Management Systems
The study of the function and use of mechanical, magnetic, electrical, or other equipment that is used in the preparation, classification, maintenance, and cataloging of materials in libraries and museums.

14.04.99 Other Collection Management (Specify)

14.05 EQUIPMENT FOR LIBRARIES AND MUSEUMS
The study of electronic technology, automation, apparatus, furnishings, and other items required to operate libraries and museums.

14.05.01 Audio Equipment
The study of the use of sound equipment in libraries and museums.

14.05.02 Video and Visual Equipment
The study of the use of electronic equipment in libraries and museums which transmits visual images as in television, motion pictures, films, slides, and photographs.

14.05.99 Other Equipment for Libraries and Museums (Specify)

14.06 FACILITIES FOR LIBRARIES AND MUSEUMS
The study of the methods of planning, arranging, budgeting for, and utilizing space in library and museum facilities.

14.06.01 Environmental Requirements
The study of the heat, light, and other physical requirements necessary for storing, maintaining, and displaying materials in library and museum facilities.

14.06.02 Space Requirements
The study of factors essential to determination of need for space and its utilization required for storing, maintaining, and displaying materials in library and museum facilities.

14.06.99 Other Facilities for Libraries and Museums (Specify)

14.07 MATERIALS FOR LIBRARIES AND MUSEUMS
The study of the characteristics of various forms of information and materials found in libraries and museums and the problems related to the collection, organization, management, control, and administration of those materials.

14.07.01 Archives
The study of the collection, organization, preservation, service, and retrieval of public records, documents of historical significance, and other archival materials.
14.07 02  Artifacts and Specimens
The study of the selection, evaluation, organization, and preservation of manmade objects or artifacts and of samples of animals, plants, or minerals collected for study.

14.07 03  Bibliographies
The study of author, subject, allied and area bibliographies, as well as the strategy and techniques for constructing bibliographies.

14.07 04  Books
The study of the selection, evaluation, organization, and preservation of treatises, novels, or other forms of books.

14.07 05  Documents
The study of the selection, evaluation, organization, control, and administration of official publications of local, State, and national governments, as well as foreign, domestic, and international agencies.

14.07 06  Journals
The study of the selection, evaluation, organization, and control of periodicals, magazines, daily newspapers, and journals.

14.07 07  Manuscripts
The study of the collection, organization, preservation, service, and retrieval of original manuscript source materials.

14.07 08  Material Production
The study of the techniques used in the production of materials in libraries, museums, and information centers.

14.07 09  Nonprint Materials
The study of the selection, evaluation, organization, control, and use of films, recordings, and other nonprinted materials.

14.07 99  Other Materials for Libraries and Museums (Specify)

14.08  LIBRARY AND MUSEUM SERVICES AND FUNCTIONS
The study of the principles, techniques, and attitudes necessary to facilitate the use of libraries and museums by individuals or groups.

14.08 01  Advisory Services
The study of methods and techniques for evaluating users' and visitors' needs and interests and for providing guidance in the use of the libraries and museums and their contents to meet these needs.

14.08 02  Library and Museum Exhibits
The study of the methods and techniques of displaying materials for public viewing in libraries and museums.

14.08 03  Public Education Services and Functions
The study of the essential techniques, knowledge, and attitudes that are needed to provide services to public education patrons in libraries, museums, and information centers.

14.08 04  Reference and Retrieval
The study of the knowledge, principles, and techniques necessary to determine the user's needs, assist in identifying and interpreting pertinent information as required by the user, and to recover such information from storage.

14.08 05  Story Telling
The study of the knowledge, principles, and techniques necessary to transmit narrative in prose or verse to interest, amuse, or instruct a variety of users of libraries or museums.

14.08 99  Other Library and Museum Services and Functions (Specify)

14.09  LIBRARY AND MUSEUM USER GROUPS
The study of the characteristics, needs, and attitudes of groups and individuals who avail themselves of the materials, services, and functions that are provided by libraries and museums.

14.09 01  Preschool Users
The study of the characteristics, needs, and attitudes of groups and individuals who have not yet reached the age of compulsory school attendance and who use the materials, services, and functions of libraries and museums.

14.09 02  Children Users
The study of the characteristics, needs, and attitudes of groups and individuals of school age who use the materials, services, and functions of libraries and museums.

14.09 03  Adolescent Users
The study of the characteristics, needs, and attitudes of groups and individuals who have not yet reached the age of majority or adulthood and who use the materials, services, and functions of libraries and museums.

14.09 04  Adult Users
The study of the characteristics, needs, and attitudes of groups and individuals who are considered adults and who use the materials, services, and functions of libraries and museums for recreation or research, or for the purpose of increasing their knowledge.
The study of the characteristics, needs, and attitudes of groups and individuals who are mentally retarded, hard of hearing, visually handicapped, emotionally disturbed, or otherwise health impaired and who by reason thereof require special education and related services to assist them in using the materials, services, and functions of libraries and museums.

**14.09 06 Disadvantaged Users**

The study of the characteristics, needs, and attitudes of groups and individuals who are disadvantaged because of academic, socioeconomic, or cultural position and who use the materials, services, and functions of libraries and museums.

**14.09 07 Minority Users**

The study of the characteristics, needs, and attitudes of groups and individuals who are members of any recognizable racial, religious, or ethnic group that suffers some disadvantage due to prejudice or discrimination and who use the materials, services, and functions of libraries and museums.

**14.09 08 Senior Citizen Users**

The study of the characteristics, needs, and attitudes of groups and individuals who are generally retired or over 65 years of age and who use the materials, services, and functions of libraries and museums.

**14.09 09 Vocational-Technical Institute Users**

The study of the characteristics, needs, and attitudes of groups and individuals who are enrolled in a vocational-technical institute and who use the materials, services, and functions of libraries and museums associated with their institution.

**14.09 10 Community and Junior College Users**

The study of the characteristics, needs, and attitudes of groups and individuals who are enrolled in a community or junior college and who use the materials, services, and functions of libraries and museums associated with their institution.

**14.09 11 College and University Users**

The study of the characteristics, needs, and attitudes of groups and individuals who are enrolled in a college or university and who use the materials, services, and functions of libraries and museums associated with their institution.

**14.09 12 Research Institute Users**

The study of the characteristics, needs, and attitudes of groups and individuals who are affiliated with a research institute or who are actively engaged in research and who use the materials, services, and functions of libraries and museums.

**14.09 99 Other Library and Museum User Groups (Specify)**

Subject matter that cannot be subsumed under an aggregate, general, or introductory element that already exists within the above structure.

**14.99 OTHER LIBRARIES AND MUSEUMS (Specify)**

Subject matter concerned with the systematic study of living organisms and inanimate objects, processes of matter, energy, and associated phenomena:

**15 LIFE SCIENCES AND PHYSICAL SCIENCES**

The study of principles, theories, and philosophy concerned with the nature of the universe as a whole, including its origin and evolution.

**15.01 ASTRONOMY**

The study of matter and energy in the universe, including the solar system, stars, galaxies, and nebula.

**15.01 01 Cosmology (See 18.01 01 — Cosmology)**

The study of the sun and the astronomical bodies that orbit it, including their positions, dimensions, motion, composition, and evolution.

**15.01 02 Solar Astronomy**

The study of the stars and their positions, dimensions, motions, composition, and evolution.

**15.01 03 Stellar Astronomy**

The study of the stars and their positions, dimensions, motions, composition, and evolution.

**15.01 99 Other Astronomy (Specify)**

**15.02 ATMOSPHERIC SCIENCES**

The study of the chemical and physical properties of the mass of air surrounding the earth.

**15.02 01 Climatology**

The study of climates, including their causes and effects, classification, and regional or global influences.

**15.02 02 Meteorology**

The study of weather, including air masses and their motions, temperature, atmospheric pressure, clouds, and precipitation, and their relatively short-term interrelations on local, regional, and global scales.

**15.02 99 Other Atmospheric Sciences (Specify)**
### 15.03 BIOLOGY

The study of life, including the structure, function, reproduction, growth, heredity, evolution, behavior, and distribution of living organisms.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.03 01</td>
<td>Biological Behavior</td>
</tr>
<tr>
<td>15.03 02</td>
<td>Cell Biology</td>
</tr>
<tr>
<td>15.03 03</td>
<td>Developmental Biology</td>
</tr>
<tr>
<td>15.03 04</td>
<td>Ecology</td>
</tr>
<tr>
<td>15.03 05</td>
<td>Embryology (See 09.01 05 — Embryology)</td>
</tr>
<tr>
<td>15.03 06</td>
<td>Evolution</td>
</tr>
<tr>
<td>15.03 07</td>
<td>General Genetics</td>
</tr>
<tr>
<td>15.03 08</td>
<td>Histology (See 09.01 08 — Histology)</td>
</tr>
<tr>
<td>15.03 09</td>
<td>Limnology</td>
</tr>
<tr>
<td>15.03 10</td>
<td>Marine Biology</td>
</tr>
<tr>
<td>15.03 11</td>
<td>Microbiology (See 09.01 14 — Microbiology)</td>
</tr>
<tr>
<td>15.03 12</td>
<td>Molecular Biology</td>
</tr>
<tr>
<td>15.03 13</td>
<td>Parasitology (See 09.01 14'03 — Parasitology)</td>
</tr>
<tr>
<td>15.03 14</td>
<td>Radiobiology</td>
</tr>
<tr>
<td>15.03 15</td>
<td>Taxonomy and Systematics</td>
</tr>
<tr>
<td>15.03 16</td>
<td>General Botany</td>
</tr>
<tr>
<td>15.03 17</td>
<td>Bacteriology (See 09.01 14 01 — Bacteriology)</td>
</tr>
<tr>
<td>15.03 18</td>
<td>Mycology (See 09.01 14 02 — Mycology)</td>
</tr>
<tr>
<td>15.03 19</td>
<td>Phycology</td>
</tr>
<tr>
<td>15.03 20</td>
<td>Plant Genetics</td>
</tr>
<tr>
<td>15.03 21</td>
<td>Plant Pathology</td>
</tr>
<tr>
<td>15.03 22</td>
<td>Plant Physiology</td>
</tr>
<tr>
<td>15.03 23</td>
<td>General Zoology</td>
</tr>
</tbody>
</table>

- **15.03 01 Biological Behavior**: The study of the responses of living organisms to a variety of stimuli.
- **15.03 02 Cell Biology**: The study of the cell as a unit of organization in plants and animals.
- **15.03 03 Developmental Biology**: The study of the development of organisms, including growth, differentiation, and morphogenesis.
- **15.03 04 Ecology**: The study of the interrelationships among organisms and their environments.
- **15.03 05 Embryology (See 09.01 05 — Embryology)**: The study of the growth, development, structure, and functions of embryos.
- **15.03 06 Evolution**: The study of the genetic changes through which groups of organisms acquire morphological, physiological, and behavioral characteristics which distinguish them from other living things.
- **15.03 07 General Genetics**: The study of the inheritance of traits and characteristics of organisms.
- **15.03 08 Histology (See 09.01 08 — Histology)**: The study of the tissues of organisms through selection and preparation of microscopic sections.
- **15.03 09 Limnology**: The study of the nature and interrelationships of freshwater organisms and their aquatic environments.
- **15.03 10 Marine Biology**: The study of the nature and interrelationships of saltwater organisms and their aquatic environments.
- **15.03 11 Microbiology (See 09.01 14 — Microbiology)**: The study of microorganisms including bacteria, viruses, protists, protozoans, and certain fungi.
- **15.03 12 Molecular Biology**: The study of the molecular structure and processes of living organisms.
- **15.03 13 Parasitology (See 09.01 14'03 — Parasitology)**: The study of the structure, reproduction, development, distribution, and control of plant and animal parasites.
- **15.03 14 Radiobiology**: The study of the nature and effects of radiation on organisms and biological systems.
- **15.03 15 Taxonomy and Systematics**: The study of the identification, naming, and classification of organisms.
- **15.03 16 General Botany**: The study of the structure, function, reproduction, growth, heredity, evolution, and distribution of plant life.
- **15.03 17 Bacteriology (See 09.01 14 01 — Bacteriology)**: The study of the morphology, physiology, metabolism, and growth of bacteria, and their effects upon substances and other organisms.
- **15.03 18 Mycology (See 09.01 14 02 — Mycology)**: The study of the morphology, physiology, taxonomy, and ecology of fungi.
- **15.03 19 Phycology**: The study of the morphology, physiology, taxonomy, and ecology of algae.
- **15.03 20 Plant Genetics**: The study of the inheritance of traits and characteristics in plants.
- **15.03 21 Plant Pathology**: The study of the nature, causes, and development of plant diseases.
- **15.03 22 Plant Physiology**: The study of plant functions, including such metabolic processes as photosynthesis, respiration, assimilation, and transpiration.
- **15.03 23 General Zoology**: The study of animals, including their structure, function, reproduction, growth, heredity, evolution, behavior, and distribution.
15.03 24 Animal Anatomy
The study of the structure of animals including their tissues, organs, and systems.

15.03 25 Animal Behavior
The study of the responses of animals to a variety of stimuli.

15.03 26 Animal Genetics
The study of the inheritance of traits and characteristics of animals.

15.03 27 Entomology
The study of insects, including their life cycle, morphology, physiology, ecology, and taxonomy.

15.03 28 Herpetology
The study of reptiles and amphibians, including their morphology, physiology, ecology, and taxonomy.

15.03 29 Ichthyology
The study of the fishes, including their life cycle, morphology, physiology, ecology, and taxonomy.

15.03 30 Mammalogy
The study of mammals, including their life cycle, morphology, physiology, ecology, and taxonomy.

15.03 31 Ornithology
The study of birds, including their life cycle, morphology, physiology, ecology, and taxonomy.

15.03 32 Animal Pathology
The study of the nature, causes, and development of animal diseases.

15.03 33 Animal Physiology
The study of animal functions, including metabolic processes such as respiration, digestion, excretion, reproduction, and circulation.

15.03 99 Other Biology (Specify)

15.04 CHEMISTRY

The study of the micro and macro structure of matter, of the changes matter undergoes, of the energy involved in these changes, and of the models that interpret and the theories and laws that describe these phenomena.

15.04 01 General Chemistry
The study of properties of and changes in matter with emphasis on interpretations at the molecular level, serving as the usual introduction to further work in chemistry.

15.04 02 Analytical Chemistry
The study of the chemical and physical methods and techniques needed to qualitatively, quantitatively, and often structurally characterize a sample, including the proper procedures for obtaining representative samples for analyses and the statistical procedures for evaluating the precision and accuracy of the results.

15.04 03 Biochemistry (See 09.01 02 -- Biochemistry)
The study of the chemistry of living systems, including the isolation, characterization, and definition of the role of substances associated with processes taking place in living systems, and the study of the biological phenomena that result from the interactions, including energy changes among these substances.

15.04 04 Electrochemistry
The study of electrochemical phenomena and the reactions occurring when electrons are transferred from one substance to another, including electrode potentials, electrochemical cells, current-voltage time relationships, and the interconversion of electrical and chemical energy.

15.04 05 Inorganic Chemistry
The study of all the elements and their compounds, including the isolation, compositions, structures, physical and spectroscopic properties, syntheses, energy relationships, and chemical transformations of these substances, but excluding the hydrocarbons and most of their derivatives.

15.04 06 Macromolecular Chemistry
The study of the synthesis, structure, reactions, properties, and uses of substances composed of large molecules formed from repeating units of smaller molecules or molecular fragments. Such macromolecules (polymers) may be organic or inorganic and may be of synthetic or natural origin, and their study includes their characterization both in solution and in the solid state, and the relationships among reaction variables, physical properties, and use characteristics.

15.04 07 Nuclear Chemistry and Radiochemistry
The study of atomic nuclei, including their natural and induced disintegration, fusion and fission processes, the associated radiation of sub-atomic particles and their detection and measurement, and their energy relationships.

15.04 08 Organic Chemistry
The study of the hydrocarbons and their derivatives, either synthetic or produced by living organisms, including the isolation, compositions, structures, physical and spectroscopic properties, syntheses, energy relationships, and chemical transformations of these substances.
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.04 09</td>
<td>Physical Chemistry</td>
<td>The study of the theoretical and experimental investigation of matter, with emphasis on the most fundamental aspects of structure and bonding, and the relationships to the mechanisms and energy changes of transformations.</td>
</tr>
<tr>
<td>15.04 10</td>
<td>Surface Chemistry</td>
<td>The study of the unique properties of surfaces, including the analysis of the surface layer, the preparation of ultrapure surfaces, and the catalytic properties of surfaces.</td>
</tr>
<tr>
<td>15.04 11</td>
<td>Specialized Areas of Chemistry</td>
<td>Areas of chemistry not reflected in the above categories that include chemical oceanography, clinical chemistry, crystallographic chemistry, ecological chemistry, forensic chemistry, geochimistry, industrial chemistry, magnetic chemistry, marine chemistry, materials science, medicinal chemistry, molecular spectroscopy, organometallic chemistry, photochemistry, quantum chemistry, solid-state chemistry, theoretical chemistry, and wood chemistry.</td>
</tr>
<tr>
<td>15.04 99</td>
<td>Other Chemistry (Specify)</td>
<td></td>
</tr>
<tr>
<td>15.05 01</td>
<td>Geology</td>
<td>The study of the earth and other celestial bodies, including their composition, structure, history, and related changes.</td>
</tr>
<tr>
<td>15.05 02</td>
<td>Geomorphology</td>
<td>The study of the structure, origin, and evolution of landforms.</td>
</tr>
<tr>
<td>15.05 03</td>
<td>Hydrology (See 08.07 03 - Hydrology)</td>
<td>The study of the nature and characteristics of water.</td>
</tr>
<tr>
<td>15.05 04</td>
<td>Mineralogy</td>
<td>The study of minerals including their physical and chemical properties, classification, and identification.</td>
</tr>
<tr>
<td>15.05 05</td>
<td>Paleontology</td>
<td>The study of the fossil evidences of prehistoric life.</td>
</tr>
<tr>
<td>15.05 06</td>
<td>Petrology</td>
<td>The study of the genesis, occurrence, and classification of rocks, including chemical and crystallographic analysis.</td>
</tr>
<tr>
<td>15.05 07</td>
<td>Seismology</td>
<td>The study of earthquakes and artificially produced vibrations in the earth.</td>
</tr>
<tr>
<td>15.05 08</td>
<td>Other Geology (Specify)</td>
<td></td>
</tr>
<tr>
<td>15.06 01</td>
<td>Acoustics</td>
<td>The study of the nature and characteristics of audible sound.</td>
</tr>
<tr>
<td>15.06 02</td>
<td>Astrophysics</td>
<td>The study of the physical and chemical composition of celestial bodies, and of the interactions between matter and radiation within celestial bodies and in interstellar space.</td>
</tr>
<tr>
<td>15.06 03</td>
<td>Biophysics (See 08.05 05 - Biophysics)</td>
<td>The study of biological phenomena using physical principles and methods.</td>
</tr>
<tr>
<td>15.06 04</td>
<td>Electricity</td>
<td>The study of energy generated by friction, induction, or chemical change, and having magnetic, chemical, and radiation effects.</td>
</tr>
<tr>
<td>15.06 05</td>
<td>Geophysics</td>
<td>The study of the effects of physical phenomena on the earth.</td>
</tr>
<tr>
<td>15.06 06</td>
<td>Optics</td>
<td>The study of the nature and propagation of light.</td>
</tr>
<tr>
<td>15.06 07</td>
<td>Particle Physics</td>
<td>The study of the fundamental particles of matter that are smaller than an atom, including protons, neutrons, electrons, and alpha and beta particles.</td>
</tr>
<tr>
<td>15.06 08</td>
<td>Quantum Physics</td>
<td>The study of the physical phenomena of radiation that is explained by discrete and discontinuous units of energy.</td>
</tr>
<tr>
<td>15.06 09</td>
<td>Solid State Physics</td>
<td>The study of electrical, magnetic, thermal, and optical properties and processes within solids, including theories of conduction of metals, semiconductors, and crystals.</td>
</tr>
<tr>
<td>15.06 10</td>
<td>Physical Thermodynamics</td>
<td>The study of heat and mechanical energy changes in physical systems.</td>
</tr>
</tbody>
</table>
15.07 99  Other Physics (Specify)

15.08  GENERAL PHYSICAL SCIENCES
The study of the major topics, concepts, processes, and interrelationships of nonliving matter and associated phenomena.

15.08 01  Cryogenics
The study of the nature and characteristics of very low temperatures and their effects on matter.

15.08 02  Metallurgy
The study of the chemical and physical properties of metals.

15.08 03  Mechanics
The study of motion and the action of forces on bodies, including kinetics, statics, and kinematics.

15.08 04  Nuclear Science
The study of atomic nuclei, including their structure, properties, transformative energies, and radiation, and the interaction of radiation with matter.

15.08 99  Other General Physical Sciences (Specify)

15.09  GENERAL EARTH-SPACE SCIENCE
The study of earthspace science in its entirety with no major emphasis on any specific subcategories within the subject matter area.

15.09 99 Other General Physical Sciences (Specify)

16  MATHEMATICAL SCIENCES
Subject matter concerned with the sciences of logical symbolic language and their applications.

16.01  MATHEMATICAL SCIENCES, GENERAL PERSPECTIVES
The study of the history and role of mathematics in human culture and its relationship to other fields of knowledge, including the investigation of the philosophical foundation, content, and educational aspects of mathematics.
### Infinite Sets

The study of sets that are not finite, including induction, axiom of choice, category, and topological set theory.

### Other Logic, Sets, and Foundations (Specify)

### ARITHMETIC AND ALGEBRA

The study of numbers and operations upon numbers, including the symbolic and structural abstractions of the number concept.

#### Arithmetic

The study of whole numbers and fractions, as well as the algorithms for performing addition, subtraction, multiplication, and division with these numbers.

#### Algebra

The study of the use of variables to represent numbers or other concepts, the rules for manipulating such, symbolic representations, and the solution of linear and quadratic equations.

#### Number Theory

The study of the properties of the positive integers, including topics such as primes, divisibility, congruence, integer solutions of certain equations or systems of equations.

#### Algebraic Geometry

The study of algebraic equations or systems of equations which define geometric configurations in the plane or space, extending to equations whose coefficients are not only real or complex numbers, but also elements of more general fields or rings and for which the geometric configurations exist in higher-dimensional spaces.

#### Algebraic Structures

The study of the generalizations of the basic structures of elementary mathematics as found in the system of integers, and the system of rational numbers, up through the system of vectors, stressing the features common to all of these systems, including the concepts of groups, rings, and fields.

#### Linear and Multilinear Algebra

The study of finite dimensional vector spaces and linear transformations or mappings of a vector space into itself, extending to spaces of infinite dimensions or systems in which several linear relationships exist between sets of variables or vectors.

#### Universal Algebra

The study of the abstract extensions that can be developed from the properties of algebraic structures, leading to a language for discussing all algebraic systems of a given type.

### Group Theory

The study of the properties of structures in algebra which consist of a set of elements and one operation upon this set, extending to the study of the structure of all finite groups and infinite groups and to the use of group theory in other areas of mathematics and science.

### Other Arithmetic and Algebra (Specify)

### CLASSICAL ANALYSIS

The study of functions of real or complex variables, limiting processes involving such functions, solution of equations involving these processes, and representation and classification of functions in terms of similar concepts or functions.

#### Calculus

The study of limiting processes for functions of real or complex variables, especially differentiation and integration.

#### Real Analysis

The study of discipline associated with analytic properties such as continuity, differentiability, and integrability of functions of real variables.

#### Measure and Integration

The study of spaces in which a measure has been defined, real and complex valued functions on such spaces and integrals of such functions, families of functions, and integrals defined without regard to a measure.

#### Complex Analysis

The study of the discipline associated with analytic properties such as continuity and differentiability of functions of complex variables. It also includes the representation of complicated functions in terms of simpler ones, classes of complex-valued functions, and the study of the real or imaginary part of a differentiable function, known as potential theory.

#### Special Functions

The study of particular classes of functions, including Bessel functions, which arise in certain problems of differential equations of mathematical physics, other representations of other functions in terms of special functions, and integral representations in terms of special functions.

#### Ordinary Differential Equations

The study of the solution of equations or systems of equations containing one or more unknown functions of a single real variable, along with derivatives of these functions, and quantitative and qualitative properties of solutions or classes of solutions.

#### Partial Differential Equations

The study of the solution of equations containing functions of several real variables along with partial derivatives of these equations.
functions, usually over a restricted domain of the independent variables and subject to conditions on the function and its derivatives on some or all of the boundary of this domain, quantitative and qualitative properties of solutions or classes of solutions; and methods of solutions applicable to certain classes of equations.

16.04 08  Finite Differences and Functional Equations

The study of the solution of equations involving unknown functions other than differential or integral equations, and in particular, equations which relate the values of the unknown function at two or more algebraically related variables.

16.04 09  Ergodic Theory

The study of transformations and their iterates or families of transformations, which are defined on a measure space and preserve the measure. Particular attention is given to asymptotic properties and classification and representation of such transformations.

16.04 10  Fourier Series and Integrals

The study of infinite series of trigonometric functions and integral transforms with a trigonometric kernel, convergence and summability of such series and integrals, and representation of continuous or integrable functions in terms of such series and integrals.

16.04 11  Integral Equations and Transforms

The study of integral equations which involve an unknown function appearing in an integrand. Integral transforms are defined as integrals of products of the transformed function and a fixed function.

16.04 12  Calculus of Variations

The study of problems where an unknown function is sought that will maximize or minimize, within a given class, an integral or more general function which involves the unknown function.

16.04 99  Other Classical Analysis (Specify)

16.05  FUNCTIONAL ANALYSIS

The study of algebraic and topological structures in infinite dimensional spaces and mappings between such spaces.

16.05 01  Hilbert Spaces and Operators

The study of linear spaces in which an inner product has been defined, and of linear operators from one such space to another or to the real or complex numbers, including classification and representation of such spaces and functions.

16.05 02  Topological Vector Spaces

The study of linear spaces in which a topology is defined for which the linear operations are continuous, including functions or operators from one such space to another, classification and representation of such spaces and functions, and particular categories of such spaces with their special properties.

16.05 03  Abstract Harmonic Analysis

The study of generalizations of the classical theory of Fourier series or integrals, usually involving topological groups, topological algebras, or Hilbert space.

16.05 04  Topological Groups

The study of infinite groups in which a topology is defined for which the group operations are continuous, as well as special topological groups or categories of such groups. The study of continuous homomorphisms of such a group to finite dimensional Euclidean spaces, and their use in analyzing other functions on the group, is included.

16.05 05  Topological Algebras

The study of linear algebras in which a topology is defined for which the algebraic operations are continuous, including special categories of such algebras.

16.05 06  Convexity

The study of the special properties of functions and families of functions defined in a subset of an infinite dimensional space which derives from the fact that the subset is convex, or that the functions preserve convex combinations.

16.05 07  Distributions (Generalized Functions)

The study of certain linear spaces of real or complex valued functions in a topological vector space, where the functions are designed to extend properties of ordinary functions of a real or complex variable, including the use of such generalized functions in solving classical problems in analysis.

16.05 99  Other Functional Analysis (Specify)

16.06  GEOMETRY AND TOPOLOGY

The study of spatial concepts and relations, either of the real world or an abstract conceptual universe, the classification of shapes and forms, and the imposition of numerical or descriptive structures on such forms.

16.06 01  Plane and Solid Geometry

The study of properties of figures of the plane and three-space that are invariant under translation and rotation.

16.06 02  Trigonometry

The study of the properties of triangles, the relations between sides and angles of triangles, and the applications of triangles.
16.06 03 Analytic Geometry
The study of the application of algebraic procedures to geometry wherein position is represented analytically by coordinates.

16.06 04 Geometries
The study of the special geometries that are induced by groups of allowable, spatial figures, including their common properties and the comparisons between them.

16.06 05 Convex Bodies
The study of geometric objects with the property that, given a line segment with both endpoints lying in the body, the entire line segment lies within the body.

16.06 06 Differential Geometry
The study of curves and surfaces using the methods of differential calculus.

16.06 07 Manifolds and Cell Complexes
The study of locally Euclidean space by reticulation.

16.06 08 General Topology
The study of infinite sets of points or functions, admitting all possible choices of neighborhoods in them, including the topics of compactness, connectedness, and convergence.

16.06 09 Algebraic Topology
The study of topological properties of figures using the methods of abstract algebra.

16.06 10 Global Analysis
The study of those properties of geometric figures, functions, and function spaces that are determined by the whole configuration in contrast to those properties that are determined by the local neighborhoods.

16.06 11 Topological Dynamics
The study of the general theory of transformation groups, algebraic theory of minimal sets, structure theorems, flows induced by vector fields, and symbolic flows.

16.06 99 Other Geometry and Topology (Specify)

16.07 PROBABILITY
The study of the mathematical discipline dealing with the description and interpretation of chance phenomena.

16.07 01 Finite Probability
The study of probabilistic models involving a finite number of outcomes.

16.07 02 Theory of Probability
The study of mathematical models for the description of chance phenomena.

16.07 03 Limit Theorems
The study of theorems dealing with the limiting distribution of random variables depending on a parameter as n increases indefinitely.

16.07 04 Markov Processes
The study of the stochastic process where the probability distribution for the state at any future instant depends only on the present state.

16.07 05 Stochastic Processes
The study of a family \( (X_t) \) of variates with \( t \) assuming values in a given range, frequently \( X_t \) represent an observation at time \( t \).

16.07 06 Foundations of Probability
The study of interpretations of probability and possible axiomatisations of the theory of probability.

16.07 07 Monte Carlo Methods
The study of the solution of a mathematical problem based on constructing a possibly artificial probabilistic model of the mathematical process and then performing sampling experiments to obtain an approximate solution.

16.07 99 Other Probability (Specify)

16.08 STATISTICS
The study of the science of collecting, describing, and interpreting numerical data.

16.08 01 Descriptive Statistics
The study of methods for the tabular and graphic representation of numerical and categorical data and the computation of summary values.

16.08 02 Applied Statistics
The study of statistical methods used in the solution of real-world statistical problems.

16.08 03 Mathematical Statistics
The study of the mathematical bases of statistical theories and methods.

16.08 04 Parametric Inference
The study of the process of generalizing from a sample to the population from which the sample has been drawn. In parametric inference, the population distribution is assumed
known except for the value of one or several unknown parameters. The problem then is to estimate the unknown parameters or test hypotheses about the unknown parameter values on the basis of sample information.

16.08 05 Nonparametric Inference

The study of the process of drawing inferences when little or nothing is known about the population distribution. Since nonparametric inference methods do not depend on the population distribution type, they are often referred to as distribution-free methods.

16.08 06 Linear Models

The study of models in which the equations connecting variates are in linear form. Regression and analysis of variance models are special cases of linear models.

16.08 07 Multivariate Analysis

The study of the analysis of data which are in multivariate form.

16.08 08 Experimental Design

The study of how to design the collection of sample observations required to solve a given inference problem.

16.08 09 Sample Surveys

The study of the methodology, statistical consequences, and practice of selecting observations or sampling units from a population for purposes of inference.

16.08 10 Decision Theory

The study of the mathematical analysis of decision making under uncertainty.

16.08 11 Time Series Analysis

The study of analysis of data relating to a stochastic process in which the parameter is time.

16.08 12 Reliability and Quality Control

The study of the failure rate of individual components and systems of components, and the study of statistical procedures for controlling and improving the quality of manufactured products.

16.08 99 Other Statistics (Specify)

16.09 NUMERICAL ANALYSIS AND APPROXIMATION THEORY

The study of algorithms for computation and approximation, including analysis of their accuracy.

16.09 01 Numerical Analysis

The study of methods for finding numerical approximations to the solutions of mathematical problems, including analysis of the errors arising in the implementation of these methods.

16.09 01 01 Matrix Numerical Analysis

The study of numerical analysis of finite sets of linear equations, of eigenvalue problems, and of other problems involving matrices.

16.09 01 02 Numerical Integration

The study of numerical quadrature and numerical solution of differential equations.

16.09 01 03 Error Analysis

The study of methods for estimating the difference between the numerical solution and the theoretical solution of a problem.

16.09 02 Approximation Theory

The study of methods for approximating an unknown mathematical object by members of a given set of similar objects subject to a given criterion of good approximation, such as approximating a function by simpler functions or a problem solution by solutions of simpler problems.

16.09 02 01 Interpolation

The study of approximation theory in which the objects are functions that agree in value on a predetermined set of points in their common domain.

16.09 99 Other Numerical Analysis and Approximation Theory (Specify)

16.10 CLASSICAL APPLIED MATHEMATICS (PHYSICAL SYSTEMS)

The study of the physical universe by means of analytical models.

16.10 01 Mechanics of Particles and Systems

The study of motion and energy in collections of point masses that can be treated as concentrated at a point.

16.10 01 01 Statics in Rigid Bodies

The study of forces, moments, and equilibrium in bodies whose point masses are fixed relative to one another.

16.10 01 02 Kinematics of Particles and Rigid Bodies

The study of states of pure motion of a system without regard to forces, inertia, or other physical causes of the motion.

16.10 02 Mechanics of Solids

The study of substances that have definite volume and shape and which resist forces that tend to alter their volume or shape.
<table>
<thead>
<tr>
<th>Code</th>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>16.10 03</td>
<td>Fluid Mechanics</td>
<td>The study of statics and dynamics of fluids and the propagation of energy in them.</td>
</tr>
<tr>
<td>16.10 04</td>
<td>Optics and Electromagnetic Theory</td>
<td>The study of the propagation of light and other electromagnetic radiation as a branch of mechanics.</td>
</tr>
<tr>
<td>16.10 05</td>
<td>Relativity</td>
<td>The study of the form of mechanics in which all effects of one mass on another are projected with the finite speed of light, including special relativity in which space-time is flat, and general relativity which admits curved space-time.</td>
</tr>
<tr>
<td>16.10 06</td>
<td>Quantum Mechanics</td>
<td>The study of mechanics dealing with the transfer of energy between the electromagnetic field and point masses, or charges, under Planck's law of the quantum of action.</td>
</tr>
<tr>
<td>16.10 07</td>
<td>Mathematical Mechanics</td>
<td>The study of the mechanics of aggregates of particles described by statistical measures rather than by the individual coordinates of each particle.</td>
</tr>
<tr>
<td>16.10 08</td>
<td>Classical Thermodynamics</td>
<td>The study of the mechanics of interaction between heat energy and the kinetic energy of particles under the laws of classical physics rather than the quantum law.</td>
</tr>
<tr>
<td>16.10 09</td>
<td>Mathematical Astronomy, Astrophysics, and Cosmology</td>
<td>The study of mathematical principles fundamental to understanding solar systems, stars, galaxies, and the universe as a whole.</td>
</tr>
<tr>
<td>16.10 10</td>
<td>Mathematical Geophysics and Meteorology</td>
<td>The study of mathematical principles fundamental to understanding the physical phenomena of the earth and atmosphere.</td>
</tr>
<tr>
<td>16.10 99</td>
<td>Other Classical Applied Mathematics (Specify)</td>
<td></td>
</tr>
<tr>
<td>16.11 03</td>
<td>Mathematics of Economics</td>
<td>The study of mathematical and statistical models and methodology in economics.</td>
</tr>
<tr>
<td>16.11 04</td>
<td>Game Theory</td>
<td>The study of formulation and solution of mathematical and statistical decision problems as games.</td>
</tr>
<tr>
<td>16.11 05</td>
<td>Mathematical Programming (Linear and Nonlinear)</td>
<td>The study of the formulation and solution of problems in optimizing an objective, or criterion function subject to a set of constraints.</td>
</tr>
<tr>
<td>16.11 06</td>
<td>Control Theory and Optimal Control</td>
<td>The study of the formulation and optimization of systems governed by differential equations under a functional mapping called the control.</td>
</tr>
<tr>
<td>16.11 07</td>
<td>Mathematical and Statistical Biology</td>
<td>The study and application of mathematical and statistical models and methodology in biology.</td>
</tr>
<tr>
<td>16.11 08</td>
<td>Mathematical and Statistical Psychology</td>
<td>The study and application of mathematical and statistical models and methodology in psychology.</td>
</tr>
<tr>
<td>16.11 09</td>
<td>Mathematical and Statistical Sociology</td>
<td>The study and application of mathematical and statistical models and methodology in sociology.</td>
</tr>
<tr>
<td>16.11 10</td>
<td>Communication Theory</td>
<td>The study of the logic and modeling of mathematical systems which create, transmit, and evaluate messages.</td>
</tr>
<tr>
<td>16.11 10 01</td>
<td>Mathematical Information Theory</td>
<td>The study of the number of possible choices of messages, expressible as a value of some monotonic function of the number of choices.</td>
</tr>
<tr>
<td>16.11 10 02</td>
<td>Cybernetics</td>
<td>The study of human control functions and of mechanical and electrical systems designed to replace them, involving the application of statistical mechanics to communication engineering.</td>
</tr>
<tr>
<td>16.11 11</td>
<td>Multivariate Data Analysis</td>
<td>The study and use of mathematical, statistical, and graphic methods for revealing the form and pattern of multivariate interrelationships among both the variables and the samples, including cluster analysis and numerical taxonomy.</td>
</tr>
<tr>
<td>16.11 99</td>
<td>Other Applications of Mathematics (General) (Specify)</td>
<td></td>
</tr>
</tbody>
</table>
16.12 USER ORIENTED MATHEMATICS
The study of the applications of basic mathematical concepts and procedures to situations encountered by persons in everyday life or in vocational settings.

16.12 01 Business Mathematics
The study of those aspects of mathematics which apply particularly to business problems.

16.12 02 Consumer Mathematics
The study of the various applications of mathematics, such as informal algebra and geometry which apply particularly to consumer problems, including ratios, proportions, and percentages.

16.12 99 Other User Oriented Mathematics (Specify)

16.99 OTHER MATHEMATICAL SCIENCES (SPECIFY)
Subject matter that cannot be subsumed under an aggregate, general, or introductory element that already exists within the above structure.

FOR CONSIDERATION OF CODING, RECORDING, AND REPORTING MULTIPLE SUBJECT MATTER (INTERDISCIPLINARY) IN MATHEMATICAL SCIENCES, SEE APPENDIX E.

17 MILITARY SCIENCES
Subject matter concerned with the causative factors and tactical principles of warfare, armed conflict, and defense.

17.01 MILITARY HISTORY
The study of the historical basis and fundamentals of the principles of war, of combat and the conduct of war, of national security, and of the use of force.

17.01 01 History of Warfare
The study of the historical development of military thought and actions as practiced by world leaders and military organizations.

17.01 02 American Military History
The study of the development of military services, national defense, and military engagements of the United States from the American Revolution to the present.

17.01 03 Aerospace History
The study of the evolution and development of air power, from balloons and dirigibles through jet aircraft and rockets.

17.01 04 Army History
The study of the evolution and development of military land forces, including men, materiel, and systems used in armed conflicts, national defense, or world peace.

17.01 05 Naval History
The study of the evolution and development of naval forces, including men, materiel, and systems used in armed conflicts, national defense, or world peace.

17.01 99 Other Military History (Specify)

17.02 MILITARY ORGANIZATION
The study of the structure and principles of the chain of command and control in the branches and units of the military services.

17.02 01 Organization of the Air Force
The study of the structure and principles of the chain of command and control in the Air Force.

17.02 02 Organization of the Army
The study of the structure and principles of the chain of command and control in the Army.

17.02 03 Organization of the Marine Corps
The study of the structure and principles of the chain of command and control in the Marine Corps.

17.02 04 Organization of the Navy
The study of the structure and principles of the chain of command and control in the Navy.

17.02 99 Other Military Organization (Specify)

17.03 MILITARY MANAGEMENT AND LEADERSHIP
The study of management and leadership theory, methods, and principles as applied to the military, including assumption of command, senior-subordinate relationships, chain of command, span of control, and supervisory and motivational techniques.

17.04 NATIONAL SECURITY AND DEFENSE
The study of the formulation and implementation of American security policy, the development of American military institutions, and the operation of the national security system in the United States.

17.05 MILITARY LAW
The study of the provisions and application of the Uniform Code of Military Justice and regulations of the Department of Defense and the service branches, including criminal actions, administrative laws, the International laws of war, procurement and contracting, and courts-martial procedures.

17.06 INTERNATIONAL MILITARY SYSTEMS
The study of the structure and dynamics of the relationship and balance of power between nations, international politics, and the military systems maintained by the nations of the world.
17.07 MILITARY COMMUNICATIONS

The study of command, control, and communications systems used in the tactical or strategic employment of military personnel.

17.08 FIELD TRAINING, CAMPS, AND CRUISES

The study of the application of the topics of military science to realistic environments as sponsored and provided by the armed services.

17.09 DRILL, COMMANDS, AND CEREMONIES

The study of and practical training in the nomenclature, positions, movements, courtesies and honors, and other aspects of unit leadership in formal marching or other precise military maneuvers.

17.10 WEAPONRY AND MARKSMANSHIP

The study of the characteristics, maintenance, and functioning of weapons for use in attack or defense, and of the techniques of sighting and shooting weapons.

17.11 MILITARY FIRST AID AND HEALTH EDUCATION

The study of techniques of personal hygiene and health control, dressing and protection of wounds, and first aid, lifesaving, and rescue measures that are encountered in the military environment.

17.12 AIR FORCE

The study of the role of the Air Force in the contemporary world, including the total force structure, strategic offensive and defensive forces, general purpose forces, and aerospace support force.

17.12.01 Military Aeronautics

The study of the basic elements of flight and the utilization of aircraft for military purposes and national defense.

17.12.02 Military Aerospace

The study of the design, construction, operation, and maintenance of aircraft and space vehicles as utilized by the Air Force for military purposes and national defense.

17.12.03 Military Astronautics

The study of space programs and technology as utilized by the Air Force for military purposes and national defense.

17.12.99 Other Air Force (Specify)

17.13 ARMY

The study of the purpose and objectives of the United States Army and all its branches, its rank structure, its customs and traditions, and its importance in national defense and security.

17.13.01 Military Tactics

The study of the principles and techniques of maneuvering small to large groups of combat forces into a plan of action for gaining an advantage or success.

17.13.02 Land Navigation and Map Reading

The study of military maps, photographs, and terrain for solving tactical and administrative problems by plotting, ascertaining, and directing the movement of ground forces.

17.13.99 Other Army (Specify)

17.14 MARINE CORPS

The study of the purpose and objectives of the United States Marine Corps and all its branches, its rank structure, its customs and traditions, and its importance in national defense.

17.15 NAVY

The study of the purpose and objectives of the United States Navy and all its branches, its rank structure, its customs and traditions, and the importance of seapower and naval service in national defense and security.

17.15.01 Maritime Heritage and Affairs

The study of the role of seapower and seamen, including the merchant marines, in the growth and development of the United States and the impact of such development on national maritime policy.

17.15.02 Navigation and Naval Operations

The study of the theory, principles, and procedures of ship navigation, movements and deployment.

17.15.03 Seamanship

The study of the fundamentals of the art of handling, working, and navigating naval ships and small craft.

17.15.04 Naval Ship Systems

The study of the types, structure, and purpose of naval ships, including ship construction and compartment designation, propulsion systems, communication and control systems, and naval ordnance systems.

17.15.99 Other Navy (Specify)

17.99 OTHER MILITARY SCIENCES (SPECIFY)

Subject matter that cannot be subsumed under an aggregate, general, or introductory element that already exists within the above structure.

FOR CONSIDERATION OF CODING, RECORDING, AND REPORTING MULTIPLE SUBJECT MATTER (INTER-DISCIPLINARY) IN MILITARY SCIENCES, SEE APPENDIX E.
PHILOSOPHY, RELIGION, AND THEOLOGY

Subject matter concerning Philosophy—the critical examination of the subject matter categories for describing reality, the nature and contexts of human experience, the methodology of rational inquiry and criteria of practice, Religion—the investigation of organized forms, beliefs, and practices related to eternal principles or transcendental spiritual entities; and Theology—the study of God, sources of revelation, historical investigations, and the response of the Jewish and Christian communities.

AESTHETICS

The study of the nature and value of art, appreciation, and standards of critical evaluation.

Philosophy of Art
The study of the nature and value of the traditional fine arts and architecture in the life of the individual and society.

Philosophy of Creativity
The study of the nature and value of the creative process and of such notions as genius and originality.

Philosophy of Criticism
The study of the nature and limits of rationality with emphasis on queries regarding the objectivity of critical discourse.

Philosophy in Literature
The study of philosophical themes embodied in fiction, drama, and poetry, as well as of exegetical problems posed by metaphor and other figurative uses of language.

Other Aesthetics (Specify)

EPISTEMOLOGY

The study of philosophical theories about the bases, extent, and limitations of human knowledge.

Philosophy of Psychology
The study of the more speculative and controversial issues relating to mind and consciousness, arising out of empirical psychology which have implications for the philosophical understanding of the nature of knowledge.

Philosophy of Natural Science
The study of the nature of such sciences as physics and astronomy, especially of the methodology of scientific inquiry, its presuppositions, concepts, and its place in the general scheme of intellectual pursuits.

Philosophy of Social Science
The study of the philosophical problems arising out of intellectual investigations into the functioning of human societies and into the relations of individuals within it, including problems regarding the research methodologies used by investigators in the social sciences.

Other Epistemology (Specify)

ETHICS

The critical study of theories of morality, of standards of conduct, and of the logic of moral or ethical judgment.

Personal Morals
The study of that part of ethics dealing with the codes and conduct of individuals, the assessment of individual aspirations, and of the motivations determining individual action.

Social Ethics
The study of that part of ethics dealing with the codes, conduct and customs of social groups, the influence of group norms on individual behavior, and the rational reconcilability of conflicting norms.

Ethics of Professions
The study of the ethical or moral dilemmas of particular relevance to the practitioners of designated occupations or professions, and the criteria for assessing resolutions of these dilemmas.

Metaethical Theories
The study of theories regarding the relationships between ethics and metaphysics, the derivability of ethical principles from metaphysical ones, and the meaning of ethical terms and the logic of ethical discourse.

Other Ethics (Specify)

HISTORY AND TRADITIONS OF PHILOSOPHY

The study of the sequential development of philosophical ideas including the analysis of particular philosophies and their interrelationships.

Ancient Western Philosophy
The study of the sequential development of philosophical ideas, viewpoints, and positions from pre-Socrates through Plato, Aristotle, and their immediate successors.

Medieval Western Philosophy
The study of the sequential development of medieval philosophical ideas including the analysis of particular philosophies and their interrelationships.
<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.04</td>
<td>Modern Western Philosophy</td>
<td>The study of the sequential development of philosophical ideas and viewpoints from the Renaissance through the 19th century.</td>
</tr>
<tr>
<td>18.04</td>
<td>Contemporary Western Philosophy</td>
<td>The study of the sequential development of philosophical ideas and viewpoints dating from the beginning of the 20th century.</td>
</tr>
<tr>
<td>18.04</td>
<td>Oriental Philosophy</td>
<td>The study of the sequential development of oriental philosophical ideas, including the analysis of particular philosophies and their interrelationships.</td>
</tr>
<tr>
<td>18.04</td>
<td>African Philosophy</td>
<td>The study of the sequential development of philosophical ideas and viewpoints stemming from the African experience in Continental Africa and other parts of the world.</td>
</tr>
<tr>
<td>18.04</td>
<td>Jewish Philosophy</td>
<td>The study of the sequential development of philosophical ideas and viewpoints dealt with within the cultural framework of the Jewish people.</td>
</tr>
<tr>
<td>18.04</td>
<td>Other History of Philosophy</td>
<td>The study of the sequential development of philosophical ideas and viewpoints from other historical periods.</td>
</tr>
<tr>
<td>18.05</td>
<td>Logic and Philosophical Methodology</td>
<td>The study of the nature of reasoning and the criteria of valid inference, together with a critical examination of the presuppositions of philosophical inquiry.</td>
</tr>
<tr>
<td>18.05</td>
<td>Informal Logic</td>
<td>The study of familiar modes of argumentation, and of recurring types of fallacies with a view to developing skills of critical thinking and clarity of verbal communication.</td>
</tr>
<tr>
<td>18.05</td>
<td>Symbolic Logic</td>
<td>The study of patterns of reasoning and rules of inference by means of a formalized logical language or calculus; the contemporary theory of deductive influence; and the propositional and predicate calculus.</td>
</tr>
<tr>
<td>18.05</td>
<td>Metaphilosophy</td>
<td>The study of the aims and methods of philosophy, and of the relationship between philosophy and other intellectual pursuits.</td>
</tr>
<tr>
<td>18.05</td>
<td>Philosophy of Language</td>
<td>The study of the origin, nature, and structure of human languages, of the historical development of linguistic systems, and of the criteria for differentiating the language of humans from that of other creatures.</td>
</tr>
<tr>
<td>18.05</td>
<td>Philosophy of Mathematics</td>
<td>The study of the nature of mathematics based on a logical and philosophical examination of its fundamental concepts and methods.</td>
</tr>
<tr>
<td>18.05</td>
<td>Theories of Value Criteria</td>
<td>The study of theories dealing with the bases for judging worth or excellence.</td>
</tr>
<tr>
<td>18.05</td>
<td>Other Logic and Philosophical Methodology (Specify)</td>
<td>The study of the specific logic and methodological approaches in philosophy.</td>
</tr>
<tr>
<td>18.06</td>
<td>Metaphysics</td>
<td>The study of the generic traits and categories ascribable to actual, as well as possible existence.</td>
</tr>
<tr>
<td>18.06</td>
<td>Cosmology</td>
<td>The study of the origin and structure of the universe.</td>
</tr>
<tr>
<td>18.06</td>
<td>Ontology</td>
<td>The study of the nature of existence or being as such, as distinct from material or spiritual existence.</td>
</tr>
<tr>
<td>18.06</td>
<td>Existentialism</td>
<td>The study of that philosophy of human nature and the worth of knowledge which is not grounded in an abstract or absolutist idea of truth, but in an analysis of the pure data of consciousness and the existing individual's situation in the world as espoused by Burz, Jaspers, Marcel, and Sartre.</td>
</tr>
<tr>
<td>18.06</td>
<td>Phenomenology</td>
<td>The study of philosophical inquiry into the foundations of all the sciences which proceeds from attempts at describing the formal structures of all phenomena or modes of experiencing phenomena as espoused by Brentano, Husserl, Meinting, Heidegger, and Merleau-Ponty.</td>
</tr>
<tr>
<td>18.06</td>
<td>Philosophical Anthropology</td>
<td>The study concerned with the essence of man.</td>
</tr>
<tr>
<td>18.06</td>
<td>Philosophy of Action</td>
<td>The study of philosophical problems arising in connection with such concepts as conscious, voluntary, or purposive behavior, weakness of will, and questions about the interrelationship of subject and object.</td>
</tr>
<tr>
<td>18.06</td>
<td>Philosophy of Life</td>
<td>The study of the question concerning the meaning that can be found in life and in our own individual lives, and the critical examination of assumptions about relation of living to nonliving things.</td>
</tr>
</tbody>
</table>
18.06 08 Philosophy of Mind
The study of such topics as the mind-body problem, personal identity, the unity of consciousness, the unconscious, and the problem of other minds.

18.06 09 Philosophy of Religion
The study of the nature and value of religion from a philosophical point of view.

18.06 99 Other Metaphysics (Specify)

18.07 SOCIAL AND POLITICAL PHILOSOPHY
The study of the conditions and principles of social organization, and the critical evaluation of theories of society.

18.07 01 Philosophy of Social and Political Theories
The study of philosophical problems arising in connection with theories about the structure of human societies and out of attempts to defend democratic ideals in social and political life, or to substantiate claims advanced in the name of social justice, or to promote racial, sexual, and religious equality.

18.07 02 Philosophy of Education
The study of the nature, value, and methods of educational processes and of the philosophical presuppositions on which they rest.

18.07 03 Philosophy of History
The study of the nature, value, and methods of inquiry into the past, including a critical examination of the philosophical presuppositions of historiographical hypothesis.

18.07 04 Philosophy of Law
The study of the nature, value, and methods of inquiry into law and relations between legality, personal morality, and social ethics.

18.07 05 Philosophy of Medicine
The study of the nature, value, and methods of inquiry into medicine.

18.07 99 Other Social and Political Philosophy (Specify)

18.08 PHILOSOPHICAL FOUNDATIONS
The study of the basic truths and principles of being, and of knowledge, or conduct in such fields as ethics, metaphysics, and logic.

18.09 SPECIFIC RELIGIONS
The study of the origin, histories, organized forms, beliefs, worship, and practices of specific religions.

18.09 01 Buddhism
The study of the religion and philosophical system of central and eastern Asia, founded in India in the sixth century B.C. by Buddha.

18.09 02 Christianity
The study of the religion based on the life and teachings of Jesus Christ.

18.09 02 01 Orthodoxy
The study of the Greek, Russian, and other branches of the Orthodox church.

18.09 02 02 Roman Catholicism
The study of the Roman Catholic church.

18.09 02 03 Protestantism
The study of the various Protestant forms of Christianity.

18.09 03 Hinduism
The study of the religion and social system of Hindus, developed around Brahmanism in India.

18.09 04 Islam
The study of the Moslem religion founded by Mohammed in the sixth century.

18.09 05 Judaism
The study of the religion of the Jews based on the Hebrew scriptures and the Talmud.

18.09 06 Tribal Religions
The study of the religions of tribal peoples in various parts of the world.

18.09 99 Other Specific Religions (Specify)

18.10 PHENOMENOLOGY OF RELIGION
The study of human spirituality and outer forms of religion.

18.10 01 Anthropology of Religion
The study of religions through the use of the theories and methods of anthropology.

18.10 02 Comparative Religions
The study of religions through the use of the theories and methods of comparative and historical analysis.

18.10 03 Psychology of Religion
The study of religion through the use of the theories and methods of psychology.
18.10 Sociology of Religion
   The study of religion through the use of the theories and methods of sociology.

18.10 Other Phenomenology of Religion (Specify)

18.11 RELIGION AND HUMAN EXPERIENCE
   The study of the relationships of religion and various aspects of human experience.

18.11 Religion and Science
   The study of the historical and contemporary relationship between religion and science in terms of concepts, conflicts, and cooperation.

18.11 Religion and Personality Studies
   The study of the relationships between religious and personal experiences, such as in human developmental stages, health, sexuality, consciousness raising, and death and dying.

18.11 Religion and Social Issues
   The study of the relationships between religion and social institutions, social change, and social problems.

18.11 Religion and Culture
   The study of the relationships between religion and cultural values and beliefs, arts, liberation, and styles of life.

18.12 SACRED WRITINGS
   The study of sacred writings and related sources of the Jewish and Christian tradition.

18.12 Sacred Writings of the Jewish Faith
   The study of sacred writings and related sources of the Jewish tradition.

18.12 Sacred Writings of the Christian Faith
   The study of sacred writings and related sources of the Christian tradition.

18.12 Interpretation of Sacred Writings
   The study of the ways in which sacred texts have been interpreted and utilized in the continuing evolution of religious traditions.

18.12 Other Sacred Writings (Specify)

18.13 HISTORICAL THEOLOGY
   The study of the origin and development of the Jewish and Christian traditions.

18.13 Ancient Near East Theology
   The study of the origins of and the development of the Jewish traditions from 2000 B.C. to 1 A.D.

18.13 Early Christian and Rabbinic Theology
   The study of the origins of the Christian tradition from 1 to 200 A.D., and of Jewish traditions during the Rabbinic period of 1 A.D. to 600 A.D.

18.13 Medieval Theology
   The study of the development of Jewish and Christian tradition during the 5th to the 15th centuries.

18.13 Modern Theology
   The study of the development of the Jewish and Christian tradition from the 16th century to the present day.

18.13 Other Historical Studies (Specify)

18.14 SYSTEMATIC THEOLOGY
   The study of the religious beliefs of the Jewish and Christian traditions.

18.14 God
   The study of the religious beliefs about a Supreme Being.

18.14 Theological Anthropology
   The study of the relationship of God to individuals and of persons to each other.

18.14 Mysticism
   The study of the doctrine of spiritual intuition which transcends ordinary understanding and which recognizes an intimate union of the soul with God.

18.14 Ecclesiology
   The study of the nature of the Church.

18.14 Sacramental Theology
   The study of the sacraments of the Christian Church.

18.14 Christology
   The study of the nature, person, and deeds of Jesus Christ and beliefs about Him.

18.14 Soteriology
   The study of the Doctrine of Salvation and deliverance through Jesus Christ.

18.14 Pneumatology
   The study of theological doctrines of spiritual beings, of an intermediary spirit between man and God, or of the Holy Spirit.
18.14 09  Eschatology
The study of the theological doctrines concerning death, judgment, and an afterlife.

18.14 99  Other Systematic Theology (Specify)

18.15  MORAL AND ETHICAL STUDIES
The study of the sources and application of principles for individual and group behavior in the Jewish and Christian traditions.

18.15 01  Moral and Ethical Principles
The study of the sources of principles for individual and group behavior.

18.15 02  Moral and Ethical Issues
The study of the application of principles for individual and group behavior in the Jewish and Christian traditions.

18.15 99  Other Moral and Ethical Studies (Specify)

18.16  PASTORAL STUDIES
The study of the relationship of theology to the practice of ministry.

18.16 01  Homiletics
The study and practice of the preparation and delivering of sermons.

18.16 02  Pastoral Care and Counseling
The study and practice of methods, theories, and techniques of providing care and counseling.

18.16 03  Religious Education
The study of the application of methods and techniques of providing the theological bases and the practical implications of the professional activities of religious workers.

18.16 04  Religious Social Action
The study and application of the theories and methods of religious social action.

18.16 05  Worship and Liturgy
The study of the history, theory, and practice of ritual and ceremony in religious services.

18.16 06  Sacred Music
The study of the history, theory, and practice of music for church settings.

18.16 07  Church Administration and Leadership
The study of the theory and practice of planning, managing, and organizing specific areas in the church.

18.16 08  Missiology
The study of the theories and practice of the mission of the Christian Church throughout the world.

18.16 09  Ecclesiastical Law and Polity
The study of the laws and guidelines by which specific groups within the Jewish and Christian traditions operate.

18.16 99  Other Pastoral Studies (Specify)

18.99  OTHER PHILOSOPHY, RELIGION, AND THEOLOGY (SPECIFY)
Subject matter that cannot be subsumed under an aggregate, general, or introductory element that already exists within the above structure.

FOR CONSIDERATION OF CODING, RECORDING, AND REPORTING MULTIPLE SUBJECT MATTER (INTER-DISCIPLINARY) IN PHILOSOPHY, RELIGION, AND THEOLOGY, SEE APPENDIX E.

19  PHYSICAL EDUCATION, HEALTH EDUCATION, AND LEISURE
Subject matter concerned with the systematic investigation and application of physical education, kinesiology, sport, dance, health education, driver and safety education, and leisure.

19.01  PHYSICAL EDUCATION
The study of the integrated components of kinesiology, sport, dance, and other physical activities basic to the development and conduct of programs in physical education.

19.01 01  Movement Education
The study of the techniques of developing optimal motor movement and body awareness in individuals through the interrelated use of time, space, force, and effort.

19.01 02  Exercise
The study of principles and techniques that lead to a regular series of specific human movements designed to develop, maintain, or rehabilitate the body.

19.01 02 01  Training and Conditioning
The study of the principles and techniques that lead to a regular series of specific movements designed to bring the body to peak physical performance.
Developmental Exercise
The study of the principles and techniques that lead to a regular series of specific movements designed to enhance normal muscular development.

Therapeutic Exercise
The study of the principles and techniques that lead to a regular series of specific movements designed to enhance recovery from joint, bone, and muscular disease or injury.

Relaxation
The study of the principles and techniques that lead to a regular series of specific movements designed to produce either a mental or physical cathartic effect.

Group Games, Contests, and Self-Testing Activities
The study and practice of the cooperative or competitive, self-evaluative skills of sports and games conducted on an individual or mass basis, including dodge ball, partner tag, tug-of-war, potato race, Indian wrestle, soccer dribble, volley ball serve, basketball goals per minute, and softball throw for accuracy and for distance.

History of Physical Education
The study of the challenges, continuities, and changes that underlie significant events in the development of physical education, and the factors which have influenced that development.

Philosophy of Physical Education
The study of the fundamental nature and significance of physical education.

Physical Education Administration
The study of the theories and procedures of planning, organizing, staffing, financing, directing, coordinating, evaluating, and reporting the physical education program.

Physical Education Curriculum
The study of the theories and techniques of selecting and ordering content, designing structure, and evaluating intended outcomes in physical education programs.

Physical Education Instruction
The study of the principles and techniques of selecting, designing, and presenting instructional materials, and evaluating specific learning objectives in physical education.

Physical Education Supervision
The study of the principles and techniques designed to improve the professional development and performance of the teacher, and the results of the teaching-learning process.

Measurement and Evaluation in Physical Education
The study of the principles and techniques of collecting, analyzing, and interpreting data gained from each phase of the physical education program, including curriculum processes, instructional objectives and procedures, and administrative and supervisory functions.

Other Physical Education (Specify)

Kinesiology
The study of the biomechanical, anatomical, physiological, and psychomotor principles that are involved in human movement.

Biomechanics (See 08.05 03 - Biomechanics)
The study of the structure and function of biological systems by means of mechanics, photographic observations, and electromyography.

Neuromuscular Anatomy
The study of the interrelated morphological characteristics of the muscular and nervous tissues and systems of the body.

Performance Physiology
The study of the changes in various mechanisms of the body that occur prior to, during, and following exercise, and the identification of the long-term effects of exercise as one engages in systematic physical training.

Neuromuscular Physiology
The study of the nervous and muscular processes responsible for the organization and integration of muscular activities into meaningful and efficient movement patterns, and the effects of exercise, health, and aging.

CardioPulmonary Physiology
The study of the cardiovascular and respiratory regulatory mechanisms responsible for the maintenance of chemical and physical equilibrium of human cells prior to, during, and following participation in sports and physical activity with emphasis given to understanding energy liberation and transfer, adaptations to extreme internal and external environmental conditions, and the effects of training, health, and aging.

Psychomotor Behavior
The study of the Principles and techniques of how an individual learns to move with control and efficiency through space.

Motor Learning
The study of the principles and techniques by which an individual acquires motor skills through practice.
19.02 04 02 Perceptual Motor Development
The study of the principles and techniques by which an individual integrates sensory response mechanisms to achieve movement relative to age, including space and time structure, and visual, auditory, and tactile senses.

19.02 05 05 Sports Medicine
The study of the scientific principles involved in understanding sport influences in the human organism, along with the specialized medical practices of care and supervision that are applied to the individual before, during, and after participation in sports and physical activity.

19.02 05 01 Athletic Facilities and Equipment
The study of the animate and inanimate environmental factors important to the design, care, and maintenance of facilities and equipment for athletic games and contests to create safe, healthful, fair, and optimum environments for participants and spectators.

19.02 05 02 Athletic Training
The study of the psychophysiological principles for general physical training, specialized technical training, individualization of training, and motivation and psychological preparation designed to bring the athlete to peak condition for competition.

19.02 05 03 Diagnostic Procedures
The study of the principles and procedures of measurement and evaluation that are appropriate for the determination of health status and body development owing to age, sex, and state of general and special training.

19.02 05 04 Ergonetics
The study of the nature and effects of special aids to athletes that improve the capacity of the muscles to do work and to remove or reduce inhibitory mechanisms to physiological functions.

19.02 05 05 Exercise Prescriptions
The study of the type, frequency, intensity, and duration of physical training procedures that lead to optimal development of physiological processes and athletic skills, with emphasis given to prevention or rehabilitation from degenerative processes.

19.02 05 08 Injury Prevention and Treatment
The study of the medical and physiotherapeutic bases for the recognition and management of athletic injuries, including diagnostic procedures, first-aid and emergency care, definite medical care, and procedures of rehabilitation.

19.02 05 99 Other Kinesiology (Specify)

19.03 01 05 09 Injury Prevention and Treatment
The study of the medical and physiotherapeutic bases for the recognition and management of athletic injuries, including diagnostic procedures, first-aid and emergency care, definite medical care, and procedures of rehabilitation.

19.03 01 09 09 Evaluation of Sport
The study of the theories and techniques used in collecting and interpreting data related to sport and sport programs.
19.03 10 Supervision of Sport
The study of the principles, policies, and methods of improving the quality of sport programs.

19.03 11 Instruction and Coaching of Sport
The study of the strategies and designs employed to create the opportunity for students to learn sports, and those theories, strategies, and designs employed to improve the performance of selected players or groups of players.

19.03 12 Sport Activities
The study of the nature and performance of specific physical activities that are organized around rules, fields of play, and individual and group participation.

19.03 12 01 Aquatics
The study of the nature and performance of sport activities that are performed in and around water.

19.03 12 02 Team Sport
The study of the nature and performance of competitive games involving rules and strategy, such as baseball, basketball, field hockey, football, ice hockey, lacrosse, soccer, softball, and volleyball.

19.03 12 03 Self-Defense
The study of the nature and performance of selected physical activities related to defending oneself, such as karate and judo.

19.03 12 04 Individual Sports
The study of the nature and performance of individually performed sport activities such as skiing, archery, and track and field events.

19.03 12 05 Dual Sports
The study of the nature and performance of sport activities which require two competitors such as fencing, tennis, badminton, and quoits.

19.03 12 06 Adventure and Challenge Sports
The study of the nature and performance of activities which focus on challenge and the greater awareness of man and his environment, such as repelling, back-packing, orienteering, and wilderness and survival training.

19.03 12 07 Gymnastics
The study of the nature and performance of floor exercise and activities that require recognized apparatus such as the bars, beam, rings, and horse.

19.03 99 Other Sport (Specify)

19.04 DANCE (See 03.01 – Dance)
The study of the principles and techniques associated with performances involving the rhythmic movement of the feet and body, usually in the accompaniment of music.

19.04 01 Dance Choreography
The study of the principles and techniques of arranging bodily movements to create a dance.

19.04 02 Dance Notation
The study of the techniques of systematic recording, by sign or symbol, the movements of a dancer or group of dancers in a particular dance form.

19.04 03 Dance Production
The study of the performance of dance and the setting in which dance is presented.

19.04 04 Dance Activities and Form
The study of rhythmic movement in time, force, and space.

19.04 05 Dance History
The study of significant events in the development of dance and the factors which have influenced that development.

19.04 06 Dance Philosophy
The study of beliefs, motives, and behavior in dance.

19.04 99 Other Dance (Specify)

19.05 HEALTH EDUCATION
The study of activities and experiences which develop understandings, attitudes, and practices in promoting optimum, physical, mental, and social health to enrich the quality of life for individuals and society.

19.05 01 Drugs and Other Substance
The study of physical, legal, psychological, and social effects upon individuals, families, and society at large as a result of the use and abuse of drugs and other substances.

19.05 02 Community Health
The study of the availability and accessibility of health services and facilities, the function and service of these health agencies, and the prevailing health conditions in the community.

19.05 03 Consumer Health Education
The study of the relationship between the consumer and health agencies, including available services, sources of information, health advertising, quackery, and information leading to the use or rejection of products and services.
19.05 04 Disease Prevention and Control
The study of the nature of disease characteristics, causation, and prevention.

19.05 05 Environmental Health Education
The study of the effect upon man's health and well-being of such environmental factors as water supply, pollution control, food contamination, air pollution, radiation exposure, overcrowdedness, noise, and mobility.

19.05 06 Family Health Education
The study of family roles and responsibilities, types of families, family relationships and sexual behavior, preparation for marriage, and family and parental responsibilities.

19.05 07 Mental Health Education
The study of human needs, feelings, and emotions and their effect upon behavior.

19.05 08 Nutrition Education
The study of basic dietary requirements, food choices, and eating patterns, and their relationship to total body development and performance.

19.05 09 Personal Health Education
The study of the origin of living things, heredity, and structure and function of body parts, including growth and development, personal health practices, dental health, and grooming.

19.05 10 Physical Fitness
The study of physical activity factors that permit optimum development and maintenance of bodily functions and provide for general resistance against acute physical stresses, degenerative processes, emotional stress, and mental fatigue.

19.05 11 Safety Education
The study of experiences directed toward acquiring knowledge and behavioral patterns conducive to efficient and safe living, including traffic safety, civil defense and disaster preparedness, fire and water safety, home, school, and community safety, firearm safety, and recreational and industrial safety.

19.05 12 Sex Education
The study of the healthy development of human sexuality, sex roles, and sexual behavior.

19.05 13 Administration of Health Education
The study of the theories and procedures of planning, organizing, staffing, financing, coordinating, and evaluating a program in health education.

19.05 14 Health Education Curriculum
The study of the theories and techniques for selecting and ordering of content, design of program, and evaluation of goals in health education.

19.05 15 Health Education Instruction
The study of the theories and techniques for selecting methods and materials, and evaluating specified learning objectives for programs in health education.

19.05 16 Supervision in Health Education
The study of the principles, methods, and techniques of improving the professional development and performance of the teacher, and the results of the teaching learning process in health education.

19.05 17 Measurement and Evaluation in Health Education
The study of the tests of achievement and attitude, and the critical analysis of data collected from each phase of the health education program, including administrative functions, curriculum, processes, instructional objectives and procedures, and supervisory techniques.

19.05 99 Other Health Education (Specify)

19.06 DRIVER AND SAFETY EDUCATION
The study of the methods and techniques of developing the knowledge, skills, and judgment necessary for the safe operation of a motor vehicle.

19.06 01 Alcohol, Drugs, and Driving
The study of the effects of mind altering substances on the driving task.

19.06 02 Characteristics of Drivers
The study of the emotional, mental, and physical characteristics of the driver and the effects of those characteristics upon driving.

19.06 03 Development of Driving Judgment
The study of the relationship of vision, perception, knowledge, and physical laws, and their application to formulating judgment and decision making in traffic situations.

19.06 04 Behind-the-Wheel Driving Skills
The study of the basic skills involved in starting and stopping, turning, executing special maneuvers, and driving under hazardous conditions that involve expressways, parking, open-highway driving, and emergency situations.
19.06 05  Motor Bikes and Bicycles
The study of the basic safety factors involved in the operation of a bicycle, motorcycle, or motor scooter, including information about vehicle selection, maintenance and care, and safe driving.

19.06 06  Motor Vehicles and Engineering
The study of automotive mechanics, the economics of vehicle ownership, trip planning, and the functions and responsibilities of the automotive engineer, highway engineer, and traffic engineer.

19.06 07  Simulation Driving Experience
The study of basic driving skills through the use of electromechanical devices which simulate the actual driving experience and assist in developing perceptual and judgmental proficiencies.

19.06 08  Student Patrol
The study of the activities and experiences concerned with the organization, supervision, structure, and functions of various school patrols, including traffic, hall or school, school bus, playground, fire drill, and civil defense.

19.06 09  Traffic Accidents
The study of literature and films concerned with the human factors, socioeconomic conditions, and road and vehicle conditions as they relate to traffic accidents.

19.06 10  Traffic Citizenship
The study of the driver's responsibility to other drivers and highway users, to himself, to the community, and to the support of public officials.

19.06 10 01  Passenger Safety
The study of the responsibilities and obligations of the passenger relative to safety when riding in a passenger car or taxi, a school bus, public conveyance, a train, a boat, and an airplane.

19.06 10 02  Pedestrian Safety
The study of safe pedestrian practices in traffic, on rural roads and in cities, proper crossing procedures, and obeying traffic signs and signals, including instruction about situations where there are no sidewalks, wearing proper clothing, proper routes to and from school, and obeying student safety patrols.

19.06 11  Traffic Laws and Ordinances
The study of the Uniform Vehicle Code, Model Traffic Ordinances, and State laws and their application to law enforcement.

19.06 99  Other Driver Education (Specify)

19.07  LEISURE STUDIES
The study of the challenges, opportunities, and problems of leisure and its effect on the lives of individuals and the social fabric of local, national, and world communities, including the preparation for living in a leisure-centered society.

19.07 01  Resource Management in Leisure Studies
The study of the principles, methods, and techniques of utilizing economic, natural, and structural resources in the leisure field, including the effective and efficient development, control, regulation and direction of finances, facilities, and land.

19.07 02  Populations and Leisure Services
The study of methods of identifying and satisfying leisure needs of identifiable special population groups including industrial, corrections, armed forces children, aged, disabled or handicapped, or special geographic area populations.

19.07 03  Leisure and Recreation Planning
The study of the principles, methods, and techniques of assessing, forecasting, developing, and evaluating plans for recreation.

19.07 04  Leadership in Leisure Studies
The study of principles, methods, and techniques of planning, conducting, supervising, and evaluating programs in the leisure field.

19.07 05  Recreation Activities
The study of the principles and techniques of satisfying the leisure needs of people.

19.07 05 01  Arts and Crafts
The study of the development of skills related to tastes, interests, arts, and refinements in recreational pursuits.

19.07 05 02  Dramatics
The study of activities in recreation designed to be imitative or creative in nature, with or without the use of music, and related to the tastes, interests, arts, and refinements of the participants.

19.07 05 03  Social Recreation
The study of the development of skills related to activities among people and groups of people.

19.07 05 04  Recreational Sports and Physical Activities
The study and development of understanding, appreciation, and skills related to the participation and enjoyment in sports and physical activities in one's leisure.
19.07 06  History of Leisure Studies
The study of the challenges, continuities, and changes underlying significant events in the development of leisure, and the factors that have influenced development of the field.

19.07 07  Philosophy of Leisure Studies
The study of the fundamental nature, principles, and significance of leisure and recreation.

19.07 08  Sociology of Leisure Studies
The study of the nature of human society, organizations, and institutions as these relate to leisure.

19.07 09  International and Comparative Leisure Studies
The study and comparative analysis of leisure and recreation in two or more countries or world regions with special emphasis on the influence of cross-cultural factors, and the development of systems and controls for increased international understanding.

19.07 09 Other Leisure Studies (Specify)
Subject matter that cannot be subsumed under an aggregate, general, or introductory element that already exists within the above structure.

FOR CONSIDERATION OF CODING, RECORDING, AND REPORTING MULTIPLE SUBJECT MATTER (INTERDISCIPLINARY) IN PHYSICAL EDUCATION, HEALTH EDUCATION, AND LEISURE, SEE APPENDIX E.

20  PSYCHOLOGY
Subject matter concerned with the behavior and experience of the individual organism and which applies its findings in service to the individual, to industry, and to government.

20.01  FOUNDATIONS OF PSYCHOLOGY
The study of the body of knowledge and theory shared by all psychologists, working in any of several specific subject-matter areas.

20.01.01  Ethical Principles of Psychology
The study of general and professional ethical problems encountered in practice by research, clinical, and other psychologists.

20.01.02  Historical Perspectives of Psychology
The study of the progressive development of psychological knowledge and theory, from classical times to the present, including the development of scientific psychology through the last century, and of the application of that knowledge to individual and social betterment.

20.01.03  Systems of Psychology
The study of major recent and current general views of psychology and the nature of humans, including such systems as functionalism, structuralism, Gestalt psychology, behaviorism, psychoanalysis, humanistic psychology, phenomenological psychology, radical empiricism, ethnology, systems theory.

20.01.04  Theories in Psychology
The study of the methodology of psychological theorizing, including review of specific theories that have been developed to account for diverse specific behavioral phenomena with possible broader applications.

20.01.09 Other Foundations in Psychology (Specify)

20.02  BIOPSYCHOLOGY
The study of the biological basis of the behavior of the individual, including evolutionary, genetic, biochemical, and physiological considerations.

20.02.01  Behavioral Genetics
The study of the principles of genetics and genetic research applied to the behavior of the individual organism, including the identification and selection of heritable traits.

20.02.02  Comparative Psychology: Evolution of Behavior
The study of the behavior of members of particular species, and the relationship of the behavior of the species to their evolutionary origins.

20.02.03  Biochemistry of Behavior
The study of the biochemical basis of behavior, and the role of hormones and other chemical substances in behavior, including brain chemistry.

20.02.03.01  Psychopharmacology
The study of the changes in behavior that occur as a function of drug ingestion, and the psychological processes associated with such changes, including altered states of consciousness and addiction.

20.02.04  Physiological Psychology
The study of the physiology of the individual with respect to the functioning of physiological systems in the behavior of the individual organism.

20.02.04.01  Neuropsychology
The study of the nervous system, especially the central nervous system, as it participates in or determines behavior, including relevant studies of neuroanatomy and neurophysiology.
Sensory Psycho Physiology
The study of physiology of the special sense organs and the associated tracts and centers of the nervous system as they relate to sensory processes and perception.

Psychophysiology and Biofeedback
The study of the electrical and mechanical activities of the respiratory and circulatory systems, of skeletal musculature, and of the nervous system as they affect individual behavior, including biofeedback and self-control of cortical and other activities.

Other Biopsychology (Specify)

Environmental Psychology
The study of natural and man-made environments as spaces in which the individual behaves; activities and processes that occur in them and that are encouraged or discouraged by them; and the choice, design, and evaluation of environments, to increase or decrease the likelihood of particular actions.

Architectural Psychology
The study of behavior as a function of the design and construction of man-made spaces and the behavioral laws that enable the architect to plan for the most effective and acceptable use of structures.

Spatial Behavior
The study of behavior as a function of the location about an individual, of other persons, of objects, and of the topology of the individual's physical environment.

Other Environmental Psychology (Specify)

Experimental Psychology
The study of the general body of methods, data, and laws that has been derived by scientific research, including theoretical and systematic points of view applicable to the prediction, control, and understanding of the behavior of individual human organisms and other species.

Behavior Analysis
The study of the experimental methodology and its findings derived from reinforcement-oriented analysis of both the environment and of the individual's activities.

Decisionmaking
The study of the processes that determine the behavior of the individual organism when specifically confronted with the need to choose, including conflict and the resolution of conflict.

Human Information Processing
The study and interpretation of human behavior based on the application of methods and theories derived from computer-analyses.

Motivation
The study of the processes that determine what actions will occur at a particular time, and the strength or precision with which those actions will occur.

Psycholinguistics
The study of the psychology of language, including the behavioral processes that enter into the generation of speech and writing, and the understanding of both spoken and written languages.

Psychology of Learning
The study of the acquisition and recall of new behaviors, and of the processes of learning new activities, and of retaining them through time.

Learning, Conditioning
The study of the modification of a response, following upon and resulting from experience or repeated stimuli.

Retention and Recall
The study of the ability to recall material previously learned.

Programmed Learning, PSI
The study of the methods of presenting materials to be learned in carefully planned sequences, often with the aid of a teaching machine.

Psychology of Sensory Processes and Perception
The study of the sensory systems of vision, hearing, touch, taste, and smell, and their characteristics, the discrimination of objects and events, and the behavioral organization of the physical environment and its measurement.

Psychology of Thinking and Problem Solving
The study of ongoing behaviors of individual organisms that seem independent of the immediate environment and the utilization of behaviors acquired in other contexts to immediate problems.

Other Experimental Psychology (Specify)

Psychology of the Individual
The study of variables that distinguish each individual from others, their origin and assessment, and deviant behaviors and the methodology for amelioration.
20.05 01 Abnormal Psychology
The study of the description, classification, and theory of unusual behaviors that are considered abnormal.

20.05 02 Career Development
The study of occupations, the means for preparing for them, and the techniques for getting hired.

20.05 03 Clinical Psychology
The study of the development of programs for training clinical psychologists, and basic considerations, theory, and practice entering into the methods and theories selected from psychology and other fields as they relate to dealing with the troubled individual. The study includes all methods of assessment and of behavior change, as well as of family or community intervention.

20.05 03 01 Behavior Modification
The study of the theory and methods of modifying undesirable behaviors that are derived from the facts of both classical and operant conditioning, including desensitization, implosion, contingency management and token economies.

20.05 03 02 Crisis Intervention
The study of the application of psychological theories and methods in treating individuals during periods of extreme emotional distress.

20.05 03 03 Assessment
The study of the theories and methods of evaluating an individual's behavior, including interviewing procedures, administration and interpretation of standardized tests, and field work methodology.

20.05 03 04 Psychotherapeutic Method
The study of the consideration of the methods differentially applicable to children and adults that can be pursued to resolve a problem, modify or minimize, or eliminate an undesirable or intolerable behavior.

20.05 04 Developmental Psychology
The study of progressive changes in the behavioral processes of individuals as a function of aging through the life span, from conception to death.

20.05 04 01 Psychology of Age Groupings (Child, Adult, Aged)
The study of infant psychology, child psychology, adolescent behavior, psychology of mature or adult individuals, and of the elderly, with consideration and study given to age-associated psychological status and problems of individuals falling into particular age classifications.

20.05 05 Psychology of Adjustment
The study of the body of psychological knowledge that may enable the individual to better adapt to demands placed by other family members, by associates, and by society, as well as by oneself.

20.05 06 Psychology of Death
The study of the behaviors of the terminally ill, of their families and their associates, including suicide and grief.

20.05 07 Psychology of Disadvantaged Persons (Culturally, or Physically Handicapped)
The study of facts and therapeutic methods related to individuals who fall into identifiable sets, such as exceptional children, children with reading disabilities, the deaf, the physically-handicapped, and the poor.

20.05 07 01 Exceptional Development
The study of the personality development and behavior patterns of individuals with emotional, mental, and physical disabilities.

20.05 08 Psychology of Identifiable Sets (Women, Blacks, Others)
The study of facts and therapeutic methods related to individuals who are women, blacks, members of ethnic groups, and of sets asserting identifiable "life-styles".

20.05 09 Psychology of Personality
The study of the unique organization of the fairly permanent characteristics that set the individual apart from other individuals and, at the same time, determine how others respond to that person.

20.05 99 Other Psychology of the Individual (Specify)

20.06 PSYCHOMETRICS
The study of the mathematical and statistical procedures used in psychological test construction and validation, and of the general problems of the measurement of behavior.

20.06 01 Differential Psychology
The study of the use of test scores of an individual defined as a member of some specific reference group, and of psychological characteristics of occupational and other sets of people.

20.06 02 Psychological Assessment
The study of the theory and practice of selecting and using batteries of psychological tests of an individual for the purpose of classifying, diagnosing, or predicting later behavior.

20.06 03 Psychological Testing
The study of psychological tests, their administration and results, including intelligence tests and various tests of personality.
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
</table>
| 20.06 04 | Survey Techniques  
The study of the theory and procedures for constructing or selecting appropriate survey instruments for retrieving psychological data on individuals or groups. |
| 20.06 99 | Other Psychometrics (Specify) |

| 20.07 | Social Psychology  
The study of the behavior of the individual as a member of a group, and of the processes of associating individuals together. |

| 20.07 01 | Attitudes  
The study of the complex concept referring to the individual's reactions toward some social object, event, or state of affairs. |

| 20.07 02 | Group Processes  
The study of the classification of groups on the basis of the behaviors of their members, including the behavior of individuals within such groups as it determines and is determined by the behaviors of other members of a group. |

| 20.07 03 | Organizational Psychology  
The study of the behaviors of the individual as they determine the design and effectiveness of social, governmental, or military organizations, and are determined by them. |

| 20.07 99 | Other Social Psychology (Specify) |

| 20.08 | Psychological Programs (Applied and Professional)  
The study of the principles and practices that are utilized in the creation and provision of psychological programs that are established in a variety of settings. |

| 20.08 01 | Community Psychology  
The study of programs for the training of community psychologists, including the theory and practice of using psychologists, psychological fact, practice, and theory in psychological work not in the academic, school, and clinical contexts but rather in the broader social community, working with private and public organizations. |

| 20.08 02 | Counseling Psychology  
The study of the development of programs for training counseling psychologists, including the theory and practice of systematically selecting the facts and theories of psychology with the intent of advising individuals on making their way in society. |

| 20.08 03 | Consulting Psychology  
The study of the role and function of the psychologist as a consultant responding to the needs of diverse individuals and groups in a variety of settings. |

| 20.08 04 | Educational Psychology  
The study, selection, and application of methods, facts, and theories of psychology that relate to individual learning in formal courses of instruction. |

| 20.08 05 | School Psychology  
The study of the development of courses of training for school psychologists, and the selection of facts and theories relevant to working with the behavior of the individual child in the context of the school and other community organizations within which the child functions, including child-school, child-family, and child-community interactions. The study includes the identification and amelioration of individual behaviors and the identification and analysis of individuals and agencies to which the school child may look for assistance. |

| 20.08 05 01 | Academic Remediation  
The study of the relationship of psychological factors to learning problems and the techniques of clinical remedial correction. |

| 20.08 05 02 | Behavior Management  
The study of the application of psychological principles to the analysis of student behavior problems and the techniques for treating and ameliorating such behavior problems. |

| 20.08 99 | Other Psychological Programs (Specify) |

| 20.09 | Psychology in Economics, Industry, and Government  
The study of the principles of selection, placement, training, motivation, and evaluation of individuals for work in industrial or governmental settings, and the application of psychological knowledge and methodology to specific work-related problems. |

| 20.09 01 | Industrial Psychology  
The study of the use and outcomes of psychological methodology in industry. |

| 20.09 02 | Personnel Psychology  
The study of the process of selection, management, and motivation of individuals for specific responsibilities in industrial and other organizations. |

| 20.09 03 | Military Psychology  
The study of the processes of selection, production, and application of psychological knowledge specifically related to the duties, organizations, and equipment of military personnel. |

| 20.09 04 | Organizational Psychology  
The study of the behaviors of the individual as they determine the design and effectiveness of social, governmental, or military organizations, and are determined by them. |
Consumer Psychology

The study of the individual's choice of a course of action in the purchasing and use of goods and services and including the role of advertising.

Human Engineering

The study of the behaviors of the individual, and the behavioral processes that must be considered in the design and function of organizations or equipment used in those organizations.

Man-Machine Systems

The study of the application of psychological principles and knowledge to the harmonious coordination of human resources and machine systems.

Work Environments

The study of the application of psychological principles and knowledge to the creation of work environments which result in increased employee satisfaction, productivity, and profitability.

Work Performance

The study of the application of psychological principles and knowledge to the development of training programs, performance standards, incentive plans, and evaluation procedures.

Program Evaluation

The study of the description and assessment of the performance of individuals in the design and execution of a program or project.

Other Psychology in Economics, Industry, and Government (Specify)

Subject matter that cannot be subsumed under an aggregate, general, or introductory element that already exists within the above structure.

For consideration of coding, recording, and reporting multiple subject matter (interdisciplinary) in psychology, see Appendix E.

Public Administration and Social Services

Subject matter concerned with the formulation, implementation, administration, and evaluation of public policies, programs, and services, including those services which are directed toward the betterment of economic and social conditions.

Public Administration

The study of the knowledge, skills, values, and behaviors involved in the formulation of public policies and the management of public services.

Administrative Theory

The study of the principles and theories of the orderly process of serving public needs.

Organizational Theory and Behavior

The study of the theories and principles governing the behavior of individuals and groups in complex organizations serving public needs.

Administrative Management

The study of the principles and techniques of planning, organizing, and controlling public policies, programs, and services.

Administration of Public Buildings and Lands

The study of the principles and techniques of the administration of public buildings, and other facilities and material in the process of serving public needs.

Personnel and Labor Relations in Government

The study and application of the principles and theories of recruiting, training, placing, and separating persons in public service, and of negotiating conditions of employment with representatives of public employees.

Financial Administration

The study of the principles, theories, and applications of administering public funds in the process of serving the public needs.

Information Systems

The study of the economic, political, and social significance and relationship of contemporary communication and information technologies to public administration.

Regulatory Administration

The study of the political and administrative aspects of governmental regulation of industry in the public interest.

Comparative Public Administration

The study and comparative analysis of public administration in two or more countries or regions, with special emphasis on public policies, programs, and instructions.

International Administration

The study of the principles and theories underlying the structure and processes of major international organizations such as the United Nations and the Organization of American States.
21.01 07  Legislative Administration
The study of the impact and relationship of the administration of legislative bodies on public policy and administration.

21.01 08  Court Administration
The study of the impact and relationship of the administration of the court system on public policy and administration.

21.01 09  Professional Practices in Public Administration
The study of the activities, attitudes, and responsibilities that characterize officials serving in a public capacity.

21.01 10  Public Policy and Science and Technology
The study of the role of government in the development of scientific and technological policies, the organization and management of scientific research, and in technological applications.

21.01 11  Public Policy and Natural Resources and Environments
The study of the role of the government in the development, regulation, and use of natural resources, and in the improvement and protection of the environment.

21.01 12  Policy Sciences
The study of social, economic, and political factors that impinge upon the decisionmaking process of legislative, executive, and other governmental agencies that formulate or influence public policy.

21.01 13  Public Policy Analysis and Evaluation
The study of the principles and techniques by which systematic judgments and evaluative assessments are made with respect to particular public policy.

21.01 14  Quantitative and Nonquantitative Analysis
The study of the principles and techniques of applying statistical and nonstatistical analysis to the problems of public policy, programs, and services.

21.01 99  Other Public Administration (Specify)

21.02  PUBLIC WORKS
The study of the role of the government in constructing, maintaining, and providing structures and utilities for use by the general public.

21.02 01  Public Transportation
The study of the theory, techniques, planning, and development of facilities and systems for transporting people and goods.

21.02 01.01  Public Mass Transit
The study of the theory, techniques, planning, and development of providing conveyance or transportation to large numbers of persons or goods by way of conveniences above and below ground level.

21.02 01.02  Public Streets and Highways
The study of the theory, techniques, planning, and development of constructing and maintaining transportation routes for the general public.

21.02 01.03  Public Ports, Harbors, and Terminals
The study of the theory, techniques, planning, and development of transportation points and facilities for passengers and freight, to serve the needs of the general public.

21.02 02  Public Sanitation
The study of the theory, techniques, planning, and development of provisions for the maintenance of the health and welfare of the general public.

21.02 03  Management of Public Facilities and Buildings
The study of the theory, techniques, planning, and development of the services required for the efficient operation and management of public facilities and buildings.

21.02 04  Public Utilities
The study of the theory, techniques, planning, and development of services such as electricity, waste removal, water, power, and transportation, which are owned and operated, or regulated by governmental agencies, on behalf of the general public.

21.02 99  Other Public Works (Specify)

21.03  SAFETY AND CORRECTIONAL SERVICES
The study of the principles and procedures for providing police, fire, and other safety services, and for managing penal institutions and rehabilitative services.

21.03 01  Correctional Services
The study of the theory, principles, and techniques used in incarceration, behavior modification, rehabilitation, and returning of legal offenders to society.

21.03 01.01  Organization and Administration of Correctional Services
The study of the theory and practices of structuring, managing, directing, and controlling agencies and organizations whose purpose it is to provide safety and correctional services.
21.03 01 02 Correctional Techniques and Procedures
The study of the techniques and procedures used in working with criminals in the process of rehabilitation, adjustment, and reentry to society.

21.03 01 03 Parole and Probation
The study of the principles and procedures for the gradual reentry of criminals from penal institutions into society.

21.03 01 04 Penology
The study of the principles, methods, and techniques of incarceration of criminals in penal institutions ranging from maximum to minimum security.

21.03 02 Fire Protection
The study of the principles and techniques of fire prevention, fire fighting, and rescue.

21.03 03 Industrial and Occupational Safety Services
The study of the principles and techniques of maintaining safe work environments in business and industry.

21.03 04 Law Enforcement
The study of the theories, principles, and techniques of administering and maintaining the safety and protection of people and property.

21.03 04 01 Criminal Investigation and Evidence
The study of the techniques and procedures for collecting information to be used in the investigation, apprehension, and conviction of law violators.

21.03 04 02 Law Enforcement Technology
The study of the techniques and procedures for utilizing the equipment, arms, and investigative devices that are used in law enforcement.

21.03 04 03 Organization and Administration of Law Enforcement
The study of the theory and practices of structuring, managing, directing, and controlling agencies whose purpose it is to provide law enforcement.

21.03 04 04 Police Management
The study of the principles and techniques of controlling, directing, and managing a police force and its equipment.

21.03 04 05 Police Problems
The study of the issues and problems of police persons in general, and of their relationship with their constituencies.

21.03 04 06 Police Procedures and Tactics
The study of the various procedures and tactics used in criminal apprehensions, daily routines, and other law enforcement activities.

21.03 05 Protective Services
The study of the principles and techniques for protecting persons and property by private and public law enforcement bodies.

21.03 99 Other Safety and Correctional Services (Specify)

21.04 SOCIAL WORK
The study of the form of social intervention which enhances, conserves, and augments the means by which persons, individually or collectively, can solve disruptions in their social existence.

21.04 01 Social Welfare
The study of the various services provided by a government or its agencies for the benefit of its citizens.

21.04 01 01 History of Social Welfare
The study of the changes over time that underlie significant events in the development of social welfare, including a time-related concern with the state, development, and programmatic and organizational expressions of social policy and philosophy.

21.04 01 02 Philosophy of Social Welfare
The study of the ideas, rational arguments, and positions concerning the provision by government and private agencies of conditions and services promoting the social, economic, civil, physical, and psychological well-being of people.

21.04 01 03 Organization of Social Welfare Services
The study of the social, administrative, and organizational structures developed to implement social welfare, philosophy, and policy, such as the social security system, public welfare system, and private organizations, including Child Welfare League, Family Service Society of America, United Way, Community Chest, and Community Welfare Associations or Colleges.

21.04 01 04 Social Welfare Policy Formulation
The study of the descriptive, theoretical, and methodological approaches to the development of social welfare policy, including the application of values and data to policy formulation.

21.04 02 Social Work Practice
The study of organized practices and procedures that are directed toward the betterment of social conditions in the
community by seeking to improve the condition of the disadvantaged and promote the welfare of specific age groups.

21.04 02 01 History and Philosophy of Social Work
The study of the development over time of the efforts and results of attempts to establish and maintain social work as a profession, including emphasis on the historical aspects of its organizational efforts in practice and education.

21.04 02 02 Organization and Administration of Social Work
The study of the operation of social work organizations, including policy development and implementation at the agency level, personnel practices, budgeting, planning, fund raising, community and interagency relations, and staff development.

21.04 02 03 Social Work Research and Evaluation
The study of the methods and strategies of conducting research and building knowledge about social work by the practitioners, or by someone other than the practitioners, for the purpose of evaluating program impact.

21.04 02 04 Professional Practices in Social Work
The study of the belief system, code of ethics and standards of professional behavior, working conditions, and salaries of social work practitioners.

21.04 02 05 Public and Private Social Work Practice
The study of the principles and practices involved in the delivery of social services as part of a governmental administrative and service agency, or as provided in private practice, including codes of ethics and standards of professional behavior.

21.04 02 06 Social Work and Other Subject Matter
The study of the knowledge of social work as it is integrated with the substance of other subject matter, such as psychology, sociology, economics, political science, law, or medicine, and as other disciplines are modified for application to the practice of social work.

21.04 03 Social Work Methods
The study of the principles, methods, and techniques by which social work is carried on.

21.04 03 01 Social Case Work
The study of the theory and techniques of working alone with individuals or within the context of families or significant persons.

21.04 03 02 Social Group Work
The study of the theory and techniques of working with small formal or informal groups.

21.04 03 03 Community Organization and Development
The study of the theory and techniques of organizing and coordinating a network of social services in a community, including community planning, helping people solve community problems, or developing communities through the efforts of its citizens.

21.04 03 04 Prevention of Social Problems
The study of the theory and techniques involved in the practice of preventing foreseeable social problems and promoting desired social goals.

21.04 03 05 Social Work Consultation
The study of the theory, techniques, and practice of giving consultation to peers, other disciplines, or administrative and public representatives, as well as receiving such consultation from them.

21.04 03 06 Social Work Supervision
The study of the theory, techniques, and practice of social work supervision, including its educational and administrative components.

21.04 04 Fields of Social Work
The study of specific and identifiable social problems, populations at risk, institutions, and geographical locales of social service delivery.

21.04 04 01 Social Work of Age Groupings
The study of social problems and their remediation that relate specifically to individuals falling into particular age classifications, such as child, youth, adolescent, adult, or aged.

21.04 04 02 Social Work of Identifiable Sets of People
The study of social problems and their remediation that relate specifically to individuals who are women, blacks, members of ethnic groups, or who assert identifiable life-styles.

21.04 04 03 Social Work of Social Environments
The study of social problems and their remediation that relate specifically to particular social environments, such as schools, correctional institutions, business and industry, housing, and urban, rural, or international settings.

21.04 04 04 Social Work in Occupational Settings
The study of social problems and their remediation that relate specifically to particular occupational settings such as factories, offices, out door sites, remote assignments, and to particular types of management-labor conditions such as migrant labor.

21.04 04 05 Social Work and Health Care
The study of social problems and their remediation that relate specifically to health conditions, such as mental health
and mental retardation, physical health, chemical dependency, and others that generally occur in health care settings.

21.04 04 06 Multiple Fields of Social Work
The study of social problems and their remediation that relate to combinations of one or more social settings, social environments, groups of various ages, or identifiable sets of persons.

21.04 05 Social Environments and Human Behavior
The study of the relationships between various social settings and the body of knowledge that centers on the physical and mental development of human beings, and the impact of those relationships on the field of social work.

21.04 05 01 Human Development
The study of the description and theoretical explanation of normal human development and the factors conducive to that normal development.

21.04 05 02 Deviant Behavior
The study of the description and theoretical explanation of non-normal development and the factors responsible for such development.

21.04 05 03 Family Dynamics and Relationships
The study of the family as a social entity, including the psychological aspects of intrafamily interactions.

21.04 05 04 Social Impact of Institutions
The study of the impact of societal organizations and institutions on human psychological states and social functioning, including schools, prisons, hospitals, and public welfare agencies.

21.04 05 05 Physical and Mental Illness
The study of the sociopsychological causes of physical and mental illness in which description and explanation are stressed.

21.04 05 06 Social Impact of Environments
The study of the combinations of social, cultural, economic, sexual, racial, geographical, genetic, and community factors with environmental complexes and their impact on the development and functioning of people.

21.04 05 07 Social Problems
The study of all populations at risk and their needs, including mentally retarded, the aged, mentally and physically ill and disabled, children born out of wedlock, chemically dependent, and the economically and socially oppressed.

21.04 05 PUBLIC RECREATION
The study of the principles and procedures of providing recreational facilities and services for the benefit of the general public.

21.05 01 Recreational Environments
The study of the principles and procedures for designating and maintaining the quality and use of public areas in which recreational activities take place.

21.05 02 Community Recreation
The study of the principles and procedures of implementing recreational activities to serve the expressed needs of a community.

21.05 03 Public Recreation Administration
The study of the principles and procedures of planning, organizing, staffing, financing, directing, coordinating, evaluating, and reporting public recreational programs.

21.05 99 Other Public Recreation (Specify)

21.99 OTHER PUBLIC ADMINISTRATION AND SOCIAL SERVICES (SPECIFY)
Subject matter that cannot be subsumed under an aggregate, general, or introductory element that already exists within the above structure.

FOR CONSIDERATION OF CODING, RECORDING, AND REPORTING MULTIPLE SUBJECT MATTER (INTER-DISCIPLINARY) IN PUBLIC ADMINISTRATION AND SOCIAL SERVICES, SEE APPENDIX E.

22 SOCIAL SCIENCES AND SOCIAL STUDIES
Subject matter concerned with the substantive portions of behavior, past and present activities, interactions, and organizations of people associated together for religious, benevolent, cultural, scientific, political, patriotic, or other purposes, and the procedural works of social inquiry that have been selected and adopted for use in instructional situations.

22.01 ANTHROPOLOGY
The study of the origins, physical and cultural development, racial characteristics, social customs, and beliefs of historic and prehistoric humans.

22.01 01 Archaeology
The study of historic and prehistoric peoples and their cultures through the scientific analysis of their artifacts, inscriptions, monuments, and other remains.

22.01 01 01 Ethnoarchaeology
The study of the development of art, music, literature, religion, and other cultural aspects of historic and prehistoric peoples through scientific analysis of their remains.
22.01 01 02 Environmental Archaeology
The study of the principles of using field and laboratory techniques to reconstruct past environmental conditions in which historic or prehistoric peoples once lived.

22.01 01 03 Regional Archaeology
The study of the cultural development, family structure, political organizations, and group structures of historic and prehistoric dwellers of designated regions or areas.

22.01 02 Cultural Anthropology
The study of the historical development of the world’s cultures with emphasis on learned and shared behavior.

22.01 03 Ethnography
The study of the principles and techniques of scientifically studying and describing individual cultures of historic and prehistoric peoples.

22.01 04 Ethnology
The study of the origin, distribution, and distinguishing characteristics of various cultures and races, and the similarities and dissimilarities between them.

22.01 05 Linguistics in Anthropology
The study of the principles and techniques of using linguistic theory and practice as tools in anthropological field work, including the analysis of phonological, morphological, and syntactic characteristics of world languages.

22.01 06 Physical Anthropology
The study of the biological and evolutionary theories of the development of human physical characteristics, including mammalian and primate evolution and behavior, fossil humans, genetics and inheritance, theories of race, and the evolution of the brain.

22.01 07 Social Anthropology
The study of the nature and development of historic and prehistoric social systems, including kinship, economics, politics, social structures, and the nature, process, and function of social, political, and religious movements.

22.01 08 Research Methodology
The study of the principles and techniques of identifying areas of inquiry, formulating concepts and hypotheses, developing the logic of experimental design and sampling, constructing indices, scales, and typologies, conducting field work and laboratory analysis, and analyzing and interpreting data in anthropological studies.

22.01 08 01 Field Methodology
The study of the principles and techniques used in on-site anthropological field studies, including artifact analysis.

22.01 08 02 Laboratory Techniques
The study of the principles and methods of artifact analysis, preservation, cartography, photography, floral and faunal analysis, and site reporting as used in laboratory conducted anthropological studies.

22.01 09 Topical Anthropology
The study of a variety of issues, problems, and topics in the various branches of anthropology.

22.01 99 Other Anthropology (Specify)

22.02 ECONOMICS
The study of the transformation of limited resources into goods and services which, upon distribution, are again transformed by consumption to yield satisfaction of human wants.

22.02 01 Principles and Theory of Economics
The study of the theories, principles, and methods of economics.

22.02 01 01 Macroeconomic Theory
The study of economic theories and statistical analyses that deal with aggregates or groups of individuals or commodities, including such factors as total consumption, employment, and income.

22.02 01 02 Microeconomic Theory
The study of economic theories and statistical analyses that deal with particular individuals or commodities, including such factors as the demand for wheat, or employment conditions in the automotive industries.

22.02 02 History of Economics
The study of the development, trends, and changes in the principles and theories of economic systems over extended periods of time.

22.02 03 Economic Policy
The study of the creation, development, and application of economic policy originating in the private or public sector.

22.02 04 Monetary and Fiscal Theory and Institutions
The study of the principles and theory of financial and monetary foundations, including the financial and real aspects of saving and investment, interest rate forecasting, financial modeling, and the money supply.

22.02 05 National Income
The study of the principles and theories of leveling, growth, stability, and composition of a nation's or region's income, including the influence of taxing, borrowing, and spending at Federal, State, and local levels.
22.02 06 Public Finance
The study of the theories, policies, and practices used by local, State, or Federal governments in generating revenues and managing public monies.

22.02 07 Economic Growth and Development
The study of the principles of applying analytical and quantitative techniques to historical questions concerning sources and rate of growth, relationships between growth and institutional change, and the impact of industrialization on the standard of living.

22.02 08 Consumer Economics
The study of the economic principles and theories associated with the interaction of individual consumers, or groups of consumers, with the production and consumption of goods and services.

22.02 09 Comparative Economic Systems
The study of the differences among economies in their arrangements for the production, distribution, and consumption of goods and services, the differences among economic explanations of the production, distribution, and consumption of goods and services; and the evolution of economies toward industrialism, the growth of the world economy, and the growth of international trade.

22.02 10 Economics of Human Resources
The study of the methods of analyzing an individual's education, skills, and potential, and the utilization of this information in formulating economic plans and policies.

22.02 11 Labor and Manpower Economics
The study of the employment of the labor resource, and its wages, employment conditions, and organization into unions; capital resources and the manmade instruments of production; and natural resources such as land, mineral wealth, and water.

22.02 12 Economics of Natural Resources
The study of the extent and potential use of wealth supplied by nature, including the analysis of soil fertility, mineral deposits, and water power.

22.02 13 Business and Industrial Economics
The study of the principles and methods for organizing a business firm; and for combining resources to produce goods and services, taking account of costs, prices, profits, and the nature and extent of competition in markets.

22.02 13 01 Industrial Organization
The study of the theory and structure of business and industry, including the principles of invention and innovation, pricing, profit making, antitrust, competition, and conservation.

22.02 13 02 Industry Studies
The study of alternative industrial organizations, and their impact on public policy.

22.02 13 03 Economics of Industrial Change
The study of the financial aspects of alternative industrial structures and their impact on supply and demand, pricing, and business cycles.

22.02 14 International Economics
The study of international trade, finance, investment, and money supply; foreign exchange; foreign aid; and tariffs.

22.02 14 01 International Finance
The study of principles and techniques of conducting financial transactions among nation states, including such topics as money markets, the gold standard, and exchange rates.

22.02 14 02 International Trade
The study of the principles and techniques involved in trade transactions among nation states, including tariffs, the balance of payments, and common market transactions.

22.02 15 Social Economics
The study of the principles and theories relating to the economic effects of social legislation and social policies.

22.02 16 Urban and Rural Economics
The study of the principles and theories of economics that relate to rural and urban areas and to their distinct positions in the overall economy.

22.02 17 Quantitative Economics
The study of the principles and methods of applying quantitative methods to the testing of economic theory, including the making of future economic projections.

22.02 17 01 Econometrics
The study of principles and techniques of using mathematical and statistical methods to verify and develop economic theories.

22.02 17 02 Economic Forecasting
The study of the principles and techniques of projecting economic conditions into the future.

22.02 99 Other Economics (Specify)

22.03 GEOGRAPHY
The study of the earth and its life, the description of land, sea, and air, and the distribution of plant and animal life, including human beings and their industries.
22.03 01 Cultural Geography
The study of the economic, social, and political activities of human beings as those activities are distributed over the surface of the earth.

22.03 01 01 Political Geography
The study of the interrelationships of human activities on geographic features, including size of governments and political boundaries.

22.03 01 02 Social Geography
The study of the interrelationships between human society and geographic features, and the effect those interrelationships bring about.

22.03 02 Economic Geography
The study of the effect and interrelationships of the production, distribution, and consumption of goods and resources with respect to geographical features.

22.03 02 01 Agricultural Environments
The study of geographical and ecological environments within agricultural areas, such as their suitability for growing crops.

22.03 02 02 Industrial Environments
The study of the geographical and ecological environments that are involved in manufacturing and production.

22.03 02 03 Locational Analysis
The study of the principles and methods for analyzing nodal points, including the analysis of geographic barriers and economic corridors.

22.03 03 Historical Geography
The study of the developments, changes, events, discoveries, trends, and other phenomena associated with geography over extended periods of time.

22.03 04 Geographic Research Methods and Techniques
The study of the principles, methods, and techniques for conducting geographic research and projects.

22.03 04 01 Cartography
The study of the theories, methods, and techniques for making and producing maps.

22.03 04 02 Geographic Field Methods
The study of the principles and techniques used in on site geographic field studies.

22.03 04 03 Remote Sensing
The study of the principles and techniques of identifying and determining characteristics of physical objects through analysis of data from a measuring device that does not come in contact with these objects, including aerial photography, radar imagery, infrared photography, and multispectral scanner imagery produced by remote sensing techniques.

22.03 05 Physical Geography
The study of the exterior physical features and changes of the earth in land, water, and air.

22.03 05 01 Biogeography
The study of the geographic distribution of living things, their activities, and how they affect the physical earth.

22.03 05 02 Geomorphology
The study of the earth's land forms or surface features, and the distribution of land and water, including changes incurred by the raising of mountains and erosion.

22.03 05 03 Oceanography
The study of the ocean and its phenomena, including the physical and chemical properties of water; the typography and composition of the ocean bottom; waves, currents, and tides; and the formation of islands.

22.03 05 04 Soils Geography
The study of the various compositions of soils and of the principles of fertility, irrigation, and cultivation as applied to the earth's surface.

22.03 06 Regional Geography
The study of the geography of an area of any size that is homogeneous with respect to specific criteria, including the boundaries of states and their subdivisions.

22.03 06 01 Specialized Regional Environments
The study of the geography of particular regional environments with respect to features which make them distinct or unique.

22.03 06 02 Specialized Regional Land Masses
The study of the geography of particular regional land masses with respect to features which make them distinct or unique.

22.03 06 03 Specialized Regional Political States
The study of the geography of particular regional political states with respect to features which make them distinct or unique.
22.03 07  Transportation Geography
The study of the various modes of transportation and their interaction with the geographic environments in which they are found.

22.03 08  Urban Geography
The study of the geographical features of urban areas, including cities and metropolitan population centers.

22.03 99  Other Geography (Specify)

22.04  HISTORY — THEMATIC, AREA, PERIOD, AND PERSON

22.04 01  Constitutional and Administrative History
The study of the development, changes, past events, discoveries, trends, individuals, institutions, ideas, artifacts, and the systematic accounting of other phenomena associated with the United States Constitution and the administrative processes of the Federal government.

22.04 02  Diplomatic History
The study of the development, changes, past events, discoveries, trends, individuals, institutions, ideas, artifacts, and the systematic accounting of other phenomena associated with the art of conducting negotiations between nations, or of transacting international business.

22.04 03  Economic History
The study of the development, changes, past events, discoveries, trends, individuals, institutions, ideas, artifacts, and the systematic accounting of other phenomena associated with wealth, its nature, production, distribution, and consumption and accompanying relationships.

22.04 04  Historiography
The study of the literature, philosophy, methods, and methodology of the subject matter of history.

22.04 05  History of Science
The study of the development, changes, past events, discoveries, trends, individuals, institutions, ideas, artifacts, and the systematic accounting of other phenomena associated with systemized knowledge, or the branches of knowledge, that are characterized by observation, experiment, facts, laws, and skills.

22.04 06  Intellectual and Cultural History
The study of the development, changes, past events, discoveries, trends, individuals, institutions, ideas, artifacts, and the systematic accounting of other phenomena associated with understanding, reasoning, and training of the mind or behavioral faculties.

22.04 07  Political History
The study of the development, changes, past events, discoveries, trends, individuals, institutions, ideas, artifacts, and the systematic accounting of other phenomena associated with the methods and policies of governments, politicians, and political parties.

22.04 08  Religious History
The study of the development, changes, past events, discoveries, trends, individuals, institutions, ideas, artifacts, and the systematic accounting of other phenomena associated with systems of faith or worship in a supreme being, ethical values, or a philosophy of life.

22.04 09  Social History
The study of the development, changes, past events, discoveries, trends, individuals, institutions, ideas, artifacts, and the systematic accounting of other phenomena associated with the interactions of human beings in matters affecting their common welfare.

22.04 10  African History
The study of the development, changes, past events, discoveries, trends, individuals, institutions, ideas, artifacts, and the systematic accounting of other phenomena associated with the continent of Africa and its inhabitants.

22.04 21  American Colonial History
The study of the development, changes, past events, discoveries, trends, individuals, institutions, ideas, artifacts, and the systematic accounting of other phenomena associated with the thirteen British colonies which became the United States of America during the seventeenth and eighteenth centuries.

22.04 22  Antarctic History
The study of the development, changes, past events, discoveries, trends, individuals, institutions, ideas, artifacts, and the systematic accounting of other phenomena associated with the continent of Antarctica and its inhabitants.

22.04 23  Asian History
The study of the development, changes, past events, discoveries, trends, individuals, institutions, ideas, artifacts, and the systematic accounting of other phenomena associated with the Asian continent and its inhabitants.

22.04 24  British History
The study of the development, changes, past events, discoveries, trends, individuals, institutions, ideas, artifacts, and the systematic accounting of other phenomena associated with Great Britain, the British Commonwealth, or its inhabitants.
22.04 25 Canadian History
The study of the development, changes, past events, discoveries, trends, individuals, institutions, ideas, artifacts, and the systematic accounting of other phenomena associated with the nation of Canada and its inhabitants.

22.04 26 European History
The study of the development, changes, past events, discoveries, trends, individuals, institutions, ideas, artifacts, and the systematic accounting of other phenomena associated with the continent of Europe and its inhabitants.

22.04 27 Latin-American History
The study of the development, changes, past events, discoveries, trends, individuals, institutions, ideas, artifacts, and the systematic accounting of other phenomena associated with that part of the American continents south of the United States and its inhabitants.

22.04 28 Local and State History
The study of the development, changes, past events, discoveries, trends, individuals, institutions, ideas, artifacts, and the systematic accounting of other phenomena associated with designated States, regions, or areas of the United States.

22.04 29 Mediterranean History
The study of the development, changes, past events, discoveries, trends, individuals, Institutions, ideas, artifacts, and the systematic accounting of other phenomena associated with the regions and nation states surrounding the Mediterranean Sea.

22.04 30 Oceanian History
The study of the development, changes, past events, discoveries, trends, individuals, institutions, ideas, artifacts, and the systematic accounting of other phenomena associated with the islands of the central and south Pacific, including Micronesia, Melanesia, and Polynesia.

22.04 31 Russian History
The study of the development, changes, past events, discoveries, trends, individuals, institutions, ideas, artifacts, and the systematic accounting of other phenomena associated with Russia and its inhabitants.

22.04 32 United States History
The study of the development, changes, past events, discoveries, trends, individuals, institutions, ideas, artifacts, and the systematic accounting of other phenomena associated with the United States of America and its inhabitants.

22.04 33 World History
The study of the development, changes, past events, discoveries, trends, individuals, institutions, ideas, artifacts, and the systematic accounting of other phenomena associated with the nation states and inhabitants of the world.

22.04 50 Ancient History
The study of the development, changes, past events, discoveries, trends, individuals, institutions, ideas, artifacts, and the systematic accounting of other phenomena associated with the period before the end of the Western Roman Empire.

22.04 51 Contemporary History
The study of the development, changes, past events, discoveries, trends, individuals, institutions, ideas, artifacts, and the systematic accounting of other phenomena associated with the present time.

22.04 52 Medieval History
The study of the development, changes, past events, discoveries, trends, individuals, institutions, ideas, artifacts, and the systematic accounting of other phenomena associated with the Middle Ages, usually dated A.D. 700 to 1500.

22.04 53 Modern History
The study of the development, changes, past events, discoveries, trends, individuals, institutions, ideas, artifacts, and the systematic accounting of other phenomena associated with the period following the Middle Ages, usually dated after 1500 A.D.

22.04 70 Minority Group History
The study of the development, changes, past events, discoveries, trends, individuals, institutions, ideas, artifacts, and the systematic accounting of other phenomena associated with groups that differ in race, religion, or ethnic background from the majority of a population.

22.04 71 Native American History
The study of the development, changes, past events, discoveries, trends, individuals, institutions, ideas, artifacts, and the systematic accounting of other phenomena associated with the original inhabitants of North America and their racial and ethnic descendants.

22.04 72 History of Women
The study of the development, changes, past events, discoveries, trends, individuals, institutions, ideas, artifacts, and the systematic accounting of other phenomena associated with women.

22.04 99 Other History – Thematic, Area, Period, and Person (Specify)

22.05 POLITICAL SCIENCE AND GOVERNMENT
The study of the description and analysis of political institutions and processes, and including the origin, development,
geographical units, forms, sources of authority, powers, purposes, functions, and operations of government.

22.05 01 American Government
The study of the processes and structures of governance within the United States at the local, State, and national levels.

22.05 02 Citizenship
The study of the rights and responsibilities of membership in a given polity and the development of understandings and attitudes conducive to effective participation in the civic affairs of that polity.

22.05 03 Comparative Political Systems
The study and comparative analysis of the similarities and differences of political institutions, processes, and behavior in different countries and political subdivisions.

22.05 03 01 African Political Systems
The study of the development, organization, and operation of the political institutions and behavior of the sub-Sahara African countries, including the influence of social and cultural structures, the source and nature of political ideologies, and the formation and influence of political parties and special interest groups.

22.05 03 02 Asian Political Systems
The study of the development, organization, and operation of the political institutions and behavior of the countries and political subdivisions of the Asian continent, including the influence of social and cultural structures, the source and nature of political ideologies, and the formation and influence of political parties and special interest groups.

22.05 03 03 Communistic Political Systems
The study of the development, organization, and operation of the political institutions and behavior of the countries and political subdivisions throughout the world that embrace the theories and systems of communism, including the influence of social and cultural structures, the source and nature of political ideologies, and the formation and influence of political parties and special interest groups.

22.05 03 04 Latin American Political Systems
The study of the development, organization, and operation of the political institutions and behavior of the countries south of the United States that are a part of the Americas, including the influence of social and cultural structures, the source and nature of political ideologies, and the formation and influence of political parties and special interest groups.

22.05 03 05 Middle Eastern Political Systems
The study of the development, organization, and operation of the political institutions and behavior of the countries lying east of the Mediterranean and Aegean Seas to India, including the influence of social and cultural structures, the source and nature of political ideologies, and the formation and influence of political parties and special interest groups.

22.06 03 06 Western European Political Systems
The study of the development, organization, and operation of the political institutions and behavior of the noncommunist countries of Europe, including the influence of social and cultural structures, the source and nature of political ideologies, and the formation and influence of political parties and special interest groups.

22.05 04 Contemporary World Affairs
The study of economic, sociological, political, legal, cultural, and other factors which influence the present relations between nations.

22.05 05 International Relations
The study of agencies, operations, and principles involved in communication and interaction among nations, with emphasis upon the relationship between political subdivisions and governments.

22.06 05 01 American Foreign Policy
The study of the history and development and principles and methods associated with the relationship of the United States government toward other nations.

22.06 05 02 Comparative Foreign Policy
The study and comparative analysis of the principles and methods by which the governments and nations of the world interact with each other.

22.06 05 03 Foreign Policy Formulation
The study of the principles and procedures by which foreign policy is developed by groups and individuals inside and outside government.

22.06 05 04 International Organizations
The study of the structure, operations, and policies of the political, economic, and social organizations of the world.

22.05 06 Political Behavior
The study of theories, methods, and principles associated with the political behavior of individuals, groups, organizations, and governments.

22.05 07 Political Parties and Public Opinion
The study of development, organization, and operation of political parties and pressure groups as influenced or guided by public opinion.
22.05 08 Political Socialization
The study of ways in which society transmits political orientations, including knowledge, norms, and practices, from one generation to the next.

22.05 09 Political Structures
The study of the various organizational bodies and entities which constitute a political system.

22.05 10 Political Theory
The study of various political theories and philosophies and of the development of modern methodological techniques related to the analysis of political science.

22.06 10.01 American Political Theory
The study of the historical development and cultural influence of political thought of the United States, including the role of politicians, novelists, and academicians, and such theories as puritanism, liberalism, conservatism, and populism.

22.06 12 Communism
The study of the historical development and cultural influence of the system of social organization based on the holding of all property in common, actual ownership being ascribed to the community as a whole or to the state.

22.06 10.03 Ethics and Politics
The study of the role and influence of moral foundations, including liberty, authority, and equality, on the historical development of political theory.

22.06 10.04 Political Ideology
The study of the role and influence of natural laws, churches or other religious bodies, and historical developments on the formulation of political theory, including such ideology as utopia.

22.05 11 State and Local Government
The study of the principles, theories, and development of the structure and policies of state and local governments and their agencies.

22.05 99 Other Political Science and Government
(Specify)

22.06 SOCIOLOGY
The study of human society, social institutions, and social relationships, including the development, purposes, structures, and functions of human groups.

22.06 01 Community Sociology
The study of the social organization of a cluster of family groups in a given locality that are linked by a consciousness of similarities in attitudes, values, and problems.

22.06 02 Criminology
The study of the causes of crime and the methods of detecting and dealing with crime and the criminal, including crime statistics, theories of punishment, and the role of law enforcement in society as an agent for the prevention and treatment of crime.

22.06 03 Demography and Human Ecology
The study of vital social statistics, including births, deaths, diseases, marriages, and education rates of populations.

22.06 00.1 Population Change
The study of the dynamics of population change, including the effects of births, deaths, and migrations.

22.06 00.2 Population Problems
The study of the problems associated with the ability to monitor populations and of the influence of such factors as overpopulation, mortality, and fertility.

22.06 00.3 Population Theory
The study of the cultural and social phases of population change, and the implication of birth and death rates and migration on such changes.

22.06 04 Juvenile Delinquency
The study of youths, usually under 18 years of age, whose behavior is characterized by antisocial behavior, violations of the law, disobedience, or intractability which generally requires action by the juvenile court system.

22.06 05 Marriage and Family
The study of the traditions and roles of courtship behavior and marriage, and family structures and relationships of the different cultures of the world.

22.06 05.01 Marriage and Family Counseling
The study of the theories, principles, and techniques of helping people to identify, deal with, and resolve problems related to marriage and family living.

22.06 05.02 Sociology of Marriage
The study of the history and development of the institution of marriage, including the role of partners, legal sanctions, customs and folklore, and processes of union and dissolution.

22.06 05.03 Sociology of the Family
The study of the development of the family unit, including the analysis of member roles, unity and disunity, and comparative family organizations and forms.
Principles and Theory of Sociology
The study of the history and development of the components of human society, the theories of social structure and conflict, and the comparative analysis of various social systems.

Comparative Sociology
The study of the similarities and differences between social institutions and relationships in different countries and cultures.

History and Development of Sociology
The study of the development, change, and trends in social institutions and relationships, and the systematic accounting of past events in human societies.

Theory of Social Conflict
The study of the origins, historical development, and philosophical bases of wars, feuds, revolutions, and other forms of discord in social groups.

Theory of Social Structures
The study of the structures and processes that govern social groups, including the concepts of leadership, norms, roles, status, motivation, communication, cooperation, and competition.

Psychological Sociology
The study of the relationship of the individual to social groups with emphasis on the socialization process, cultural influences, social organization and disorganization, symbolic interaction, mass behavior, and attitudes.

Collective Behavior
The study of the dynamics of organizational and occupational memberships, particularly those which are based upon racial or ethnic factors.

Socialization
The study of the dynamics of role and symbolic social interaction with emphasis on the influence of sex roles.

Rural Sociology
The study of the influence of the family, school, church, local government, and health and welfare on the social development of groups and individuals in designated rural areas.

Quantitative Methods
The study of the principles and techniques of designing experiments, and using mathematical and statistical methods in Sociology.

Social Control and Deviance
The study of group behaviors and the methods by which they enforce behavioral expectations and discourage deviations from the norm, with emphasis on the use and misuse of drugs, narcotics, and alcohol, and suicide, homicide, and sex offenses.

Social Institutions
The study of the theory, development, composition, structure, and goals of social institutions and their interactions with the members of society, with emphasis on the institutions of religion, medicine, science, and education.

Social Organization and Change
The study of the nature and characteristics of groups, institutions, and agencies that comprise the structure of society.

Social Stratification
The study of the nature and characteristics of hierarchical groups in society, such as social classes and castes.

Futuristics
The study of possible alternative future forms of social organizations and institutions.

Social Structure
The study of the development, pattern, and maintenance of economic, political, and social institutions and their integration and disintegration with various social groups.

Social Movements
The study of the impact upon individual and social structures of rapid social change and cultural contact, including reform, revolution, and rapid technological change.

Social Problems
The study of the theory, nature, and cause of family disorganization, population imbalances, delinquency, crime, poverty, and ethnic group conflicts that involve the maladjustment of groups and individuals and causes conflict in society.

Urban Sociology
The study of the influence of ecological and institutional factors on the social development of groups and individuals in designated urban areas.

Sociology of Groups
The study of the theories and principles involved with the interaction of individuals and groups, and groups with other groups, in identified segments of society.

Sociology of Groups
The study of the role of blacks in contemporary society, including their socioeconomic status, dominant-minority status, legal status, attitudes, and ideological orientation as they are affected by school desegregation, housing, civil rights activities, and other social phenomena.
22.06 15 02  Race and Minority Group Relations

The study of the dynamics of assimilation, immigration, and interracial and intercultural conflicts of racial and minority groups in society.

22.06 15 03  Women Studies

The study of the role of women in contemporary society, including their socioeconomic status, dominant-minority status, legal status, attitudes, and ideological orientation as they are affected by existing social phenomena.

22.06 15 04  Small Groups

The study of the nature of role differentiation, group uniformity, problem solving behavior, status and power, interpersonal exchanges, and social processes of small numbers of individuals who are members of designated groups.

22.06 99  Other Sociology (Specify)

22.99  OTHER SOCIAL SCIENCES AND SOCIAL STUDIES (SPECIFY)

Subject matter that cannot be subsumed under an aggregate, general, or introductory element that already exists within the above structure.

FDR CONSIDERATION OF CODING, RECORDING, AND REPORTING MULTIPLE SUBJECT MATTER (INTERDISCIPLINARY) IN SOCIAL SCIENCES AND SOCIAL STUDIES, SEE APPENDIX E.
APPENDIXES

A. Difficulty of Subject Matter
B. Level of Subject-Matter Instruction
C. Organization Providing Instruction
D. Type of Instructional Program
E. Multiple Subject Matter (Interdisciplinary)
INTRODUCTION

Subject matter is only one dimension of educational information. When it is combined with other dimensions, the recording and reporting of educational data is enhanced. In this document, educational subject matter is the primary dimension. Four additional dimensions are included in appendices A through D: difficulty of subject matter, level of subject-matter instruction, organization providing instruction, and type of instructional program. Two additional dimensions which are often used in educational data recording and reporting, type of award and type of student, are found in other NCES documents.

Each dimension, including the subject matter classification, is conceptually discrete from every other dimension of educational information in that the elements of one dimension do not duplicate the elements of another. Each dimension constitutes a separate structure serving a unique purpose. They can, however, be combined when recording and reporting educational data to produce a comprehensive description of information about subject matter. This document does not propose to direct the user on how the dimensions should be combined. That will be dependent upon reporting requirements and data collection and storage procedures.

Appendix E deals with the coding, recording, and reporting of multiple, or interdisciplinary, subject matter (i.e., when a basic unit of instruction consists of two or more distinct subject matter elements within a single first-order subject matter area or in separate subject-matter areas).
APPENDIX A

DIFFICULTY OF SUBJECT MATTER

Difficulty of subject matter denotes the degree of comprehensiveness, competency, or literacy about a particular body of knowledge. It can also describe the level of detail or explicitness of subject matter as presented in a learning situation, regardless of the setting.

When the difficulty designator is added to the coded subject-matter element, it denotes an extent to which a student may acquire knowledge about that specific element.

The three major reporting categories, introductory, intermediate, and advanced, are listed and described below.

1. INTRODUCTORY SUBJECT MATTER

The position at which a student establishes initial contact with an organized body of knowledge comprising substance in any subject-matter area. This designation presumes no prerequisite learning on the part of the student.

2. INTERMEDIATE SUBJECT MATTER

The position at which a student may achieve an understanding of the elementary concepts and general applications of substance in a particular subject-matter area, but would not acquire advanced knowledge or higher levels of comprehension. This designation presumes prerequisite learning of introductory subject matter.

3. ADVANCED SUBJECT MATTER

The position at which a student may achieve a high degree of competency and understanding of an organized body of knowledge comprising substance in any subject-matter area that would stand apart or above normal levels of comprehension. This designation presumes prerequisite learning of intermediate subject matter.
APPENDIX B

LEVEL OF SUBJECT-MATTER INSTRUCTION

Level of Subject-Matter Instruction refers to the general nature and complexity of instruction. When this dimension is combined with the dimension of subject matter, the two can reveal a hierarchical array of learning experiences that may be provided in one of several educational settings. Subject matter can then be related to the progressive acquisition of knowledge that is nominally defined by a particular year on a grade or class scale. Level of Subject-Matter Instruction does not reflect the setting in which the subject matter is presented, nor the organizational unit responsible for providing the instruction. It does reflect a generalized degree of competency or literacy in subject matter. The array of levels assumes a step-by-step accumulation of knowledge. Each level can then be used to define a point on the continuum of learning.

The array of levels of subject-matter instruction is actually a combination of two lists. For general purposes, and to report data that includes more than one grade or year, entries ending in zero may be used. If specific grade or year data are required, entries other than those ending in zero should be used. If, for example, middle school were to be reported as a level, the specific grade or year designations would be used in the absence of a general category.

10 PRE-ELEMENTARY INSTRUCTIONAL LEVEL

The general level of subject-matter instruction provided for children who have not yet reached the age of maturity required for enrollment in the elementary grades.

11 Prekindergarten

The general level of subject-matter instruction provided for children during the year or years preceding enrollment in kindergarten.

12 Kindergarten

The general level of subject-matter instruction provided for children during the year immediately preceding the first grade.

20 ELEMENTARY INSTRUCTIONAL LEVEL

The general level of subject-matter instruction provided for pupils in elementary schools and any instruction of a comparable nature and difficulty provided for adults and youth beyond the age of compulsory school attendance regardless of where it is taught. This level does not presume prerequisite instruction at an earlier level although students may possess competencies gained through nursery school or kindergarten. Levels of instruction within elementary school presume prerequisite learning at an adjoining level. Elementary instruction begins with the first grade or year and may contain various numbers of grades up to the start of secondary instruction.

21 First Grade or Year

The general level of subject-matter instruction provided for pupils during the first year of elementary school.
22 Second Grade or Year
The general level of subject-matter instruction provided for pupils during the second year of elementary school.

23 Third Grade or Year
The general level of subject-matter instruction provided for pupils during the third year of elementary school.

24 Fourth Grade or Year
The general level of subject-matter instruction provided for pupils during the fourth year of elementary school.

25 Fifth Grade or Year
The general level of subject-matter instruction provided for pupils during the fifth year of elementary school.

26 Sixth Grade or Year
The general level of subject-matter instruction provided for pupils during the sixth year of elementary school.

27 Seventh Grade or Year
The general level of subject-matter instruction provided for pupils during the seventh year of elementary school.

28 Eighth Grade or Year
The general level of subject-matter instruction provided for pupils during the eighth year of elementary school.

30 SECONDARY INSTRUCTIONAL LEVEL
The general level of subject-matter instruction provided for pupils in secondary schools and any instruction of a comparable nature and difficulty provided for adults and youth beyond the age of compulsory school attendance regardless of where it is taught. This level of instruction presumes prerequisite learning at the elementary level. Each subsequent level within secondary school presumes prerequisite learning at an earlier secondary level. Secondary instruction ends at the twelfth grade and may contain various numbers of earlier grades.

31 Ninth Grade or Year
The general level of subject-matter instruction provided for pupils during the first year of secondary school.

32 Tenth Grade or Year
The general level of subject-matter instruction provided for pupils during the second year of secondary school.

33 Eleventh Grade or Year
The general level of subject-matter instruction provided for pupils during the third year of secondary school.

34 Twelfth Grade or Year
The general level of subject-matter instruction provided for pupils during the fourth year of secondary school.

40 LOWER DIVISION COLLEGIATE INSTRUCTIONAL LEVEL
The general level of subject-matter instruction provided for students in colleges, universities, and community and junior colleges during the first two years, usually considered the freshman and sophomore years, and any instruction of a comparable nature and difficulty provided for adults and youth beyond the age of compulsory school attendance. This level presumes prerequisite learning at the secondary level or demonstrated competencies gained through life experiences.

41 First Year Postsecondary
The organized level of subject-matter instruction within a college or university, vocational-technical institute, or community and junior college that is provided for students in the first year following a secondary instructional program or its equivalent.

42 Second Year Postsecondary
The organized level of subject-matter instruction within a college or university, vocational-technical institute, or community and junior college that is provided for students in the second year following a secondary instructional program or its equivalent.

50 UPPER DIVISION COLLEGIATE INSTRUCTIONAL LEVEL
The general level of subject-matter instruction provided for students in colleges, universities, and community and junior colleges who have met lower division requirements, and who are usually enrolled in their junior and senior years, and any instruction of a comparable nature and difficulty provided for adults and youth beyond the age of compulsory school attendance.

51 Third Year Postsecondary
The organized level of subject-matter instruction within a college or university for students in their junior year or its equivalent.

52 Fourth Year Postsecondary
The organized level of subject-matter instruction within a college or university for students in their senior year or its equivalent.

60 GRADUATE INSTRUCTIONAL LEVEL
The organized level of subject-matter instruction provided to students who are enrolled in graduate school. The level is
generally equated with the senior year in college or one or more years beyond graduation or its equivalent.

61 First Year Graduate
The organized level of subject-matter instruction that is provided to students who are in their first year in a graduate school of a college or university. This level usually follows the award of a baccalaureate degree.

62 Second Year Graduate
The organized level of subject-matter instruction that is provided to students who are in their second year in a graduate school of a college or university.

63 Third Year Graduate
The organized level of subject-matter instruction that is provided to students who are in their third year in a graduate school of a college or university.

64 Fourth Year Graduate
The organized level of subject-matter instruction that is provided to students who are in their fourth year in a graduate school of a college or university.

70 PROFESSIONAL INSTRUCTIONAL LEVEL
The organized level of subject-matter instruction within a college or university that is provided for students who are pursuing a designated professional degree, following two or more years of postsecondary education.

71 First Year Professional
The organized level of subject-matter instruction within a college or university that is provided for students who are in the first year of pursuing a designated professional degree, following two or more years of postsecondary education.

72 Second Year Professional
The organized level of subject-matter instruction within a college or university that is provided for students who are in the second year of pursuing a designated professional degree, following two or more years of postsecondary education.

73 Third Year Professional
The organized level of subject-matter instruction within a college or university that is provided for students who are in the third year of pursuing a designated professional degree, following two or more years of postsecondary education.

74 Fourth Year Professional
The organized level of subject-matter instruction within a college or university that is provided for students who are in the fourth year of pursuing a designated professional degree, following two or more years of postsecondary education.

80 POSTGRADUATE INSTRUCTIONAL LEVEL
The organized level of subject-matter instruction provided to students who have acquired a graduate degree from a college or university, or who have attained equivalent status.

99 OTHER LEVEL OF SUBJECT-MATTER INSTRUCTION (SPECIFY)
The designation of type of organization providing instruction is used in educational data recording and reporting to identify the unit that retains primary responsibility for providing subject-matter instruction to students. In certain settings, two or more organizational units may share this responsibility. In establishing primary responsibility, however, consideration should be given to the provision of financial support, facilities, and other resources.

100. GENERAL ELEMENTARY AND SECONDARY SCHOOLS

Schools for elementary and secondary students which provide instruction that begins with the rudiments of learning and continues through grade 12.

110. Preschool
A school which provides instruction for children between infancy and compulsory school age, usually preceding kindergarten or elementary school.

120. Elementary School
A school that is classified as elementary by State and local practice and is composed of any span of grades not above grade 8. The organizational pattern and number of grades may vary as for example, K-6, K-8, and 1-6.

121. Primary School
A separately organized and administered elementary school for students at the primary level, usually including grades 1 through grade 3, or the equivalent.

122. Intermediate Elementary School
A separately organized and administered elementary school for students between the primary and upper elementary grades, usually including grades 4, 5, and 6.

123. Upper Elementary School
A separately organized and administered elementary school for students following the intermediate grades, usually grades 7 and 8 in an 8-4 grade system.

130. Middle School
A separately organized and administered school that usually begins with grade 5 or 6 or its equivalent, and includes at least three grades or years. Most middle schools assume a 4 year high school for the grades or years which follow, as in a 4-6-4 plan or a 5-3-4 plan.

140. Secondary School
A school that is classified as secondary by State and local practice and is composed of any span of grades ending with grade 12 which follows a recognized elementary school. The organizational pattern and number of grades may vary as for example, 7-12, 8-12, 9-12, or 10-12.

141. Junior High School
A separately organized and administered secondary school that provides instruction between the elementary and senior high schools, and usually includes grades 7, 8, and 9 in a 6-3-3 plan, or grades 7 and 8 in a 6-2-4 plan.

142. 3-Year High School
A 3-year secondary school which follows elementary school in a 6-3-3 plan, or junior high school on a 6-2-4 plan.

143. 4-Year High School
A 4-year secondary school which follows elementary school in an 8-4 plan, middle school on a 4-4-4 plan, or junior high school on a 6-2-4 plan.

144. 5-Year High School
A secondary school which is served by one faculty, organized under one principal, includes more than four grades, is not divided on a junior and senior high basis, and is not preceded by a junior high school in the same school system.

145. Senior High School
A secondary school offering the final grades of high school that are necessary for graduation and which are usually preceded by a junior high school on either a 3-3 or 2-4 plan.

150. Vocational-Technical School
A secondary school which is separately organized and administered for the primary purpose of offering education and training in one or more semiskilled, skilled, or technical occupations.
199 Other General Elementary and Secondary Schools
(Specify)

200 SPECIAL ELEMENTARY AND SECONDARY SCHOOLS

Schools that are organized and administered to offer instruction to a special population, or which offer an alternative to the typical elementary and secondary school.

201 Adult-Basic Education School

A school which is organized for adults or youth who are beyond the compulsory school attendance age and which has a concern for developing the fundamental tools for living for those who have never attended school, or who have interrupted their formal schooling and need to increase their skills to a more efficient level.

202 Chemical Dependency School

A residential school for students with drug-related or narcotics problems.

203 Instructional Home or School for Adolescents

A residential institution for boys or girls who are experiencing socio-behavioral problems.

204 Hospital School

A residential school housed in a health care facility for students with serious emotional, physical, or learning difficulties.

205 Native American School

A school for students who are native Americans.

206 Alternative School

A school which provides instruction to students in ways that exist as alternatives to the typical elementary and secondary school. Approaches will vary from those which provide maximum freedom for the pursuit of students' interests, emphasizing a number of specialized interest areas, to those which are characterized by traditional, formalized classrooms in which discipline is emphasized.

207 Correctional Institution

Institutions which provide elementary and secondary instruction for children and adults who are committed for the correction of inappropriate patterns of social behavior.

208 School for Learning Disabled

A school which provides instruction for students with learning disabilities involving speech and language, achievement, brain injury, emotional disturbance, and brain dysfunction.

209 School for Mentally Handicapped

A school which provides instruction for students who have mental handicaps and are classed as educable, trainable, or severely mentally handicapped.

210 School for Multiple Handicapped

A school which provides instruction for students with two or more handicaps, including any combination of mental, physical, emotional, or other handicaps.

211 School for Physically Handicapped

A school which provides instruction for students with one or more physical handicaps, such as impaired hearing, blindness, and speech handicaps.

212 School for Socially or Emotionally Handicapped

A school which provides instruction for students who have social or emotional handicaps and who may be delinquent prone.

203 Other Special Elementary and Secondary Schools (Specify)

300 POSTSECONDARY VOCATIONAL-TECHNICAL SCHOOLS

Schools which provide instruction beyond secondary school, usually following grade 12, in one or more semiskilled, skilled, or technical occupations for adults and youth beyond the age of compulsory school attendance.

301 Comprehensive Vocational-Technical School

A school which offers diversified occupational education programs, including related academic offerings, generally at least the baccalaureate level.

302 Technical Institute

An institution, or a division of an institution, providing instruction in one or more of the technologies at the postsecondary instructional level.

303 Business or Commercial School

A nonprofit educational institution offering courses in preparation for business occupations such as stenography, bookkeeping, and data processing.

304 Cosmetology School

A school which offers programs in beauty treatment, including care and beautification of the hair, complexion, and hands.

305 Flight School

A school which offers programs in technical fields related to aviation, such as aircraft mechanic and pilot training.
306 Trade School
A school which offers programs in one or more of the skilled trades.

307 Health Training School
A school which offers programs in one or more of the medical or paramedical occupations, many of which are affiliated with a health care facility, such as a hospital, clinic, or sanitarium.

308 Recreation School
A school which offers programs in recreational subject-matter areas such as mountain climbing, boating, and arts and crafts.

309 Real Estate School
A school which offers programs in real estate, including selling techniques, property assessment, and real estate financing.

399 Other Postsecondary Vocational-Technical Schools (Specify)

400 COMMUNITY AND JUNIOR COLLEGES
An institution of higher education which usually offers the first two years of college instruction and career education, grants an associate degree, and does not award a baccalaureate degree.

401 Comprehensive Community and Junior Colleges
A community or junior college which offers a wide range of both academic and vocational programs, and in which the number of degrees or certificates awarded in occupational or vocational areas is greater than 30% but less than 80% of all those awarded.

402 Transfer-Oriented Community and Junior Colleges
A community or junior college which offers academic programs for transfer credit into baccalaureate programs in other institutions, and in which the number of degrees or certificates awarded in occupational and vocational areas is less than 30% of all those awarded.

499 Other Community and Junior Colleges (Specify)

500 GENERAL BACCALAUREATE COLLEGES
An institution which does not have doctoral or master's degree programs but which offers and awards a bachelor's degree.

600 COMPREHENSIVE COLLEGES AND UNIVERSITIES
An institution having no doctoral programs but which offers and awards a master's degree and possibly a specialist's degree.

700 DOCTORAL GRANTING UNIVERSITIES
A university which offers and awards doctoral degrees. This would include any institution devoting resources to a doctoral program regardless of whether a degree was actually awarded.

800 PROFESSIONAL SCHOOLS
Institutions which offer programs in one or more related professional areas at least at the baccalaureate level.

801 Divinity School
An institution which specializes in offering programs at the baccalaureate level or above for religious professions.

802 Medical School
An institution which specializes in offering programs at the baccalaureate level or above for medical professions.

803 Health Professions School
An institution which specializes in offering programs at the baccalaureate level or above in health professions such as Dentistry, Optometry, Osteopathy, Podiatry, Veterinary Medicine, Nursing, Public Health, Pharmacy, Chiropractic Medicine, and Professional Psychology.

804 Engineering and Technology School
An institution which specializes in offering programs at the baccalaureate level or above for Engineering and Technology.

805 Business and Management School
An institution which specializes in offering programs at the baccalaureate level or above for Business and Management.

806 Art, Music, and Design School
An institution which specializes in offering programs at the baccalaureate level or above for Art, Music, and Design.

807 Law School
An institution which specializes in offering programs at the baccalaureate level or above for law professions.

808 Teachers College
A four year college, offering courses for the training of primary and secondary school teachers, which grants the bachelor's and, sometimes, advanced degrees.

809 Service Academy
An institution which specializes in offering programs at the baccalaureate level or above in selected Military Sciences.
Specialized Schools and Learning Centers

Organizational units which provide instruction in a very specialized subject-matter area, or in which instruction is other than a primary objective, including such things as foreign language schools, teacher centers, libraries, museums, art galleries, labor unions, and industrial organizations.
APPENDIX D
TYPE OF INSTRUCTIONAL PROGRAM

An instructional program is a combination of courses and experiences that is designed to accomplish a predetermined objective or set of allied objectives such as preparation for advanced study, qualification for an occupation or range of occupations, or simply the increase of knowledge and understanding.

Instructional programs must be differentiated from subject matter. Entries in the subject-matter classification often have the same designations as those of programs. But the similarity of designation should not confuse the fundamental differences between the two. Subject matter is the substance of knowledge. In contrast, programs constitute the form and style by which knowledge, or subject matter, is taught and learned. In most instances, but by no means all, instructional programs can be defined in terms of the subject matter of which they are composed. In other cases, experiences such as internships, practicums, and field trips constitute the form and style of programs.

The main body of the Classification is devoted to subject matter, not programs. But in the development of the subject-matter classification, substantial attention to programs was required. Although distinctions between programs and subject matter are basic, they are nevertheless troublesome because of the generally-common terminology.

A list of instructional programs is presented in this appendix to assist in describing subject matter. When reporting data about Mathematics, for example, the addition of program codes to subject-matter codes will help to define contextual differences in the knowledge that is being presented.

The instructional programs listed in this appendix illustrate the way in which other programs might be classified across the full range of education. The list is limited to those specific program areas that have been of major concern to those responsible for program data collection and analysis. Particular attention is given to vocational education and special education. For these two program areas, the appendix presents sufficient detail for use as an interim reporting structure. As such, appendix D can resolve the immediate problem of overlap between Handbook VI and the HEGIS Taxonomy until more comprehensive program classification structures are developed for elementary, secondary, and postsecondary education. Revised program classifications are now being considered for future development.

The interim nature of the program classifications in this appendix should be stressed for they were developed primarily to illustrate the role that programs will have in helping to define and describe subject matter. The illustrative list of programs did not have the benefit of the broadly based consultative procedures used in the development of the subject-matter classification, although advice was received from experts in vocational and special education.

Substantially more consideration should be given to the many issues concerned with program classification than has been possible in the context of this subject matter classification. There are many ways of classifying programs. Some might argue that program classifications should emphasize vocational, avocational, or academic objectives. Others would emphasize such program aspects as mode of delivery. As an illustrative array, the list of programs in this appendix does not presume to serve as the forerunner of future program classification schemes.

### 01 VOCATIONAL EDUCATION

#### 01.01 AGRICULTURE
- 01.01.01 Agricultural Production
- 01.01.02 Agricultural Supplies and Services
- 01.01.03 Agricultural Mechanics
- 01.01.04 Agricultural Products
- 01.01.05 Ornamental Horticulture
- 01.01.06 Agricultural Resources
- 01.01.07 Forests
- 01.01.99 Other Agriculture (Specify)

#### 01.02 DISTRIBUTIVE EDUCATION
- 01.02.01 Advertising Services
- 01.02.02 Apparel and Accessories
- 01.02.03 Automotive
- 01.02.04 Finance and Credit
- 01.02.05 Floristry
- 01.02.06 Food Distribution
- 01.02.07 Food Services
- 01.02.08 General Merchandising
- 01.02.09 Hardware, Building Materials, Farm and Garden Supplies and Equipment
- 01.02.10 Home Furnishings
- 01.02.11 Hotel and Lodging
- 01.02.12 Industrial Marketing
- 01.02.13 Insurance
- 01.02.14 International Trade
- 01.02.15 Personal Services
- 01.02.16 Petroleum
- 01.02.17 Real Estate
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.02</td>
<td>Recreation and Tourism</td>
</tr>
<tr>
<td>01.02</td>
<td>Transportation</td>
</tr>
<tr>
<td>01.02</td>
<td>Other Distributive Education (Specify)</td>
</tr>
<tr>
<td>01.03</td>
<td>HEALTH OCCUPATIONS</td>
</tr>
<tr>
<td>01.03</td>
<td>Dental</td>
</tr>
<tr>
<td>01.03</td>
<td>Medical Laboratory Technology, Nursing</td>
</tr>
<tr>
<td>01.03</td>
<td>Rehabilitation</td>
</tr>
<tr>
<td>01.03</td>
<td>Radiologic</td>
</tr>
<tr>
<td>01.03</td>
<td>Ophthalmic</td>
</tr>
<tr>
<td>01.03</td>
<td>Environmental Health</td>
</tr>
<tr>
<td>01.03</td>
<td>Mental Health Technology</td>
</tr>
<tr>
<td>01.03</td>
<td>Other Health Occupations Programs (Specify)</td>
</tr>
<tr>
<td>01.04</td>
<td>HOME ECONOMICS</td>
</tr>
<tr>
<td>01.04</td>
<td>Homemaking</td>
</tr>
<tr>
<td>01.04</td>
<td>Occupational Preparation</td>
</tr>
<tr>
<td>01.04</td>
<td>Care and Guidance of Children</td>
</tr>
<tr>
<td>01.04</td>
<td>Clothing Management, Production, and Services</td>
</tr>
<tr>
<td>01.04</td>
<td>Home Furnishings, Equipment and Services</td>
</tr>
<tr>
<td>01.04</td>
<td>Institutional and Home Management and Supporting Services</td>
</tr>
<tr>
<td>01.04</td>
<td>Other Home Economics (Specify)</td>
</tr>
<tr>
<td>01.05</td>
<td>OFFICE OCCUPATIONS</td>
</tr>
<tr>
<td>01.05</td>
<td>Accounting and Computing Occupations</td>
</tr>
<tr>
<td>01.05</td>
<td>Business Data Processing Occupations</td>
</tr>
<tr>
<td>01.05</td>
<td>Filing, Office Machines, and General Office Clerical Occupations</td>
</tr>
<tr>
<td>01.05</td>
<td>Information Communication Occupations</td>
</tr>
<tr>
<td>01.05</td>
<td>Materials Support Occupations</td>
</tr>
<tr>
<td>01.05</td>
<td>Personnel, Training, and Related Occupations</td>
</tr>
<tr>
<td>01.05</td>
<td>Stenographic, Secretarial, and Related Occupations</td>
</tr>
<tr>
<td>01.05</td>
<td>Supervisory and Administrative Management Occupations</td>
</tr>
<tr>
<td>01.05</td>
<td>Typing and Related Occupations</td>
</tr>
<tr>
<td>01.05</td>
<td>Other Office Occupations (Specify)</td>
</tr>
<tr>
<td>01.06</td>
<td>TRADES AND INDUSTRIAL</td>
</tr>
<tr>
<td>01.06</td>
<td>Air Conditioning</td>
</tr>
<tr>
<td>01.06</td>
<td>Appliance Repair</td>
</tr>
<tr>
<td>01.06</td>
<td>Automotive Services</td>
</tr>
<tr>
<td>01.06</td>
<td>Aviation Occupations</td>
</tr>
<tr>
<td>01.06</td>
<td>Blueprint Reading</td>
</tr>
<tr>
<td>01.06</td>
<td>Business Machine Maintenance</td>
</tr>
<tr>
<td>01.06</td>
<td>Commercial Art Occupations</td>
</tr>
<tr>
<td>01.06</td>
<td>Commercial Fishery Occupations</td>
</tr>
<tr>
<td>01.06</td>
<td>Commercial Photography Occupations</td>
</tr>
<tr>
<td>01.06</td>
<td>Construction and Maintenance Trades</td>
</tr>
<tr>
<td>01.06</td>
<td>Custodial Services</td>
</tr>
<tr>
<td>01.06</td>
<td>Diesel Mechanics</td>
</tr>
<tr>
<td>01.06</td>
<td>Drafting Occupations</td>
</tr>
<tr>
<td>01.06</td>
<td>Electrical Occupations</td>
</tr>
<tr>
<td>01.06</td>
<td>Electronic Occupations</td>
</tr>
<tr>
<td>01.06</td>
<td>Fabric Maintenance Services</td>
</tr>
<tr>
<td>01.06</td>
<td>Foremanship, Supervision, and Management Development</td>
</tr>
<tr>
<td>01.06</td>
<td>Graphic Arts Occupations</td>
</tr>
<tr>
<td>01.06</td>
<td>Industrial Atomic Energy Occupations</td>
</tr>
<tr>
<td>01.06</td>
<td>Instrument Maintenance and Repair Occupations</td>
</tr>
<tr>
<td>01.06</td>
<td>Maritime Occupations</td>
</tr>
<tr>
<td>01.06</td>
<td>Metalworking Occupations</td>
</tr>
<tr>
<td>01.06</td>
<td>Metallurgy Occupations</td>
</tr>
<tr>
<td>01.06</td>
<td>Personal Services</td>
</tr>
<tr>
<td>01.06</td>
<td>Plastics Occupations</td>
</tr>
<tr>
<td>01.06</td>
<td>Public Service Occupations</td>
</tr>
<tr>
<td>01.06</td>
<td>Quantity Food Occupations</td>
</tr>
<tr>
<td>01.06</td>
<td>Refrigeration</td>
</tr>
<tr>
<td>01.06</td>
<td>Small Engine Repair</td>
</tr>
<tr>
<td>01.06</td>
<td>Stationary Energy Sources Occupations</td>
</tr>
<tr>
<td>01.06</td>
<td>Textile Production and Fabrication</td>
</tr>
<tr>
<td>01.06</td>
<td>Leatherworking</td>
</tr>
<tr>
<td>01.06</td>
<td>Upholstering</td>
</tr>
<tr>
<td>01.06</td>
<td>Woodworking Occupations</td>
</tr>
<tr>
<td>01.06</td>
<td>Other Trade and Industrial Occupations (Specify)</td>
</tr>
<tr>
<td>01.07</td>
<td>TECHNICAL EDUCATION</td>
</tr>
<tr>
<td>01.07</td>
<td>Engineering-Related Technology</td>
</tr>
<tr>
<td>01.07</td>
<td>Agricultural-Related Technology</td>
</tr>
<tr>
<td>01.07</td>
<td>Health-Related Technology</td>
</tr>
<tr>
<td>01.07</td>
<td>Office-Related Technology</td>
</tr>
<tr>
<td>01.07</td>
<td>Home Economics-Related Technology</td>
</tr>
<tr>
<td>01.07</td>
<td>Other Technical Education</td>
</tr>
<tr>
<td>01.08</td>
<td>INDUSTRIAL ARTS</td>
</tr>
<tr>
<td>01.08</td>
<td>CONSTRUCTION</td>
</tr>
<tr>
<td>01.08</td>
<td>CRAFTS</td>
</tr>
<tr>
<td>01.08</td>
<td>DRAFTING</td>
</tr>
<tr>
<td>01.08</td>
<td>ELECTRICITY AND ELECTRONICS</td>
</tr>
<tr>
<td>01.08</td>
<td>ELEMENTARY SCHOOL INDUSTRIAL ARTS</td>
</tr>
<tr>
<td>01.08</td>
<td>GENERAL INDUSTRIAL ARTS</td>
</tr>
<tr>
<td>01.08</td>
<td>HOME MECHANICS</td>
</tr>
<tr>
<td>01.08</td>
<td>INDUSTRIAL ARTS MATHEMATICS</td>
</tr>
<tr>
<td>01.08</td>
<td>OTHER INDUSTRIAL ARTS (SPECIFY)</td>
</tr>
<tr>
<td>01.09</td>
<td>SPECIAL EDUCATION</td>
</tr>
<tr>
<td>01.09</td>
<td>EARLY EDUCATION OF THE HANDICAPPALED.</td>
</tr>
<tr>
<td>01.09</td>
<td>EMOTIONALLY HANDICAPPED</td>
</tr>
</tbody>
</table>
### Vocational Education

**A combination of courses and learning experiences organized for the purpose of preparing, upgrading, or retraining youth and adults for employment in entry, supervisory, or operational management occupations not requiring a baccalaureate degree.**

#### Agriculture

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.01.01</td>
<td>Agricultural Production</td>
</tr>
<tr>
<td>01.01.02</td>
<td>Agricultural Supplies and Services</td>
</tr>
<tr>
<td>01.01.03</td>
<td>Agricultural Mechanics</td>
</tr>
<tr>
<td>01.01.04</td>
<td>Agricultural Products</td>
</tr>
<tr>
<td>01.01.05</td>
<td>Ornamental Horticulture</td>
</tr>
<tr>
<td>01.01.06</td>
<td>Agricultural Resources</td>
</tr>
<tr>
<td>01.01.07</td>
<td>Forests</td>
</tr>
<tr>
<td>01.01.99</td>
<td>Other Agriculture (Specify)</td>
</tr>
</tbody>
</table>

#### Distributive Education

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.02.01</td>
<td>Advertising Service</td>
</tr>
<tr>
<td>01.02.02</td>
<td>Apparel and Accessories</td>
</tr>
</tbody>
</table>

#### Health Occupations

A combination of courses and learning experiences organized to provide students with the knowledge, skills, and understanding required by occupations that support the health professions.

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.04.01</td>
<td>Dental</td>
</tr>
<tr>
<td>01.04.02</td>
<td>Medical Laboratory Technology</td>
</tr>
<tr>
<td>01.04.03</td>
<td>Nursing</td>
</tr>
<tr>
<td>01.04.04</td>
<td>Rehabilitation</td>
</tr>
<tr>
<td>01.04.05</td>
<td>Radiologic</td>
</tr>
<tr>
<td>01.04.06</td>
<td>Ophthalmic</td>
</tr>
<tr>
<td>01.04.07</td>
<td>Environmental Health</td>
</tr>
<tr>
<td>01.04.08</td>
<td>Mental Health Technology</td>
</tr>
<tr>
<td>01.04.99</td>
<td>Other Health Occupations Programs (Specify)</td>
</tr>
</tbody>
</table>

#### Home Economics

A combination of courses and learning experiences organized for the purpose of enabling students to acquire knowledge and develop understanding, attitudes, and skills relevant to personal, home, and family life, and to home economics occupations.

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.05.01</td>
<td>Homemaking</td>
</tr>
<tr>
<td>01.05.02</td>
<td>Occupational Preparation</td>
</tr>
<tr>
<td>01.05.03</td>
<td>Care and Guidance of Children</td>
</tr>
<tr>
<td>01.05.04</td>
<td>Clothing Management, Production, and Services</td>
</tr>
<tr>
<td>01.05.05</td>
<td>Home Furnishings, Equipment, and Services</td>
</tr>
<tr>
<td>01.05.06</td>
<td>Institutional and Home Management and Supporting Services</td>
</tr>
<tr>
<td>01.05.99</td>
<td>Other Home Economics (Specify)</td>
</tr>
</tbody>
</table>

#### Office Occupations

A combination of courses and learning experiences organized for the purpose of preparing, upgrading, or retraining students for selected office occupations.

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>01.06.01</td>
<td>Accounting and Computing Occupations</td>
</tr>
</tbody>
</table>

### Special Education

<table>
<thead>
<tr>
<th>Code</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>03.03</td>
<td>Gifted and Talented</td>
</tr>
<tr>
<td>03.04</td>
<td>Hearing Handicapped</td>
</tr>
<tr>
<td>03.05</td>
<td>Learning Disabled</td>
</tr>
<tr>
<td>03.06</td>
<td>Mentally Handicapped</td>
</tr>
<tr>
<td>03.07</td>
<td>Multiple Handicapped</td>
</tr>
<tr>
<td>03.08</td>
<td>Physically Handicapped</td>
</tr>
<tr>
<td>03.09</td>
<td>Severely Handicapped</td>
</tr>
<tr>
<td>03.10</td>
<td>Socially Handicapped</td>
</tr>
<tr>
<td>03.11</td>
<td>Speech Handicapped</td>
</tr>
<tr>
<td>03.12</td>
<td>Visually Handicapped</td>
</tr>
<tr>
<td>03.99</td>
<td>Other Special Education (Specify)</td>
</tr>
</tbody>
</table>

### Other Special Education

A combination of courses and learning experiences organized for the purpose of preparing, upgrading, or retraining youth and adults for employment in entry, supervisory, or operational management occupations not requiring a baccalaureate degree.
01.05 02 Business Data Processing Occupations
01.05 03 Filing, Office Machines, and General Office Clerical Occupations
01.05 04 Information Communication Occupations
01.05 05 Materials Support Occupations
01.05 06 Personal, Training, and Related Occupations
01.05 07 Stenographic, Secretarial, and Related Occupations
01.05 08 Supervisory and Administrative Management Occupations
01.05 09 Typing and Related Occupations
01.05 99 Other Office Occupations (Specify)
01.06 TRADES AND INDUSTRIAL
A combination of courses and learning experiences organized for the purpose of preparing students for initial employment in a wide range of trade and industrial occupations.
01.06 01 Air Conditioning
01.06 02 Appliance Repair
01.06 03 Automotive Services
01.06 04 Aviation Occupations
01.06 05 Blueprint Reading
01.06 06 Business Machine Maintenance
01.06 07 Commercial Art Occupations
01.06 08 Commercial Fishery Occupations
01.06 09 Commercial Photography Occupations
01.06 10 Construction and Maintenance Trades
01.06 11 Custodial Services
01.06 12 Diesel Mechanics
01.06 13 Drafting Occupations
01.06 14 Electrical Occupations
01.06 15 Electronic Occupations
01.06 16 Fabric Maintenance Services
01.06 17 Foremanship, Supervision, and Management Development
01.06 18 Food Occupations
01.06 19 Industrial Atomic Energy Occupations
01.06 20 Instrument Maintenance and Repair Occupations
01.06 21 Maritime Occupations
01.06 22 Metallurgical Occupations
01.06 23 Metalworking Occupations
01.06 24 Personal Services
01.06 25 Plastics Occupations
01.06 26 Public Service Occupations
01.06 27 Quantity Food Occupations
01.06 28 Refrigeration
01.06 29 Stationary Energy Source Occupations
01.06 30 Textile Production and Fabrication
01.06 31 Leatherworking
01.06 32 Upholstering
01.06 33 Woodworking Occupations
01.06 99 Other Trade and Industrial Occupations (Specify)
01.07 TECHNICAL EDUCATION
A combination of courses and learning experiences organized for the purpose of preparing students for job opportunities in a specialized field of technology.
01.07 01 Engineering-Related Technology
01.07 02 Agricultural-Related Technology
01.07 03 Health-Related Technology
01.07 04 Office-Related Technology
01.07 05 Home Economics-Related Technology
01.07 99 Other Technical Education (Specify)
02 INDUSTRIAL ARTS
A combination of courses and learning experiences organized for the development of understanding all aspects of industry and technology; including activities such as experimenting, designing, constructing, and evaluating; and using tools, machines, materials, and processes which may assist individuals in the making of informed and meaningful occupational choices, or may prepare them for entry into advanced trade and industrial or technical education programs.
02.01 CONSTRUCTION
A combination of courses and learning experiences organized to provide students with information and skills concerned with constructing residential, industrial, and transportation structures.
02.02 CRAFTS
A combination of courses and learning experiences organized to provide students with information and skills concerned with the craft industry, including the tools, materials, processes, products, and occupations of the industry.
02.03 DRAFTING
A combination of courses and learning experiences organized to provide students with information and skills concerned with conveying ideas or illustrations graphically through drawings, charts, sketches, maps, and graphs.
02.04 ELECTRICITY AND ELECTRONICS
A combination of courses and learning experiences organized to provide students with information and skills concerned with electrical energy, including theory, applications, and control, as they relate to various kinds of electrically-powered equipment and systems.
02.05 ELEMENTARY SCHOOL INDUSTRIAL ARTS
A combination of courses and learning experiences organized to provide students in an elementary school with opportunities for exploration, manipulation, experimentation, planning, and using tools, materials, and techniques appropriate to converting materials to serve useful purposes.
02.06 GENERAL INDUSTRIAL ARTS
A combination of courses and learning experiences organized to provide students with opportunities for experimenting, designing, constructing, evaluating, and using a variety of tools, materials, and processes.
02.07 HOME MECHANICS
A combination of courses and learning experiences organized to provide students with information and skills concerning the study of tools, materials, and processes involved in the upkeep and repair of the home, its equipment, and devices.

02.08 INDUSTRIAL ARTS MATHEMATICS
A combination of courses and learning experiences organized to provide students with information and skills involving various applications of arithmetic, informal algebra, and informal geometry which apply particularly to shop problems.

02.09 OTHER INDUSTRIAL ARTS (SPECIFY)

03 SPECIAL EDUCATION
A combination of courses and learning experiences organized to meet the needs of those students whose physical, emotional, mental, or social handicaps or conditions require a special curriculum or educational setting.

03.01 EARLY EDUCATION OF THE HANDICAPPED
A combination of courses and learning experiences organized to meet the educational needs of handicapped students whose ages range from birth to the time a child would normally complete the third grade.

03.02 EMOTIONALLY HANDICAPPED
A combination of courses and learning experiences organized to meet the educational needs of students exhibiting one or more of the following characteristics over a long period of time and to a marked degree, which adversely affects educational performance. (a) an inability to learn, which cannot be explained by intellectual, sensory or health factors; (b) an inability to build or maintain satisfactory interpersonal relationships with peers and teachers; (c) inappropriate types of behavior or feelings under normal circumstances; (d) a general pervasive mood of unhappiness or depression; or (e) a tendency to develop physical symptoms or fears associated with personal or school problems. This category includes children who are schizophrenic or autistic. This category does not include children who are socially maladjusted, unless it is determined that they are emotionally disturbed.

03.03 GIFTED AND TALENTED
A combination of courses and learning experiences organized to meet the educational needs of students capable of high performance, including those with demonstrated achievement or ability in any one or more of these areas—general intellectual ability, specific academic aptitude, creative or productive thinking, leadership ability, visual and performing arts, or psychomotor ability.

03.04 HEARING HANDICAPPED
A combination of courses and learning experiences organized to meet the educational needs of students who have an impairment in hearing, as follows: (a) "deaf" means a hearing impairment which is so severe that the child is impaired in processing linguistic information through hearing, with or without amplification, which adversely affects educational performance; (b) "hard of hearing" means a hearing impairment, whether permanent or fluctuating, which affects a child's educational performance but which is not included under the definition of "deaf" in this section.

03.05 LEARNING DISABLED
A combination of courses and learning experiences organized to meet the educational needs of students who have disorders in one or more of the basic psychological processes involved in understanding or in the use of language, spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, spell, or to do mathematical calculations. This category includes such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. This category does not include children who have learning problems which are primarily the result of visual, hearing, or motor handicaps, of mental retardation, or of environmental, cultural or economic disadvantage.

03.06 MENTALLY HANDICAPPED
A combination of courses and learning experiences organized to meet the educational needs of students whose impaired mental development adversely affects their educational performance.

03.07 MULTIPLE HANDICAPPED
A combination of courses and learning experiences organized to meet the educational needs of students who have a combination of handicaps that adversely affect their educational performance.

03.08 PHYSICALLY HANDICAPPED
A combination of courses and learning experiences organized to meet the educational needs of students who have severe physical impairments which adversely affect their educational performance.

03.09 SEVERELY HANDICAPPED
A combination of courses and learning experiences organized to meet the educational needs of students who, because of the intensity of their physical, mental, or emotional problems, or a combination of such problems, need educational, social, psychological and medical services beyond those which are traditionally offered by regular and special educational programs in order to maximize their full potential for useful and meaningful participation in society.

03.10 SOCIALLY HANDICAPPED
A combination of courses and learning experiences organized to meet the educational needs of students whose behavior may be in conflict with norms of home, school, or com-
munity but is not in conflict with subgroup norms and is not related to personal distress.

03.11 SPEECH HANDICAPPED
A combination of courses and learning experiences organized to meet the educational needs of students who have a speech impairment or a language impairment which adversely affects their educational performance.

03.12 VISUALLY HANDICAPPED
A combination of courses and learning experiences organized to meet the educational needs of students who have a visual impairment which adversely affects their educational performance.

03.99 OTHER SPECIAL EDUCATION (SPECIFY)
APPENDIX E
MULTIPLE SUBJECT MATTER
INTERDISCIPLINARY

Each of the elements in the Classification of Educational Subject Matter represents a unique and mutually restrictive segment of knowledge. Sometimes, courses and other basic units of instruction are composed of two or more subject matter elements. The combinations are called multiple-subject matter or interdisciplinary instruction. They may involve first, second, third, or fourth order elements or any mixture of them.

Given that there are several thousand unique subject matter elements, the number of combinations into which they may be formed could be enormous. Such combinations may reflect the expertise and interests of faculty, the demands of students, or the distribution of resources. The affecting variables may differ from institution to institution, resulting in countless combinations. Data about multiple subject matter may be recorded or reported for the combinations, or proportionately for the individual subject matter elements which compose them.

The coding, recording, and reporting of multiple subject matter within a subject matter area will differ from that for combinations of subject matter between two subject matter areas. The differences in the two procedures are explained and illustrated below.

COMBINATIONS WITHIN SUBJECT-MATTER AREAS

Multiple subject matter within a subject-matter area involves combinations of separate and different second-order, third-order, or fourth-order elements. Each of the elements retains its identity and can be separated out of the combination. The aggregation of subject-matter subelements into a single higher-order element does not constitute multiple-subject matter as illustrated below. Aggregate subject matter is described in the Introduction section of the Classification.

Multiple Subject Matter Aggregate Subject Matter
01.06 05 00 Plant Nutrition and 01.07 01 Soil Chemistry
01.07 01 00 Soil Chemistry and 01.07 04 Soil Fertility

- To be reported as Plant Nutrition and Soil

- To be reported as Soil Sciences

The existence of multiple subject matter may be common but the recording and reporting of it may not be. If, as defined, the elements are unique and can be separated out of as separate elements, data about the elements may then be recorded and reported as a fraction or percentage of the multiple subject matter combination. Multiple subject matter codes should only be used when it is necessary to report the combination as a single unit.

If data are to reflect multiple subject matter within a subject-matter area, a new coding structure should be used that utilizes alphabetic and numeric characters. For the most part, this will permit the use of no more than eight characters as is the case in the main body of the Classification. Alternatively, use of the numerical Classification codes to identify multiple subject matter combinations would require multiples of eight digits and would result in very large numbers.

In the subject-matter area of Agriculture and Renewable Natural Resources which is used as the illustration for this appendix, each second-order element is given an alphabetic designation. Third-order and fourth-order elements are numbered sequentially as they appear within the second-order categories. If only second-order elements make up the multiple subject matter listing, only the alphabetic characters will be used. The numerical, two-digit designation of the first-order subject matter area will precede the six-character multiple subject matter designation, providing a total of eight characters in most cases.

The examples below illustrate combinations of elements in the subject-matter area of Agriculture and Renewable Natural Resources. The codes are taken from the subject-matter structure which appears at the end of this appendix. Spacing of the codes has been done to better illustrate the combinations.

Examples of Combinations Within a Subject-Matter Area

MSM Code
01. C06 F04 Agricultural Storage; Plant management and Production (two third-order elements)
01. H02 L02 Fisheries Management; Wildlife Management (two third-order elements)
01. E G03 xx Ornamental Horticulture; Soil Conservation and Land Use (second-order and third-order elements)
01. CEF xxx Agricultural Technology; Ornamental Horticulture; Plant Sciences (three second-order elements)

COMBINATIONS BETWEEN SUBJECT-MATTER AREAS

Elements from different subject-matter areas can also be combined to form multiple subject matter. By definition,
APPLICATION OF MULTIPLE SUBJECT-MATTER CODING

As an illustrative example, the combined alpha-numeric coding structure as described in the paragraphs above has been applied to the subject-matter area of Agriculture and Renewable Natural Resources. The multiple subject-matter codes should only be used when the unique and distinct subject-matter elements are not to be broken out of the multiple subject matter combination.

<table>
<thead>
<tr>
<th>Subject-Matter Areas</th>
<th>MSM Code</th>
<th>Combinations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Economics; Banking and Finance</td>
<td>88.01A 04C</td>
<td>(two second-order elements within separate subject-matter areas)</td>
</tr>
<tr>
<td>Agriculture and Renewable Natural Resources. and Business</td>
<td>88.01 04 xx</td>
<td>(two separate subject-matter areas)</td>
</tr>
<tr>
<td>Agriculture and Renewable Natural Resources, Business, and Engineering and Engineering Technology</td>
<td>88.01 04 08</td>
<td>(three separate subject-matter areas)</td>
</tr>
</tbody>
</table>

Three or more second-order elements cannot be combined with the present coding structure and format if only the eight-character format is adhered to.

Additional examples of combinations between subject-matter areas are shown below:

<table>
<thead>
<tr>
<th>Examples of Combinations Between Subject-Matter Areas</th>
<th>MSM Code</th>
<th>Combinations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Economics; Banking and Finance</td>
<td>88.01A 04C</td>
<td>(two second-order elements)</td>
</tr>
<tr>
<td>Construction and Design Implementation: Architectural Engineering and Technology</td>
<td>88.02C 08C</td>
<td>(two second-order elements)</td>
</tr>
<tr>
<td>Marketing; Psychology</td>
<td>88.04J 20x</td>
<td>(one second-order, one first-order)</td>
</tr>
<tr>
<td>Computer Science and Data Processing; Mathematical Sciences</td>
<td>88.06 16 xx</td>
<td>(two subject-matter areas or first-order elements)</td>
</tr>
<tr>
<td>Animal Sciences; Veterinary Medical Sciences</td>
<td>88.01D 09H</td>
<td>(two second-order elements)</td>
</tr>
<tr>
<td>Journalism; Constitutional Law</td>
<td>88.05F 13C</td>
<td>(two second-order elements)</td>
</tr>
<tr>
<td>Educational Evaluation and Research; Psychology of the Individual</td>
<td>88.07K 20E</td>
<td>(two second-order elements)</td>
</tr>
<tr>
<td>Music; Pastoral Studies</td>
<td>88.03C 18P</td>
<td>(two second-order elements)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subject-Matter Elements</th>
<th>Multi-Phase Subject-Matter Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGRICULTURAL ECONOMICS A 01.01</td>
<td>A 01.01</td>
</tr>
<tr>
<td>A 01.02</td>
<td>Agricultural Credit and Finance</td>
</tr>
<tr>
<td>A 01.03</td>
<td>Agricultural Marketing</td>
</tr>
<tr>
<td>A 01.04</td>
<td>Agricultural Organizations</td>
</tr>
<tr>
<td>A 01.05</td>
<td>Agricultural Supplies</td>
</tr>
<tr>
<td>A 01.06</td>
<td>Economic Development and International Trade</td>
</tr>
<tr>
<td>A 01.07</td>
<td>Farm and Ranch Management</td>
</tr>
<tr>
<td>A 01.08</td>
<td>Public Policy and Agriculture</td>
</tr>
<tr>
<td>A 01.09</td>
<td>Other Agricultural Economics (Specify)</td>
</tr>
<tr>
<td>A 01.01</td>
<td>AGRICULTURAL ENGINEERING</td>
</tr>
<tr>
<td>C 01.03</td>
<td>Agricultural Design, Construction, and Maintenance</td>
</tr>
<tr>
<td>C 01.04</td>
<td>Agricultural Electrification</td>
</tr>
<tr>
<td>C 01.05</td>
<td>Agricultural Materials Handling</td>
</tr>
<tr>
<td>C 01.06</td>
<td>Agricultural Mechanics</td>
</tr>
<tr>
<td>C 01.07</td>
<td>Agricultural Processing</td>
</tr>
<tr>
<td>C 01.08</td>
<td>Agricultural Storage</td>
</tr>
<tr>
<td>C 01.09</td>
<td>Agricultural Transportation</td>
</tr>
<tr>
<td>C 01.01</td>
<td>Agricultural Waste Control</td>
</tr>
<tr>
<td>C 01.02</td>
<td>Other Agricultural Technology (Specify)</td>
</tr>
<tr>
<td>D 01.04</td>
<td>ANIMAL SCIENCES</td>
</tr>
<tr>
<td>D 01.04</td>
<td>Animal Anatomy and Physiology</td>
</tr>
<tr>
<td>D 01.05</td>
<td>Animal or Animal Products Selection and Evaluation</td>
</tr>
<tr>
<td>D 01.06</td>
<td>Animal Diseases, Parasites, and Insects</td>
</tr>
<tr>
<td>D 01.07</td>
<td>Animal Health and Care</td>
</tr>
<tr>
<td>D 01.08</td>
<td>Animal Management and Production</td>
</tr>
<tr>
<td>D 01.09</td>
<td>Other Animal Sciences (Specify)</td>
</tr>
<tr>
<td>E 01.05</td>
<td>ORNAMENTAL HORTICULTURE</td>
</tr>
<tr>
<td>E 01.06</td>
<td>Arboriculture</td>
</tr>
<tr>
<td>E 01.07</td>
<td>Floriculture</td>
</tr>
<tr>
<td>Code</td>
<td>Title</td>
</tr>
<tr>
<td>------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>01.05 03</td>
<td>Greenhouse and Nursery</td>
</tr>
<tr>
<td>01.05 04</td>
<td>Landscaping</td>
</tr>
<tr>
<td>01.05 05</td>
<td>Turf Grass</td>
</tr>
<tr>
<td>01.05 99</td>
<td>Other Ornamental Horticulture (Specify)</td>
</tr>
<tr>
<td>01.08</td>
<td></td>
</tr>
<tr>
<td>01.06 01</td>
<td>Plant Anatomy and Physiology</td>
</tr>
<tr>
<td>01.06 02</td>
<td>Plant Genetics and Reproduction</td>
</tr>
<tr>
<td>01.06 03</td>
<td>Plant Insects and Control</td>
</tr>
<tr>
<td>01.06 04</td>
<td>Plant Management and Production</td>
</tr>
<tr>
<td>01.06 05</td>
<td>Production of Field Crops</td>
</tr>
<tr>
<td>01.06 06</td>
<td>Production of Fruits</td>
</tr>
<tr>
<td>01.06 07</td>
<td>Production of Specialty Crops</td>
</tr>
<tr>
<td>01.06 08</td>
<td>Production of Vegetables</td>
</tr>
<tr>
<td>01.06 09</td>
<td>Plant Nutrition</td>
</tr>
<tr>
<td>01.06 10</td>
<td>Plant Pathogens and Prevention</td>
</tr>
<tr>
<td>01.06 11</td>
<td>Plant or Plant Products Selection and Evaluation</td>
</tr>
<tr>
<td>01.06 12</td>
<td>Other Plant Sciences (Specify)</td>
</tr>
<tr>
<td>01.07</td>
<td></td>
</tr>
<tr>
<td>01.07 01</td>
<td>Soil Chemistry</td>
</tr>
<tr>
<td>01.07 02</td>
<td>Soil Classification</td>
</tr>
<tr>
<td>01.07 03</td>
<td>Soil Conservation and Land Use</td>
</tr>
<tr>
<td>01.07 04</td>
<td>Soil Fertility</td>
</tr>
<tr>
<td>01.07 05</td>
<td>Soil Physics</td>
</tr>
<tr>
<td>01.07 06</td>
<td>Soil Texture</td>
</tr>
<tr>
<td>01.07 07</td>
<td>Other Soil Sciences (Specify)</td>
</tr>
<tr>
<td>01.08</td>
<td></td>
</tr>
<tr>
<td>01.08 01</td>
<td>Fisheries Biology</td>
</tr>
<tr>
<td>01.08 02</td>
<td>Fisheries Management</td>
</tr>
<tr>
<td>01.08 03</td>
<td>Commercial Fisheries</td>
</tr>
<tr>
<td>01.08 04</td>
<td>Nondomestic Water Life</td>
</tr>
<tr>
<td>01.08 05</td>
<td>Sport Fisheries</td>
</tr>
<tr>
<td>01.08 99</td>
<td>Other Fisheries (Specify)</td>
</tr>
<tr>
<td>01.09</td>
<td></td>
</tr>
<tr>
<td>01.09 01</td>
<td>Forest Management and Administration</td>
</tr>
<tr>
<td>01.09 02</td>
<td>Forest Economics</td>
</tr>
<tr>
<td>01.09 03</td>
<td>Other Agriculture and Renewable Natural Resources (Specify)</td>
</tr>
<tr>
<td>01.09 04</td>
<td></td>
</tr>
</tbody>
</table>

**PLANT SCIENCES**

**SOIL SCIENCES**

**FISHERIES**

**FORESTRY**

**OUTDOOR RECREATION**

**RANGE SCIENCE**

**WILDLIFE**

**LAND RECLAMATION**

**RENEWABLE NATURAL RESOURCES**

**OTHER AGRICULTURE AND RENEWABLE NATURAL RESOURCES (Specify)**
Agggregate—The process of gathering together distinct but similar elements into a commonly designated higher order cluster.

Award—A certificate, diploma, or degree conferred upon a student by an educational institution upon successful completion of an instructional program.

Coding Structure—The format and procedures for identifying items by a means of numeric, alphabetic, or alphanumeric symbols in a logical and sequential manner.

Comparability—The characteristic of commonality among or between selected elements measured in terms of identical constants: The accuracy of the measurement of the degree of comparability is usually dependent on the number of constants applied.

Compatibility—The condition that requires two or more elements to be technically related. They must be defined the same, be capable of being measured the same, and be aggregated and summarized the same.

Course—An organization of subject matter and related learning experiences provided for the instruction of students on a regular or systematic basis, usually for a predetermined period of time as in a semester, a quarter, or a regular school term.

Disaggregate—The process of dispersing a cluster of elements into distinct but similar elements of a lower order than the original group.

Educational Institution—A public, private, or proprietary organization or establishment devoted to the promotion, development, and attainment of learning at one or more levels of instruction, and embracing such designations as school, college, institute, or university.

Genetic (Genesis)—The term which characterizes the emergence of subject matter elements from a single origin and the establishment of that origin as a distinct subject matter area.

Hierarchy—Any system of related elements arranged in rank order of prominence, of sequence or general development, or other characteristic which allows aggregation of lower elements into higher order clusters.

Instructional Program—A plan of one or more courses or combination of courses and procedures designed to accomplish a predetermined objective or set of allied objectives, such as preparation for advanced study, qualification for an occupation or range of occupations, or solely to increase knowledge or understanding.

Interlay—A structure of subject matter elements at one order which when combined with a structure of a higher or lower order, allows for greater diversity of subject matter data identification.

Level of Subject-Matter Instruction—An indication of the general nature and difficulty of instruction, usually identified by the designation of a grade or year in an organized educational system.

Multiple Subject-Matter Elements—Subject matter which consists of equal, or nearly equal, portions of separate and distinct subject matter elements.

Order—A term which identifies the vertical position of an element in a hierarchical array.

Organizational Unit—A school, institution, or establishment that exercises control over the provision of courses or other curriculum subject matter.

Student—An individual for whom instruction is provided in an educational program under the jurisdiction of an educational institution. The terms student and pupil are often used interchangeably.

Subject Matter Areas—The most aggregate entries of subject matter which form the basic structure of an array of mutually restrictive categories of knowledge.

Subject Matter Descriptor—The word or words that are used to identify individual subject matter elements at any level within a hierarchical array of knowledge.

Subject-Matter Element—A single, discrete unit of subject matter representing a designated component of the substance of knowledge.

Taxonomy—The science which deals with the laws and principles of classification according to natural relationships which can be hierarchical in nature. The term has also been included in the titles of such classifications.

Technology—The study of the practical applications of knowledge which emanate from the theoretical constructs of subject matter.
ACKNOWLEDGMENTS

Over 200 individuals actively participated in the development of this Classification of Educational Subject Matter. This included individuals from the National Center for Education Statistics (NCES) and the U.S. Office of Education, project staff from Educational Management Services, Inc. (EMS), project consultants, and members of the National Planning Council and the Ad Hoc Subject-Matter Committees. Many more people reviewed various drafts of the document and submitted their contributions directly to the EMS Project Director, the NCES Project Officer, or through members of the Planning Council and Ad Hoc Committees.

The names and affiliations of those who participated in the project are listed below according to their titles and locations at the time they participated in the project. The organizations and associations that nominated them are listed after the names.

NATIONAL CENTER FOR EDUCATION STATISTICS

Staff Participants

W. Dale Chismore, Ed.D., Project Consultant
Quentin M. Hill, M.B.A., Project Officer
Curtis D. Baker, M.P.A., Survey Director
Yeuell Y. Harris, Ed.D., Education Program Specialist
Alan R. Lichtenberger, M.A., Chief, Educational Data Standards Branch
Robert D. North, Ph.D., Technical Planning Officer
John F. Putnam, Ed.D., Education Program Officer
Charles T. Roberts, Ed.D., Data Systems Specialist
Ivan H. Gilbert, M.A., Education Program Officer
Abadom Simms, B.S., Director, Division of Intergovernmental Statistics

Review Committee

Curtis D. Baker, M.P.A., Survey Director, University and College Surveys and Studies Branch

Division of Postsecondary and Vocational Education Statistics
National Center for Education Statistics

Bruce I. Blackstone, Ed.D., Education Program Specialist, Postsecondary and Adult Occupational Programs Branch
Division of Vocational Technical Education
United States Office of Education

Robert Calvert, Ed.D., Education Program Officer, Adult and Vocational Surveys and Studies Branch
Division of Postsecondary and Vocational Education Statistics
National Center for Education Statistics

Barbara Chandler, Ed.D., Education Program Specialist
Division of Adult Education
United States Office of Education

Stuart E. Dean, Ph.D., Education Program Specialist
Division of State Assistance
United States Office of Education

Paul J. Horn, M.A., Statistician, Postsecondary and Vocational Analysis Branch
Division of Postsecondary and Vocational Education Statistics
National Center for Education Statistics

Albert R. Munse, M.S., Education Program Officer, Statistical Information Branch
National Center for Education Statistics
Division of Statistical Services

Emmanuel Weinstein, M.S., Supervisory Occupational Analyst, United States Employment Service
Manpower Administration
Department of Labor

U.S. OFFICE OF EDUCATION

Mary V. Marks, M.A., Chief, Curriculum Development Branch
Marshall L. Schmitt, Ed.D., Senior Program Officer
EDUCATIONAL MANAGEMENT SERVICES, INC.

James R. Sherman, Ph.D., Project Director and Principal Investigator
Gary A. Mohrenweiser, Ph.D., Project Associate and President of EMS
John F. Zimmer, Ph.D., Project Associate
Richard B. DeBlieck, B.A., Project Assistant
Barbara A. Baker, M.A., Project Assistant
Janice C. Johnson, B.A., Project Assistant
David G. DiDomenico, Ph.D., Project Assistant

PROJECT CONSULTANTS

John E. Haugo, Ph.D., EMS Consultant and Executive Director, Minnesota Educational Computing Consortium
Robert A. Huff, Ed.D., EMS Consultant and Executive Secretary, New Mexico Board of Educational Finance

NATIONAL PLANNING COUNCIL

Gary Andrew, Ph.D.,
Vice Chancellor for Administration and Planning
University of Colorado, Boulder, Colorado

Robert J. Barak, Ph.D.,
Director, Research and Information
Iowa State Board of Regents, Des Moines, Iowa

Frank M. Bowen, J.D.,
Research Specialist, Institute for Governmental Studies
University of California, Berkeley, California

Don F. Brandewie, M.A.,
Curriculum/Staff Development Specialist
Arlington Country Schools, Arlington, Virginia

Lloyd D. Briggs, Ed.D.,
Director, School of Occupational and Adult Education
Oklahoma State University, Stillwater, Oklahoma

Ronald D. Clark, M.S.,
North American Training Academy, Inc.
Newark, Delaware

Michael A. DeCarlo, Ph.D.,
Chairman and Director, Statewide Common Course Designation and Nomenclature System
State of Florida Department of Education, Tallahassee, Florida

Betty Giulianii, Ed.D.,
Professor and Director, Continuing Education Research
Michigan State University, East Lansing, Michigan

T. William Goodwin, M.S. (Resigned)
Deputy Commissioner of Education
Kansas State Department of Education, Topeka, Kansas

Wellington V. Grimes, M.A.,
Director of Academic Services
National Association of Independent Schools, Boston, Massachusetts

Donald E. Hall, Ph.D.,
Assistant Superintendent
Sacramento City Unified School District, Sacramento, California

Dean Hanebuth, M.S.,
Coordinator of Curriculum
Evanston Township High School, Evanston, Illinois

Dennis P. Jones, M.S.,
Associate Director
National Center for Higher Education Management Systems, Boulder, Colorado

Ronald Meek (Deceased)
Coordinator, Curriculum and Instructional Materials Center
Oklahoma Department of Vocational and Technical Education, Stillwater, Oklahoma

James E. Mitchell, Ph.D.,
Deputy Superintendent
Iowa Department of Public Instruction, Des Moines, Iowa

Jack Stanley Price, Ed.D.,
Superintendent of Schools
Vista, California

F. James Rohlf, Ph.D.,
Professor and Chairman, Department of Ecology and Evolution
State University of New York, Stony Brook, New York

Greta Dambacher Sabine, Ed.D.,
Associate Professor, Illinois State University
Normal, Illinois

T. Sherman Stanford, D.Ed.,
Special Assistant to the Senior Vice President
The Pennsylvania State University, University Park, Pennsylvania

John Tout, Ed.D.,
Assistant to the Superintendent
Clayton School District, Clayton, Missouri

Robert A. Wallhaus, Ph.D. (Resigned)
Deputy Director
National Center for Higher Education Management Systems, Boulder, Colorado

Fred L. Wallman, Ed.D.,
Executive Director
Illinois Community College Board, Springfield, Illinois

American Association of School Administrators

American Council on Education

Association for Continuing Higher Education

Association for Supervision and Curriculum Development

Association of American Universities
AD HOC SUBJECT MATTER COMMITTEES

Agriculture and Renewable Natural Resources
Robert W. Cox, M.S.
Administrative Secretary
FFA Alumni Association, Alexandria, Virginia

Paul M. Day, M.S.
State Supervisor, Ag. Education
Minnesota Department of Education, St. Paul, Minnesota

Ron H. Ely, Ph.D.
Director of Vocational Career and Continuing Education
Washington County Schools, Abingdon, Virginia

David Haugo
Waubun, Minnesota

Richard A. Jensen, Ph.D.
Assistant Professor, Vocational Education
University of Vermont, Burlington, Vermont

Donald Meaders, Ed.D.
Professor; Agribusiness and Natural Resources Education
Michigan State University, East Lansing, Michigan

Charles H. Rogers, Ed.D.
Director, Occupational Research Unit
State Department of Public Education, Raleigh, North Carolina

Donald R. Theoe, M.F.
Training Specialist
State of Washington, Department of Natural Resources, Olympia, Washington

Lawrence C. Walker, Ph.D.
School of Forestry
Stephen F. Austin State University, Nacogdoches, Texas

American Association of Teacher Educators in Agriculture
Martin O. Holloien, Ph.D.
Chairman, Department of Computer Science
Moorhead State University, Moorhead, Minnesota

Jane LaFrenz, C.Ph.
Director, Instructional Services
Minnesota Educational Computing Consortium, St. Paul, Minnesota

A. Kent Morton, A.M.
Assistant Director, Project COMPUTE
dartmouth College, Hanover, New Hampshire

Carol Otterson, M.A.
Administrative Assistant, Data Processing and Budget Planning
Tacoma School District #10, Tacoma, Washington

Charles R. Thomas, B.S.
Executive Director
College and University Systems Exchange (CAUSE), Boulder, Colorado

Karl L. Zinn, Ph.D.
Research Scientist
University of Michigan, Ann Arbor, Michigan

Association for Educational Data Systems
EDUCOM
SIGCUE

Education
Alan V. Bielen, Ed.D.
Director of Finance
Nebraska State Department of Education, Lincoln, Nebraska

Phillip E. Frandson, Ed.D.
Dean, University Extension
University of California, Los Angeles, California

Paul W. Hailey, Ph.D., Ed.D.
Director, Teacher Education and Certification
Ohio Department of Education, Columbus, Ohio

Martin Kling, Ph.D.
Professor of Education, Graduate School of Education
Rutgers University, New Brunswick, New Jersey

Robert H. Moss, Ed.D.
Associate Professor of Education
Southern Utah State College, Cedar City, Utah

Van D. Mueller, Ed.D.
Professor and Chairman, Department of Education Administration
University of Minnesota, St. Paul, Minnesota

William K. Posten, Jr., Ed.D.
Superintendent
Flowing Wells Public Schools, Tucson, Arizona

Francis Kelly Scheets, OSC, Ph.D.
Director, Office of Fiscal Planning
Diocese of Fort Wayne-South Bend, Fort Wayne, Indiana

Harrie Selznick, Ph.D.
Executive Director, Council of Administration Special Education
Baltimore, Maryland

Tom T. Walker, Ed.D.
Chair, Division of Teacher Education
Texas Education Agency, Austin, Texas

Association of Teacher Educators
Council of Administrators of Special Education
Minnesota Department of Education
National Catholic Educational Association
Phi Delta Kappa

Engineering and Engineering Technology
Linton E. Grinter, Ph.D.
Dean, Vice President Emeritus, Educational Consultant
University of Florida, Gainesville, Florida

William K. LeBold, Ph.D.
Director, Engineering Education Research Studies, Freshman Engineering Department, Purdue University, West Lafayette, Indiana

Donald E. Marlowe, Sc.D.
Executive Director
American Society for Engineering Education, Washington, District of Columbia

David R. Reyes-Guerra, Ed.D.
Executive Director
Engineers' Council for Professional Development, New York, New York

William M. Sangster, Ph.D.
Dean, College of Engineering
Georgia Institute of Technology, Atlanta, Georgia

Richard Ungrodt, B.S.
Vice President for Academic Affairs
Milwaukee School of Engineering, Milwaukee, Wisconsin

Donald Zwiep, D.Eng. (Hon)
Head, Department of Mechanical Engineering
Worcester Polytechnic Institute, Worcester, Massachusetts

American Society for Engineering Education
Engineers' Council for Professional Development

Health Care and Health Sciences
Gerlandino Agro, D.Eng.
Senior Staff Associate
Association of American Medical Colleges, Washington, District of Columbia

Helen R. Bowlin, B.S.
Clinical Instructor
St. Olaf College, Northfield, Minnesota
Marion M. Brooke, S.S.D.
Associate Director, Laboratory Training and Consultation Division Center for Disease Control, Atlanta, Georgia

Helen G. Burzynski, M.A.
Division Chairwoman, Allied Health Sciences Springfield Technical Community College, Springfield, Massachusetts

Sam Getty, D.V.M., Ed.D.
Director of Ambulatory Clinics, Veterinary Clinic Michigan State University, East Lansing, Michigan

Ronald Gronwall, D.V.M., Ph.D.
College of Veterinary Medicine University of Florida, Gainesville, Florida

Don Lehmkuhl, Ph.D.
Department of Physical Therapy Texas Institute for Rehabilitation and Research, Houston, Texas

Werner Lowenthal, Ph.D.
Professor, Department of Pharmacy and Pharmaceuticals Medical College of Virgina, Richmond, Virginia

Ronald S. Nichols, M.S.
Director Shepard-Colt School of Practical Nursing, Boston, Massachusetts

Jay S. Olins, J.D.
President California Association of Paramedical Schools, Los Angeles, California

Fredrick Parkins, D.D.S., Ph.D.
Associate Dean, Academic Affairs, College of Dentistry University of Iowa, Iowa City, Iowa

Stewart Shapiro, D.M.D.
Professor and Chairman, Division of Community Dentistry University of Oklahoma College of Dentistry, Oklahoma City, Oklahoma

Jack F. Tolbert, M.A.
President The Medix School, Towson, Maryland

American Association of Dental Schools

American Medical Association
American Pharmaceutical Association
American Society of Allied Health Professions
American Veterinary Medical Association
Association of American Medical Colleges
National Association for Practical Nurse Education and Service
National Association of Trade and Technical Schools

Home Economics

Claire Boast, M.S.
Director of Home Economics Campbell Soup Company, Camden, New Jersey

Mary P. Conway, B.S.
Coordinator, In Service Education, Home Economics Related Occupations State Department of Education, Sacramento, California

Stephanie Heatwole Cooney, Ph.D.
Occupational Home Economics Teacher Fairfax County Public Schools, Springfield, Virginia

Amy Jean Knorr, Ph.D.
Professor of Home Education University of Arizona, Tucson, Arizona

Janet Mauer, B.S.
Brooklyn Center Junior-Senior High School Brooklyn Center, Minnesota

Patricia D. Murphy, Ph.D.
Associate Dean, College of Home Economics North Dakota State University, Fargo, North Dakota

Aina Summerfelt, M.A.
Specialist, Consumer and Family Studies San Diego City Schools, San Diego, California

F. Wynnell York, Ph.D.
Chairman, Home Economics Department Western Illinois University, Macomb, Illinois

American Home Economics Association
Home Economics Education Association
Minnesota Home Economics Association
National Association of State Supervisors of Home Economics

Industrial Arts, Trades, and Technology

Milton Gussow, M.S.
Senior Vice President and Director of Education McGraw-Hill Continuing Education Center, Washington, District of Columbia

Harold Halfin, Ed.D.
Co-Director, Center for Vocational-Technical and Adult Education University of Wisconsin – Stout, Menomonie, Wisconsin

James Henry, M.S.
Department of Vocational and Technical Education Illinois Office of Education, Springfield, Illinois

Ina Rubenstein, Ph.D.
School Board Member 916 Area Vocational Institute, St. Paul, Minnesota

Sam Schimelfenig, M.Ed.
Dean, Technical Division North Dakota State School of Science, Wahpeton, North Dakota

Mary S. Serene, B.S.
Supervisor of Cosmetology A. W. Beattle Area Technical School, Allison Park, Pennsylvania
Michael Sucharski, Ed.D.
Industrial Arts Instructor, Department Head
Poston Junior High School, Tempe, Arizona

Edward P. Tangman, Jr., Ed.D.
Chairman, Engineering Technologies Division
Northern Virginia Community College, Annandale, Virginia

Charles G. Treadwell, M.S.
Assistant in Higher Education
New York State Education Department, Albany, New York

American Technical Education Association
Cosmetology Accrediting Commission
National Home Study Council
National Association of Industrial and Technical Teacher Educators

Language; Linguistics, and Literature
C. Lee Bradley, MA.
Coordinator of French Studies
Valdosta State College, Valdosta, Georgia

Lester S. Golub, Ph.D.
Professor of English Education and Reading
Pennsylvania State University, University Park, Pennsylvania

Constance K. Knop, Ph.D.
Associate Professor, Foreign Education
University of Wisconsin, Madison, Wisconsin

Helene Z. Loew, M.A., M.S.
Bureau of Foreign Languages Education
State Education Department, Albany, New York

Walter F. W. Lohnes
Professor and Chairman, Department of German Studies
Stanford University, Stanford, California

Lester W. McKim, Ph.D.
Director of Instructional Support Services
Bellevue Public Schools, Bellevue, Washington

Bernard O'Donnell, Ed.D.
ERIC Clearinghouse on Reading and Communication
Urbana, Illinois

Manuel T. Pacheco, Ph.D.
Dean of the University
Texas A & I University, Laredo, Texas

Muriel Seville-Trolke, Ph.D.
Assistant Professor of Linguistics
Georgetown University, Washington, District of Columbia

James R. Squre, Ph.D., D.Litt.
Senior Vice President and Publisher
Glne and Company (Xerox Education Group), Lexington, Massachusetts

Evelyn Vandiver, M.A.
Director of Foreign Languages
Charlotte-Mecklenburg Schools, Charlotte, North Carolina

L. Ramon Veal, Ph.D.
Associate Professor, Language Education
University of Georgia, Athens, Georgia

American Association of Teachers of French
American Association of Teachers of German
American Council on the Teaching of Foreign Languages
National Council of Teachers of English

Law
Joe E. Covington, S.J.D.
Director of Testing, National Conference of Bar Examiners,
Professor of Law
University of Missouri School of Law, Columbia, Missouri

Peter del Swords
Assistant Dean
Columbia University School of Law, New York, New York

Garrett W. Flickinger, J.D.
Professor of Law
University of New Mexico School of Law, Albuquerque, New Mexico

E. Gordon Gee, J.D., Ed.D.
Associate Professor and Assistant Dean, J. Reuben Clark Law School
Brigham Young University, Provo, Utah

Donald B. Gebry, LL.M.
Attorney.
Grant, McHendrie, Haines, and Crouch, Denver, Colorado

Robert A. Gorman, LL.B.
Professor of Law
University of Pennsylvania Law School, Philadelphia, Pennsylvania

Frank K. Ualver, LL.B.
Associate Dean
Columbia University School of Law, New York, New York

Alan I. Widiss, LL.M.
Professor of Law
University of Iowa College of Law, Iowa City, Iowa

Association of American Law Schools

Libraries and Museums
Johnnie E. Givens, A.M.
Head Librarian
Austin Peay State University, Clarksville, Tennessee

Robert D. Little, Ph.D.
Chairman, Department of Library Science
Indiana State University, Terre Haute, Indiana

Beverly P. Lynch, Ph.D.
Executive Secretary
Association of College and Research Libraries, Chicago, Illinois

Mary R. Power, M.L.I
Executive Secretary
American Library Association, Chicago, Illinois
Rustell Shank, Ph.D.
Director of Libraries
Smithsonian Institution, Washington, District of Columbia

Donald B. Simpson, M.S.
Executive Director
Bibliographical Center for Research, Denver, Colorado

Mary Ann Swanson, M.A.
Coordinator of Media Services
Evanston Township High School, Evanston, Illinois

American Association of School Librarians
Association for College and Research Libraries
Association of State Library Agencies

Life Sciences and Physical Sciences

Edward E. Dyrill, Ed.D.
Professor of Science Education
University of Connecticut, Storrs, Connecticut

Mary Blatt Harbeck, M.Ed.
Assistant Director, Department of Science
District of Columbia Public Schools, Washington, District of Columbia

Charles J. LaRue, Ph.D.
Coordinator, Department of Curriculum and Instruction
Montgomery County Public Schools, Rockville, Maryland

Robert J. Larson, M.S.
Science and Ecology Laboratory Coordinator
Laramie County School District, Cheyenne, Wyoming

Nancy R. Noeske, Ph.D.
Coordinator of Environmental Education
Milwaukee Public Schools, Milwaukee, Wisconsin

Moses Passen, Ph.D.
Head, Department of Educational Activities
American Chemical Society, Washington, District of Columbia

Mary Budd-Rovey, Ph.D.
University of Florida
Institute for Development of Human Resources, Gainesville, Florida

John E. Scheff, Ed.D.
Science Education and Graduate Program Coordinator
University of Toledo, Sylvania, Ohio

Leslie W. Trowbridge, Ph.D.
Chairman, Department of Science Education
University of Northern Colorado, Greeley, Colorado

American Chemical Society
Association for the Education of Teachers in Science
National Science Teachers Association

Mathematical Sciences

James R. Brown, Ph.D.
Chairman, Department of Mathematics
Oregon State University, Corvallis, Oregon

Lyle O. Calvin, Ph.D.
Chairman, Department of Statistics
Oregon State University, Corvallis, Oregon

William L. Duren, Jr., Ph.D.
Professor of Mathematics
University of Virginia, Charlottesville, Virginia

Robert F. Ling, Ph.D.
Associate Professor of Mathematics
Clemson University, Clemson, South Carolina

Mary Logan Mayhew, Ph.D.
Staff Assistant, Office of the President
University of Kentucky, Lexington, Kentucky

Gottfried E. Noethei, Ph.D.
Professor of Science Education
University of Connecticut, Storrs, Connecticut

Joseph M. Scandura, Ph.D.
Professor of Structural Learning and Educational Design
University of Pennsylvania, Philadelphia, Pennsylvania

B. Ross Taylor
Mathematics Consultant
Minneapolis Public Schools, Minneapolis, Minnesota

Robert H. Wendt, M.A.
Secondary Mathematics Program Leader
Clayton School District, Clayton, Missouri

American Psychological Association
American Statistical Association
Classification Society
Educational Commission of the States

Military Sciences

Capt. William F. Ball
United States Marine Corps, Unit Training Branch
Washington, District of Columbia

Capt. David L. Chase
United States Air Force, Precommissioning Programs
Assistant Secretary of Defense, Washington, District of Columbia

David L. Smith, Ed.D.
Department of the Navy, Professional Education Branch
Arlington, Virginia

Arlen Stafford, M.S.
Department of the Air Force, Dependents and Precommissioning Programs
Washington, District of Columbia

John Trebes, Ed.D.
Department of the Army, Training and Doctrine Command
Fort Monroe, Virginia

American Statistical Association
American Psychological Association
Classification Society
Educational Commission of the States

Philosophy, Religion, and Theology

Donald Argabright, Ed.D.
Dean of the College
North Central Bible College, Minneapolis, Minnesota
Milo L. Brekke, Ph.D.
Principal Research Scientist and Staff Consultant
Youth Research Center, Minneapolis, Minnesota

Erl D. C. Brewer, Ph.D.
Professor of Sociology and Religion, Candler School of Theology
Emory University, Atlanta, Georgia

George E. Conway, D.Min.
School Minister
Woolberry Forest School, Woodberry Forest, Virginia

Francis A. Lonsway, Ph.D.
Assistant Director
The Association of Theological Schools, Vandalia, Ohio

David S. Schuller, Ph.D.
Associate Director
The Association of Theological Schools, Vandalia, Ohio

Ingrid Stadler, Ph.D.
Chairman, Professor, Department of Philosophy
Wellesley College, Wellesley, Massachusetts

American Association of Bible Colleges
American Philosophical Association
Association of Theological Schools
Council on Religion in Independent Schools

Physical Education, Health Education, and Leisure
Charles O. Dotson, Ph.D.
Associate Professor, Department of Physical Education
University of Maryland, College Park, Maryland

Wanda Jubb, M.A.
Health Education Specialist
Michigan Department of Education, Lansing, Michigan

March L. Krotte, Ph.D.
Coordinator of Physical Activity Program, Division of Physical Education
University of Minnesota, Minneapolis, Minnesota

Sidney G. Lutzin, Ed.M.
Associate Professor, Department of Physical Education, Health and Recreation
University of Maryland, College Park, Maryland

Ben W. Miller, Ph.D.
Professor, Department of Kinesiology
University of California, Los Angeles, California

William Noonan, M.S.
Supervisor
East Baton Rouge Parish School Board, Baton Rouge, Louisiana

Sarah Robinson, Ph.D.
Associate Professor, School of Health, Physical Education and Recreation
University of North Carolina, Greensboro, North Carolina

Betty Spears, Ph.D.
Professor, Sport Studies
University of Massachusetts, Amherst, Massachusetts

National Association of Physical Education for College Women
National College Physical Education Association for Men
National Park and Recreation Association
Society of State Directors of Health, Physical Education and Recreation
University of Minnesota, Division of Physical Education

Psychology
John K. Bara, Ph.D.
Professor of Psychology, Department of Psychology
Carleton College, Northfield, Minnesota

Richard A. Kasschau, Ph.D.
Associate Professor of Psychology, Department of Psychology
University of Houston, Houston, Texas

James R. Nazarro, Ph.D.
Administrative Officer for Educational Affairs
Cobey College, Waterville, Maine

William S. Verplanck, Ph.D.
Professor of Psychology, Department of Psychology
University of Tennessee, Knoxville, Tennessee

Michael Wertheimer, Ph.D.
Professor of Psychology, Department of Psychology
University of Colorado, Boulder, Colorado

Paul J. Woods, Ph.D.
Professor of Psychology, Department of Psychology
Hollins College, Hollins, Virginia

American Psychological Association

Public Affairs and Social Services
Ernest A. Engelbert, Ph.D.
Professor of Public Administration, Department of Political Science
University of California, Los Angeles, California

Felix A. Niro, Ph.D.
Professor of Political Science
University of Georgia, Athens, Georgia

Elaine Rothenberg, M.S.S.
Dean, School of Social Work
Virginia Commonwealth University, Richmond, Virginia

George A. Warp, J.D.
Professor, School of Public Affairs
University of Minnesota, Minneapolis, Minnesota

Robert F. Wilcox, Ph.D.
Dean, Graduate School of Public Affairs
University of Colorado, Boulder, Colorado

Council on Social Work Education
National Association of Schools of Public Affairs and Administration
University of Minnesota, School of Public Affairs

Social Sciences and Social Studies
Dorothy H. Eichorn, Ph.D.
Associate Director, Institute of Human Development
University of California, Berkeley, California

Robert A. Harper, Ph.D.
Professor and Chairman, Department of Geography
University of Maryland, College Park, Maryland

Russell Mosely, Ph.D.
Curriculum Coordinator and Deputy Administrator
Wisconsin Department of Public Instruction, Madison, Wisconsin

Rebecca Louise Murray, B.A.
Project MEDIA Director

National Indian Education Association, Minneapolis, Minnesota
Stanley Wroński, Ph.D.
Professor, Department of Education; Department of Social Sciences
Michigan State University, East Lansing, Michigan

J. Ed York, M.E.
Teacher, Social Studies; Department Chairman
Southwest High School, Fort Worth, Texas

American Psychological Association
Association of American Geographers
National Council for Social Studies
National Indian Education Association
Phi Delta Kappa


BIBLIOGRAPHY


Staff Subject Table, Augusta, Maine: Department of Educational and Cultural Services, 1975-1976.


Wing, Paul. A General Discussion of Classification Systems for Postsecondary Education Subject Matter (Preliminary Draft). Boulder, Colorado: NCHEMS at WICHE, June, 187
A

Abdominal surgery, 09026001
Abnormal psychology, 20050100
Academic
  counseling and guidance, 07070200
  library administration, 14030100
  remediation, 20080501
Accident and health insurance, 04070600
Accounting
  cost, 04010600
  data processing, 04010700
  general, 04010800
  governmental and institutional, 04010900
  managerial, 04011100
  payroll, 04011200
  principles, 04010100
  systems, 04010200
  tax, 04011400
Acoustics (architecture and environmental design), 02060200
Acoustics (physics), 15070100
Acting, 03040101
  in film, 05030301
Actuarial
  mathematics, 16110200
  science, 04070100
Acupuncture, 09025100
Adjusting techniques, chiropractic, 09025401
Adjustment, psychology of, 20050500
Administration
  academic library, 14030100
  and leadership, church, 18160700
  art gallery, 14030200
  art library, 14030801
  comparative public, 21010500
  contract, 04110402
  court, 21010900
  educational, 07020000
  environmental health, 09070300
  financial, 21010300
  industrial health, 09070500
  international, 21010600
  law library, 14030900
  legislative, 21010700
  library, 14030300
  maternal and child health, 09070600
  medical library, 14030804
  mental health, 09070700
  multilibrary systems, 14030400
  museum, 14030500
  music library, 14030805
  of health education, 19051300
  of libraries and museums, 14030000
  of public buildings and lands, 21010301
  of sport, 19030800
  personnel management and, 04110000
  physical education, 19010600
  principles and theories of educational, 07020100
  public health, 09071000
  public library, 14030600
  public, 21010000
  public recreation, 21050200
  quantitative and nonquantitative analysis in, 21011400
  range, 01101000
  regulatory, 21010400
  school library and media center, 14030700
  science and technology library, 14030900
  special library, 14030800
  student personnel, 07020900
  theological library, 14030807
  zoological garden, 14030900
Administrative
  and office services, 04020000
  law, 13010100
  management (business), 04090201
  management (public administration), 21010300
  office procedures, 04020100
  procedures, civil and, 13010000
  procedures, 04020100
  theory, 21010100
Admiralty law
Adolescent users, 14050300
Adult-continuing education systems, 07030900
Adult users, 14000400
Adventure and challenge sports, 19031206
Advertising, 05010000
  evaluation, 05010100
  media, 05010200
  production, 05010300
  selling, promotion, and, 04100305
Advisory services, 14081000
Advocacy, 13150600
Aerodynamics, 08010100
Aeronautics, 08010200
  military, 17120100
Aerospace
  and aeronautical engineering and technology, 08010000
  history, 17010300
  medicine, 09027100
  military, 17120200

189
Aesthetic education, related arts and, 03060300
Aesthetics, 18010000
of literature in performance, 06110501
African
history, 22042000
languages, 12040000
philosophy, 18040600
political systems, 22050301
Agency law, 13070100
Age groupings, psychology of, 20050401
Agricultural
appraisal, 01010100
credit and finance, 01010200
design construction and maintenance, 01030100
economics, 01010000
electrification, 01030200
energy and power, 08020100
equipment, 08020000
environments, 22030201
marketing, 01010300
mechanics, 01030400
occupations, 07060100
organizations, 01010400
processing, 01030500
storage, 01030600
supply, 01030700
waste control, 01030800
Agriculture
and renewable natural resources, 01000000
products, 04100501
public policy and, 01010800
Aircraft
maintenance, 11040100
power plant, 11040102
Air conditioning, heating and, 02060101
heating, ventilation, and refrigeration engineering, 02060100
Air Force, 17120000
organization of the, 17020100
Air frame, 11040101
structures, 08010400
Air pollution control, 08130100
Air support, ground and, 08010500
Alcohol, drugs, and driving, 19060100
Algebra, 16030200
arithmetic and, 16030000
linear and multilinear, 16030600
universal, 16030700
Algebraic
geometry, 16030400
topology, 16060900
Algebras, topological, 16050500
Algorithms
analysis of, 06100100
computational, 06060100
Allergy, 09020300
Allied arts, 03060202
Alternative energy systems, 02060100
American
colonial history, 22042100
foreign policy, 22050501
government, 22050100
military history, 17010200
naval, 12170000
political theory, 22051001
Analysis
abstract harmonic, 16050300
and evaluation, public policy, 21011300
behavior, 20040100
classical, 18040000
complex, 18040400
ternary, 16090103
functional, 16050000
global, 16061000
language, 12010300
multivariate, 16080701
numerical, 16090100
of algorithms, 06100100
real, 16040200
site, 02020300
systems, 06090400
time series, 16081100
Analytical
chemistry, 15040200
pharmaceutical chemistry, 09040702
Analytic geometry, 16060300
Anatomy
animal, 15032400
dental, 09010101
gross, 09010102
health care, 09010100
neuromuscular, 19020200
ocular, 09010104
wood, 01090308
Anatomy and physiology
animal, 01040100
plant, 01060100
Ancient
history, 22045000
Near East theology, 18130100
Western philosophy, 18040100
Anesthesiology, 09025200
Animal
anatomy, 15032400
behavior, 15032500
diseases, parasites, and insects, 01040300
health care, 09010100
neuromuscular, 19020200
health care, 09010104
wood, 01090308
aquad, 09080101
avian, 09080102
bovine, 09080103
canine, 09080104
caprine, 09080105
equine, 09080106
feline, 09080107
food, 09080108
laboratory, 09080109
ovine, 09080110
veterinary, 09080100
zoo, wildlife, and exotic, 09080111
nutrition, 01040700
or animal products selection and evaluation, 01040200
sciences, 01040000

Annuities, fiduciary trusts and, 04070400
Antarctic history, 22042200
Anthropology, 22010000
cultural, 22010200
linguistics in, 22010500
of religion, 18100100
philosophical, 18060500
physical, 22010600
social, 22010700
theological, 18140200
topical, 22010900
Anti-trust law, 13060100
Appliance repair, 11040000
Application of visual arts design, 03050104
Applications
in computer science and data processing, 06010000
of mathematics, general, 16110000
Applied
instrumental and vocal music, 03030101
linguistics, 12010100
mathematics, classical, 16100000
statistics, 16080200
Appraisal
agricultural, 01010100
and valuation, 04130100
Appreciation, literary aesthetics and, 12020200
Approximation theory, numerical analysis and, 16090000
Aquatic animal medicine, 08080101
Aquatics, 19031201
Arabic
classical, 12064100
modern standard, 12054200
Arboriculture, 01060100
Archaeology, 22010100
environmental, 22010102
regional, 22010103
Architectural
design, 02010100
drafting, 02040200
engineering and technology, 08030000
history, 02080101
psychology, 06030100
Architecture
and environmental design
communication in, 02040000
general perspectives of, 02060000
materials of, 02070000
professional practices in, 02080200
computer, 06030100
marine, 02020601
marine engineering and naval, 08180000

Arguments, 05110601
Argumentation, 05110601
Arithmetic, 16030100
and algebra, 16030000
Army, 17130000
history, 17010400
organization of the, 17020200
Artifacts and specimens, 14070200
Artificial
intelligence, 06010100
languages, 12060000
Art
film as, 03020000
film production, 03020100
film studies, 03020200
gallery administration, 14030200
history and appreciation, 03050201
library administration, 14030801
philosophy of, 18010100
restoration, preservation, exhibition, and cataloging, 03050400
theory and criticism, 03050202
therapy, 03070100
Arts
allied, 03060202
and crafts, 19070501
eathic, 09060203
fine, 03050101
graphic, 11050000
related, 03060000
theatre, 03040000
therapy, 03070000
visual, 03050000
visual and performing, 03000000
Asian
history, 22042300
political systems, 22030320
Assemblers, 06080100
Assessment
psychological, 20060200
Assisting
dental, 09025301
health care, 09025300
medical, 09025302
nursing, 09025303
veterinary, 09025304
Associations, law of, 13070200
Astronautics, 08010300
military, 17120300
Astronomy, 15010000
solar, 15010200
stellar, 15010300
Astrophysics, 15070200
and cosmology, mathematical astronomy, 16100900
Athletic
facilities and equipment, 19020501
training, 19020502
Athletics, 19030101
Atmospheric sciences, 15020000
Atomic power, 11030100
Attitudes, 20070100
Canadian history, 22042500
Canine animal medicine, 09080104
Caprine animal medicine, 09080105
Cardiology, 09020100
Cardiopulmonary resuscitation, 09050100
Cardiorespiratory physiology, 19020302
Cardiothoracic surgery, 09026004
Career development, 20050200
education, 07060200
information and counseling, 07070300
Care and guidance of children, 10060101
Carpentry, 11010100
Cartography (geography), 22030401
Cartography (surveying and mapping), 08260600
Case and statutory analysis, 13150100
Case work, social, 21040301
Casualty insurance, 04070200
Cataloging of collections, 14040100
Catholicism, Roman, 18090202
Cell biology, 15030200
complexes, manifolds and, 16060700
Central processing units, 06040100
Ceramics, 11020100
engineering and technology, 08190100
Ceremonies, drill, commands, and, 17090000
Characteristics of drivers, 19060200
Chassis repair, 11041301
Chemical engineering and technology, 08060000
Chemistry, 15040000
analytical, 15040200
analytical pharmaceutical, 09040702
clinical, 09010300
general, 15040100
inorganic, 15040500
macromolecular, 15040600
organic, 15040800
organic pharmaceutical, 09040701
physical, 15040900
soil, 01070100
specialized areas of, 16041100
surface, 15041000
wood, 01090307
Child development, 10060100
Children care and guidance of, 10060101
users, 14000200
Chinese, 12070000
Chiropractic, 09025400
adjusting techniques, 09025401
clinical applications, 09025402
roentgenology, 09025403
Choreography, dance, 19040100
Christian faith, sacred writings of, 18120200
Christianity, 18090200
Christology, 18140800
Church administration and leadership, 18160700
music, 03030207
state relations, 13030100
Cinematography, 05030302
Circuits, electromechanical, 08090100
Civilization, English language and, 12030300
Civil engineering and technology, 08070000
Civil liberties, 13030200
Classification of collections, 14040100
soil, 01070200
Clerical procedures, 04020102
Climatology, 15020100
Clinical psychology, 20050300
dentistry, 09090501
medical, 09090502
veterinary, 09090503
Clothing and textiles
history of, 10010800
sociopsychological aspects of, 10010900
Co-curricular activities, 07061200
Code optimization theory of, 06109500
systems, 05110100
Codes and controls, 02620300
Coding and testing, 06090100
Cold type, 11050201
Collection management, 14040000
systems, automated, 14041000
Collections cataloging of, 14040100
classification of, 14040200
Collections—Continued
credit and, 04030030
maintenance of, 14040300
preservation of, 14040400
registration and documentation of, 14040500
restoration of, 14040600
security of, 14040700
selection and acquisition of, 14040800
storage of, 14040900
Collective
bargaining, 04119401
behavior, 22060701
College and university users, 14091100
Color and rectal surgery, 09026005
Combinatorics, 16020500
Command languages, 06070100
Commandments, and ceremonies, drill, 17090000
Commercial
fisheries, 01080201
law, 13020000
music, 03030400
paper, law of, 13020100
Communication, 05000000
and dissemination, 09050100
business, 04060100
control devices, 06040200
development, 05110901
emergency medical, 09060200
film as, 05030000
graphic, 02040100
in architecture and environmental design, 02040000
information, 04060000
innovative, 05040000
instructional, 05110403
intercultural, 05110200
international, 05050000
interpersonal, 05110300
manual, 05120200
networking, 05020100
organizational, 05110400
pragmatic, 05110600
professional practices in, 05060000
satellite, 05020300
special, 05120000
speech, 05110000
systems
business, 04060200
information, 04060300
technical, 05040200
technology, 05020000
theory, 16110000
theory, rhetorical and, 05110800
Communications, military, 17070000
Communism, 22061002
Communist political systems, 22050303
Community and junior college education systems, 07030500
Community
development planning, 02090100
facilities and activities, 07090300
health education, 19050200
influences and natural resources, 10080201
medicine, 09070200
nutrition, 10030100
organization and development, 21040303
pharmacy, 09041101
property law, 13090400
psychology, 20080100
recreation, 21060200
relations, 07090200
service, 07080000
sociology, 22080100
television, 05130100
Comparative
economic systems, 22020900
education, 07010100
foreign policy, 22050502
law, 13080100
literature, 12020100
political systems, 22050300
psychology, 20020200
public administration, 21010600
religion, 18100200
sociology, 22060501
Compensation, 04110100
Compilers, 06080200
Complex analysis, 16040400
Components, interior, 04010100
Composition, music, 03030204
Computationality and decidability, 06100200
Computation, theory of, 06100000
Computational algorithms, 05060100
error analysis, 08060200
linguistics, 12010102
Computations, numerical, 05060000
Computer
applications to education, 07120100
architecture, 06030100
engineering and technology, 08080000
graphics, 05010200
hardware, 06040000
hardware systems, 06030000
literacy, 05110000
operation, 06020100
operations and operations control, 06020000
science and data processing, 06000000
applications in, 06010000
history of, 06110200
science, basic concepts of, 06110300
Concrete, 11010200
structures, 02050200
Conditioning
learning, 20040601
training and, 19010201
Conducting, music, 03030205
Conflict
management, 05110301
of laws, 13010200
Conservation and landscape, soil, 01070300
Constitutional and administrative history, 22040100
law, 13030000
Parasites, and insects, animal, 01040300
Distribution systems, drug, 09040200
Distribution, 16050200
Distributive education, 07060400
Documentation and documentation standards, 06090200
Documents, 14070500
contract, 02040500
Domestic relations law, 13160000
Drafting
architectural, 02040200
(mechanical), 11050301
of legal instruments, 13150400
Drama therapy, 03070300
Dramatic literature, 03040203
Dramatics, 19070502
Drawing, 11050300.
Drawings, construction, 02040501
Drill, commands, and ceremonies, 17090000
Driver
and safety education, 19060000
education programs, 07061300
Drivers, characteristics of, 19060200
Driving
alcohol, drugs, and, 19060100
behind-the-wheel, skills, 19050400
experience, simulation, 19060700
judgment, development of, 19060300
Drug
and drug abuse information, 09040300
distribution systems, 09040200
regulation and control, 09040400.
Drugs and other substances, 19050100
Drywall installation, 11010300
Dual sports, 19032105
Dynamics
statics and, 08110400
and, topological, 16061100

Early Christian and Rabbinic theology, 18130200
Early education of the handicapped, 07080100
Earth-space science, General, 15090000
Ecclesiastical law and policy, 18160900
Ecclesiology, 18140400
Ecology, 15030400
human, 09070400
Econometrics, 22021701
Economic
development and international trade, 01010000
forecasting, 22021702
geography, 22030200
growth and development, 22020700
history, 22040300
planning, 02080800
policy, 22020300
systems, comparative, 22020900
Economics, 22020000
agricultural, 01010000
business and industrial, 22021300

clothing, 10010800
consumer (home economics), 10020200
consumer (economics), 22020800
forest, 07080101
history of, 22020200
industry, and government, psychology in, 20090000
international, 22021400
labor and manpower, 22021100
marketing, 04100200
mathematics of, 16110300
of human resources, 22021000
of industrial change, 22021300
of natural resources, 22021200
principles and theory of, 22020400
quantitative, 22021700
real estate, 04130500
social, 22021500
urban and rural, 22021600
Editing for film, 05030304
Editorial processes, 05060100
Education, 07000000
comparative, 07010100
computer applications to, 07120100
censorship, 10020000
culture, 03010300
dance in, 03010300
drill in, 05030200
drivers, characteristics of, 19060200
problems of, 07010000
movement, 19010100
music in, 03030200

Nutrition (health education), 19050800
Nutrition (home economics), 10031200
parent, 10050102
philosophy of, 18070200
physical, 19010000
religious, 19050300
speech communication, 05110900
systems
adult-continuing, 07030900
community and junior college, 07030500
elementary, 07030200
higher, 07030700
middle school, 07030400
parochial, 07030800
pre-elementary, 07030100

secondary, 07030300.

vocational-technical, 07030600
television applications to, 07120500
theatre-in, 03040300
visual arts in, 03050300
Educational
administration, 07020000
business management, 07020200
development, 07100000
evaluation and research, 07110000
facilities and material, 07020300
finance, 07020400
leadership and management, 07020500
media and material production, 07120300

197
Educational—Continued

media and resource centers, 07120400
organization and governance, 07020600
personnel and staffing, 07020700
planning, 07020800
psychology, 20080400
societal and cultural considerations, 06110000
technology and media, 07120000
theory, 07010200

Electrical, 11010400
engineering and technology, 08090000
instrumentation, 06090600
power, 11030300
Electricity, 15070400
Electrification, agricultural, 01030200
Electrochemistry, 15040400
Electrolysis, 11070300
Electromagnetic theory, optics, and, 16100400
Electromechanical circuits, 08090100
controls, 08090200
Electronic information theory, 08090500
journalism, 05060300
Electronics, 08090300
Elementary education systems, 07030200
Elevators, 02060301
Embryology (basic health care sciences), 09010500
Embryology (biology), 15030500
Emergency extraction, 09050200
medical communication, 09050300
services, 08050000
Emotionally handicapped, 07060200
Employment discrimination laws, 13100100
relation, regulation of, 13100200
Endocrinology, 09021300
Endodontics, 09020400
Energy and power, agricultural, 08020100
conversion, 08200000
power and, 08090700
sources, power, and, 11030800
systems, alternative, 02060100
systems, environmental, 02060100
Engineering
air conditioning, heating, ventilation, and refrigeration, 08200100
and construction surveying, 08260200
and engineering technology, 08000000
and naval architecture, marine, 08180000
and technology aerospace and aeronautical, 08010000
agricultural, 08020000
architectural, 08030000
automotive, 08040000
chemical, 08060000
civil, 08070000
computer, 08080000
electrical, 08090000
environmental, 08100000
graphics and drafting for, 08110000
industrial, 08150000
instrumentation, 08160000
manufacturing, 08170000
materials, 08190000
mechanical, 08201111
metallurgical, 08210000
metals, 08190200
mining, 08220000
nuclear, 08230000
paper and pulp, 08190300
plastics, 08190400
textiles, 08190500
construction, 08070100
geological, 08140000
highway, 08070200
human, 09090000
mechanics, 08110000
motor vehicles and, 19060600
ocean, 08240000
Packaging, 08170400
petroleum, 08250000
power, 08200700
production, 08170400
reactor, 08200500
sanitation, 08070500
science, 08120000
structural, 08070700
technology, engineering, and, 08000000
tool, 08170500
transportation, 08070800
welding, 08210000

English
beginning reading in, 12030501
developmental reading in, 12030602
listening comprehension in, 12030602
literature in, by other categories, 12030706
reading readiness in, 12030803
remedial reading in, 12030804
English language and civilization, 12030300
and contemporary culture, 12030400
composition, 12031001
creative writing, 12031002
dialects of the, 12030100
history of the, 12030200
literature, 12030700
reading in the, 12030800
rhetoric and style, 12031003
speaking the, 12030900
structure and grammar, 12030500
technical writing, 12031004
the study and use of, 12030000
writing conventions and usage, 12031005
writing the, 12031000
Enseribles, 03030102
Entomology, 15032700
Fertility, soil, 01070400
Fiduciary trusts and annuities, 04070400
Field
  crops, production of, 01060401
  methodology, 22010801
  training, camps, and cruises, 17080000
Fields
  and waves, 08060400
  of social work, 21040400
File organization and manipulation, 06050400
Filing, 04020301
Film
  acting in, 05030301
  as art, 03020000
  as art, 03020000
  as communication, 05030000
  as communication, 05030000
  as communications, history of, 05030400
  directing for, 05030303
  editing for, 05030404
  graphics, 05030500
  in education, 05030200
  production, 05030305
  production, art, 03020300
  production, art, 03020300
  production management in, 05030700
  sound, 05030600
  studies, art, 03020200
  writing for, 05030800
Finance
  banking and, 04030000
  business and corporate, 04030100
  consumer, 04030200
  educational, 07020400
  international, 22021401
  international banking and, 04030500
  principles and theory of, 04031100
  public (business), 04030800
  public (economics), 22020800
  real estate, 04130600
Financial
  administration, 21010300
  institutions, 04030400
  services, 04100500
Financing, 04100302
Fine arts, 03050101
Finite
  differences and functional equations, 16040800
  probability, 16070600
  sets, 16020300
  Finnish, 12090000
Fire
  control and use, forest, 01090103
  protection, 21030200
First aid, 09050400
  and health education, military, 17110000
Fish
  policy, monetary and, 04030700
  theory and institutions, monetary and, 22020400
Fisheries, 01080000
  biology, 01090100
  commercial, 01080201
management, 01080200
  sport, 01080203
Flight operations, 11060100
Floriculture, 01050200
Fluid
  power, 08200400
  sciences, thermal and, 08200800
Fluid mechanics (engineering mechanics), 08110200
Fluid mechanics (mathematical sciences), 16100300
Food
  and nutrition, 01030000
  animal medicine, 08020100
  habits and patterns, 10030400
  preparation of, 10031400
  processing machinery, 08020400
  production technology, 10030500
  regulations, 10030600
  related equipment, 10030700
  selection, 10030800
  service, 10030900
  service, management, institutional, housekeeping and
  storage and preservation, 10031000
Food, experimental, 10030300
Foreign legal systems, 21080400
Foreign policy
  American, 22050501
  comparative, 22050502
  formulation, 22050503
Forensic
  dentistry, 09027301
  medicine, 09027302
  psychiatry, 09027303
Forensics, 09027300
  debate and, 06110602
Forest
  biology, 01090200
  economics, 01090100
  fire control and use, 01090103
  harvesting, 01090102
  land use planning, 01090104
  management and administration, 01090100
  measurements, 01090105
  products and wood technology, 01090300
  watershed management and hydrology, 01090108
Forestry, 01090000
Formal languages, 06100300
Foundations
  education, 07010000
  of probability, 16070600
  of psychology, 20010000
  of visual arts design, 03050103
  socioeconomic, 07010300
  soil mechanics and, 08070600
Foundation, 11020200
Fourier series and integrals, 16041000
French, 12100000
Fruits, production of, 01060402
Fuel separation and reprocessing, 08230100
Functional analysis, 16050000
Functional equations, finite differences and, 16040800
<table>
<thead>
<tr>
<th>Function</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>marketing, special</td>
<td>04100300</td>
</tr>
<tr>
<td>marketing, special</td>
<td>16040500</td>
</tr>
<tr>
<td>Futuristics, 22061202</td>
<td></td>
</tr>
<tr>
<td>Game theory, 16110400</td>
<td></td>
</tr>
<tr>
<td>Gastroenterology, 09021400</td>
<td></td>
</tr>
<tr>
<td>General, accounting, 04010800</td>
<td></td>
</tr>
<tr>
<td>botany, 15051600</td>
<td></td>
</tr>
<tr>
<td>chemistry, 15041000</td>
<td></td>
</tr>
<tr>
<td>dentistry, 09020200</td>
<td></td>
</tr>
<tr>
<td>earth-space science, 15090000</td>
<td></td>
</tr>
<tr>
<td>genetics, 15030700</td>
<td></td>
</tr>
<tr>
<td>marketing, 04100100</td>
<td></td>
</tr>
<tr>
<td>perspectives of architecture and environmental design,</td>
<td></td>
</tr>
<tr>
<td>02080901</td>
<td></td>
</tr>
<tr>
<td>perspectives of health care and health sciences, 09090000</td>
<td></td>
</tr>
<tr>
<td>physical sciences, 15080000</td>
<td></td>
</tr>
<tr>
<td>topology, 18060800</td>
<td></td>
</tr>
<tr>
<td>zoology, 15032300</td>
<td></td>
</tr>
<tr>
<td>Generalized report techniques, 06050600</td>
<td></td>
</tr>
<tr>
<td>Generative and transformational theories, 12010501</td>
<td></td>
</tr>
<tr>
<td>Genetics and reproduction, animal, 01040400</td>
<td></td>
</tr>
<tr>
<td>and reproduction, plant, 01060200</td>
<td></td>
</tr>
<tr>
<td>animal, 15032600</td>
<td></td>
</tr>
<tr>
<td>behavioral, 20020100</td>
<td></td>
</tr>
<tr>
<td>general, 15030700</td>
<td></td>
</tr>
<tr>
<td>medical, 09010700</td>
<td></td>
</tr>
<tr>
<td>plant, 15032000</td>
<td></td>
</tr>
<tr>
<td>Geodesy and geodetic surveying, 08260300</td>
<td></td>
</tr>
<tr>
<td>Geographic research methods and techniques, 22030400</td>
<td></td>
</tr>
<tr>
<td>Geography, 22030000</td>
<td></td>
</tr>
<tr>
<td>cultural, 22030100</td>
<td></td>
</tr>
<tr>
<td>economic, 22030200</td>
<td></td>
</tr>
<tr>
<td>historical, 22030300</td>
<td></td>
</tr>
<tr>
<td>political, 22030500</td>
<td></td>
</tr>
<tr>
<td>regional, 22030600</td>
<td></td>
</tr>
<tr>
<td>social, 22030102</td>
<td></td>
</tr>
<tr>
<td>soils, 22030504</td>
<td></td>
</tr>
<tr>
<td>transportation, 22030700</td>
<td></td>
</tr>
<tr>
<td>urban, 22030800</td>
<td></td>
</tr>
<tr>
<td>Geological engineering, 081400000</td>
<td></td>
</tr>
<tr>
<td>Geology, 15050000</td>
<td></td>
</tr>
<tr>
<td>Geometries, 16080400</td>
<td></td>
</tr>
<tr>
<td>Geometry</td>
<td></td>
</tr>
<tr>
<td>algebraic, 16030400</td>
<td></td>
</tr>
<tr>
<td>analytic, 16060300</td>
<td></td>
</tr>
<tr>
<td>differential, 16060600</td>
<td></td>
</tr>
<tr>
<td>plane and solid, 18060100</td>
<td></td>
</tr>
<tr>
<td>topology, 18060800</td>
<td></td>
</tr>
<tr>
<td>Geomorphology (geography), 22030502</td>
<td></td>
</tr>
<tr>
<td>Geomorphology (geology), 15050100</td>
<td></td>
</tr>
<tr>
<td>Geophysics, 16070500</td>
<td></td>
</tr>
<tr>
<td>and meteorology, mathematical, 16101000</td>
<td></td>
</tr>
<tr>
<td>Geriodontics, 09024100</td>
<td></td>
</tr>
<tr>
<td>German, 12110000</td>
<td></td>
</tr>
<tr>
<td>Gerontology (health care and health sciences), 09024200</td>
<td></td>
</tr>
<tr>
<td>Gerontology (home economics), 10060300</td>
<td></td>
</tr>
<tr>
<td>Gifted and talented, 07080300</td>
<td></td>
</tr>
<tr>
<td>Glass products, 11020300</td>
<td></td>
</tr>
<tr>
<td>Glazing, 11010700</td>
<td></td>
</tr>
<tr>
<td>Global analysis, 16061000</td>
<td></td>
</tr>
<tr>
<td>God, 18140100</td>
<td></td>
</tr>
<tr>
<td>Government</td>
<td></td>
</tr>
<tr>
<td>American, 22030100</td>
<td></td>
</tr>
<tr>
<td>contracts-law, 13020400</td>
<td></td>
</tr>
<tr>
<td>political science and, 22050000</td>
<td></td>
</tr>
<tr>
<td>Governmental regulations of business, 13050000</td>
<td></td>
</tr>
<tr>
<td>Governmental institutional accounting, 04010900</td>
<td></td>
</tr>
<tr>
<td>Grading, 02010201</td>
<td></td>
</tr>
<tr>
<td>Grammar, English language structure and, 12030500</td>
<td></td>
</tr>
<tr>
<td>Grammars, syntax, 12010306</td>
<td></td>
</tr>
<tr>
<td>Graphic arts, 11050000</td>
<td></td>
</tr>
<tr>
<td>communication, 02040100</td>
<td></td>
</tr>
<tr>
<td>design, 02010500</td>
<td></td>
</tr>
<tr>
<td>Graphics and drafting for engineering and technology, 08100000</td>
<td></td>
</tr>
<tr>
<td>computer, 08010200</td>
<td></td>
</tr>
<tr>
<td>film, 08030305</td>
<td></td>
</tr>
<tr>
<td>Graph theory, 16020400</td>
<td></td>
</tr>
<tr>
<td>Gravure, 11050501</td>
<td></td>
</tr>
<tr>
<td>Greek</td>
<td></td>
</tr>
<tr>
<td>classical, 12124100</td>
<td></td>
</tr>
<tr>
<td>modern, 12124200</td>
<td></td>
</tr>
<tr>
<td>New Testament, 12124300</td>
<td></td>
</tr>
<tr>
<td>Greenhouse and nursery, 01050300</td>
<td></td>
</tr>
<tr>
<td>Gross anatomy, 08010102</td>
<td></td>
</tr>
<tr>
<td>Ground control and air support, 08010500</td>
<td></td>
</tr>
<tr>
<td>operations, 11060200</td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td></td>
</tr>
<tr>
<td>games, contests, and self-testing activities, 18010300</td>
<td></td>
</tr>
<tr>
<td>performance, 05110603</td>
<td></td>
</tr>
<tr>
<td>processes, 20070200</td>
<td></td>
</tr>
<tr>
<td>processes and procedures, 07070600</td>
<td></td>
</tr>
<tr>
<td>security and social insurance, 04071000</td>
<td></td>
</tr>
<tr>
<td>theory, 16030800</td>
<td></td>
</tr>
<tr>
<td>work, 08010600</td>
<td></td>
</tr>
<tr>
<td>vehicle, 08010600</td>
<td></td>
</tr>
<tr>
<td>Gymnastics, 19031207</td>
<td></td>
</tr>
<tr>
<td>Gynecology, 09024300</td>
<td></td>
</tr>
<tr>
<td>Handicapped education of the handicapped, 07080100</td>
<td></td>
</tr>
<tr>
<td>emotionally handicapped, 07080200</td>
<td></td>
</tr>
<tr>
<td>gifted and talented, 07080300</td>
<td></td>
</tr>
</tbody>
</table>
Handicapped—Continued

Hearing handicapped, 07080400
learning disabled, 07080500
mentally, 07080600
multiple, 07080700
physically, 07080800
severely, 07080900
speech, 07081100
visually, 07081200
Hand surgery, 09026006
Hardware, computer, 09040000
Harvesting, forest, 01090102
Head and neck surgery, 09026007
Health
and care, animal, 01040500
devices, 11020400
law, safety and, 13100400
organizations, 09060300
planning, 09090100
science, clinical, 09020000
sciences, health care and, 09000000
Health care
anatomy, 09010100
and health sciences, 09000000
climatic practices in, 09090500
care, animal, 01040500
ethics and jurisprudence, 09090400
general perspectives on, 09090000
history of, 09080200
professional practices in, 09090300
assisting, 09025300
delivery systems, 09060200
nutrition, 09011500
physiology, 09011900
preventive, 09025900
Health education, 19050000
administration of, 19051300
and leisure, physical education, 19000000
community, 19050200
cancer, 19050300
curriculum, 19051400
equipment, 19050500
family, 19050600
instruction, 19051500
measurement and evaluation in, 19051700
mental, 19050700
personal, 19060800
supervision in, 19051600
Health education, 07080400
Hearing handicapped, 07080400
Heat
air conditioning, 02060101
and cooling maintenance and repair, 11040700
Heavy equipment, 11010800
operations, 11060300
Hebrew, 12150000
classical, 12134100
modern, 12134200
Hematology, 09010800
Heritage and affairs, maritime, 17150100
Herpetology, 15032800
Hides processing and leather, 11020500
Hierarchies, memory, 09040300
Higher education, 09070300
Highway engineering, 08070200
Hilbert spaces and operators, 16050100
Hinduism, 18090300
Histology (basic health care sciences), 09010900
Histology (biology), 15030800
Historic preservation planning, 02091900
Historical geography, 22030300
perspectives of psychology, 20010200
theology, 18130800
Histographty, 22040400
History
aerospace, 17010300
African, 22042800
American colonial, 22042100
American military, 17010200
ancient, 22045000
and appreciation, art, 03050200
and development of sociology, 22060602
and philosophy of social work, 21040200
Antarctic, 22042200
architectural, 09080100
army, 17010400
Asian, 22043800
British, 22042400
Oriental, 22042500
constitutional and administrative, 22046100
contemporary, 22045100
dance, 19040500
diplomatic, 22040200
economic, 22040300
European, 22042600
intellectual and cultural, 22040600
interior architectural, 02080103
journalism, 09060600
landscape architectural, 02080102
Latin American, 22042700
legal, 13000300
local and state, 22042800
medieval, 22045200
Mediterranean, 22042900
military, 17010800
minority group, 22047600
modern, 22045300
musicology and criticism, mus, 03030202
Native American, 22047100
naval, 17010500
Oceanian, 22043000
of clothing and textiles, 10010800
of computer science and data processing, 06110200
of economics, 22020200
of environments, 02060100
of film as communication, 05030400
of food and nutrition, 10031100
of health care and health sciences, 09090200
Maintenance and repair
- business machine, 11040400
- fabric, 11040600
- heating and cooling, 11040700
- instrument, 11040800
- radio-television, 11041100
- vehicle, 11041300

Mammology, 15031000

Management, 04090000
- administrative (business), 04090201
- administrative (public administration), 21010300
- and administration, forest, 01090100
- and administration, related arts, 03060400
- and hydrology, forest watershed, 01090106
- and leadership, military, 17030000
- and production, animal, 01040600
- and production, plant, 01060400
- and supervision of curriculum and instruction, 07040200
- applications, 04090200
- behavior, 20080302
- conflict, 05110301
- construction, 02030200
- educational business, 07020200
- fisheries, 01090200
- food service, 10070200
- home, 10040000
- hospital organization and, 09080100
- housekeeping, 10070100
- industrial, 04090202
- institutional, 04090203
- marketing, 04010040
- middle, 04090204
- of public facilities and buildings, 21020300
- of work, 10040300
- pharmacy practices and, 09041100
- place, 04100401
- post-construction, 02080300
- price, 04100402
- principles and theory of, 04090400
- product, 04100403
- production, 04090205
- promotion, 04100404
- property, 04130400
- records (business), 04020300
- records (computer science and data processing), 06020400
- resource, 10040200
- risk, 04070100
- science, 04120200
- small business, 04090206
- systems, data base, 06050200
- transportation, 04090207
- wildlife, 01120200

Managerial accounting, 04011100
Manifolds and cell complexes, 16050700
Man-machine systems, 20090601
Manual communication, 05120200
Manufacturing, 11020000
- and production, 04100702
- engineering and technology, 08170000
- lumber, 01090301
- paper, 01090302
- plywood, 01090303
- processes, (manufacturing engineering and technology), 0817000
- processes (mechanical engineering and technology), 08200500
- pulp, 01090304

Manuscripts, 14070100
Map reading, land navigation and, 17130200
Mapping, surveying and, 08260000
Marine architecture, 02020601
- biology, 15031100
- corps, 17140000
- corps, organization of the, 17020300
- equipment, 08180000
- propulsion, 08180300
- repair, 11040900

Maritime heritage and affairs, 17150000
- service, 11060400
Marketing, 04100000
- agricultural, 01101000
- economics, 04100200
- functions, 04100300
- general, 04100300
- integration, 04100703
- international, 04100701
- management, 04100400
- of products, 04100500
- of services, 04100600
- organization of, 04100700
- research, 04100303
Markov processes, 16070400
Marksmanship, weaponry and, 17100000
Marriage, 22060500
- counseling, 22060501
Masonry, 11011100
- unit, 02050400
Massage, 11070500
Mass transit, 02090903
- public, 21020101
Material production, 14070800
Materials
- construction, 02070100
- dental, 05020300
- engineering and technology, 08190000
- for libraries and museums, 14070000
- handling, 08170200
- handling, agricultural, 01020300
- of architecture and environmental design, 02070000
- of construction, 08070400
- plant, 02070200
Material and child health administration, 09070600
Mathematical and statistical biology, 16110700
- psychology, 16110800
- sociology, 16110900
- astronomy, astrophysics, and cosmology, 16100900
### Mathematics
- Geophysics and meteorology, 16101000
- Information theory, 16111001
- Logic, 16020200
- Programming (linear and nonlinear), 16110500
- Sciences, 16000000
- Software, 06060300
- Statistics, 16080300

### Actuarial Mathematics
- Applications of, 16110000
- Business, 16120100
- Consumer, 16120200
- Content of, 16010300
- General perspectives, 16010000
- History of, 16010200
- Of business and finance, 16110100
- Of economics, 16110300
- Philosophy of (mathematical sciences), 16010100
- Philosophy of (philosophy, religion, and theology), 18050500

### Matrix Numerical Analysis
- 16090101

### Maxillofacial Prosthetics
- 09026000

### Measurement and Evaluation
- In health education, 19051700
- In physical education, 19011000

### Measurements, Forest
- 01080105

### Mechanical Design
- 08200600
- Engineering and technology, 08200000
- Power, 11030400

### Mechanics
- 15080300
  - Agricultural, 01030400
  - Continuum, 08110100
  - Engineering, 08110000
  - Fluid (classical applied mathematics), 16100300
  - Fluid (engineering mechanics), 08110200
  - Of particles and systems, 16100100
  - Of solids, 16100200
  - Power, 11030700
  - Quantum, 16100600
  - Solid, 08110300
  - Statistical, 16100700

### Media
- Advertising, 05010200
- And material production, educational, 07120300
- And resource centers, educational, 07120400
- Educational technology and, 07120500
- Nonprint, 05040100
- Print, 05040000

### Mediation, Negotiation and
- 13150500

### Medical Assisting
- 09025302

### Clinical Techniques
- 09090502

### Genetics
- 09010700

### Hygiene
- 09011100

### Library Administration
- 14030804

### Professional Practices
- 09090302

### Secretarial
- 04020603

### Medicine
- Aerospace, 09027100
- Community, 09070200
- Family, 09027200
- Forensic, 09027302
- Industrial, 09027500
- Internal, 09021500
- Nuclear, 09027600
- Occupational, 09070800
- Oral diagnosis, 09020200
- Philosophy of, 18070500
- Physiatry, physical, 09025700
- Preventive, 09025800
- Sports, 19020600
- Tropical, 09027700

### Medieval History
- 22045200
- Latin, 12164200
- Theology, 18130300
- Western philosophy, 18040200

### Mediterranean History
- 22042900

### Memory Hierarchies
- 06040300

### Mental Health Administration
- 09070700
- Health education, 19050700
- Illness, physical and, 21040505
- Mentally handicapped, 07080600
- Metaethical theories, 18030400

### Metallurgical Engineering and Technology
- 08210200
- Metallurgy, 15080200
- Extraction, 08210200
- Physical, 08210400

### Metal Forming
- 08120000

### Metaphilosophy
- 18050300

### Metaphysics
- 18060000

### Meteorology
- Mathematical geophysics and meteorology, 16101000

### Methodology
- 07110200

### Microanatomy
- 09010103

### Microbiology
- Basic health care sciences, 09011400
- Biology, 15031100

### Microeconomic Theory
- 22020102

### Micrographics
- 04020302

### Microprocessors
- 06040400

### Military Aeronautics
- 17120100
- Astronautics, 17120200
- Communications, 17070000
- First aid and health education, 17110000
- History, 17010000
- Law, 17050000
- Management and leadership, 17030000
- Organization, 17020000
- Psychology, 20090300
sciences, 17000000
systems, international, 17060000
tactics, 17130100
Millwork, 11011200
Millwrighting, 11041000
Mineral
dressing, 08220100
exploration, 08220200
processing, 08220300
Mineralogy, 15050300
Mining engineering and technology, 08220000
Minority
enterprises, 04050100
group history, 22047000
users, 14060700
Missiology, 18160800
Model building, 02040400
Models, linear, 16080600
Modern
Greek, 12124200
Arabic, 12080500
history, 22030400
standard Arabic, 12054200
theology, 18130400
Western philosophy, 18043000
Molecular biology, 15031200
Monetary and fiscal
policy, 04030700
theory and institutions, 22020400
Money and banking, 04030800
Monte Carlo methods, 16070700
Moral and ethical
issues, 18150200
principles, 18150100
studies, 18150000
Morality, personal, 18030100
Morphology, 12010300
Mortgage brokerage, 04030900
Mortuary science, 11070600
Motivation, 20040400
Motor
bikes and bicycles, 19060500
learning, 19020401
vehicles and engineering, 19060600
Movement education, 19010100
Movements, social, 22061200
Moving walkways, 02060300
Multilibrary systems administration, 14030400
Multi-media production, 03060100
Multiphase
fields of social work, 21040406
handicapped, 07080700
Multivariate
analyzes, 16080700
data analyses, 16111100
Museology, 14020000
Museum administration, 14030500
Music, 03030000
applied instrumental and vocal, 03030101
church, 03030207
commercial, 03030400
composition, 03030204
conducting, 03030205
history musicology and criticism, 03030202
in education, 03030300
library administration, 14030805
literature, 03030201
sacred, 18160600
theology, 18130400
studio and performance, 03030100
theory, 03030203
therapeutic, 03070400
Musical instrument design, maintenance, and repair, 08030500
Mycology (basic health care sciences), 09011602
Mycology (biology), 15031800
Mysticism, 18140300
National
income, 22020500
security and defense, 17040000
Native
American, 12170000
American history, 22047100
Natural resource planning, 02050400
Natural resources
and environment, public policy and, 21011000
community influences, 10060201
economics, 22021200
renewable, 01140000
Natural science, philosophy of, 18020200
Naval
history, 17010500
operations, navigation and, 17150200
ship systems, 17150400
Navigation, 08180200
and naval operations, 17150200
Navy, 17150000
organization of the, 17020400
Needle trades, 11020700
Negligence, 13130200
Negotiable instruments, 04031000
Negotiation and mediation, 13150600
Negotiations, international, 05050100
Nephrology, 09021000
Networking, 06030200
communication, 05030100
Neurology, 09021700
Neuromuscular
anatomy, 19020200
physiology, 19020301
Neuropathology, 09011702
Neuropsychology, 20020401
New Testament Greek, 12124300
News reporting and writing, 05060800
Noise pollution control, 08130200
Nonedible water life, 01080200
Nonparametric inference, 16080500
Nonprint materials, 14070900
media, 05040100
Nonprofit public corporation, 04050301
Norwegian, 12180000
Nuclear chemistry and radiochemistry, 16040700
engineering and technology, 08230000
Instrumentation, 08230200
medicine, 09027600
pharmacy, 09040600
science, 15080400
Number theory, 16030300
Numerical analysis, 16090100
and approximation theory, 16090000
matrix, 16090101
computations, 06060000
integration, 16090102
Nursery, greenhouse and, 01050300
Nursing, 09025500
assisting, 09025303
primary, 09025601
secondary, 09025602
tertiary, 09025603
Nutrition, 10031300
animal, 01040700
dietetics and, 09030200
education (health education), 19050800
education (home economics), 10031200
food and, 10030000
health care, 09011500
plant, 01060500
Obstetrics, 09024400
Occlusion, 09026500
Occupational medicine, 09070800
safety services, industrial and, 21030300
therapy, 09030300
Ocean engineering, 08240000
Oceanian history, 22043000
Oceanography, 22030500
Oceanology, 15060000
Ocular anatomy, 09011004
pathology, 09011703
Office machines, 04020200
occupations, 07060700
services, administrative and, 04020000
Offset lithography, 01105050
Oncology, 09026010
Ontology, 16050100
Open space planning, 02090500
Operating room technology, 09026010
Operating systems, 06080600
Operation computer, 06020100
unit record, 06020500
Operations and operations control. computer, 06020000
research (business), 04120300
research (industrial engineering and technology), 08150300
Operative dentistry, 09020600
Operators, Hilbert spaces and, 16050100
Ophthalmology, 09021000
Optics, 15070600
and electromagnetic theory, 16100400
Optimal control, control theory and, 16110600
Optometry, 09021900
Oral biology, 09011600
communication skills, 05110902
diagnosis and medicine, 09020700
interpretation, 05110500
pathology, 09011704
surgery, 09026011
tradition, 09110504
Ordinary differential equations, 16040600
Organic chemistry, 15040800
pharmaceutical chemistry, 09040701
Organization and administration of law enforcement, 21030403
of correctional services, 21030101
of counseling and guidance, 07070200
of social work, 21040202
and change, social, 22051200
and governance, educational, 07020600
industrial, 22021301
military, 17020000
of marketing, 04100700
of social welfare services, 21050103
of the air force, 17020100
of the army, 17020200
of the marine corps, 17020300
of the navy, 17020400
principles and theory of, 04050500
Oriental philosophy, 18040500
Ornamental horticulture, 01050000
Ornithology, 15033100
Orthodontics, 09020800
Orthodoxy, 18090201
Orthopedics, 09022000
Orthotics, 09030400
Osteopathy, 09025600
Otorhinolaryngology, 09022100
Oves, 09021000
Outdoor recreation, 01100000
Ovine animal medicine, 09060110
Ownership private, 04050200
public, 04050300
Packaging engineering, 08170300
Pain control, programmatic, 09021000
Painting and decorating, 11011300
Paleontology, 15050400
Paper and fabrication, 11020800
and pulp engineering and technology, 08190300
manufacturing, 01090302
Parametric inference, 16080400
Parasitology (basic health care sciences), 09011403
Parasitology (biology), 15031300
Parent education, 10060102
Parliamentary procedure, 06110604
Parochial education systems, 07030800
Parole and probation, 21030103
sentencing, probation, and, 13040400
Partial differential equations, 16040700
Particle physics, 16100102
and rigid bodies, kinematics of, 16100102
and systems, mechanics of, 16100100
Partnership, 04050202
Partnerships, law of, 13070400
Passenger safety, 16661002
Pastoral care and counseling, 18160200
studies, 18160000
Pathogens and prevention, plant, 01060600
Pathology, 09011700
audiology and speech, 09030100
ocular, 09011704
oral, 09011704
plant, 15032100
veterinary, 09040200
Patient care facilities, 09060102
Pattern recognition, 06010400
Payroll
accounting, 04011200
recordkeeping, 04011201
Pedestrian safety, 16661002
Pediatric surgery, 09026012
Pediatrics, 09024600
Pedodontics and pediatric dentistry, 09024600
Penology, 21030104
Perceptual motor development, 19020402
Performance measurement and evaluation, 06080700
physiology, 19020300
Periodontics, Periodontology, and, 09020900
Periodontology and periodontics, 09020900
Peripheral devices, 06040500
Personnel and family finance, 10020600
development, 10060400
health education, 19050900
insurance, 04072000
morality, 18050100
service, 11070000
services, 04100605
Personality
psychology of, 20050900
studies, religion of, 18110200
Personnel and labor relations in government, 21010302
and staffing, educational, 07020700
management and administration, 04110000
psychology, 20090200
Perspectives on law, 13080000
Persuasion, 05110605
Petroleum engineering, 08250000
exploration, 08250100
refining, 08250200
Petrology, 15060500
Pharmaceutical chemistry, 09040700
science, 09040000
Pharmacology, 09040800
Pharmacognosy, 09040900
Pharmacokinetics, 09041000
Pharmacy, 09011800
Philosophical anthropology, 18060500
foundations, 18060000
methodology, logic and, 18050000
Philosophy
African, 18040600
ancient Western, 18040100
contemporary western, 18040400
dance, 18040600
history and traditions of, 18040000
in literature, 18010400
Jewish, 18040700
medieval Western, 18040200
modern Western, 18040300
of art, 18060900
of action, 18060600
of art, 18010300
of creativity, 18010200
of culture, 18010300
of education, 18070200
of history, 18070300
of language, 18060400
of law, 18070400
of leisure studies, 19070700
of life, 18060700
of mathematics (mathematical sciences), 16010100
of mathematics (philosophy, theology, and religion), 18050500
of medicine, 18070500
of mind, 18080900
of natural science, 18020200
of physical education, 19010500
of psychology, 18020100
of religion, 18060900
of science, 18020200
of society, 18070600
of technology, 18070700
of the arts, 18060800
of time, 18050900
of the humanities, 18060900
of the sciences, 18020200
of the social sciences, 18020200
of truth, 18070800
of well-being, 18070900
of work, 18071000
of world history, 18070100
of the word, 18070200
Philosophy—Continued

1. of social and political theories, 18070100
2. of social science, 18020300
3. of social welfare, 21040102
4. Oriental, 18040500
5. religion, and theology, 18000000
6. social and political, 18070000
7. sport, 18030500

Phonetics, 12010303

Phonological and phonetic aspects of speech and hearing, 05110002

Phonology, 12010304

Photogrammetry and topographic surveying, 08250400

Photographic journalism, 05060900

Photography, 11050400

Physiology, 15030900

Physiatry, physical medicine, 09025700

Physical activities, recreational sports and, 19070504

and mental illness, 21040505

anthropology, 22010600

aspects of speech and hearing, 05110003

chemistry, 15040900

education, 19010000

administration, 19010600

curriculum, 19010700

health education, and leisure, 19006000

history of, 19010400

instruction, 19010800

measurement and evaluation in, 19011000

philosophy of, 19010500

supervision, 19010900

fitness, 19051000

generation, 22030500

chemistry, 09041200

properties of wood, 01090305

sciences, life sciences and, 15000000

therapy, 09030500

thermodynamics, 15071000

Physically handicapped, 07080900

Physics, 15070000

particle, 15070700

quantum, 15070800

soil, 01070500

solid state, 15070900

Physiological

hygiene, 08070400

psychology, 22020400

Physiology

animal anatomy and, 01040100

cardiorespiratory, 19020302

health care, 09011900

neuromuscular, 19020301

performance, 19020300

plant, 15032200

plant anatomy and, 01060100

Place management, 04100401

Plane and solid geometry, 16060100

Planning, 02090000

and control, production, 08150400

and interior design, home, 10050300

community development, 02080100

design and, 09410100

economic, 02090800

educational, 07060900

environmental, 02091200

estate, 04070300

health, 09090100

historic preservation, 02091300

history, 02080104

housing, 02060200

land use, 02090300

open space, 02090500

recruitment resources, 02090600

social, 02080700

transportation, 02090900

urban, regional and other, 02091000

water resources, 02091100

Plant

anatomy and physiology, 01060100

genetics, 15032000

genetics and reproduction, 01060200

insects and control, 01060300

management and production, 01060400

materials, 02070200

nutrition, 01060500

orchard products selection and evaluation, 01060700

pathogens and prevention, 01060600

pathology, 15032100

physiology, 15032200

sciences, 01050000

Planning, 02010202

Plastering and lathing, 11011400

Plastic surgery, 09026013

Plastics, 11020900

engineering and technology, 08190400

Playwriting, 03040103

Plumbing (architecture and environmental design), 02060103

Plumbing (construction), 11011500

Plywood manufacturing, 01090303

Pneumatology, 18140800

Podiatry, 09022200

Police

management, 21030404

problems, 21030405

procedures, and tactics, 21030406

Policy sciences, 21011200

Political

behavior, 22050800

government, 22030101

history, 22040700

ideology, 22051004

parties and public opinion, 22050700

science and government, 22050000

socialization, 22050500

structures, 22050900

systems

African, 22060301
Production—Continued

textile (home economics), 10011100
textile (manufacturing), 11021200

Products

agriculture, 04100501
consumer, 04100502
industrial, 04100503
liability, 13130400
marketing of, 04100500
selection and evaluation, animal or animal, 01040200
selection and evaluation, plant or plant, 01050700

Professional development, 07070800

Professional practices

dental, 09090301
in architecture and environmental design, 02080200
in communication, 05080000
in health care and health sciences, 09090300
in public administration, 21010900
in social work, 21040204
medical, 09090302
veterinary, 09090303

Professional responsibility, 13140100

Professions, ethics of, 18030300

Profit in public corporation, 04050302

Program

correctness, proof of, 06100400
evaluation, 20090700

Programmed learning, PSI, 20040603

Programming

design, 02020100
languages, 08070000
(linear and nonlinear), mathematical, 16110500
radio, 05100300
systems, 06080000
techniques, 06090306

Programmatic pain control, 06021000

Promotion management, 04100404

Proof of program correctness, 06100400

Propaganda, international, 05080000

Property

insurance, 04070000
law, 13090000
community, 13090400
intellectual, 13090500
transfer of, 13090200
management, 04130400

Proprietorship, 04050203

Propulsion, marine, 08190300

Prosthetics, 09030600
maxillo-facial, 09025008

Prosthodontics, 09021100

Protective services, 21030500

Protestantism, 18090200

Psychiatry, 09022400
forensic, 09027303

Psycholinguistics (linguistics), 12010800
Psycholinguistics (psychology), 20040500

Psychological assessment, 20060200
programs, 20080000

sociology, 22060700
testing, 20080300

Psychology, 20000000
abnormal, 20050100
architectural, 20030100
clinical, 20050300
community, 20080100
consulting, 20080300
consumer, 20080500
counseling, 20030200
derelational, 20050400
differential, 20060100
educational, 20080400
environmental, 20030000
ethological principles of, 20010100
evaluation of behavior, comparative, 20020200
expedient, 20040600
foundations of, 20010000
historical perspectives of, 20010200
industrial, 20090100
in economics, industry, and government, 20090200
mathematical and statistical, 16110600
military, 20090300
of adjustment, 20050500
of age groupings, 20050600
of death, 20050600
of disadvantaged persons, 20050700
of identifiable sets, 20050800
of learning, 20040600
of personality, 20050900
of religion, 18090300
of sensory processes and perception, 20040700
of the individual, 20050000
of thinking and problem solving, 20040800
organizational (in economics, industry, and government), 20090400
organizational (social), 20070500
personnel, 20090200
philosophy of, 18020100
physiological, 20020400
school, 20080500
social, 20070000
sport, 19030600
systems of, 20010300
theories in, 20010400

Psychometrics, 20060000
Psychomotor behavior, 19020400

Psychopharmacology, 20020301

Psychophysiology
and biofeedback, 20020403
sensory, 20020402

Psychotherapeutic method, 20050304

Public

address, 05110700
administration, 21010000
administration, professional practices in, 21010000
administration and social services, 21000000
and private social work practice, 2104205
buildings and lands, administration of, 21010301
education services and functions, 14080900
facilities and buildings, management of, 21020300
finance (business), 04031200
finance (finance), 22020600
health, 03070000
health administration, 03070000
health, veterinary, 03080000
international law, 13061000
library administration, 14030600
mass transit, 21020103
opinion, political parties and, 22050700
ownership, 03050300
policy analysis and evaluation, 21011300
and agriculture, 01010800
and natural resources and environment, 21011100
and science and technology, 21011000
film and, 05030100
radio and, 05100100
television and, 05130200
ports, harbors, and terminals, 21020103
recreation, 21050000
recreation administration, 21050300
relations, 05090000
sanitation, 21020200
streets and highways, 21020102
transportation, 21020100
utilities, 21020400
welfare law, 13190000
work, 21020000
Pulp manufacturing, 01090304
Quality assurance, 08050500
Quality control, reliability and, 16081200
Quantitative and nonquantitative analysis in public administration, 21011400
economics, 22021700
methods (business), 04120000
methods (sociology), 22060900
Quantum mechanics, 16100600
physics, 16070800

Radiation control, 08230300
damage, 08230400
therapy, 08230700
Radio, 05100000
and public policy, 05100100
production, 05100200
programming, 05100300
writing for, 05100400
Radio assay, 09012000
Radiobiology (basic health care science), 09012100
Radiobiology (biology), 15031400
Radiochemistry, nuclear chemistry and, 15040700
Radiology, 09020500
Radio-television maintenance and repair, 11041100
Ranch management, farm and, 01010700
Random access methods, sequential and, 08050700
Range
administration, 01110100
biology, 01110200
science, 01110300
Reactor
engineering, 08230500
operation, 08230600
Reading
and language arts programs, 07061000
in the English language, 12030800
readiness in English, 12030803
speech, 05120300
Real analysis, 16040200
Real estate, 04130000
economics, 04310600
finance, 04310600
financing, law of, 13090500
investments, 04130700
law, 04130800
practice, 04130900
principles of, 04130300
services, 04100600
Recall, retention and, 20040602
Reclamation, land, 01130000
Recognition, pattern, 06010400
Recordkeeping, 04011300
payroll, 04011201
Records management (business), 04020300
Records management (computer science and data processing), 06020400
Recreation
activities, 19070500
and sports area design, 02020602
outdoor, 01100000
planning, leisure and, 19070300
resources planning, 02090600
therapy, 09308090
Recreational environments, 21050100
sports and physical activities, 19070504
vehicle operations, 11060500
Recruitment selection and separation, 04110500
Reference and retrieval, 14080400
Refining, petroleum, 06250200
Regional
archaeology, 22010103
environment, specialized, 22030601
geography, 22030600
land masses, specialized, 22030602
political states, specialized, 22030603
Registration and documentation of collections, 14040500
Regulation
and control, drug, 09040400
of employment relations, 13100000
of the environment, 13110000
School
library and media center administration, 14030700
psychology, 20080500
Science
actuarial, 04070100
engineering, 08120000
history of, 22040500
library, 14010000
management, 04120200
mortuary, 11070600
nuclear, 15080400
range, 01110000
religion and, 18110100
speech and hearing, 05110000
Science and technology
library administration, 14030806
Public policy and, 21611000
Sciences
animal, 01040000
atmospheric, 15020000
basic health care, 09010000
military, 17000000
pharmaceutical, 09040000
plant, 01060000
soil, 01070000
veterinary medical, 09080000
Seamanship, 17150300
Search techniques, information retrieval and, 06050600
Secondary
education systems, 07030300
nursing, 09025502
Secretarial
bilingual, 04020500
legal, 04020602
medical, 04020700
procedures, 04020103
services, specialized, 04020600
technical, 04020800
Secured transactions, law of, 13020700
Securities
investments and, 04030600
regulation law, 13050300
Security
and defense, national, 17040000
data base, 06050300
of collections, 14040700
systems, 06080800
Seismology, 15050600
Selection and acquisition of collections, 14040800
Self-defense, 19031203
Selling promotion and advertising, 04100300
Semantics, 12010305
Senior citizen users, 14090800
Sensory
processes and perception, psychology of, 26040700
psychophysiology, 20020402
Sentencing, probation, and parole, 13040400
Separation of powers, 13030400
Sequential and random access methods, 06050700
Serology, 08012200
Service
food, 10030900
personal, 11070000
Services
advisory, 14080100
and functions, library and museum, 14080000
and functions, public education, 14080300
business, 04100600
correctional, 21030100
custodial, 11040500
emergency, 08050000
financial, 04100602
hospitality, 04100603
insurance, 04100604
marketing of, 04100600
personal, 04100605
protective, 21030500
real estate, 04100606
Sets
and foundations, logic, 16020000
finite, 16020300
infinite, 16020600
intuitive logic and, 16020100
Severely handicapped, 07080900
Sewage control, water and, 08130400
Sex education, 19051200
Sheetmetal, 11011700
Ship
structures, 08180400
systems, naval, 17150400
Shorthand and transcription, 04020500
Silvics, 01090202
Silviculture, 01090203
Simulation
driving experience, 19060700
languages, 16070600
process control and, 08060200
Site
analysis, 02020300
surveying, 11011800
Skills, oral communication, 05110902
Skin care, esthetic, 11070400
Slavic languages, 12220000
Small
business management, 04090206
engine repair, 11041200
groups, 22061504
Social
action, religious, 18160400
and political philosophy, 18070900
and political theories, philosophy of, 18070100
anthropology, 22010700
case work, 21040301
conflict, theory of, 22060603
crime and deviance, 22061000
economics, 22021500
environments and human behavior, 21040500
ethics, 18030200
government, 22030102
geography, 22030102
group work, 21040302
Sports, 19030000
activities, 19031200
administration of, 19030800
evaluation of, 19030900
history, 19030300
in community agencies, 19030200
in schools and colleges, 19030100
instruction and coaching of, 19031100
international and comparative, 19030700
philosophy, 19030500
psychology, 19030600
sociology, 19030400
supervision of, 19031000
team, 19031202
Sports
adventure and challenge, 19031206
dual, 19031205
individual, 19031204
medical, 19030500
Staff development, 0700200
Standardization and grading, 04100306
Standards, fair labor, 13100200
State and local government, 22051100
governments, law of, 13180000
taxation laws, 13120300
Statics
and dynamics, 0810400
in rigid bodies, 1610001
Statistical
biology, mathematical and, 16110700
mechanics, 16100700
psychology, mathematical and, 16110800
sociology, mathematical and, 16110900
Statistics, 16080000
applied, 16080200
descriptive, 16080100
mathematical, 16080300
Statutory analysis, case and, 13150100
Steel structures, 02050100
Stellar astronomy, 15010300
Stencil, 11050504
Stochastic processes, 16070500
Storage, 04100307
agricultural, 01030600
of collections, 14040900
Storm drainage, 02060104
Story telling, 14080500
Streets and highways, public, 21020102
Strict liability, 13130300
Structural
and descriptive theories, 12010502
gineering, 08070700
technology, 02050000
Structures
air frame, 08010400
algebraic, 16030500
combined, 02060500
concrete, 02050200
farm, 08020500
political, 22050900
ship, 08180400
steel, 02050100
temporary, 02020603
wood, 02050300
Student
patrol, 19060800
personnel administration, 07020900
Studies
dance, 03010200
industry, 22021302
music, 03030200
related arts, 03060200
theatre, 03040200
visual arts, 03050200
Studio and performance
dance, 03040100
music, 03030100
theatre arts, 03040100
Studio and production
related arts, 03060100
visual arts, 03050100
Supervision, 04110800
and regulation of banking and finance, 04031400
in health education, 19051600
of sport, 19031600
physical education, 19010900
Surface chemistry, 15041000
Surgery, 09026000
abdominal, 09026001
cardiocathartic, 09026004
colon and rectal, 09026005
head, 09026006
head and neck, 09026007
neurological, 09026009
oral, 09026011
pediatric, 09026012
plastic, 09026013
 thoracic, 09026014
urologic, 09026015
Survey techniques, 20060400
Surveying
and mapping, 08260000
and subdivision, land, 08260100
engineering and construction, 08260200
goedity and geodesic, 08260300
photogrammetry and topographic, 08260400
remote sensing and environmental, 08260500
site, 11011800
Surveys, sample, 16080900
Swedish, 12260000
Symbolic
and algebraic manipulation languages, 06070700
logic, 18050200
Syntax, grammars, 12010306
System, United States postal, 04060301
Systematic theology, 18140000
Systematics, taxonomy and, 15031500
Systems
  accounting, 04010200
  analysis, 06090400
  code, 05110100
  computer hardware, 06030000
  design, 06090500
  design, instructional, 07120200
  environmental, 11010500
  of education, 07036000
  of psychology, 20010300
  operating, 060811600
  Private delivery, 04680302
  production, 11021100
  programing, 06080000
  security, 06080800
  virtual memory, 06080900

Tactics, military, 17130100
Tax
  accounting, 04011400
  law, Federal estate and gift, 13120100
  law, Federal income, 13120200
Taxation
  law, 13120000
  laws, State and local, 13120300
Taxonomy and systematics, 15031500
Teacher
  methods, 07040400
  training, 07040300
  Team sport, 19031202
Technical
  communication, 05040200
  education, 07060800
  secretarial, 04020604
  theatre and design, 03040104
Technology
  aerospace and aeronautical engineering and, 08010000
  agricultural, 01030000
  agricultural engineering and, 08020000
  automotive engineering and, 08040000
  bioengineering and, 08050000
  chemical engineering and, 08060000
  civil engineering and, 08070000
  communication, 05020000
  computer engineering and, 08080000
  construction, 02030100
  design and planning, 02020000
  electrical engineering and, 08090000
  engineering and engineering, 08000000
  environmental, 02060000
  environmental engineering and, 08130000
  food production, 10030500
  graphics and drafting for engineering and, 08100000
  industrial arts, crafts and, 11000000
  industrial engineering, 08150000
  instrumentation engineering and, 08160000
  law enforcement, 21030402
  manufacturing engineering and, 08170000
  materials engineering and, 08190000
  mechanical engineering and, 08200000
  metallurgical engineering and, 08210000
  mining engineering and, 08220000
  nuclear engineering and, 08230000
  operating room, 09020100
  print publication, 05020200
  structural, 02050000
Telecommunications systems, 04060303
Television, 05130000
  and public policy, 05130200
  applications to education, 07120500
  community, 05130100
  writing for, 05130300
Temporary structures, 02020603
Tertiary nursing, 09025603
Testing
  coding and, 06090100
  psychological, 20060300
Textile
  design, 10011000
  fibers, 10011101
  finishes, 10011102
  maintenance, clothing and, 10010100
  merchandising, clothing and, 10010200
  production (home economics), 10011100
  production (manufacturing), 11021200
  selection, clothing and, 10010300
Textiles
  clothing and, 10010000
  engineering and technology, 08190500
Texture, soil, 01070600
Theatre
  arts, 03040000
  arts studio and performance, 03040100
  history, 03040202
  in education, 03040300
  music, 03060102
  studies, 03040200
  theory and criticism, 03040201
Theological
  anthropology, 10140200
  library administration, 14030607
Theology
  ancient Near East, 18130100
  early Christian and Rabbinic, 18130200
  historical, 18130000
  medieval, 18130300
  modern, 18130400
  sacramental, 18140500
  systematic, 18140000
Theories
  generative and transformational, 12010501
  in psychology, 20010400
  Latinate, traditional grammatical, 12010503
  linguistic, 12010500
  literary, 12020500
  metaethical, 18030400
<table>
<thead>
<tr>
<th>Classification</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topological algebras</td>
<td>16060500</td>
</tr>
<tr>
<td>dynamics</td>
<td>16061100</td>
</tr>
<tr>
<td>groups</td>
<td>16050400</td>
</tr>
<tr>
<td>vector spaces</td>
<td>16050200</td>
</tr>
<tr>
<td>Topology</td>
<td>16060200</td>
</tr>
<tr>
<td>algebraic</td>
<td>16060200</td>
</tr>
<tr>
<td>general</td>
<td>16060800</td>
</tr>
<tr>
<td>geometry and</td>
<td>16060000</td>
</tr>
<tr>
<td>Tort, reputational</td>
<td>13130600</td>
</tr>
<tr>
<td>Torts</td>
<td>13130000</td>
</tr>
<tr>
<td>intentional</td>
<td>13130100</td>
</tr>
<tr>
<td>Toxicology</td>
<td>09012000</td>
</tr>
<tr>
<td>Traffic</td>
<td>19060900</td>
</tr>
<tr>
<td>accidents</td>
<td>19060900</td>
</tr>
<tr>
<td>citizenship</td>
<td>19061000</td>
</tr>
<tr>
<td>laws and ordinances</td>
<td>19061100</td>
</tr>
<tr>
<td>Training</td>
<td>19010201</td>
</tr>
<tr>
<td>and conditioning</td>
<td>19010201</td>
</tr>
<tr>
<td>and development</td>
<td>04110700</td>
</tr>
<tr>
<td>athletic</td>
<td>19020200</td>
</tr>
<tr>
<td>teacher</td>
<td>07040300</td>
</tr>
<tr>
<td>Transcription, shorthand and</td>
<td>04020500</td>
</tr>
<tr>
<td>Transfer of property law</td>
<td>13090200</td>
</tr>
<tr>
<td>Transforms, integral equations and</td>
<td>16041100</td>
</tr>
<tr>
<td>Transport phenomena</td>
<td>08080500</td>
</tr>
<tr>
<td>Transportation (business)</td>
<td>04100308</td>
</tr>
<tr>
<td>Transportation (industrial arts, trades, and technology)</td>
<td>11060000</td>
</tr>
<tr>
<td>Transportation</td>
<td>16060200</td>
</tr>
<tr>
<td>agricultural</td>
<td>01030700</td>
</tr>
<tr>
<td>engineering</td>
<td>08070800</td>
</tr>
<tr>
<td>geography</td>
<td>22030700</td>
</tr>
<tr>
<td>management</td>
<td>04090207</td>
</tr>
<tr>
<td>planning</td>
<td>02090900</td>
</tr>
<tr>
<td>public</td>
<td>22010000</td>
</tr>
<tr>
<td>systems</td>
<td>02060300</td>
</tr>
<tr>
<td>Tree improvement</td>
<td>01090204</td>
</tr>
<tr>
<td>Tribal religions</td>
<td>18090600</td>
</tr>
<tr>
<td>Trigonometry</td>
<td>16060200</td>
</tr>
<tr>
<td>Tropical medicine</td>
<td>09080700</td>
</tr>
<tr>
<td>Trusts and trust administration</td>
<td>13090800</td>
</tr>
<tr>
<td>Turf grass</td>
<td>01090200</td>
</tr>
<tr>
<td>Type</td>
<td>11050201</td>
</tr>
<tr>
<td>cold</td>
<td>11050201</td>
</tr>
<tr>
<td>hot</td>
<td>11050202</td>
</tr>
<tr>
<td>Typewriting</td>
<td>04020500</td>
</tr>
<tr>
<td>Underwater techniques</td>
<td>08180500</td>
</tr>
<tr>
<td>Unfair trade</td>
<td>13130500</td>
</tr>
<tr>
<td>Unionization and collective bargaining</td>
<td>13100500</td>
</tr>
<tr>
<td>Unit</td>
<td>02090200</td>
</tr>
<tr>
<td>masonry</td>
<td>02090400</td>
</tr>
<tr>
<td>operations</td>
<td>08060400</td>
</tr>
</tbody>
</table>
Unit—Continued
record equipment, 06040600
record operation, 06020500
United States
history, 22043200
postal system, 04063001
Universal algebra, 16030700
Urban
and rural economics, 22021600
design, 02010400
geography, 22030800
regional and other planning, 02091000
sociology, 22061400
Urologic surgery, 0026015
Urology, 09022500
User
groups, library and museum, 14090000
oriented mathematics, 16120000
Users
adolescent, 14090300
adult, 14090400
children, 14090200
college and university, 14091100
community and junior college, 14091000
disadvantaged, 14090600
handicapped, 14090500
minority, 14090700
preschool, 14091200
research institute, 14091200
senior citizen, 14090800
vocational-technical institute, 14090900
Valuation, appraisal and, 04130100
Value criteria, theories of, 18050600
Variations, calculus of, 16041200
Vector spaces, topological, 16050200
Vegetables, production of, 01060404
Vehicle
guidance, 08010600
maintenance and repair, 11041300
specialties repair, 11041303
Vehicular, 02090901
Veterinary
animal medicine, 09080100
assisting, 09080304
clinical techniques, 09090503
medical sciences, 09080000
pathology, 09080200
preventive medicine, 09080503
professional practices, 09080403
preservation, 09080300
public health, 09080300
theriogenology, 09080400
Video and visual equipment, 14050200
Virology, 09011404
Virtual memory systems, 06060900
Visual arts, 03050000
design, application of, 03050100
design, foundations of, 03050103
in education, 03050300
studies, 03050200
studied and production, 03050100
Visually handicapped, 07081200
Vocational-technical
education systems, 07030600
institute users, 14090900
Walkways, moving, 02060303
Warfare, history of, 17010100
Waste control
agricultural, 01090800
solid, 08130000
Water
and sewage control, 08130400
life, nonedible, 01050000
resources planning, 02091100
resources, soil and, 08020500
Waves, fields and, 08090400
Weaponry and marksmanship, 17100000
Welding, 11011900
engineering, 08210100
Welfare and safety, 04110600
Western European political systems, 22050306
Wholesaling, 04100705
Wildlife, 01120000
biology, 01120100
management, 01120200
Wills and estates, law of, 13090700
Women
history of, 22047200
studies, 22061603
Wood
anatomy, 01090306
chemistry, 01090307
identification, 01090308
physical properties of, 01090305
preservation, 01090309
products, 11021400
structures, 02050300
technology, forest products and, 01090300
Word processing, 04020800
Work
environments, 20090802
management of, 10040300
measurement, 08150600
performance, 20090803
simplification, 10040400
World
affairs, contemporary, 22050400
history, 22043300
Worship and liturgy, 18160500
Writing
business report, 04060400
critical and persuasive, 05060200
evaluative, 05060400
feature and indepth, 05060600