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Taxonomy Programs Manual

California Community Colleges Chancellor's Office | Sonya Christian, PhD., Chancellor

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CALIFORNIA COMMUNITY COLLEGES
2023 TAXONOMY OF PROGRAMS MANUAL

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- **The current TOP-CIP crosswalk can currently be found on the Chancellors Office website.**

Prepared By Educational Services and Support Division Curriculum and Instructional Unit California Community Colleges Chancellor's Office

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TOP-CIP Crosswalk ~ June 2020

SECTION 1 – INTRODUCTION

What Is the TOP?

The Taxonomy of Program (TOP) is a system of numerical codes used at the state level to collect and report information on programs and courses, in different colleges throughout the state, that have similar outcomes. At the college level, local program titles often differ substantially from college to college. For example, one college has a program called "Mechanized Agriculture," another has a program called "Agriculture Engineering Technology," and a third has one called "Agriculture Equipment Operations & Maintenance." Because they have similar outcomes, information on all three is collected and reported at the state level under TOP code 0116.00, which carries the standardized title "Agricultural Power Equipment Technology."

The TOP was designed to aggregate information about programs. However, a TOP code must also be assigned to every course in our system.1 Although the TOP does not contain as many specific choices as would a system designed for courses, each course should be given the TOP code that comes closest to describing the course content.

What the TOP Is Used For

TOP codes and titles serve a variety of purposes at the state level. For example, they are used:

- In the Inventory of Approved and Projected Programs, to make information available about where programs of particular types are offered around the state;
- In the Management Information Systems database, to collect and report information on student awards (degrees and certificates) issued in particular types of programs;
- In the Management Information Systems database, to collect and report information on enrollment and Full Time Equivalent Students (FTES) in courses within particular curriculum categories; and,

- In Vocational Education accountability reports on program completions and course success in particular types of vocational programs.

[1] Definitions and rules for program and course approval can be found in the *Program and Course Approval Handbook* published by the Chancellor's Office.

There are also some state purposes for which only the first two digits of the Taxonomy, the most general level of classification, are used. For example:

- In reports on staffing, the teaching assignment of each classroom faculty member is characterized by the two-digit TOP discipline of most of the courses he or she teaches.
- In budget reports, spending on instructional programs is broken down by two-digit TOP discipline.
- In facilities planning, assignable square feet for laboratories varies according to the TOP discipline.

Certain data collected by TOP codes are also reported by the Chancellor's Office to the federal government. For this to happen, the data must be converted to the system of classification used by the U.S. Department of Education, which is called the Classification of Instructional Programs (CIP). A "crosswalk table" from TOP to CIP is used for this purpose. (See Appendix B.)

What the TOP Is Not Intended For

Because it is a convenient and uniform system of classification, the Taxonomy of Programs has been used within districts and colleges for various local purposes. None of these uses is mandated by law or suggested by the Chancellor's Office. In some cases, the fit between the TOP structure and local organizational or educational needs is not particularly good. The belief has developed among some people that the TOP controls various aspects of college and district operations. To the extent this is so, it is only so by local college or district choice. No State rule imposes the TOP for local purposes. For example:

- The TOP does not control faculty minimum qualifications or faculty service areas. These are controlled by the minimum qualifications "disciplines lists" adopted by the Board of Governors upon the recommendation of the Academic Senate. The disciplines lists are not based on the TOP.
- The TOP is not intended to have any effect on faculty load calculations or faculty compensation.
- The TOP does not control how a college organizes its departments or divisions, or which programs are placed under which divisions.
- The TOP does not control how local instructional budgets are allocated.
- The TOP should not influence how local program review is conducted.

History of the Taxonomy

The Taxonomy of Programs was first published in 1979. It was designed by Chancellor's Office staff and is used only by the California Community College system. The taxonomy was originally based on a 1973 publication of the Chancellor's

*Indicates a vocational program.

Office called the “Classification of Instructional Disciplines,” which in turn, had been drawn from the federal government's Higher Education General Information Survey (HEGIS).
On the federal level, the HEGIS discipline categories were replaced in 1979-80 by the “Classification of Instructional Programs” (CIP), produced by the U.S. Department of Education's National Center for Education Statistics.

The CIP became the system of program nomenclature generally used in higher education data reporting, except in the California Community College system. Since then, the CIP has been revised five times: in 1985, 1990, 2000, 2010 and 2020. It can be viewed at https://nces.ed.gov/ipeds/cipcode/default.aspx?y=55

On the California Community College level, the TOP was revised in 1981, 1982, 1983, and 1995. In 1999 and 2000 individual change pages were issued to correct minor errors and to add vocational asterisks to a few codes. Asterisks were first introduced in the fourth edition (1983) in order to designate programs within which the enrollments are countable for purposes of supplemental apportionments from the federal Vocational Education Act (now called the Carl D. Perkins Vocational and Technical Education Act). They now also mark programs in which student completions are tracked for accountability purposes under various federal and state vocational education mandates.

Changes in the 7th Edition

The present edition was prepared primarily by staff of the Educational Service and Support unit within the Chancellor's Office, with substantial assistance from field organizations in particular disciplines. This edition attempts to offer a structure that reflects, within reasonable limits, the way educational programs are organized and named by the 116 California community colleges. The types of changes that have been made include:

TOP Code	7th Edition Title	CIP Code
0956.90	Digital Fabrication Technology	15.0613
2201.30	Social Justice: General	05.0299
2201.40	Social Justice: LGTBQ	05.0208
2201.50	Social Justice: Ethnic Studies	05.0200
2201.60	Social Justice: Chicano Studies	05.0203
2201.70	Social Justice: Gender Studies	05.0207
2201.80	Social Justice: African American	05.0201
2201.90	Social Justice: Asian American	05.0206
2201.91	Social Justice: Native American	05.0202
2210.20	Global Studies	30.2001

*Indicates a vocational program.

*Indicates a vocational program.

Structure of the Taxonomy

The TOP is a classification of disciplines, subdisciplines, and fields using a six-digit code. However, except in the 4930 ("General Studies") series, the last (sixth) digit is always a null (zero) for State purposes. It may be assigned a value by colleges or districts for their local purposes. (Within the 4930 series, codes are intended to describe stand-alone courses, rather than programs, and TOP distinctions are recognized for State purposes at the sixth-digit level.) Thus, the significant levels of structure for describing programs are the two-digit level, the four-digit level, and the five- digit level. This three-level structure parallels the federal Classification of Instructional Programs system.

Discipline. The most general level of the taxonomy consists of 24 disciplines. This level is indicated by the first two digits of the six-digit code. Although data are aggregated to this two-digit level for some State purposes, this number is not adequate to characterize the objectives of occupational programs nor of course subject matters specifically enough to be useful for most other purposes. Programs cannot, therefore, be reported with only two digits; but must be placed within a four-digit or five-digit category as described below.

Subdiscipline. The next level of the taxonomy is indicated by the third and fourth digits of the six-digit code. These numbers indicate logical subsets of the 24 disciplines. When categorized at this level, programs are assigned a TOP code whose first four digits are meaningful and whose last two digits are nulls (00). Subdisciplines are used to categorize occupations that are either broad in scope, or do not have specializations, or whose specializations are narrower than can be usefully distinguished and tracked at the State level.

Field. The third level is indicated by the fifth digit of the six-digit code and is a logical subset of the second level. It is used when necessary to define several specialties within a subdiscipline that are sufficiently distinguishable to be consistently reported and tracked at the State level.

The sixth and last digit has no significance in the State system and is treated as a null (zero) for State purposes, except within the 4930 series. This digit may be used for local purposes, with no expectation of consistency of meaning across districts.

*Indicates a vocational program**.**

Following are three examples of the hierarchical descriptors:

09 - Discipline: Engineering and Related Industrial Technologies

0934.00 - Subdiscipline: Electronics and Electric Technology

0934.10 - Field: Computer Electronics

0934.20 - Field: Industrial Electronics

13 - Discipline: Family and Consumer Sciences

1303.00 - Subdiscipline: Fashion 1303.10 - Field: Fashion Design

1303.30 - Field: Fashion Production

22 - Discipline: Social Sciences

2202.00 - Subdiscipline: Anthropology

2202.20 - Field: Archaeology

2203.00 - Subdiscipline: Ethnic Studies (no 5th-digit fields)

2204.00 - Subdiscipline: Economics (no 5th-digit fields)

Emerging Occupations and Unique Programs. The final code used in each discipline is "XX99.00–Other." In all disciplines where vocational programs are identified, the final code is shown with the phrase "Specify (includes all emerging occupations)." This phrase is included to allow the coding of new programs brought about by technological advances or other changes in the marketplace. Programs classified in the 99 "Other" category remain in that code until that occupation becomes widely recognized enough to merit its own TOP code, and a new category is created. The "Other" code may also be used for one-of-a-kind programs that do not fit into any other category.

*Indicates a vocational program.

TOP 01 – Agriculture and Natural Resources

Instructional programs that prepare individuals to apply scientific knowledge and methods, and technical skills, to support agribusiness and agricultural activities, such as management, production and propagation, supplies and services, mechanics, marketing, and horticulture.

***0101.00 – Agriculture Technology and Sciences, General Economic and** business principles used in the organization, operation, and management of farm and agricultural businesses.

***0102.00 – Animal Science**
Operation of animal production enterprises by developing competencies in the selection, breeding, physiology, nutrition, health, housing, feeding, and marketing of animals.

***0102.10 – Veterinary Technician (Licensed)**
Laws and regulations, principles and practices, and licensure requirements that prepare individuals to assist the veterinarian, biological researcher or other scientist in applying knowledge of veterinary medical assisting procedures and techniques.

***0102.20 – Artificial Inseminator (Licensed)**
Laws and regulations, principles and practices, and licensure requirements of artificial inseminators.

***0102.30 – Dairy Science**
Care of dairy animals and associated dairy farm and processing facilities and operations.

***0102.40 – Equine Science**
Programs related to horse breeding, management, training, and riding.

***0103.00 – Plant Science**
Theories, principles, and practices involved in the production and management of plants for food, feed, fiber, and soil conservation.

***0103.10 – Agricultural Pest Control Advisor and Operator (Licensed)**
Laws and regulations, principles and practices, and licensure requirements pertaining to pest control advisors and operators.

***0104.00 – Viticulture, Enology, and Wine Business**
Programs relating to cultivation of wine grapes and making and marketing of wine.

***0109.00 –Horticulture**
Production of flowers, foliage, and related plant materials in fields and greenhouses for garden and ornamental purposes.

*Indicates a vocational program**.**

*0109.10 – Landscape Design and Maintenance
Design, maintenance, and management of landscape areas, including residential, commercial, parks, and golf courses.

*0109.20 – Floriculture/Floristry
Prepares individuals to produce flowers and related foliage, and to design floral arrangements and decorations. Includes instruction in selecting appropriate containers, flowers, and accessories for special occasions and events.

*0109.30 – Nursery Technology
Programs related to plant nursery operations and management.

*0109.40 – Turfgrass Technology
Programs related to installation, cultivation, and maintenance of turfgrass for golf courses and other purposes.

*0112.00 – Agriculture Business, Sales, and Service
Principles and application of technical skills that apply to purchasing, storing, inspecting, marketing, and selling products from agricultural suppliers.

*0113.00 – Food Processing and Related Technologies
Application of chemical, physical, and engineering principles to the manufacturing, packaging, storage and distribution of food products.

*0114.00 – Forestry
Science, art, and practices of managing, using, and protecting forest lands and public and private timberlands.

*0115.00 – Natural Resources
Theories, principles, laws and regulations, and the application of skills to the use, management, and conservation of renewable natural resources, including wildlife and fisheries.

*0115.10 – Parks and Outdoor Recreation
Describes the significance and operation of recreational entities and facilities, such as parks and outdoor activities.

*0115.20 – Wildlife and Fisheries
Conservation and management of wilderness fauna and wildlife reservations, and of fish and shellfish resources for recreational or commercial purposes.

*0116.00 – Agricultural Power Equipment Technology
Theory and technical skills that apply to the selection, operation, servicing, maintenance, and repair of a variety of agricultural and forestry machinery and equipment.

*0199.00 – Other Agriculture and Natural Resources
Specify (includes all emerging technologies).

*Indicates a vocational program**.**

*Indicates a vocational program.

TOP 02 – Architecture and Related Technologies

Instructional programs that prepare individuals to assist in architectural tasks, including the creation, adoption, alteration, preservation, and control of physical and social surroundings.

***0201.00 – Architecture and Architectural Technology**
Planning, organization, and enclosure of space for functional and esthetic purposes, including the design of structures, testing of materials, estimating, environmental impact studies, and dealing with contracts and specifications.

0201.10 – Landscape Architecture (transfer)

***0299.00 – Other Architecture and Environmental Design**
Specify (includes all emerging occupations).

*Indicates a vocational program.

TOP 03 – Environmental Sciences and Technologies

Instructional programs that study biological and physical aspects of the environment and environment-related issues, including methods of controlling environmental pollution; and programs that prepare individuals to monitor and maintain environmental pollution control systems and to manage hazardous wastes.

0301.00 – Environmental Science
Study of the biological, chemical, and physical aspects of the environment, including methods of preventing environmental pollution and damage, and preventing animal and plant extinction.

0302.00 – Environmental Studies
Study of environment-related issues, including policy and legislation, social, legal, and economic aspects, and scientific principles of the ecosystem and environmental conservation.

***0303.00 – Environmental Technology**
Environmental management, monitoring, assessment, and restoration, including environmental pollution control systems and the management of hazardous materials and hazardous waste, and related government regulations.

0399.00 – Environmental Sciences and Technologies, Other
Specify *(includes all emerging occupations)*.

*Indicates a vocational program**.**

TOP 04 – Biological Sciences

Instructional programs that study life or living matter in all its forms and phenomena, especially with regard to the origin, function, growth, reproduction, heredity, and structure of life forms.

0401.00 – Biology, General
A generalized study of life, including the structure, function, reproduction, growth, heredity, evolution, behavior, and distribution of living organisms.

0402.00 – Botany, General
Plant life, structure, function, reproduction, growth, heredity, evolution, and distribution.

0403.00 – Microbiology
Study of microorganisms, including their morphology, physiology, metabolism, growth, and effects upon substances and other organisms.

0407.00 – Zoology, General
Animals, including their structure, function, reproduction, growth, heredity, evolution, behavior, and distribution.

0408.00 – Natural History
A broad survey of life forms and natural systems, and their evolutionary and environmental relationships.

0410.00 – Anatomy and Physiology
The cellular mechanisms underlying the life processes, functions of various parts of living organisms, and of integrated physiological response to the environments in which they live.

***0430.00 – Biotechnology and Biomedical Technology**
Theories, operations, and technical skills used to assist researchers and engineers engaged in developing or manufacturing biological, biotechnical, or medical systems or products.

0499.00 – Other Biological Sciences Specify

*Indicates a vocational program.

TOP 05 – Business and Management

Instructional programs that prepare individuals for a variety of activities in planning, organizing, directing, and managing all business office systems and procedures.

* **0501.00 – Business and Commerce, General**
  Processes, principles, and procedures of purchasing, selling, producing, and interchanging goods, commodities, and services to prepare a person for a position of responsibility, management, and/or ownership.

* **0502.00 – Accounting**
  Procedures to systematize information about transactions and activities into accounts and quantitative reports to verify accuracy of data by applying accounting, internal reporting, and decision-making principles. Includes accounting and financial reporting that assists in making internal management decisions.

    * **0502.10 – Tax Studies**
      Tax preparation and tax management services for individuals and businesses, including individual and business income tax preparation, and tax planning.

* **0504.00 – Banking and Finance**
  Financial sectors of the general economy to prepare individuals to engage in financial or banking services. Includes bank management, investments, and loan analysis and management.

* **0505.00 – Business Administration**
  Programs designed to give a broad, balanced introduction to professional careers in business, usually including business law, economics, mathematics, managerial accounting and computer systems. Includes transfer programs.

* **0506.00 – Business Management**
  Planning, organizing, directing, and controlling business operations. Includes various theories, tools, and practical applications used to maintain business sustainability through the management of capital, financial, and human resources.

    * **0506.30 – Management Development and Supervision**
      Supervising employees; budgeting, analysis, and coordinating clerical activities; evaluating, organizing, and revising office operations; design of facilities to provide maximum production; evaluating employee records; and coordinating activities of clerical departments and workers, dispute resolution, and mediation.
    * **0506.40 – Small Business and Entrepreneurship**
      Principles, practices, and strategies of small business wholesale, retail, or service

operations for owners/managers, and marketing principles and methods applicable to developing businesses.

* **0506.50 – Retail Store Operations and Management**
  Principles and methods of retail store operations and management, including department stores and supermarkets.

* **0508.00 – International Business and Trade**
  Principles of managing a business in an international context, and of exporting or importing of industrial or consumer goods in world markets. Includes trade regulations and controls, foreign trade operations, locating markets, negotiation practices, monetary issues, and international law and public relations.

* **0509.00 – Marketing and Distribution**
  Marketing functions and tasks that facilitate the flow of goods and services to customers and/or ultimate consumers.

* **0509.10 – Advertising**
  Describes the creation, execution, transmission, and evaluation of commercial messages concerned with the promotion and sale of products and services.

* **0509.20 – Purchasing**
  The purchase of machinery, raw materials, and product components for manufacturing firms; office supplies, furniture, and business machines for a place of business; or the supplies and equipment needed to conduct a retail or service business.

* **0509.40 –Sales and Salesmanship**
  Sales functions and tasks generally applicable to any marketing environment, including retailing, sales, and customer service.

* **0509.60 – Display**
  Creation of products or institutional displays and exhibits for the purpose of stimulating sales and goodwill.

0509.70 – E-Commerce *(business emphasis)
Programs that combine marketing and management principles with technical applications of the Internet and World Wide Web, with main emphasis on business principles.

*Indicates a vocational program**.**

***0510.00 – Logistics and Materials Transportation**

Theory, principles, functions, and procedures for the orderly and economic receiving, manufacturing, shipping, and servicing of products or services.

***0511.00 – Real Estate**

Theory and techniques of buying, selling, appraising, renting, managing, and leasing real property. Includes marketing, financing government regulations, and legal aspects of real estate and land economics.

*** 0511.10 – Escrow**

Principles and methods of real estate escrow and title company operations.

***0512.00 – Insurance**

Risk analysis and personal and/or business insurance and their application in such things as life, disability, property, liability, and fiduciary trust and annuity underwriting.

***0514.00 – Office Technology/Office Computer Applications**

Recording and disseminating of information, by manual and/or electronic means, including administrative office practices (keyboarding, computer literacy/applications, internet usage, e-mailing, scheduling, etc.), global concepts, and office management skills (problem solving, critical thinking, and interpersonal relations).

***0514.10 – Legal Office Technology**

Preparation of legal papers and correspondence by manual and/or electronic means. Includes legal terminology, procedures, and documents.

***0514.20 – Medical Office Technology**

Prepares individuals to perform medical office administrative duties by manual and/or electronic means. Includes a knowledge of medical terminology, as well as hospital, clinic, or laboratory procedures, and compiling and maintaining medical records.

***0514.30 – Court Reporting**

Prepares individuals to record court testimony or other proceedings by machine shorthand. Prepares also for closed captioning and scoping.

***0516.00 – Labor and Industrial Relations**

Describes the history and development of the labor movement, including the analysis and interpretation of federal and state regulations, union contracts, labor negotiations, conciliation, arbitration, and grievance procedures.

*Indicates a vocational program**.**

*** 0518.00 – Customer Service**
Preparation for customer service representative, call center technician, and related occupations.

*** 0599.00 – Other Business and Management**
Specify *(includes all emerging occupations)*.

*Indicates a vocational program**.**

TOP 06 – Media and Communications

Instructional programs that study the theory, principles and methods of creation, transmission, reception and evaluation of various media.

0601.00 – Media and Communications, General
Programs including combinations or overviews of the media arts and technologies categories included in this discipline.

***0602.00 – Journalism**
The gathering, processing, evaluation, and dissemination of information concerning current events and issues through the mass media. Origination and preparation of materials is practiced.

***0604.00 – Radio and Television**
History, theories, principles, techniques, functions, technologies, and creative processes of radio and television (including combined television/film/video programs) in reaching mass audiences.

*** 0604.10 – Radio**
History, theories, principles, techniques, functions, technologies, and creative processes of radio.

***0604.20 – Television (including combined TV/film/video)**
History, theories, principles, techniques, functions, technologies and creative processes of television and video. Includes programs that combine television with film and/or video.

***0604.30 – Broadcast Journalism**
Theory and techniques of gathering and reporting news specifically for electronic media such as radio and television.

***0606.00 – Public Relations**
Surveying and research in PR, issues PR and news media collaboration, writing for PR, media in PR, speech writing and PR campaigns, data collection and analysis, logic and critical thinking in PR, psychology in critical thinking, public speaking and presentation skills, legal issues in PR, and ethics.

***0607.00 – Technical Communication**
Theory, methods, and skills for writing and producing scientific, technical, and business communications and documentation.

*Indicates a vocational program.

***0610.00 – Mass Communications**

Study of the media by which entertainment and information messages are delivered, techniques used in such media, and social effects of such messages.

0612.00 – Film Studies (including combined film/video)

History, development, theory, and criticism of the film/video arts, as well as principles of film making and film production.

0612. 10 – Film History and Criticism

History, development, theory, and criticism of the film/video arts.

***0612.20 – Film Production**

Communication of dramatic information, ideas, moods, and feelings through films and videos. Includes film technology and equipment, directing, editing, planning and management of film/video operations.

***0614.00 – Digital Media**

A broad range of programs that combine computer and other electronic technologies with skills and techniques from various fine arts and communications disciplines.

***0614.10 – Multimedia**

Principles and techniques of using computers to bring together text, sounds, animation, graphic art, and video to create interactive products to inform, educate, or entertain.

*** 0614.20 – Electronic Game Design**

***0614.30 – Website Design and Development**

Principles of design, user interface/navigation, graphics applications and other authoring tools to design, edit and publish web pages, documents, images, graphics, sound and multimedia products for the Internet.

*** 0614.40 – Animation**

Principles and techniques for creating the visual illusion of motion through sequenced images. Includes animation using digital technology.

*** 0614.50 – Desktop Publishing**

Methods of preparing text and images for presentation to readers, using computerized electronic page layout and publication programs.

*Indicates a vocational program**.**

***0614.60 – Computer Graphics and Digital Imagery**

Theories, principles, and uses of computer graphics vector- and raster-based software programs for consumer, commercial, and industrial applications.

***0699.00 – Other Media and Communications**

Specify *(includes all emerging occupations)*

TOP 07 – Information Technology

Instructional programs in the theories, principles, and methods of design, development, and application of computer capabilities to data storage and manipulation.

***0701.00 –Information Technology, General**
Information technology concepts, theories, principles, methods and related computer capabilities and applications related to business, technical, and scientific problems.

***0702.00 – Computer Information Systems**
General programs in data and information storage and processing, including hardware, software, basic design principles, and user requirements.

***0702.10 – Software Applications**
Computer application software used in a business or home environment ranging from an end user skill level to corporate level for the management of information. Concepts, theory, application of software for the design and development, distribution, publishing, presentation, and analysis of text, numeric, and graphic data. Procedures, information, and application of software including a variety of methods for inputting and retrieving data, records, and information. Application of software and computer-related tools such as e-mail and speech/voice recognition for the global dissemination of information.

0706.00 – Computer Science (*transfer)*
Scientific and mathematical principles used in designing and building computers and computing systems, including transfer-oriented programs.

***0707.00 – Computer Software Development**
Design and development of computer-based applications. Includes systems analysis, design, specification, programming, database analysis and design, user interface development, maintenance, and testing.

***0707.10 – Computer Programming**
Entry-level programming, including methods, procedures, symbols and rules used in planning and writing instructions in computer language for the solution of a problem. Includes programming for the World Wide Web.

***0707.20 – Database Design and Administration**

Development of database applications in a business or organizational environment, including database architecture, programming languages, proprietary database software, and related skills and techniques.

***0707.30 – Computer Systems Analysis**
Systems analysis and design, including the recognition, definition, and improvement of processes through the use of computer technology and methodologies.

***0708.00 – Computer Infrastructure and Support**
Network and operation systems design and administration, including certification preparation.

***0708.10 – Computer Networking**
Principles of local, metropolitan, and wide area computer networking design, installation, maintenance and troubleshooting.

***0708.20 – Computer Support**
Preparation to provide technical assistance to computer system users. May include use of computer hardware and software, printing, installation, word processing, electronic mail, and operating systems.

***0709.00 – World Wide Web Administration**
Methods to develop and maintain web servers and hosted web pages, and to function as Webmaster. Includes computer systems and networks, servers, web design and editing, information resources management, web policies and security.

***0709.10 – E-Commerce (technology emphasis)**
Programs that combine marketing and management principles with technical applications of the Internet and World Wide Web, with main emphasis on applications of technology.

***0799.00 – Other Information Technology**
Specify *(includes all emerging occupations)*.

TOP 08 – Education

Instructional programs that describe the science and art of importing knowledge, developing the powers of reasoning and judgment, and preparing others intellectually for a more mature and rewarding life.

0801.00 – Education, General (Pre-Professional) ***(Transfer)***
Theory and method related to elementary, secondary and postsecondary education at the lower-division level.

***0802.00 – Educational Aide (Teacher Assistant)**
Practices and techniques necessary for preparing individuals to provide services to students and parents under the direction of professional staff.

***0802.10 – Educational Aide (Teacher Assistant), Bilingual**
Preparation for individuals to provide classroom and school services to children and parents whose native language is other than English, under the direction of professional staff.

***0809.00 – Special Education**
Theories and methods used in working with physically or mentally disabled persons and assisting special education teachers.

0835.00 – Physical Education
Professional preparation skills in fitness, physical activity, and intercollegiate athletics. Includes courses designed to meet the general education requirement for instruction in lifelong healthful living through appropriate physical activity and theory courses, as well as transfer and physical education teacher preparation.

0835.10 – Physical Fitness and Body Movement
Programs and courses that encourage personal health and longevity through exercise activity, especially noncredit courses in this category.

***0835.20 – Fitness Trainer**
Preparation for training occupations in fitness and health, such as fitness specialists, aerobics or movement instructor, and human performance technician.

835.50 – Intercollegiate Athletics

***0835.60 – Coaching**

*Indicates a vocational program.

Preparation for occupational coaching in schools or clubs.

***0835.70 – Aquatics and Lifesaving**

Preparation for occupational competency in swimming instruction and lifesaving as recommended by the State of California and the American Red Cross.

0835.80 – Adapted Physical Education

Programs and courses in physical education for persons with disabilities.

0836.00 – Recreation

Leadership principles and skills for recreational and leisure activities, and practices for providing indoor and outdoor recreational facilities and services for the public.

***0836.10 – Recreation Assistant**

Principles and techniques for preparing individuals to work in recreational occupations, including arts and crafts, sports, and hobbies.

0837.00 – Health Education

Physical and mental health, including disease prevention and control, and the social and economic significance of good health.

0839.00 – Industrial Arts *(Transfer)*

Meets the lower-division (transfer) requirements for industrial arts majors, including theories, methods, tools, materials, processes related to productive capacity of industry.

0850.00 – Sign Language

Programs and courses in American Sign Language or other sign language for the deaf.

***0850.10 – Sign Language Interpreting**

Programs to prepare individuals to interpret oral speech for the hearing impaired, including sign language, orientation to deaf culture, and interpreting from signing to voice and from voice to signing.

***0860.00 – Educational Technology**

Principles and techniques for use of technology to improve learning. Includes computer software and resources, multimedia enhancements, audio and video skills, and other technology strategies that assist teachers to enhance the delivery of curriculum.

***0899.00 – Other Education**

Specify *(includes all emerging occupations)*.

TOP 09 – Engineering and Industrial Technologies

Instructional programs in the mathematical and natural sciences utilizing the materials and forces of nature for the benefit of human beings. Instructional programs in technology that require the application of scientific and engineering knowledge, methods, and technical skills in support of engineers and other professionals.

0901.00 – Engineering, General (requires Calculus) ***(Transfer)***
Properties of matter and the sources of energy in nature that are made economically useful to humans.

***0924.00 – Engineering Technology, General (requires Trigonometry)**
Technical support of engineering, including the use of civil and mechanical engineering principles, physical sciences, basic physics, mathematics, surveying, materials testing, hydraulics and pneumatics, and the preparation of plans, specifications, and engineering reports.

***0934.00 – Electronics and Electric Technology**
Theory and application of electric and electronic systems and components, including circuits, electro-magnetic fields, energy sources, communications devices, radio, and television circuits, computers, and other electric and electronic components and devices.

***0934.10 – Computer Electronics**
Principles of computer design and circuitry, systems and network architecture and maintenance, components and peripherals, problem diagnosis and repair.

***0934.20 – Industrial Electronics**
Assembly, installation, operation, maintenance, and repair of electronic equipment used in industry and manufacturing. Includes fabrication and assembly of electronic and related components.

***0934.30 – Telecommunications Technology**
Application of engineering principles and technical skills to design and implementation of telecommunications systems. Includes communication protocols, data networking, digital compression and signal processing, satellite, and microwave technology.

***0934.40 – Electrical Systems and Power Transmission**
Installation, operation, maintenance, and repair of electrical systems and the power lines that transmit electricity. Includes assembly, installation, maintenance and repair of motors, generators, transformers, and related equipment.

*Indicates a vocational program.

***0934.60 – Biomedical Instrumentation**
Operation, maintenance, and installation of devices associated with biomedical measurements and medical life support.

***0934.70 – Electron Microscopy**
Principles, procedures, and techniques associated with electron microscopes.

***0934.80 – Laser and Optical Technology**
Assembly, installation, testing, adjustment, and operation of various types of lasers and other optical equipment, including fiber optic equipment and systems.

***0935.00 – Electro-Mechanical Technology**
Design, development, testing, and maintenance of electro-mechanical and servo- mechanical devices and systems.

***0935.10 – Appliance Repair**
Repair and servicing of consumer appliances, such as ranges, refrigerators, dryers, water heaters, washers, and dishwashers.

***0936.00 – Printing and Lithography**
Printing or reproduction of materials, including forms, newspapers, publications, and brochures. Computerized pre-print applications, press operations, camera and stripping, and bindery and finish work are included.

***0943.00 – Instrumentation Technology**
Design, manufacture and use of display devices and systems for detection, observation, measurement, control, computation, communication, or data processing.

***0943.30 – Vacuum Technology**
Assembly, installation, maintenance, and repair of various vacuum actuated systems and devices.

***0945.00 – Industrial Systems Technology and Maintenance**
Design, construction, maintenance, and operation of mechanical, hydraulic, pneumatic, and electrical equipment and related systems, such as production machinery. Includes building and plant maintenance.

*Indicates a vocational program.

***0946.00 – Environmental Control Technology (HVAC)**
Assembly, installation, operation, maintenance, and repair of air conditioning, heating, and refrigeration systems.

***0946.10– Energy Systems Technology**
Theory and methods of energy conservation applied to heating, cooling, and related systems, including the measurement and assessment of energy consumption, diagnosis, and prescription. Includes alternative energy systems.

***0947.00 – Diesel Technology**
Repair and maintenance of diesel engines in vehicles, ships, locomotives, and construction equipment, as well as stationary diesel engines in electrical generators and related equipment.

***0947.20 – Heavy Equipment Maintenance**
Maintenance, repair and overhaul of heavy equipment.

***0947.30 – Heavy Equipment Operation**
Operation of heavy equipment, including earth moving, demolition, and construction equipment.

***0947.40 – Railroad and Light Rail Operations**
Operation and maintenance of trains and railroad equipment, including light rail, heavy rail, passenger rail, and freight rail.

***0947.50 – Truck and Bus Driving**
Operation of trucks and buses with diesel, gasoline, or alternative power engines.

***0948.00 – Automotive Technology**
The servicing, maintenance, and diagnosis of malfunctions, and repair and overhaul of components and systems in automotive vehicles.

***0948.30 – Motorcycle, Outboard, and Small Engine Repair**
Repair, overhaul, service, and maintenance of motorcycles, outboard motors, and small engines.

***0948.40 – Alternative Fuels and Advanced Transportation Technology Conversion to, installation of, and maintenance of electric vehicles, liquefied petroleum gas, compressed natural gas, hybrid**

*Indicates a vocational program.

fuel technologies, and related systems.

***0948.50 – Recreational Vehicle Service Maintenance** of hydraulic, electrical, air conditioning and other systems in recreational vehicles.

***0949.00 – Automotive Collision Repair**
Repair and refinishing of automotive vehicle panels and bodies, straightening of vehicle frames and unibodies, and replacement of damaged vehicle glass.

***0949.10 – Upholstery Repair–Automotive**
Repair and replacement of automotive interiors.

***0950.00 – Aeronautical and Aviation Technology**
Theory of flight and the design, construction, operation, and maintenance of aircraft, aircraft propulsion units, and aerospace vehicles. Includes combined airframe and powerplant mechanics programs.

***0950.10 – Aviation Airframe Mechanics**
Inspection, repair, service, maintenance, and overhaul of airframes and aircraft systems. The program is designed to meet the Federal Aviation Administration (FAA) requirements for licensing as an airframe mechanic.

***0950.20 – Aviation Powerplant Mechanics**
Inspection, repair, service, maintenance, and overhaul of aircraft engines and engine systems. The program is designed to meet the Federal Aviation Administration (FAA) requirements for licensing as a powerplant mechanic.

***0950.40 – Aircraft Electronics (Avionics)**
Electronic theory, applications and equipment used in aircraft, including installation, maintenance, and repair of aircraft electronic and other operating and control systems.

***0950.50 – Aircraft Fabrication**
Principles and techniques of aircraft structural and composites fabrication and assembly.

***0952.00 – Construction Crafts Technology**
Lay out, fabrication, erection, installation, and repair of buildings, highways, airports, and other structures and fixtures, including framing, construction materials, estimating, blueprint reading, and use of tools.

***0952.10 – Carpentry**
Layout, fabrication, erection, and installation of structures using common systems of

framing, construction materials, estimating, and blueprint reading.

***0952.20 – Electrical**
Installation, operation, maintenance and repair of electrical systems in buildings, including residential, commercial, and industrial electric power wiring and motors, controls, and electrical-distribution panels.

***0952.30 – Plumbing, Pipefitting, and Steamfitting**
Theories, principles, methods, technical skills and use of equipment in plumbing, pipefitting, and steamfitting.

***0952.40 – Glazing**
Theories, principles, methods, technical skills, and use of equipment in glazing.

***0952.50 – Mill and Cabinet Work**
Cutting, shaping, assembly, and finishing of wood and related materials according to designs and specifications.

***0952.60 – Masonry, Tile, Cement, and Lath and Plaster**
Theories, principles, methods, technical skills, and use of equipment in brick, block and stonemasonry, tile laying and finishing, cement finishing, and lathe and plaster construction.

***0952.70 – Painting, Decorating, and Flooring**
Theories, principles, methods, technical skills and use of equipment in painting, decorating, paperhanging and flooring.

***0952.80 – Drywall and Insulation**
Theories, principles, methods, technical skills, and use of equipment in drywall installation, taping, and insulation.

***0952.90 – Roofing**
Theories, principles, methods, technical skills and use of equipment in hot tar and/or the shingle roofing.

***0953.00 – Drafting Technology**
Planning, preparation, and interpretation of various engineering sketches for design and drafting duties, for circuits, machines, structures, weldments, or architectural plans. Includes the application of advanced computer software and hardware (Computer Assisted Drafting and Computer Assisted Design) to the creation of graphic representations and simulations in support of engineering projects.

***0953.10 – Architectural Drafting**
Preparation of working drawings and electronic simulations for architectural and

*Indicates a vocational program.

related construction projects.

***0953.20 – Civil Drafting**
Preparation of working drawings and electronic simulations in support of civil engineers, geologic engineers, and related professionals.

***0953.30 – Electrical, Electronic, and Electro-Mechanical Drafting**
Development of working schematics and representations in support of electrical/electronic engineers, computer engineers, electro-mechanical engineers, and related professionals.

***0953.40 – Mechanical Drafting**
Development of working drawings and electronic simulations in support of mechanical and industrial engineers and related professional

***0953.60 – Technical Illustration**
Principles, methods, and techniques used in the design and layout of consumer, commercial, and industrial illustrations.

***0954.00 – Chemical Technology**
Chemical processes, including heat transfer, treatment of liquid and gases, and physical chemical operations used in industrial processes and the chemical industry.

***0954.20 – Plastics and Composites**
Principles, processes, technical skills, and equipment used in fabricating products from plastics, polymers, and composites.

***0954.30 – Petroleum Technology**
Petroleum production, exploration, testing, drilling, analyzing, and logging drilling cores and transporting gas and oil.

***0955.00 – Laboratory Science Technology**
Practical analytical applications of inorganic chemistry, organic chemistry biochemistry, and other physical and biological sciences in laboratory, testing, and quality control settings in industry and science.

***0956.00 –Manufacturing and Industrial Technology**
Engineering principles and technical skills for the manufacture of products and related industrial processes. Includes shaping and forming operations, materials handling, instrumentation and controls, and quality control. Includes Computer Aided Manufacturing and robotics. Also includes optimization theory, industrial and manufacturing planning, and related management skills.

*Indicates a vocational program**.**

***0956.30 – Machining and Machine Tools**
Fabrication, assembly and repair of parts and components or systems on machines, such as lathes, grinders, drill presses, milling machines, and shaping machines. Includes Computer Numerical Control and tool design.

***0956.40 – Sheet Metal and Structural Metal**
Theories, principles, methods, technical skills, and equipment used in sheet metal occupations and ironworking occupations.

***0956.50 – Welding Technology**
Welding techniques, processes, and equipment applied in accordance with diagrams, blueprints, or other specifications.

***0956.70 – Industrial and Occupational Safety and Health**
Safety engineering principles and practices, as well as related federal, state and local regulations concerned with workplace safety.

***0956.80 – Industrial Quality Control**
Inspection, testing and evaluation of parts, products, equipment, and processes for adherence to specifications. Includes nondestructive testing.

***0956.90 – Digital Fabrication Technology (Program Only)**
Combines a wide variety of manufacturing techniques, machines, software, materials, and hand skills to create consumer and industrial parts and assemblies.

***0957.00 – Civil and Construction Management Technology**
Application of procedures and techniques related to civil and construction management, including estimating and bidding, scheduling and control, inspection, building systems, construction practices, quality control, labor and safety practices. Includes public works management.

***0957.20 – Construction Inspection**
Inspection of new or remodeled structures to determine their soundness and compliance to specifications, building codes and other regulations.

***0957.30 – Surveying**
Surveying and mapping of angles, elevations, points and contours used for construction, map-making, urban planning or other purposes. Includes related applications of Global Positioning Systems (GPS) and Geographic Information Systems (GIS).

*Indicates a vocational program.

***0958.00 – Water and Wastewater Technology**
Principles, technical skills and equipment used to process, purify, store and distribute potable water, and dispose of wastewater. Design, construction, operation, and maintenance of equipment for water or wastewater treatment systems.

***0959.00 – Marine Technology**
Operation and maintenance of ships systems and marine equipment.

***0959.10 – Diving and Underwater Safety**
Professional diving, diving instructors or diving support personnel.

***0961.00 – Optics**
Grinding of lenses from optical glass or plastic according to engineering specifications or optometrist prescriptions.

* **0962.00 – Musical Instrument Repair**
Maintenance, repair, and tuning of acoustic and electric musical instruments.

***0999.00 – Other Engineering and Related Industrial Technologies**
Specify *(includes all emerging occupations)*.

*Indicates a vocational program**.**

TOP 10 – Fine and Applied Arts

Instructional programs that study the perception, appreciation and creation of diverse modes of communicating ideas and emotion by means of visual and nonvisual representations and symbols; subject to esthetic criteria and related functions.

1001.00 – Fine Arts, General
Appreciation and production of works of art that express artistic intention.

1002.00 – Art (Painting, Drawing, and Sculpture)
Two- and three-dimensional techniques in the areas of painting, drawing, and sculpture.

1002.10 – Painting and Drawing
1002.20 – Sculpture
1002.30 – Ceramics

1004.00 – Music
Art and technique of combining sounds of various timbres in harmonic, rhythmic and/or melodic forms, which are artistically expressive.

***1005.00 – Commercial Music**
Performance of music in public venues under contract and related business skills and services.

***1006.00 – Technical Theater**
Techniques for communicating information, ideas, moods, and feelings through set design and construction and costuming with attention to stagecraft, function, and esthetics.

1007.00 – Dramatic Arts
Drama, theater and interpretation.

1008.00 – Dance
Techniques, composition, and choreography of dance.

***1008.10 – Commercial Dance**
Dance performance techniques specifically for occupational applications.

***1009.00 – Applied Design**
Theory and studio work in the application of esthetic principles to the design of useful and decorative objects and spaces.

1009.10 – Jewelry
Application of design principles and fabrication techniques to the design, creation, and manufacture of jewelry.

1011.00 – Photography
Historic development, esthetic qualities, creative processes, and practical applications of photographic imagery as a means of artistic expression.

***1012.00 – Applied Photography**
Application of esthetic principles and technical processes to the exposure, development, and marketing of photographs and photographic services.

***1013.00 – Commercial Art**
Design and execution of layouts and illustrations for advertising displays and instructional manuals, including the preparation of copy, lettering, poster, package and product design, fashion illustration, silk screening, air brushing, inks, color dynamics, and computer pre-print applications.

***1030.00 – Graphic Art and Design**
Application of artistic techniques to the effective communication of information and ideas, for commercial or technical purposes. Includes design principles, color theory, typography, concepts sketching, imaging, communication skills.

***1099.00 – Other Fine and Applied Arts**
Specify *(includes all emerging occupations)*.

TOP 11 – Foreign Language

Instructional programs that study a language other than English or related to the study of a foreign culture through exploration of the literature of that culture as expressed in the language of that culture.

1101.00 – Foreign Languages, General
Concentrated on more than one foreign language without giving full major emphasis to any one language, e.g., a minimum of 12 units in one foreign language and 6 units in another.

1102.00 – French
Language, literature, and culture of French-speaking people.

1103.00 – German
Language, literature, and culture of German-speaking people.

1104.00 – Italian
Language, literature, and culture of Italian-speaking people.

1105.00 – Spanish
Language, literature, and culture of Spanish-speaking people.

1106.00 – Russian
Language, literature, and culture of Russian-speaking people.

1107.00 – Chinese
Language, literature, and culture of Chinese-speaking people.

1108.00 – Japanese
Language, literature, and culture of Japanese-speaking people.

1109.00 – Latin
Language, literature, and culture of Latin-speaking people.

1110.00 – Greek
Language, literature, and culture of modern or classical Greek-speaking people.

*Indicates a vocational program.

1111.00 – Hebrew
Language, literature, and culture of Hebrew -speaking people.

1112.00 – Arabic
Language, literature, and culture of Arabic-speaking people.

1116.00 – African Languages (Non-Semitic)
Language, literature, and culture of the African peoples, such as Coptic, Berber, Igbo, Yoruba, Amharic, Hausa, Egyptian, and Swahili.

1117.00 – Asian, South Asian, and Pacific Islands (Chinese and Japanese excluded)
Language, literature, and culture of Asian-speaking people other than Chinese and Japanese.

1117.10 – Filipino (Tagalog)
Language, literature, and culture of Filipino-speaking people.

1117.20 – Vietnamese

1117.30 – Korean

1119.00 – Portuguese
Language, literature, and culture of Portuguese-speaking people.

1199.00 – Other Foreign Languages
Specify.

*Indicates a vocational program**.**

TOP 12 – Health

Instructional programs that study the theories and techniques for the restoration or preservation of mental and physical health through the use of drugs, surgical procedures, manipulations, or other curative or remedial methods.

***1201.00 – Health Occupations, General**
General and introductory occupational programs in the health occupations. Does not include transfer preparation programs (see 1260.00).

***1202.00 – Hospital and Health Care Administration**
Planning, organizing, and administering a hospital or other health care facility.

***1205.00 – Medical Laboratory Technology**
Application of chemical, physical science, engineering, and technological concepts, principles, and practices to human and other living systems.

***1205.10 – Phlebotomy**
Principles and practices for puncturing the skin to give injections, and puncturing veins or arteries to obtain blood samples for analysis and diagnosis.

***1206.00 – Physicians Assistant**
Physician–delegated functions in the areas of general practice, family medicine, internal medicine, obstetrics, emergency medicine, or in other specific areas of patient care.

***1208.00 – Medical Assisting**
Administrative, clerical or technical support services for a licensed physician, podiatrist, or health care services plan, and related support functions in a health care facility.

***1208.10 – Clinical Medical Assisting**
Principles and techniques to assist with patient care and examination in health care offices and clinics. Includes taking vital signs, preparing patient, assisting with physical exams, collecting specimens, performing basic laboratory tests, and maintaining examination rooms. May include administration of oral or injectable medications under direction of a nurse or physician.

***1208.20 – Administrative Medical Assisting**
Principles and techniques to assist with administration in health care offices and clinics. Includes receptionist duties, maintaining patient records, billing, insurance, bookkeeping, appointments, and scheduling.

***1208.30 – Health Facility Unit Coordinator**
Procedures and techniques for the administrative and clerical support of a nursing unit in a hospital or other health care facility.

***1209.00 – Hospital Central Service Technician**
Services and techniques used in support of patient care, such as receipt, evaluation, storage and distribution of supplies, equipment, and instruments, including sterile processing.

***1210.00 – Respiratory Care/Therapy**
Clinical assistance in the diagnosis, treatment, and rehabilitation of acute and chronic respiratory disease, including pulmonary function, drug administration, mechanical ventilation, medical gas therapy, airway management, patient assessment, and assistance to the physician in carrying out special procedures, and as part of emergency and life-support team.

***1211.00 – Polysomnography**
Diagnosis and treatment of disorders of sleep and daytime alertness, and evaluation of various treatment methods.

***1212.00 – Electro-Neurodiagnostic Technology**
Techniques used to perform non-invasive diagnostic procedures on the nervous system, including electroencephalography.

***1213.00 – Cardiovascular Technician**
Principles and techniques used in performing invasive, noninvasive, and peripheral examinations of the cardiovascular system to aid in diagnoses and therapeutic treatments.

***1214.00 – Orthopedic Assistant**
Principles and techniques used in assisting a physician to apply and remove casts, assemble traction apparatus, fit straps and splints, assemble exercise frames, and adjust crutches and canes.

***1215.00 – Electrocardiography**
Prepares individuals in the operation and maintenance of electrocardiograph machines.

***1217.00 – Surgical Technician**
Procedures, skills, and use of equipment to assist in surgery.

***1218.00 – Occupational Therapy Technology**
Techniques of rehabilitation, patient evaluation, and treatment planning, under the supervision of an occupational therapist or other healthcare provider.

***1219.00 – Optical Technology**
Theory of vision and lenses and techniques for the application of those principles to assisting in vision care.

***1220.00 – Speech-Language Pathology and Audiology**
Principles and procedures used to assist in the diagnosis, treatment, and prevention of hearing and speech disorders under the supervision of a licensed speech-language pathologist or audiologist.

***1221.00 – Pharmacy Technology**
Principles and procedures used to assist in maintaining and dispensing pharmaceutical supplies and medications.

***1222.00 – Physical Therapist Assistant**
Principles and procedures used to assist a physical therapist in implementing a pre- scribed plan of therapy for a patient, including patient instruction and administration of treatments.

***1223.00 – Health Information Technology**
Compilation and maintenance of medical records, development of statistical reports, coding of diseases and operations, maintenance of indexes, and handling of requests for medical records information.

***1223.10 – Health Information Coding**
Training to assign numerical codes to diagnoses, symptoms, and procedures using standard international classifications and terminology.

***1224.00 – School Health Clerk**
Provision of non-invasive health support services to children in the education system, under supervision of a school nurse or school administration

***1225.00 – Radiologic Technology**
Principles and techniques used in diagnostic radiography. Including radiographic techniques, radiation protection, equipment maintenance, and film processing and darkroom techniques.

***1226.00 – Radiation Therapy Technician**
Application of radioactive substances to patients for diagnostic and therapeutic purposes.

***1227.00 – Diagnostic Medical Sonography**
Techniques used to assist physicians in diagnosing disease or injury by means of high-frequency sound waves (ultrasound) that create body images showing the shape and composition of body tissues.

***1228.00 – Athletic Training and Sports Medicine**
Programs to prepare for employment in athletic training, injury treatment, rehabilitation, fitness assessment, and related fields.

***1230.00 – Nursing**
Principles and techniques for assisting the individual, sick or well, in the performance of those activities contributing to health or to recovery.

***1230.10 – Registered Nursing**
Programs leading to licensure by the Board of Registered Nursing. Includes nursing care in specialty areas.

***1230.20 – Licensed Vocational Nursing**
Programs leading to vocational nurse licensure by the Board of Vocational Nursing and Psychiatric Technicians. Technical and manual nursing skills, practiced under the direction of a registered nurse, physician, or other medical staff, specific to the scope of practice of the licensed vocational nurse.

***1230.30 – Certified Nurse Assistant**
Routine nursing services of patients in hospitals or long-term care facilities practiced under the direction of nursing or medical staff, and specific to the nurse assistant certification examination. Includes Acute Care Nurse Assistant.

***1230.80 – Home Health Aide**
Principles and techniques used to assist elderly, convalescent, or disabled patients in their homes by providing for their health care needs.

***1239.00 – Psychiatric Technician**
Principles and techniques used in the care of mentally disordered, developmentally disabled and emotionally disturbed patients, in a variety of health care settings specific to the licensure examination.

***1240.00 – Dental Occupations**
Programs related to dental services.

***1240.10 – Dental Assistant**
Techniques used in the clinical chairside procedures of dentistry, including preparation of the patient, radiographic exposures, the mixing of dental materials, dental office management specific to the licensure examination.

***1240.20 – Dental Hygienist**
Oral health education, control of oral disease, preventive, educational, and therapeutic techniques used in dental treatments specific to the licensure examination.

***1240.30 – Dental Laboratory Technician**
Construction and repair of dental appliances; operations and procedures used in support of a dentist or orthodontist.

***1250.00 – Emergency Medical Services**
Pre-hospital, emergency medical diagnostic procedure, treatment, and comprehensive care in medical crises, including emergency vehicle operation and patient transportation procedures, including training specific to the certification standards for the EMT-1 or EMT-2 certifications.

1251.00 – Paramedic
Training specific to the certification standards for EMT-P (Paramedic).

***1255.00 – Mortuary Science**
Preparation for burial, embalming, cremating, and other methods of disposition in conformity with legal requirements, and the conduct of funerals.

1260.00 – Health Professions, Transfer Core Curriculum
Studies that satisfy the academic transfer requirements of the core curriculum for health professions.

1261.00 – Community Health Care Worker
Preparation for facilitators, advocates, and referral workers linking health care and related social services with affected recipient communities.

***1262.00 – Massage Therapy**
Preparation for certified practice of various styles of massage, such as Swedish, sports, and deep tissue, for therapeutic and relaxation purposes, including business aspects of massage practice.

1270.00 – Kinesiology
Provides preparation for programs that focus on the anatomy, physiology, biochemistry, and biophysics of human movement, and applications to exercise and therapeutic rehabilitation.

***1299.00 – Other Health Occupations**
Specify *(includes all emerging occupations)*.

TOP 13 – Family and Consumer Sciences

Instructional programs that study the relationship between the physical, social, emotional and intellectual environment in and of the home and family and the development of individuals, including programs in child development, family studies, gerontology, fashion, interior design and merchandising, consumer services, foods and nutrition, culinary arts, and hospitality.

1301.00 – Family and Consumer Sciences, General
General programs in family and consumer sciences, including life management, how individuals develop and function in family, work, and community settings, and how they relate to their physical, social, emotional, and intellectual environments. Prepares individuals to balance personal, family and work responsibilities throughout the life cycle. May include introductory courses in fashion, nutrition and foods, interiors, family studies, child development. Programs may lead to transfer or to practical and occupational outcomes.

***1301.10 – Consumer Services**
Programs intended to prepare directly for employment related to consumer communication and services in the public sector or businesses, such as finance, retail, utilities, and telecommunications. Includes responding to consumer problems and trends and providing information. Generally, includes courses in business and well as courses in family and consumer sciences.

***1302.00 – Interior Design and Merchandising**
Design and its functional application to the environment, housing, furnishings, accessories, and equipment to provide commercial and residential environments that meet the psychological, sociological, emotional, and physical needs of the users and protect the health, safety, and welfare of the general public.

***1303.00 – Fashion**
Fashion and its influence on individuals and society, including fashion's principles and concepts as related to design, construction, merchandising and selection; and the study of textiles involving the design, production, finishing, characteristics, selection, use, and care of fibers and fabrics.

***1303.10 – Fashion Design**
Design and construction of garments.

***1303.20 – Fashion Merchandising**
Merchandising of fashion and related articles in retail and wholesale establishments.

***1303.30 – Fashion Production**
Construction, alteration, and finishing of garments to industry or customer specifications.

***1305.00 –Child Development/Early Care and Education**
Intellectual, psychosocial, and physical development of children. Principles and practices in the care and education of children.

***1305.20 – Children with Special Needs**
Principles and practices necessary for the care and education of children with special needs and their families.

***1305.40 – Preschool Age Children**
Principles and practices necessary for working with children ages three through five.

***1305.50 – The School Age Child**
Principles and practices necessary for working with school age children and youth in out-of-school settings, such as before and after school programs, recreational activities, youth centers, and summer camps.

***1305.60 – Parenting and Family Education**
Principles and practices of working with individuals in all family forms to positively affect their relationships and dynamics.

***1305.70 – Foster and Kinship Care**
Education and training for foster parents and kinship parents to meet the educational, emotional, behavioral and developmental needs of children and youth in the foster care system.

***1305.80 – Child Development Administration and Management**
Principles and practices of managing all programs in child development, and early care and education.

***1305.90 – Infants and Toddlers**
Principles and practices necessary for working with children younger than three years old.

***1306.00 – Nutrition, Foods, and Culinary Arts**
Principles and techniques of food preparation, food management, food production services and related technologies, and the fundamentals of nutrition, nutrition education, and nutrition care affecting human growth and health maintenance.

***1306.20 – Dietetic Services and Management**
Programs providing training in institutional food services and the management and supervision of such services, as Dietary Managers, Dietary Service Supervisors, and similar positions. Includes food services in schools, hospitals, nursing facilities, and other noncommercial settings.

***1306.30 – Culinary Arts**
Selection, storage, preparation, and service of food in quantity, including the culinary techniques used by chefs, institutional cooks, bakers, and catering services.

***1306.60 – Dietetic Technology**
Programs leading to national certification as a dietetic technician by the American Dietetic Association

***1307.00 – Hospitality**
Organization and administration of hospitality services, management, and training of personnel, including restaurant and food service management, hotel/motel or resort management, and convention and special events planning. Includes combined hotel/restaurant management programs.

***1307.10 – Restaurant and Food Services and Management**
Management and supervision of food and beverage service operations. Includes server and bartender training.

***1307.20 – Lodging Management**
Preparation to manage places of lodging such as hotels, motels and inns. Includes supplies purchasing and control, facilities design and planning, hospitality law, personnel and financial management, marketing, events management, and front desk operations.

***1307.30 – Resort and Club Management**
Preparation to plan, manage, and market comprehensive vacation facilities, golf courses, casinos, time-share resorts and the like.

***1308.00 – Family Studies**
Basic human developmental and behavioral characteristics of the individual within the context of the family, and over the lifespan. Includes human growth and development, the family as a social unit, and relationships.

***1309.00 – Gerontology**
Principles and practices of working with older adults. Includes physical, social, economic, emotional, health care and support services need and concerns, related legislation, and community resources.

***1399.00 – Other Family and Consumer Sciences**
Specify *(includes all emerging occupations)*.

TOP 14 – Law

Instructional programs that study the principles and procedures developed and enforced by institutions of government for the social order in the form of legislation, decisions, regulations, and orders.

1401.00 – Law, General
Legal customs, practices, and rules of society and the states. Includes pre-law programs.

*** 1402.00 – Paralegal**
Legal terminology, forms and procedures; general legal concepts; principles and techniques of legal research, including analysis of legal issues, documentation of appropriate legal precedents, and presentation of research findings useable by attorneys, judges, and others.

1499.00 – Other Law
Specify.

TOP 15 – Humanities (Letters)

Instructional programs that study language and literature, philosophy and value systems related to ancient and modern cultures and the expression of those systems in creative works and cultural artifacts.

1501.00 – English
Written expression and the writing process which include critical reading, critical writing, research practices, literature, and literary criticism.

1501.10 – Linguistics
Study of language, language development, and relationships among languages from a humanistic and/or scientific perspective.

1502.00 – Language Arts
Programs that combine English, speech communication, and/or foreign language and other humanistic or communications-related disciplines.

1503.00 – Comparative Literature
Comparison of literature of different cultures or eras, based on such dimensions as genre, theme, literary period, and language source.

1504.00 – Classics
Historical works of literature, religious thought, intellectual and social history and related art forms accepted as seminal in a culture or discipline.

1506.00 – Speech Communication
Theory and methods of group communication and public address, including the development and use of language and the analysis of speech and other communication behaviors and actions.

1507.00 – Creative Writing
Short story, poetry, and novel, including the detailed study of published models with emphasis on the creative process.

1509.00 – Philosophy
Critical examination of the categories for describing reality, the nature and contexts of human experience, the methodology of rational inquiry, and criteria of practice, including ethics, esthetics, logic, and the history of ideas.

1510.00 – Religious Studies (Theological professions excluded)
Nature, function, origin, history, and tenets of the various religions.

1520.00 Reading

Theory and methods of reading including vocabulary, comprehension, fluency, critical and analytical reading.

1599.00 – Other Humanities

Specify.

TOP 16 – Library Science

Pre-professional transfer and paraprofessional programs that prepare individuals to assist professional librarians in acquiring and organizing media collections and assisting in research and other services related to those resources.

1601.00 – Library Science, General
Introduction to the structures and procedures of acquiring and organizing collections of resource materials in print and other media and conducting research using those resources.

*** 1602.00 – Library Technician (Aide)**
Techniques necessary to assist librarians or to conduct library activities under the direction of library staff.

1699.00 – Other Library Science
Specify.

*Indicates a vocational program.

TOP 17 – Mathematics

Instructional programs in the science of numbers, space configurations, and their operations, computations, measurements, relationships, applications and abstractions. Mathematics is a broad field of study that examines properties and interactions using numbers, graphing, equations, reasoning and logic for both real utilitarian problems and abstract concepts.

1701.00 – Mathematics, General

Science of numbers and space configurations and their operations, measurements, computations, relationships, applications and abstractions. Theoretical topics in computer science, statistics, astronomy, or other sciences may be included when treated as mathematical constructs or used as examples for the application of mathematical concepts and operations.

1702.00 – Mathematics Skills

Designed to clarify and develop specific supplementary skills to help students succeed in particular concepts fundamental to mathematics, such as factoring, math anxiety, word problems, scientific and graphing calculators, etc.

1799.00 – Other Mathematics

Specify.

TOP 18 – Military Studies

Instructional programs in the techniques and skills unique to the pursuit of a professional career as a military officer.

1801.00 – Military Science
History, strategy, logistics, and techniques of organized warfare and its conduct via air, land, and sea forces.

1899.00 – Other Military Studies
Specify.

*Indicates a vocational program.

TOP 19 – Physical Sciences

Instructional programs in the basic nature of matter, energy, systems, and associated phenomena.

1901.00 – Physical Sciences, General
Matter, energy, chemical and other systems, and associated phenomena.

1902.00 – Physics, General
Physical properties and interactions of matter and energy, including equilibrium, power, wave phenomena, mechanics, heat, electricity, magnetism, sound, light, special relativity, and the particle nature of matter.

1905.00 – Chemistry, General
Subatomic particles, elements, compounds, and other forms of matter: their detection, occurrence, composition, structure, properties, determination, interactions, transformations, changes of state, energy relationship; and the governing laws.

1911.00 – Astronomy
Matter and energy in the universe, i.e., the solar system, stars, galaxies and nebula, their history and dynamics, and related theories and cases.

1914.00 – Geology
The structure, composition, origin, history, distribution and modification of materials upon and within the earth and other celestial bodies.

1919.00 – Oceanography
The physical and chemical properties of water, the topography and composition of the ocean bottom, waves, currents, tides, the formation of islands, and related subjects.

*** 1920.00 – Ocean Technology**
Procedures and techniques used to measure and analyze ocean currents, seas, and other major bodies of water and ocean life, including the operation and/or maintenance and repair of related equipment and instruments. Includes aquarium technology and aquaculture.

*Indicates a vocational program.

1930.00 – Earth Science

Interdisciplinary study of the natural phenomena of the Earth as they affect human interactions in the environment. May include elements from geology, physical geography, meteorology and climatology, environmental resources, soil science, physical oceanography, and other disciplines.

1999.00 – Other Physical Sciences

Specify.

*Indicates a vocational program.

TOP 20 – Psychology

Instructional programs in the objective behavior and subjective experience of the individual organism. It is also the associated professional discipline which applies its findings in service to the individual, industry, and government.

2001.00 – Psychology, General
The objective behavior and the subjective experience of human beings.

2003.00 – Behavioral Science
Programs that combine psychology with coursework from one or more social sciences.

2099.00 – Other Psychology
Specify.

*Indicates a vocational program.

TOP 21 – Public and Protective Services

Instructional programs in the theories and techniques of the formulation, implementation and evaluation of public policies and services, including public safety occupations. Includes developing and improving competencies in the management and operation of government agencies.

***2102.00 – Public Administration**
Policy development and implementation in management of public services, public works, and public utilities.

***2102.10 – Public Works**
Practical instruction in street construction and maintenance and other public infrastructure services.

***2104.00 – Human Services**
Theory and practice in providing human and social services to individuals and communities. Preparation for work in public and private human services organizations.

***2104.40 – Alcohol and Controlled Substances**
Prepares individuals with an integrated theoretical and practical experience to develop skills necessary to work in the field of alcohol/drug abuse, as well as with families or employers of chemically dependent persons.

***2104.50 – Disability Services**
Principles and techniques of providing counseling, supervision, and supportive services for persons with developmental and other disabilities.

***2105.00 – Administration of Justice**
Theories, principles, and techniques of law enforcement agencies, juvenile justice, and corrections.

***2105.10 – Corrections**
Theories, principles and techniques of providing services to the incarcerated.

***2105.20 – Probation and Parole**
Principles and techniques governing the probation and parole of legal offenders.

***2105.30 – Industrial and Transportation Security**
Techniques involved in providing security services to institutions, government entities, and the general public. Includes airport and airline security.

*Indicates a vocational program.

***2105.40 – Forensics, Evidence, and Investigation**
Theories, principles, and techniques of forensic science and investigation in the justice system.

***2105.50 – Police Academy**
Principles and techniques of law enforcement specific to the requirements of the California Commission on Peace Officer Standards and Training (POST).

***2133.00 – Fire Technology**
Principles and techniques of preventing, controlling and extinguishing fires, including firefighter operations, maintenance of firefighting equipment, fire rescue procedures, and applicable laws and regulations.

***2133.10 – Wildland Fire Technology**
Principles and techniques of wildland firefighting including weather, topography, fuels and fuel moisture as it affects wildland fire behavior. Wildland fire prevention and specific training in logistics, investigation, and management of large wildland fires.

***2133.50 – Fire Academy**
Studies specific to local and state training requirements for employment and post-employment advancement.

***2140.00 – Legal and Community Interpretation**
Training in providing English-foreign language interpreting and translating services to aid clients in the legal and social services systems and in other governmental or community contexts.

***2199.00 – Other Public and Protective Services**
Specify *(includes all emerging occupations)*.

*Indicates a vocational program**.**

TOP 22 – Social Sciences

Instructional programs in all aspects of the past and present activities, conduct, interactions and organizations of humans.

2201.00 – Social Sciences, General
Programs that combine coursework from various different disciplines within the social sciences.

2201.10 – Women's Studies
History, sociology, culture of women, and development of modern feminism in relation to historical roles played by women.

2201.20 – American Studies
History, society, politics, culture, and economics of the United States and pre-Columbian predecessors.

2201.30 – Social Justice Studies: General
Explores the important terrain between ideals of justice and the everyday local and global expressions of injustice.

2201.40 – Social Justice Studies: LGTBQ
Explores the important terrain between ideals of justice and the everyday local and global expressions of injustice.

2201.50 – Social Justice Studies: Ethnic Studies
Explores the important terrain between ideals of justice and the everyday local and global expressions of injustice.

2201.60 – Social Justice Studies: Chicano Studies
Explores the important terrain between ideals of justice and the everyday local and global expressions of injustice.

2201.70 – Social Justice Studies: Gender Studies
Explores the important terrain between ideals of justice and the everyday local and global expressions of injustice.

2201.80 – Social Justice Studies: African American
Explores the important terrain between ideals of justice and the everyday local and global expressions of injustice.

*Indicates a vocational program.

2201.90 – Social Justice Studies: Asian American
Explores the important terrain between ideals of justice and the everyday local and global expressions of injustice.

2201.91 – Social Justice Studies: Native American
Explores the important terrain between ideals of justice and the everyday local and global expressions of injustice.

2202.00 – Anthropology
The origins, physical and cultural development, technologies, social customs, and beliefs of mankind.

2202.20 – Archaeology
Study of extinct societies, and the past of living societies, via interpretation of their remains.

2203.00 – Ethnic Studies
Programs that focus on the culture and history of ethnic and minority groups.

2204.00 – Economics
Study of limited resources, their use in producing goods and services, and their allocation and consumption; and related theories, principles, and techniques.

2205.00 – History
The past, including the recording, gathering, criticizing, synthesizing, and interpreting evidence about past events.

2206.00 – Geography
Earth and its life in land, sea, and air, including the distribution of plant and animal life, human beings, human settlements and industries, and the interaction of these factors.

***2206.10 – Geographic Information Systems**
Computer-based tools for acquiring, editing, storing, analyzing, and visualizing geographically referenced information, with applications in research, education, management, and planning. Includes Global Positioning System (GPS).

*Indicates a vocational program.

2207.00 – Political Science
Description and analysis of political institutions and processes, including the origin, development, geographical units, forms, sources of authority, powers, purposes, functions and operations of government and related theories of social benefit.

2207.10 – Student Government 2208.00 – Sociology
Human society, social institutions, and social relationships, including such things as the development, purposes, structures, functions, and interactions of human groups.

2210.00 – International Studies
Programs that focus on global and international issues from the perspective of the social sciences and related fields.

2210.10 – Area Studies
Programs that focus on defined regions or countries of the world.

2210.20 – Global Studies
Programs that focus global macro-processes.

2299.00 – Other Social Sciences
Specify.

*Indicates a vocational program.

TOP 30 – Commercial Services

Instructional programs that include those subject field designations associated with the development of skills required for the field of commerce.

***3005.00 – Custodial Services**
Care of buildings, fixtures, furnishings, and floor surfaces, including the use and care of tools, chemicals, clean procedures and the scheduling of work, and the purchasing of custodial supplies.

***3007.00 – Cosmetology and Barbering**
Care and styling of hair, and care of complexion, hands and feet, including hygiene, customer relations, and salon management.

***3008.00 – Dry Cleaning**
Operation and management of dry cleaning and laundering plants.

***3009.00 – Travel Services and Tourism**
Promotion of tourism, marketing, booking, and other services provided by travel agents and travel-related companies.

***3020.00 – Aviation and Airport Management and Services**
Programs related to air transportation systems and services.

***3020.10 – Aviation and Airport Management**
Training in airport and aviation operations, ground support and ground traffic direction, passenger and cargo operations, flight and terminal safety and security, aviation regulations, and business aspects of aviation and airports.

***3020.20 – Piloting**
Operation of commercial and private aircraft, including piloting, navigation, and passenger services.

***3020.30 – Air Traffic Control**
Air traffic management and flight control, including radar plotting, radio communications, aviation weather, instrumentation, and maintenance of flight control logs.

***3020.40 – Flight Attendant**
Knowledge and skills used in service of the safety and comfort of airline passengers.

*Indicates a vocational program.

*** 3099.00 – Other Commercial Services**
Specify *(includes all emerging occupations)*.

*Indicates a vocational program**.**

TOP 49 – Interdisciplinary Studies

Instructional programs that include those subject field designations which involve more than one major discipline without primary concentration in any one area. Also, courses in guidance, student success, and other categories, which do not fall into any other discipline, may be coded in the 6-digit 4930.xx series or 4931.00 through 4999.00.

4901.00 – Liberal Arts and Sciences, General (Program Only)
Provides for a wide distribution of courses that contribute to a balance of intellectual interests in the disciplines of this category.

4901.10 – Transfer Studies (Program Only)
Includes Certificates of Achievement based on the Intersegmental General Education Transfer Curriculum (IGETC), the California State University General Education-Breadth requirements or transfer patterns established by accredited public postsecondary institutions in adjacent states that award the baccalaureate degree.

4901.20 – Liberal Studies (*teaching preparation)* (Program Only)
Programs specifically designed to meet requirements for a Liberal Studies university major, for students intending to pursue a Multiple Subject teaching credential.

4902.00 – Biological and Physical Sciences (and Mathematics) (Program Only)
Provides for a wide distribution of courses that contribute to a balance of intellectual interests in the disciplines of this category.

4903.00 – Humanities (Program Only)
Provides for a wide distribution of courses that contribute to a balance of intellectual interests in the disciplines of this category.

4903.10 – Humanities and Fine Arts (Program Only)
4903.30 – Humanities and Social Sciences (Program Only)

4930.00 – General Studies (Program Only)
This code cannot be used for courses.

*Indicates a vocational program.

Specific codes for courses that provide general studies:

Use one of the following six-digit codes for courses in orientation, leadership, personal dynamics, study skills, and other subjects that contribute to the capacity of students to succeed in college.

4930.09 – Supervised Tutoring (Basic Skills)
4930.10 – Career Guidance and Orientation
4930.11 – Interpersonal Skills
4930.12 – Job Seeking/Changing Skills
4930.13 – Academic Guidance
4930.14 – Study Skills (Basic Skills)
4930.30 – Learning Skills, Disabled (Basic Skills)
4930.31 – Living Skills, Disabled (Basic Skills)
4930.32 – Learning Skills, Learning Disabled (Basic Skills)
4930.33 – Learning Skills, Speech Impaired (Basic Skills)
4930.60 – Elementary Education (Grades 1-8) (Basic Skills)
4930.62 – Secondary Education (Grades 9-12) and G.E.D. (Basic Skills)
4930.72 – Leadership Skills Development
4930.84 – English as a Second Language–Writing (Basic Skills)
4930.85 – English as a Second Language–Reading (Basic Skills)
4930.86 – English as a Second Language–Speaking/Listening (Basic Skills)
4930.87 – English as a Second Language–Integrated2 (Basic Skills)
4930.90 – Citizenship (and ESL Civics)

***4931.00 – Vocational ESL (Basic Skills)**

***4932.00 – Work Experience[3]**
Supervised employment intended to assist students in acquiring desirable work habits, attitudes, and career awareness.

4999.00 – Other Interdisciplinary Studies
Specify.

[1] Definitions and rules for program and course approval can be found in the *Program and Course Approval Handbook* published by the Chancellor's Office.
[2] ESL-Integrated includes courses that integrate reading, writing, and listening/speaking in a single course and are taught in a sequence.
[3] Work Experience, as defined by Title 5, Section 55252 and that are included in an occupational program, should be reported in the T.O.P. code that designates the occupation in which the experience takes place.

*Indicates a vocational program.

Above: San Diego Miramar College. Front Cover: Long Beach City College

California Community Colleges Chancellor's Office
1102 Q Street | Suite 4400 | Sacramento, CA 95811
www.cccco.edu