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**CODING MANUAL for
LAND and BUILDINGS in the
FIXED ASSET AND EQUIPMENT (FAE)
INVENTORY**

INTRODUCTION

This manual will help the colleges resolve problems related to coding definitions and result in better allocations of operating and capital funds to the colleges. The manual has been updated to provide background as to the importance of maintaining the Fixed Asset and Equipment Inventory System (FAE). New, this publication is a space-coding matrix to ensure consistency in the identification and coding of space (Reference I-5). This manual is organized into sections corresponding to coding and definitions, room use codes, NACUBO, and classification of instructional programs (CIP) codes.

The various definitions in this manual are, for the most part, not unique to the community and technical college system. This manual is, in fact, a compilation of materials taken directly from three existing manuals, the Postsecondary Education Facilities Inventory and Classification Manual, by the Working Group on Postsecondary Physical Facilities of the National Center for Educational Statistics of the Office of Educational Research and Improvement of the U.S. Department of Education (Report # NCES 92-165), the MIS 3 Facility Inventory Report Reporting Instructions, published by the State Board for Community and Technical Colleges, State of Washington, revised December 1986, and the Course Coding and Crosswalk Manual, published by the State Board for Community and Technical Colleges, State of Washington, revised June 1996.

Data is critical to analysis of community and technical college space. Information is essential to understand issues of capacity, utilization, quality of space, etc. These issues are becoming more critical in assessment of capital funding and priority setting. The Office of Financial Management (OFM) and the Higher Education Coordinating Board (HECB) have generated several studies and reports over the last six years on capacity and utilization. They use information taken directly from our FAE to support their own Higher Education Space Inventory and Utilization Information System. Problems in our system carry forward and become embedded in the investment policies of these organizations.

THE FACILITIES AND EQUIPMENT INVENTORY SYSTEM (FAE)

What is the FAE?

The FAE is the facilities and equipment inventory system for the community and technical colleges. The FAE database has four separate data sets: 1) land data set, 2) buildings data set, 3) room data set, 4) equipment data set. The land data set stores information on land holdings associated with the college, such information as: number of acres, acquisition cost, utilization, parcel number, etc. The building data set contains information about buildings, such as: building name, construction date, latest remodel date, gross square feet, roll up of assignable square feet from the room data set, building condition, capital investment, construction date, etc. The room data set contains information such as room number, room use, net square feet, room coding, capacities, suitability, handicapped access, etc. The equipment data set contains information on equipment such as, date of acquisition, tag number, quantity, cost, serial number, etc. The FAE is a subprogram of the financial management system (FMS). Plant personnel generally maintain the FAE.

How often is the FAE updated?

Ideally the FAE should be maintained on an on-going basis so that it is current. Colleges should maintain the FAE monthly. The problem with maintaining the FAE less than monthly is that it slows response time to requests from the legislature, the Office of Financial Management (OFM), the Higher Education Coordinating Board (HECB) or the State Board for Community and Technical Colleges (SBCTC), which negatively impacts perceptions of the accuracy and credibility of our response. Another difficulty is that the farther away from an event you get in time, the more likely to forget, making it more difficult to maintain the database and increasing the potential of making errors. We cannot stress enough the importance of accurate and timely facilities data. All levels of state government (i.e., the legislature, the OFM, the HECB, the SBCTC and others) access information from our facilities database continually, using it as the basis for everything from the development of academic year reports, annual state facilities inventory (FIS), development of capital budgets, and the evaluation of statewide capital policy.

How is the FAE updated?

Each college manages its own FAE database, which is resident on the college's central computer. College staff can study and update this data, as needed. At the end of each month the FAE data is exported from all colleges to the State Board's central processor at the Center for Information Services (CIS), and to the Data Warehouse server at the State Board offices. Once the State Board database is updated, it is downloaded from the central processor to a data warehouse server at the State Board offices for use in statewide reporting and distribution to OFM and the HECB on a yearly basis.

How is the FAE used?

The FAE is used in a variety of ways both within the two-year college system and by other budget and policy setting agencies:

1. Capital Analysis Model (CAM) Development

The colleges are most familiar with its use as the basis for the Capital Analysis Model (CAM). The CAM basically uses the current FAE facilities inventory as a baseline for analyzing and prioritizing college major capital project budget requests. This is done, by simply using the FAE as a baseline facilities inventory, manually adjusted for committed changes over the planning period. The model

displays the variances between the FAE inventory and the CAM developed space standards. A variance and percentage deficiency or overage for each CAM category is displayed, as well as for the sum of all CAM categories. This information is used to assess priorities on major project requests across the system.

2. State Asset Reporting System (SARS)

Each quarter, all state agencies must report selected information about their fixed assets to the state through the State Asset Reporting System (SARS). In the case of the community and technical colleges, the information for this report is found in the FAE. Each quarter, the Center for Information Services (CIS) run jobs; (computer programs) which extract the required information from the college, State Board, and CIS databases and submits it to OFM.

3. Statewide Facilities Inventory System (FIS)

The state requires all agencies to submit a facilities inventory to OFM and the legislature in May of each year. OFM contracted with an outside consulting firm to develop an automated facilities inventory system. Historically OFM FIS data had to be entered manually from summary data from the FIS and other data sources. In 1999 information required by FIS, which was not resident in FAE, was added to the FAE. If files are updated properly, the FIS becomes a subset of the FAE that can be downloaded directly to OFM. It should be noted that OFM monitors several key elements in the Facilities Inventory System. One of the most important elements is the Building Condition Code. This coupled with the information in the Annual Maintenance Summary Reports is used by OFM to evaluate repair budget request.

4. Internal Utilization Reporting

The development of utilization information for the system's classrooms and laboratories is also dependent on the FAE. The FAE information is merged with information from the Student Management System (SMS) to provide room utilization information. The FAE provides room identification, room, size, room capacity, etc. while the SMS provides numbers of students scheduled into these rooms, times of day, etc. Care must be taken to ensure complete and accurate coding so that data can be cross-walked properly between the two systems to generate meaningful and usable reports.

5. External Utilization and Capacity Reporting

Annually, the Higher Education Coordinating Board (HECB) conducts a college capacity and utilization study. The information developed in this study is used by the HECB to answer a variety of questions, the most critical of which is the capacity needs of our various higher educational institutions by given geographic area. The HECB evaluates all higher education capital budget requests and makes recommendations as to whether or not they should be funded. The HECB study is the basis for both policy and resource allocation decisions. It is essential that colleges maintain accurate room capacity information in the FAE, which is downloaded into HECB databases for classrooms, labs, and faculty offices. It is also essential that colleges ensure that scheduled classes have consistent room identification coding in both the SMS and the FAE to have usable utilization reports.

6. Internal Policy and Budget Development

Within the community and technical college system the FAE is used for a great deal more than simply the foundation for the Capital Analysis Model (CAM). The information in the FAE is also used to analyze the condition of the system's capital plant and to estimate the future resources needed to maintain building viability in the face of aging facilities and increasing enrollment demand.

7. External Policy and Budget Development

The Higher Education Coordinating Board is not the only external state agency using the information in our FAE database to help understand capital policy and priorities. There are frequent requests for information by legislative and OFM staff.

8. Internal Resource Allocation

State Board staff uses information from the FAE to allocate capital funding in a variety of categories. The most direct use of the FAE is in the allocation and distribution of Minor Works – Preservation: (RMI) and Minor Works – Program, improvement dollars.

**Facilities and Equipment Inventory (FAE)
Code Structure for Integration with FAE/SMS**

Space Coding Matrix

There are often problems with data in the FAE that must be addressed. Fortunately the numbers of errors in the system are relatively small and manageable. The biggest problem in the system is timely addition of new facility information and timely removal/modification of information or structures that are demolished or remodeled. Finally, there are a few colleges that have unrecognized coding structures causing data to be omitted from various reports.

The State Board has created a coding matrix to provide acceptable room use, NACUBO, and CIP codes for various types of space. This matrix (Table 1) is used to test the FAE database. Any room use identifier that does not match one of the FAE category codes is identified on a “Z-list”. Colleges are contacted periodically to evaluate the “sleepers” and recode them.

If there are any questions regarding the use of a code sequence, please contact the State Board Capital Budget staff to resolve your concerns.

**Facilities and Equipment Inventory (FAE)
Space Coding Matrix**

Revision Date: June 15, 2011

SPACE TYPE CATEGORIES	FAE CATEGORY CODES	FAE CATEGORIES	ROOM USE CODES	NACUBO PROGRAM CODES	CIP CODES
Classroom Space	A1	General Classrooms	110,115,120,125,130,135	10	NA
	A2	Basic Skills	210,215,220,225,230,235,260,265,270,275 230	14 10	13.0202, 32.????, 33.????, 37.????, 98.???? NA
Laboratory Space	B1	Science Laboratories	210,215,220,225,230,235,260,265,270,275,580,585 570,575,760,765	11,12	26.????, 30.0101, 40.01??, 40.02??, 40.04??, 40.05??, 40.060?, 40.080?, 40.0890, 42.????
	B2	Computer & Info. Sci. Labs.	210,215,220,225,230,235,260,265,270,275 210,215,220,225,230,235,260,265,270,275	11,12 13	11.???? 11.9994
	B3	Business Education Labs.	210,215,220,225,230,235,260,265,270,275	11,12	08.0102, 09.0102, 09.0401, 09.0402, 09.0597, 09.07??, 09.09??, 52.????
	B4	Open & Multidisciplinary Computer Labs.	260,265,270,275,280,285	10,41	NA
	B5	Language/Math Labs.	210,215,220,225,230,235,260,265,270,275	11,12	16.????, 23.????, 27.????
Fine Arts Space	C1	Art	210,215,220,225,230,235,260,265,270,275	11,12	50.0201, 50.0401, 50.0602, 50.0605, 50.0703, 50.0705, 50.0708, 50.0709, 50.0711
	C2	Music	210,215,220,225,230,235,260,265,270,275	11,12	50.0901, 50.0902, 50.0903, 50.0904
	C3	Drama	210,215,220,225,230,235,610,615	11,12	50.0501,50.0101
	C4	Theater/Auditorium	610,615	10,52	NA

**Facilities and Equipment Inventory (FAE)
Space Coding Matrix**

Revision Date: June 15, 2011

SPACE TYPE CATEGORIES	FAE CATEGORY CODES	FAE CATEGORIES	ROOM USE CODES	NACUBO PROGRAM CODES	CIP CODES
Vocational Space	D1	Vocational Labs.	(210,215,220,225,230,235,260,265,270,275,280,285,550,555,570,575,580,585,720,725)	11,12	01.????, 03.????, 04.????, 09.0404, 10.????, 12.????, 13.0501, 13.12??, 13.1319, 13.1320, 13.1401, 13.150?, 15.????, 19.????, 20.????, 22.????, 25.????, 29.????, 31.0101, 31.03??, 40.069?, 40.0891, 41.????, 43.????, 44.????, 45.0790, 46.????, 47.????, 48.????, 49.????, 50.0402, 50.0404, 50.0406, 50.0407, 50.0408, 50.0409, 50.0410, 50.0498, 50.0704, 50.0713, 50.0909, 50.0997, 50.0998, 51.????
	D2	Voc./Engineering	(210,215,220,225,230,235,260,265,270,275,280,285,550,555,570,575,580,585,720,725)	11,12	14.????
Learning & Study Support Space	E1	Learning Resource Ctrs./ Libraries	(410,420,430,440,455,530,535,311,312,313,314,315,316,350,355)	41,43	NA
Faculty Work and Related Space	F1	Faculty Offices and Support Facilities	311,312,313,314,315,316,350,355,330,335	10,11,12,13,14,47,48	ALL (except 36.????)
Institutional and Student Services Administrative Space	G1	General College Administration and Student Services	311, (312,313,314,315,316,320,325,350,355), 850,855	46, (45-48,51,53,54,61-63,66,68), 55	NA
	G2	Computing Support	312,313,314,315,316,350,355,710,715,720,725	44	NA
Student Social and Cultural Development Space	H1	Student Centers	312,313,314,315,316,350,355,630,635,650,655,660,665,670,675,680,681,685,660,665,670,675	52,55,66,52,55,66,52,55	NA
	H2	Exhibition	620,625	42	NA
	H3	Physical Education	210,215,220,225,230,235,520,523,525,210,215,220,225,230,235,520,523,525,312,314,315,316,350,355	56,11,56	NA, 13.1314, 31.05??, 34.0103, 36.0108, 50.0301, NA
	H4	Day Care	640,645	52,55,66	NA

**Facilities and Equipment Inventory (FAE)
Space Coding Matrix**

Revision Date: June 15, 2011

SPACE TYPE CATEGORIES	FAE CATEGORY CODES	FAE CATEGORIES	ROOM USE CODES	NACUBO PROGRAM CODES	CIP CODES
Supplies & Facilities/ Grounds Maintenance Support	I1	Central Stores Procurement and Plant Ops.	730,735,750,755,580,585 312,313,314,315,316,350,355,720,725,760,765	64,65	NA
Non-program Specific Institutional Support Space	J1	Garages	740,745	65	NA
	J2	Unassigned	050,060,070	ALL (except 32,33,34,71,72)	NA
	J3	Vacant Space	ALL (except 050,060,070,080,081,082,083)	81, 82	NA
	J4	Nonassignable	080,081,082,083	ALL (except 32,33,34,71,72)	NA
	J5	Independent Ops.	All	32,33,34,71,72	NA
	J6	Dormitories	9??	52,55	NA
Community Relations Space	K1	Community Relations	ALL (except 050,060,070,080,081,082,083)	67	NA
Community Education Space	L1	Self-Support	ALL (except 050,060,070,080,081,082,083)	13	36.????
Informal Learning Space	M1	Informal Learning Space	411	40	NA

Frequently Used FAE Coding and Definitions

The following section provides definitions for codes used in the FAE:

1. LOCATION (ON-/OFF-CAMPUS) CODE

Code

- | | |
|---|--|
| 1 | On-campus contiguous - defined as those facilities located on the main campus (default). |
| 2 | On-campus noncontiguous - defined as those facilities that are located within normal walking distance from the primary campus. |
| 3 | Off-campus - defined as those facilities that are not located on or within normal walking distance from the primary campus. |

2. COUNTY CODE

Code

01	Adams	21	Lewis
02	Asotin	22	Lincoln
03	Benton	23	Mason
04	Chelan	24	Okanogan
05	Clallam	25	Pacific
06	Clark	26	Pend Oreille
07	Columbia	27	Pierce
08	Cowlitz	28	San Juan
09	Douglas	29	Skagit
10	Ferry	30	Skamania
11	Franklin	31	Snohomish
12	Garfield	32	Spokane
13	Grant	33	Stevens
14	Grays Harbor	34	Thurston
15	Island	35	Wahkiakum
16	Jefferson	36	Walla Walla
17	King	37	Whatcom
18	Kitsap	38	Whitman
19	Kittitas	39	Yakima
20	Klickitat		

3. UTILIZATION CODE

Code

- | | |
|---|--|
| 1 | Used full-time |
| 2 | Used part-time |
| 3 | Excess to particular location but needed by agency |
| 4 | Excess to agency, should be surpluses |
| 5 | Surpluses |

4. CONSTRUCTION CODE

Code

1	Steel frame
2	Masonry/concrete block
3	Wood frame
4	Greenhouse
5	Portables
6	Pre-engineered metal building
7	Concrete
8	Residential
9	Trailer/container

5. OWNERSHIP STATUS

Code

1	State (college) owned
2	State lease/purchased or COP (capital lease)
3	Federally owned or leased
4	State leased/rented (operating lease)
5	Other
6	Not owned but made available to the college at little or no cost
7	Trust land owned by another college or state agency

6. COMMODITY GROUP CODES

Land

Code

A100	Up-lands
A200	Beds of navigable waters
A300	Shore lands
A400	Tide lands

Buildings/Components

Code

0505	Having a Useful Life of: 5 years
0510	Having a Useful Life of: 10 years
0515	Having a Useful Life of: 15 years
0520	Having a Useful Life of: 20 years
0524	Having a Useful Life of: 24 years
0525	Having a Useful Life of: 25 years
0527	Having a Useful Life of: 27 years
0530	Having a Useful Life of: 30 years
0535	Having a Useful Life of: 35 years
0540	Having a Useful Life of: 40 years
0545	Having a Useful Life of: 45 years
0500	Having a Useful Life of: 50 years

Improvements Other Than Buildings

<u>Code</u>	
0610	Improvements having no useful life
0620	Improvements having useful life of: 5 years
0630	Improvements having useful life of: 10 years
0640	Improvements having useful life of: 15 years
0650	Improvements having useful life of: 20 years
0660	Improvements having useful life of: 30 years
0670	Improvements having useful life of: 40 years
0680	Improvements having useful life of: 50 years

7. BUILDING CONDITION CODES (FAE)

FAE Codes	FAE Definition	Comparable FCS Scores	Description
1	Superior	146-175	<ul style="list-style-type: none"> • New construction, major remodels, or recently refurbished systems and finishes. • Maintained adequately with routine maintenance. • Little or no corrective maintenance required. • Little or no deferred maintenance.
2	Adequate	176-275	<ul style="list-style-type: none"> • Finishes are generally worn but major systems and overall facility is in reasonable shape. • Maintained adequately with routine maintenance. • Some minor work projects proposed to upgrade system components and finishes. • Beginning to see some corrective maintenance. • Relatively small amount of deferred maintenance.
3	Needs Improvement (Fair)	276-350 (by Additional Maint.)	<ul style="list-style-type: none"> • Facility has frequent system failures. • Facility requires substantial maintenance and capital repair efforts. • Increased demands for corrective maintenance. • Notable deferred maintenance but still manageable with preservation and minor works efforts.
4	Needs Improvement (Limited Functionality)	351-475 (by Renovation)	<ul style="list-style-type: none"> • Facility has potential for imminent systems failure or is facing large repair costs. • Facility requires excessive, ongoing maintenance effort. • Continual demands for corrective maintenance. • Ongoing and corrective maintenance are no longer cost effective. • Reduction of deferred maintenance backlog is no longer cost effective.
5	Needs Improvement (Marginal Functionality)	476-681 (by Replace. or Renov.)	<ul style="list-style-type: none"> • Conditions associated with Renovation category above, but with greater severity. • Facility is approaching or is past its useful life. • Changes in instructional programs over time have rendered the facility obsolete.
6	Vacant Building	Dependant on survey	<ul style="list-style-type: none"> • Facility is minimally occupied and/or used for transitory functions, i.e., storage. • The facility's future use has not been determined. Though unlikely, the facility may be salvageable. • Facility is maintained to a limited degree (mothballed), but is kept dry and heated. • Substantial amount of deferred maintenance.
7	Scheduled for Demolition	682-730	<ul style="list-style-type: none"> • Occupied or vacant and scheduled for replacement or demolition within 10 years. • Only maintenance or repairs are those that are necessary for public safety or for continued limited use.
8	No assessment made	N/A	<ul style="list-style-type: none"> • No condition assessment has been made. • Note: If selected, then plan to do the assessment prior to the next Facility Inventory update.

8. ROOM SUITABILITY

The coding of room suitability is intended to reflect a judgment about how well the design of a room supports the function of the room and the organizational unit to which the room is assigned. This evaluation of *room suitability* for its assigned use focuses on a different dimension than the coding of *building condition*, which generally assesses the useful life of a building through the evaluation of structural and building systems.

It is entirely possible that the evaluation of room suitability may reflect an evaluation that seems to conflict with the evaluation of building condition. For example, a room such as a geography class laboratory (see 210) could be evaluated as satisfactorily suited for its existing use even though the building in which the room is located could be rated as requiring major remodeling due to the age and condition of utility or structural system.

- A *Definition:* The suitability or functionality of the room for its assigned use at the time of the inventory or audit.
- B *Basis for Classification:* The evaluation of a room for functional suitability should be based on the judgment of a departmental representative (rather than the individual user assigned to the room) and the institution's facility planning or physical plant personnel. Only permanent architectural features and fixed equipment should be considered in rating the room's suitability, the configuration, age, condition or amount of movable furniture and equipment should not affect the rating. The rating of room suitability can change significantly from one inventory or audit date to the next if, in the intervening period, the room has been reassigned to a different function of organizational unit, even though no physical alterations have been undertaken.
- C The following codes may be used to designate room suitability:
 - 1 Highly functional: Optimal for a room of this type, recently constructed or renovated, fully supports present use.
 - 2 Satisfactory: Suitable for continued use with normal maintenance; provides opportunity for adequate program delivery.
 - 3 Limited renovation: Requires limited renovation to support existing assigned use on a continued basis. The cost of renovation to support program delivery would not exceed 25% of the replacement cost of the room.
 - 4 Major renovation: Requires major renovation to support the existing assigned use on a continued basis; significantly inhibits adequate program delivery. The cost of the renovation would be between 25% and 50% of the replacement cost of the room.
 - 5 Unsatisfactory: Unsatisfactory for the existing assigned use, and cannot be renovated to serve the program adequately for less than 50% of the replacement cost of the room.
 - 6 Inappropriate: Room can support the current use, but the use is not appropriate for a room of this type. (e.g., a storeroom converted to a classroom.)

9. DISPOSED STATUS

This code applies to total building records.

Code

1

Released (sale or exchange pending)

- 9 Other (destroyed by fire or natural disaster, vacant pending demolition, condemned)
- E Physically removes the record from the data base (use this code with caution)

10. WORKSTATION TYPE
(used for 110, 120, 130, 210, 260)

Code

- 1 Table armchairs (movable)
- 2 Table armchairs (fixed)
- 3 Tables and chairs
- 4 Seminar table and chairs
- 5 Auditorium seating
- 6 Carrels
- 7 Drafting tables
- 8 Art studio or group music room
- 10 All other (i.e., science lab, shop, etc.)

11. DORMITORY CODING

Dormitory space is treated differently than any other building type; because of this fact, dormitories, whether owned or leased, must be coded in such a way as to allow the dormitories to be easily identified and extracted from the FAE building database. To accomplish this, all dormitories that are used for residential purposes; regardless of ownership status, will be coded NACUBO 52 or 55 with a 900-room use code. Dormitory space will be consolidated into a single room with gross square foot reported – Do Not differentiate by each living dormitory or dormitory support space.

No longer used dormitory space converted to faculty offices and other educational use will follow the standard convention for the type of space and will be identified by room.

12. SITE CODES

Listing of State-owned Facilities by Location

Peninsula College

- 010A Main Campus - Port Angeles
- 010C Forks Education Center - Forks

Grays Harbor College

- 020A Main Campus - Aberdeen
- 020B Whiteside Facility - Aberdeen
- 020C GHC on the Willapa - South Bend
- 020D Simpson Education Center - Elma
- 020E Riverview Education Center - Raymond

Olympic College

- 030A Main Campus - Bremerton
- 030D Shelton Campus - Shelton
- 030E Poulsbo Campus - Unincorporated Kitsap County

Skagit Valley College

- 040A Main Campus - Mount Vernon
- 040B Downtown Center - Mount Vernon
- 040C Whidbey Campus - Oak Harbor
- 040E Marine Technology Center - Oak Harbor
- 040F Graphic Arts Facility - Oak Harbor
- 040G Cardinal Cove - Mount Vernon
- 040H San Juan Center - Friday Harbor
- 040I San Juan H.S. Facility - Friday Harbor
- 040J Burlington H.S. Facility - Burlington
- 040K Oak Harbor H.S. Facility - Oak Harbor
- 040L Sedro Woolley H.S. Facility - Sedro Woolley
- 040M Fairhaven H.S. Facility - Burlington

Everett Community College

- 050A Main Campus - Everett
- 050B Early Learning Center - Everett
- 050C Aviation Shop/Hanger (Paine Field) - Everett
- 050H Applied Technology Training Center - Everett
- 050P Physical Education Facility - Everett

Seattle Central Community College

- 062A Main Campus - Seattle
- 062B Gompers - Seattle
- 062C Trident - Seattle

North Seattle Community College

- 063A Main Campus - Seattle

South Seattle Community College

- 063A Main Campus - Seattle
- 063B Duwamish - Seattle

Seattle Vocational Institute

- 065A Main Campus - Seattle

Shoreline Community College

- 070A Main Campus - Shoreline

Bellevue Community College

- 080A Main Campus - Bellevue

Center for Information Services

089A Center for Information Services - Bellevue

Highline Community College

090A Main Campus - Des Moines

090B Redondo Pier - Unincorporated King County

Green River Community College

100A Main Campus - Unincorporated King County

100B Enumclaw Center - Enumclaw

100F Child Care Center - Unincorporated King County

Pierce College - Fort Steilacoom

111A Main Campus - Unincorporated Pierce County

Pierce College - Puyallup

112A Main Campus - Puyallup

Centralia College

121A Main Campus - Centralia

121B Morton Center - Morton

Lower Columbia College

130A Main Campus - Longview

130E Kelso H.S. Facility - Kelso

Clark College

140A Main Campus - Vancouver

140C Athletic Fields - Vancouver

140D Visitor Center Facility - Vancouver

Wenatchee Valley College

150A Main Campus - Wenatchee

150B North Campus - Omak

Yakima Valley Community College

160A Main Campus - Yakima

160B Lower Valley Center - Grandview

160C Toppenish Center - Toppenish

Spokane Community College

171A Main Campus - Spokane

171B Hanger Facility - Unincorporated Spokane County

171C Apprenticeship Training Center - Unincorporated Spokane County

Spokane Falls Community College

172A Main Campus - Spokane

172B Colville Center - Colville

172G Hillyard Center Relocatable - Spokane

172J Inchelium Center (Relocatable) - Inchelium

172M East Central Community Center H.S. Facility - Spokane

172P Newport Center - Newport

172T B1& K1 Relocatables - Curlew (Unincorporated Ferry County)

Big Bend Community College

180A Main Campus - Unincorporated Grant County

Columbia Basin College

190A Main Campus - Pasco

190B Richland Campus - Richland

Walla Walla Community College

200A Main Campus - Walla Walla

200B Clarkston Center - Clarkston

Whatcom Community College

210A Main Campus - Bellingham

Tacoma Community College

220A Main Campus - Tacoma

220C Gig Harbor Center - Gig Harbor

Edmonds Community College

230A Main Campus - Lynnwood

South Puget Sound Community College

240A Main Campus - Olympia

Bellingham Technical College

250A Main Campus - Bellingham

Lake Washington Technical College

260A Main Campus - Kirkland

260B Marymoor Annex - Redmond

Renton Technical College

270A Main Campus - Renton

L.H. Bates Technical College

280A Main Campus - Tacoma

280B South Campus - Tacoma

280E Transmitter - Tacoma

280F Communications Center - Tacoma

Clover Park Technical College

290A Main Campus - Unincorporated Pierce County

290F Woodbrook Facilities - Fort Lewis

290G Pierce Co. Airport Facilities - Unincorporated Pierce County

Cascadia Community College

300A Main Campus - Bothell

Please coordinate use of additional codes and appropriate titles with the State Board Capital Office. The complete summary of college site codes with addresses, legislative district, county, and city codes is included as Appendix A.

DEFINITIONS OF BUILDING AREAS

I. GROSS AREA:*

Definition: The sum of the enclosed floor areas of the building included within the outside faces of exterior walls for all stories.

Basis for Measurement: Gross area should be computed by measuring from the outside face of exterior walls, disregarding cornices, pilasters, buttresses, etc., which extend beyond the wall face. Measured in terms of gross square feet (GSF).

Description: In addition to all the internal floored spaces obviously covered above, gross area should include basements (except unexcavated portions), attics, garages, penthouses, mechanical equipment floors, lobbies, mezzanines, and corridors, provided they are fully enclosed (usually by four walls). Stairways, elevator shafts, mechanical service shafts, and ducts are to be counted as gross area on each floor through which the shaft passes.

Limitations: Exclude open courts; light wells; covered outdoor storage, work, or kiln areas; covered walks; non-enclosed loading docks; or portions of upper floors eliminated by rooms or lobbies that rise above single-floor ceiling height.

* Source: Federal Construction Council Technical Report No. 50, *Classification of Building Areas*, National Academy of Sciences, Building Research Advisory Board. Publication 1235. (Modified by SBCCE, 1989).

II. ASSIGNABLE AREA:

Definition: The sum of all areas on all floors of a building assigned to, or available for assignment to, an occupant, including every type of space functionally usable by an occupant (excepting those spaces defined as building service, circulation, mechanical, and structural areas).

Basis for Measurement: All assignable areas should be computed by measuring from the inside finished of surfaces, which form the boundaries of the designated areas. Do not include unusable areas having less than 6'6" clear headroom.

Description: Included should be space subdivisions for offices, classrooms, laboratories, seminar and conference rooms, libraries, file rooms, storage rooms, etc., including those for special purposes (e.g., auditoriums, cafeterias, TV studios, faculty and student locker and shower rooms, maintenance and repair shops, garages), which can be put to useful purposes in accomplishment of the institution's mission.

Limitations: Deductions should not be made for columns and projections necessary to the building.

III. NON-ASSIGNABLE AREA: "Non-assignable" area refers to that portion of the area of a building which is not available for assignment to building occupants but which instead is necessary for the general operation of the building. By definition, non-assignable area consists exclusively of the following: circulation, building service, mechanical, and structural areas.

A. CIRCULATION AREA:

Definition: The sum of all areas on all floors of a building which is required for physical access to some subdivision of space whether directly bounded by partitions or not.

Basis for Measurement Should be computed by measuring from the inner faces of walls or partitions, which enclose horizontal spaces, used for such purposes. Deductions should not be made for columns and minor projections necessary to the building. Do not include unusable areas having less than 6'6" clear headroom.

Description: Circulation space includes corridors, fire towers, elevator lobbies, tunnels, bridges and each floor's footprint of elevator shafts, escalators, and stairways. Receiving areas, such as loading docks should be treated as circulation space. Any part of a loading dock that is not covered is to be excluded from both circulation area and the gross building area.

Limitations: When determining corridor areas, only horizontal spaces required for *general* access should be included - not aisles, which are used only for circulation within office suites, auditoriums, or other, working areas. Deductions should not be made for columns and projections necessary to the building.

B. BUILDING SERVICE AREA:

Definition: The sum of all areas on all floors of a building used to support its cleaning and public hygiene functions.

Basis for Measurement: These areas should be measured from the inside surfaces of enclosing walls or permanent partitions. Deductions should not be made for columns and minor projections necessary to the building. Do not include unusable areas with less than 6'6" clear headroom.

Description: Included should be such areas as trash rooms, janitors' closets, custodial supply rooms, custodial locker rooms, sink rooms and public restrooms.

Limitations: This category should not include central physical plant shop areas, special purpose storage or maintenance rooms.

C. MECHANICAL AREA:

Definition: That portion of the gross area designed to house mechanical equipment, utility services, and shaft areas.

Basis for Measurement: Mechanical area should be computed by measuring from the inner faces of the walls, partitions, or screens, which enclose such areas. Do not include unusable areas with less than 6'6" clear headroom.

Description: Mechanical area should include, but not be limited to, mechanical areas in central utility plants, air duct shafts, boiler rooms, fixed mechanical and electrical equipment rooms, fuel rooms, mechanical service shafts, meter and communications closets, service chutes, stacks, and non-private toilet rooms.

Limitations: Deductions should not be made for columns and projections necessary to the building.

D. STRUCTURAL AREA:

Definition: "Structural Area" is that portion of the gross area, which cannot be occupied or put to use because of the presence of structural features of the building.

Basis for Measurement: Precise computation of structural area by direct measurement is not contemplated under these definitions. Structural area should generally be determined by assuming it to be the residual area after the assignable, circulation, custodial, and mechanical areas have been subtracted from the gross area.

Description: Examples of building features normally classified as structural area are exterior walls, firewalls, permanent partitions, and unusable areas in attics, basements, or comparable portions of a building.

ROOM USE CODE SUMMARY

100 CLASSROOM FACILITIES

- 110 Classroom
- 115 Classroom Service

- 120 Enhanced Classrooms
- 125 Enhanced Classroom Service

- 130 Interactive Classrooms
- 135 Interactive Classroom Service

200 LABORATORY FACILITIES

- 210 Scheduled Class Laboratory
- 215 Scheduled Class Laboratory Service

- 220 Nonscheduled Class Laboratory
- 225 Nonscheduled Class Laboratory Service

- 230 Individual Study Laboratory
- 235 Individual Study Laboratory Service

- 250 Research Laboratory
- 255 Research Laboratory Service

- 260 Scheduled Class Computer Laboratory
- 265 Scheduled Class Computer Laboratory Service

- 270 Nonscheduled Class Computer Laboratory
- 275 Nonscheduled Class Computer Laboratory Service

- 280 Open Computer Laboratory
- 285 Open Computer Laboratory Service

300 OFFICE FACILITIES

- 310 Office
 - 311 Academic Office
 - 312 Administrative Office
 - 313 Student Assistant Office
 - 314 Secretarial/Clerical Office
 - 316 Staff Office
- 315 Office Service

- 320 Institutional Computer Training Room
- 325 Institutional Computer Training Room Service

- 330 Faculty Computer Support Room
- 335 Faculty Computer Support Room Service

- 350 Conference Room
- 355 Conference Room Service

400 STUDY FACILITIES

- 410 Study Room
- 411 Informal Learning Area

- 420 Stack
- 430 Open-Stack Study Room

- 440 Processing Room
- 455 Study Service

500 SPECIAL USE FACILITIES

- 510 Armory
- 515 Armory Service

- 520 Athletic Or Physical Education
- 523 Athletic Facilities Spectator Seating
- 525 Athletic Or Physical Education Service

- 530 Media Production
- 535 Media Production Service

- 540 Clinic
- 545 Clinic Service

- 550 Demonstration
- 555 Demonstration Service

- 560 Field Building

- 570 Animal Quarters
- 575 Animal Quarters Service

- 580 Greenhouse
- 585 Greenhouse Service

- 590 Other (All Purpose)

600 GENERAL USE FACILITIES

- 610 Assembly
- 615 Assembly Service

- 620 Exhibition
- 625 Exhibition Service

- 630 Food Facility
- 635 Food Facility Service

- 640 Day Care
- 645 Day Care Service

650 Lounge
655 Lounge Service

660 Merchandising
665 Merchandising Service

670 Recreation
675 Recreation Service

680 Meeting Room
681 Interactive Meeting Room
685 Meeting Room Service

700 SUPPORT FACILITIES

710 Central Computer Or Telecommunications
715 Central Computer Or Telecommunications Service

720 Shop
725 Shop Service

730 Central Storage
735 Central Storage Service

740 Vehicle Storage
745 Vehicle Storage Service

750 Central Service
755 Central Service Support

760 Hazardous Materials
765 Hazardous Materials Service

800 HEALTH CARE FACILITIES

850 Treatment/Examination
855 Treatment/Examination Service

900 RESIDENTIAL FACILITIES

000 UNCLASSIFIED FACILITIES

050 Inactive Area

060 Alteration Or Conversion Area

070 Unfinished Area

NONASSIGNABLE AREA

080 Circulation Area
081 Building Service Area
082 Mechanical Area

STRUCTURAL AREA

083 Structural Area

Room Use Coding

100 - Classroom Facilities

General

This category aggregates classroom facilities as an institution-wide resource, even though these areas may fall under different levels of organizational control. The term “classroom” includes not only general-purpose classrooms, but also lecture halls, recitation rooms, seminar rooms, and other rooms used for scheduled non-laboratory instruction. Total classroom facilities include any support rooms that serve the classroom activity (e.g., 110, 115, 120, 125, 130, and 135 as defined below). A classroom may contain various types of instructional aids or equipment (e.g., multimedia or telecommunications equipment) as long as these do not tie the room to instruction in a specific subject or discipline. (For treatment of such space, see 200 - Laboratory Facilities).

110 Classroom

Definition: A room used for classes and that is also not tied to a specific subject or discipline by either equipment or the configuration.

Description: Includes rooms generally used for scheduled instruction that require no special, restrictive equipment or configuration. These rooms may be called lecture rooms, lecture-demonstration rooms, seminar rooms, and general-purpose classrooms. A classroom may be equipped with tablet armchairs (fixed to the floor, joined in groups, or flexible in arrangement), tables and chairs (as in a seminar room), or similar types of seating. These rooms may be wired to accommodate multimedia, computer data transmission and presentation, and telecommunication equipment. A classroom may also be furnished with special equipment (e.g., globes, pianos, maps) appropriate to a specific area of study, *if* this equipment does not render the room unsuitable for use by classes in other areas of study.

Limitations: This category does not include conference rooms (350), meeting rooms (680/681), auditoria (610), or class laboratories (210). Conference rooms and meeting rooms are distinguished from seminar rooms according to primary use; rooms with chairs and tables that are used primarily for meetings (as opposed to classes) are conference rooms or meeting rooms (see room codes 350, 680 and 681 for distinction). Auditoria are distinguished from lecture rooms based on primary use. A large room with seating oriented toward some focal point, and which is used for dramatic or musical productions, is an Assembly (610) facility (e.g., an auditorium normally used for purposes other than scheduled classes). A class laboratory is distinguished from a classroom based on equipment in the room *and* by its restrictive use. If a room is restricted to a single or closely related group of disciplines by special equipment or room configuration, it is a laboratory (see 200 series).

115 Classroom Service

Definition: A room that directly serves one or more classrooms as an extension of the activities in that room.

Description: Includes projection rooms, preparation rooms, coatrooms, closets, storage areas, etc., *if* they serve classrooms.

Limitations: Does not include projection rooms, coat rooms, preparation rooms, closets or storage areas, if such rooms serve enhanced classrooms (120), interactive classrooms (130), laboratories (210, 220, 230), conference rooms (350), meeting rooms (680, 681), assembly facilities (610), etc. A projection booth in an auditorium (not used primarily for scheduled classes) is classified as assembly service (615).

120 **Enhanced Classroom**

Definition: A room used for classes and that is also not tied to a specific subject or discipline by equipment in the room or the configuration of the room and is equipped with multimedia and/or computer presentation equipment to enhance instruction.

Description: Includes rooms generally used for scheduled instruction that require no special, restrictive equipment or configuration. These rooms may be called lecture rooms, lecture-demonstration rooms, seminar rooms, and general-purpose classrooms. A classroom may be equipped with tablet armchairs (fixed to the floor, joined in groups, or flexible in arrangement), tables and chairs (as in a seminar room), or similar types of seating. These rooms are equipped with multimedia and/or computer presentation equipment, which is built in or otherwise permanently located in the room. Frequently, such rooms have computer network access (e.g., LAN, WAN, and Internet) and control podiums from which the instructor can control use of the equipment.

Limitations: This category does not include conference rooms (350), meeting rooms (680/681), auditoria (610), or class laboratories (210). Conference rooms and meeting rooms are distinguished from seminar rooms according to primary use; rooms with chairs and tables that are used primarily for meetings (as opposed to classes) are conference rooms or meeting rooms (see room codes 350, 680 and 681 for distinction). Auditoria are distinguished from lecture rooms based on primary use. A large room with seating oriented toward some focal point, and which is used for dramatic or musical productions, is an Assembly (610) facility (e.g., an auditorium normally used for purposes other than scheduled classes). A class laboratory is distinguished from a classroom based on equipment in the room *and* by its restrictive use. If a room is restricted to a single or closely related group of disciplines by special equipment or room configuration, it is a laboratory (see 200 series).

125 **Enhanced Classroom Service**

Definition: A room that directly serves one or more enhanced classrooms as an extension of the activities in that room.

Description: Includes projection rooms, preparation rooms, coatrooms, closets, storage areas, etc., if they serve *enhanced* classrooms.

Limitations: Does not include projection rooms, coat rooms, preparation rooms, closets or storage areas, if such rooms serve classrooms (110), interactive classrooms (130), laboratories (210, 220, 230), conference rooms (350), meeting rooms (680, 681), assembly facilities (610), etc. A projection booth in an auditorium (not used primarily for scheduled classes) is classified as assembly service (615).

130 **Interactive Classroom**

Definition: A room used for classes and that is also not tied to a specific subject or discipline by equipment in the room or the configuration of the room and is equipped with telecommunication equipment.

Description: Includes rooms generally used for scheduled instruction that require no special, restrictive equipment or configuration. These rooms may be called lecture rooms, lecture-demonstration rooms, seminar rooms, and general-purpose classrooms. A classroom may be equipped with tablet armchairs (fixed to the floor, joined in groups, or flexible in arrangement), tables and chairs (as in a seminar room), or similar types of seating. These rooms are equipped with telecommunication equipment, which can provide remote broadcast and/or interactive

instruction. They are frequently equipped with multimedia and computer presentation equipment as well as network access (e.g., LAN, WAN, and Internet). The equipment is built in or otherwise permanently located in the room and is often controlled from a central control podium.

Limitations: This category does not include conference rooms (350), meeting rooms (680/681), auditoria (610), or class laboratories (210 and 211). Conference rooms and meeting rooms are distinguished from seminar rooms according to primary use; rooms with chairs and tables that are used primarily for meetings (as opposed to classes) are conference rooms or meeting rooms (see room codes 350, 680 and 681 for distinction). Auditoria are distinguished from lecture rooms based on primary use. A large room with seating oriented toward some focal point, and which is used for dramatic or musical productions, is an assembly (610) facility (e.g., an auditorium normally used for purposes other than scheduled classes). A class laboratory is distinguished from a classroom based on equipment in the room *and* by its restrictive use. If a room is restricted to a single or closely related group of disciplines by special equipment or room configuration, it is a laboratory (see 200 series).

135 Interactive Classroom Service

Definition: A room that directly serves one or more interactive classrooms as an extension of the activities in that room.

Description: Includes projection rooms, telecommunication control rooms, preparation rooms, coatrooms, closets, storage areas, etc., *if* they serve interactive classrooms.

Limitations: Does not include projection rooms, telecommunication control rooms, coat rooms, preparation rooms, closets or storage areas, if such rooms serve laboratories (210, 220, 230), conference rooms (350), meeting rooms (680, 681), assembly facilities (610), etc. A projection booth in an auditorium (not used primarily for scheduled classes) is classified as assembly service (615).

200 - Laboratory Facilities

General

A laboratory is a facility characterized by special-purpose equipment or a specific room configuration, which ties instructional or research activities to a particular discipline or a closely related group of disciplines. These activities may be individual or group in nature, with or without supervision. Laboratories may be found in all fields of study including letters, humanities, natural sciences, social sciences, vocational and technical disciplines, etc. Laboratory facilities can be subdivided into seven categories: scheduled class laboratories, nonscheduled class laboratories, individual study laboratories, research laboratories, scheduled class computer laboratories, nonscheduled class computer laboratories, and open computer laboratories. Scheduled class and scheduled class computer laboratories are used for *scheduled* instruction. Nonscheduled class, nonscheduled class computer, individual study, and open computer laboratories, support instruction but are not formally scheduled. Research laboratories are used for research, experimentation, observation, research training, or structured creative activity, which supports extension of a field of knowledge.

210 Scheduled Class Laboratory

Definition: A room used primarily for formally or regularly scheduled classes that require special purpose equipment or a specific room configuration for student participation, experimentation, observation, or practice in an academic discipline.

Description: A scheduled class laboratory is designed for or furnished with equipment to serve the needs of a particular discipline or group instruction in formally or regularly scheduled classes. This special equipment normally limits or precludes the room's use by other disciplines. Included in this category are rooms generally called teaching laboratories, instructional shops, typing laboratories, drafting rooms, band rooms, choral rooms, group music rooms, language laboratories, studios, theater stage areas used primarily for instruction, instructional health laboratories, and similar specially-designed or equipped rooms, *if they are used primarily for group instruction in formally or regularly scheduled classes.*

Limitations: This category does not include classrooms (110), informally scheduled laboratories (220), unscheduled laboratories (230), rooms generally defined as research laboratories (250), or any computer laboratories (240, 260, 270, 280). It also does not include gymnasias, pools, drill halls, laboratory schools, demonstration houses, and similar facilities that are included under special use facilities (500 series). Rooms in libraries or other areas on campus, which have incidental computers in them for student use but which are primarily used for study, should be classified as study rooms (410).

215 Scheduled Class Laboratory Service

Definition: A room that directly serves one or more class laboratories.

Description: Includes any room that directly serves a scheduled class laboratory. Included are projection rooms, coatrooms, preparation rooms, closets, material storage (including *temporary* hazardous materials storage), balance rooms, cold rooms, stock rooms, dark rooms, equipment issue rooms, etc., if they serve scheduled class laboratories.

Limitations: Does not include service rooms that support classrooms (see 115), nonscheduled class laboratories (see 225), individual study laboratories (see 235), research laboratories (see 255), research laboratories (see 255), scheduled class computer laboratories (265), nonscheduled class computer laboratories (275), and open computer laboratories (285). Animal Quarters (570) and greenhouses (580) are categorized separately.

220 Nonscheduled Class Laboratory

Definition: A room used primarily by informally (or irregularly) scheduled classes or groups of students that require special purpose equipment for student participation, experimentation, observation, or practice in a field of study.

Description: A nonscheduled class laboratory is designed for and/or furnished with equipment to serve the needs of a particular area of study for group instruction in informally (or irregularly) scheduled classes. The design of and/or equipment in such a room normally limit or preclude its use for other areas of study. Nonscheduled class laboratories typically (but not necessarily or exclusively) include such rooms as language laboratories (see 210 above), group music practice rooms, group studios, etc., if they are used primarily for group instruction in informally or irregularly scheduled classes. Note that the criteria for differentiating between special class laboratories and class laboratories are the irregular or informal nature of the scheduling, and not the specialization of the equipment or instruction.

Limitations: This category does not include class laboratories (210), individual study rooms or laboratories (410, 230), or research laboratories (250). It also does not include gymnasiums, pools, drill halls, laboratory schools, teaching clinics, demonstration houses or similar facilities that are included under special use facilities (500). Computer processing facilities used primarily for instruction and/or administration are coded data processing/computer (710).

225 Nonscheduled Class Laboratory Service

Definition: A room that directly serves one or more nonscheduled class laboratories as an extension of the activities in those rooms.

Description: Included in this category are tape storage rooms, equipment storage rooms, stock rooms, and similar rooms, which serve a nonscheduled class laboratory, except animal quarters, and greenhouses.

Limitations: This category does not include rooms that serve class laboratories (215), individual study laboratories (235), scheduled class computer laboratories (265), nonscheduled class computer laboratories (275), or open computer laboratories (285). Rooms that support animal quarters for laboratory animals are classified as animal quarter's service (575). Rooms, which support greenhouses, are also separately classified as greenhouse service (585).

230 Individual Study Laboratory

Definition: A room used primarily for individual student experimentation, observation, or practice in a particular field of study.

Description: Included in this category are laboratories primarily used by individuals for practice or self-paced instruction, such as: music practice rooms, language labs, tutorial labs, writing labs, and math labs.

Limitations: This category does not include individual study facilities that are intended for general study purposes. Study areas not related to a specific area of study are classified as study facilities (400). Computer processing facilities used for research and/or administration are coded data processing/computer (710).

235 Individual Study Laboratory Service

Definition: A room that directly serves one or more individual study laboratories as an extension of the activities in those rooms.

Description: Included in this category are equipment storage rooms, stock rooms, and similar rooms, which serve an individual study laboratory facility, except animal rooms and greenhouses.

Limitations: This category does not include rooms that serve class laboratories (215), nonscheduled class laboratories (225), scheduled class computer laboratories (265), nonscheduled class computer laboratories (275), or open computer laboratories (285). Rooms that support animal quarters for laboratory animals are classified as animal quarter's service (575). Rooms, which support greenhouses, are also separately classified as greenhouse service (585).

250 Research Laboratory

Definition: A room used for laboratory applications, research and/or training in research methodology that require special purpose equipment for staff and/or student experimentation or observation.

Description: Included in this category are rooms generally referred to as research laboratories and research laboratory-offices.

Limitations: This category does not include rooms generally referred to as teaching laboratories, such as: class laboratories (210), nonscheduled class laboratories (220), individual study laboratories (230), scheduled class computer laboratories (260), nonscheduled class computer laboratories (270), and open computer laboratories (280).

255 Research Laboratory Service

Definition: A room that directly serves one or more research laboratories as an extension of the activities in those rooms.

Description: Included in this category are balance rooms, cold rooms, stock rooms, dark rooms, etc., that serve a research laboratory.

Limitations: This category does not include rooms that serve class laboratories (215), nonscheduled class laboratories (225), individual study laboratories (235), non-class computer laboratories (245), scheduled class computer laboratories (265), nonscheduled class computer laboratories (275), or open computer laboratories (285).

260 Scheduled Class Computer Laboratory

Definition: A room used primarily for formally or regularly scheduled classes that require computers for student participation and practice in a field of study.

Description: A scheduled class computer laboratory is furnished with computers and appropriate software to serve the needs of a particular discipline for group instruction in formally or regularly scheduled classes. Such computer laboratories are primarily used by one discipline or group of related disciplines. The nearly exclusive use of such a dedicated computer laboratory by one discipline normally limits or precludes the room's use by other disciplines. Included in this category are rooms generally called computer teaching laboratories, office skills laboratories, CAD laboratories, and similar computer enhanced rooms *if they are used primarily for group instruction in formally or regularly scheduled classes.*

Limitations: Does not include classrooms (110), or science laboratories (210, 220, 230) where computers are incidental to the traditional instructional processes in the classes. Also, it does not include nonscheduled class computer laboratories (270) or open computer laboratories (280).

265 Scheduled Class Computer Laboratory Service

Definition: A room that directly serves one or more scheduled class computer laboratories as an extension of the activities in those rooms.

Description: Includes any room that directly serves a scheduled class computer laboratory. Included are storage rooms, closets, stock rooms, etc.

Limitations: This category does not include rooms that serve class laboratories (215), nonscheduled class laboratories (225), individual study laboratories (235), research laboratories (255), nonscheduled class computer laboratories (275), or open computer laboratories (285).

270 Nonscheduled Class Computer Laboratory

Definition: A room used primarily by informally (or irregularly) scheduled classes or groups of students that require computer equipment and appropriate software for student participation and practice in a field of study.

Description: A nonscheduled class computer laboratory is furnished with computer equipment and software to serve the needs of a particular area of study for group instruction in informally (or irregularly) scheduled classes. The design of and/or equipment in such a room normally limits or precludes its use for other areas of study. Nonscheduled class computer laboratories typically (but not necessarily or exclusively) include such rooms as CAD laboratories, airline computer ticketing training laboratories, etc., if they are used primarily for group instruction informally or irregularly scheduled classes. Note that the criteria for differentiating between nonscheduled class computer laboratories and scheduled class computer laboratories are the irregular or informal nature of the scheduling, and not the specialization of the equipment or instruction.

Limitations: This category does not include rooms that serve class laboratories (215), nonscheduled class laboratories (225), individual study laboratories (235), research laboratories (255), scheduled class computer laboratories (265), or open computer laboratories (285).

275 Nonscheduled Class Computer Laboratory Service

Definition: A room that directly serves one or more nonscheduled class computer laboratories as an extension of the activities in those rooms.

Description: Includes any room that directly serves a nonscheduled class computer laboratory. Included are storage rooms, closets, stock rooms, etc.

Limitations: This category does not include rooms that serve class laboratories (215), nonscheduled class laboratories (225), individual study laboratories (235), research laboratories (255), scheduled class computer laboratories (265), or open computer laboratories (285).

280 Open Computer Laboratory

Definition: A room equipped with computer equipment and appropriate software used primarily by individual students on an informally scheduled and/or drop-in basis to enhance personal computer skills, and/or to do computing in support of their educational programs.

Description: Included in this category are microcomputer laboratories primarily used by individuals for practice, self-paced instruction, and computing in support of their various educational programs.

Limitations: This category does not include individual study facilities that are intended for general study purposes in which computers are incidental to the function of the room. Study areas not related to a specific area of study are classified as study facilities (400). Computer processing facilities used for research and/or administration are coded data processing/computer (710).

285 Open Computer Laboratory Service

Definition: A room that directly serves one or more open computer laboratories as an extension of the activities in those rooms.

Description: Includes any room that directly serves an open computer laboratory. Included are storage rooms, closets, stock rooms, etc.

Limitations: This category does not include rooms that serve class laboratories (215), nonscheduled class laboratories (225), individual study laboratories (235), research laboratories (255), scheduled class computer laboratories (265), or nonscheduled class computer laboratories (275).

300 - Office Facilities

General

Office facilities are individual, multi-person, or workstation space specifically assigned to academic, administrative, and service functions of a college. Though the generic definition applies for all college offices, the generic office room use code of “310” will not be used to code college offices. Instead, college offices will be coded to differentiate the type of office using sub-codes within the 300 Series as specified below:

310 Office

Definition: A room housing faculty, staff, or students working at one or more desks, tables, or workstations.

Description: An office is typically assigned to one or more persons as a station or work area. It may be equipped with desks, chairs, tables, bookcases, filing cabinets, computer workstations, microcomputers, or other office equipment. Included are faculty, administrative, clerical, student, etc. Unique codes will be used to differentiate types of offices.

311 Academic Office

Offices occupied by full-time and part-time instructional personnel, including offices of the academic deans, department chairpersons and directors of academic units.

312 Administrative Office

Offices occupied by personnel engaged in the planning, management and operation of the business and academic affairs of the institution, including offices of the central administration and directors of nonacademic units.

313 Student Assistant Office

Offices occupied by students in any capacity. This includes students in paid positions throughout the college such as: teaching assistants, research assistants, program assistants, counseling assistants (peer counselors, etc.), student activity assistants, trainees, interns, and the like. Also included are the offices of student body officers, student club officers, student activity officers, student center officers, etc.

314 Secretarial/Clerical Office

Offices used primarily by clerical and secretarial staff as well as general office space where files, office machines, or reception space are in the same room with clerical personnel.

316 Staff Office

Offices occupied by academic or administrative staff below the level of directors of either academic or administrative units, including offices of accountants, architects, assistants to directors, coordinators, graphic arts specialists, advisors, managers, etc. Also includes student activity offices (professional staff), and all other offices not included in 311-315.

Limitations: Special note should be taken of rooms, which are equipped both as offices and laboratories. A room primarily equipped with laboratory benches and specialized equipment, or as a shop, or reading room, or the like, that only incidentally contains a desk or other minor space for a technician or staff member are to be classified according to the primary purpose of the room rather than as offices.

315 Office Service

Definition: A room that directly serves an office or group of offices as an extension of the activities in those rooms.

Description: Included in this category are file rooms, break rooms, kitchenettes serving office areas, copy rooms, fax rooms, vaults, closets, private restrooms, waiting rooms, interview rooms, records rooms, office supply rooms, first aid rooms serving office areas, student counseling rooms, testing rooms (non-health and non-discipline related), and open and private circulation areas where such circulation areas are clearly associated with an office or offices and not as general building service.

Limitations: Waiting, interview, and testing rooms are included as office service if they serve a specific office or office area and not a classroom or laboratory; non-health related student counseling and testing rooms should be coded as office service (315). A receptionist room that includes a waiting area should be coded as secretarial/clerical office (314). Lounges which serve specific office areas and which are not generally available to the public should be coded as office service (315). Centralized mail rooms, shipping or receiving areas, and duplicating or printing shops that serve more than one building (or department or school, etc.) or that are campus wide in scope should be classified central services (750). Computer rooms, which support faculty professional development and/or curriculum development, should be classified as Non-instructional Computer Support Rooms (320). Computer rooms, which support staff and faculty training in general computer use and/or software use, should be classified as non-instructional computer training room (330).

320 Institutional Computer Training Room

Definition: A room equipped with computers and appropriate software used primarily to train college staff in the use of computers and various computer and various computer software packages.

Description: Included in this category are staff and faculty computer training rooms.

Limitations: This category does not include instructional computer laboratories (i.e., 230, 260, 270, 280), research laboratories (250), or faculty computer support rooms (330).

325 Institutional Computer Training Room Service

Definition: A room that directly serves one or more institutional computer training rooms as an extension of the activities in those rooms.

Description: Included in this category are storage rooms, closets, and similar rooms, which serve an institutional computer training room.

330 Faculty Computer Support Room

Definition: A room equipped with computer equipment and appropriate software used primarily by individual faculty members on an informally scheduled and/or drop-in basis to enhance computer access for support of educational programs and for curriculum development activities.

Description: Included in this category are faculty computer rooms and computer supported curriculum development centers.

Limitations: This category does not include instructional computer laboratories (230, 260, 270, or 280), research laboratories (250) or institutional computer training room (320).

335 Faculty Computer Support Room Service

Definition: A room that directly supports one or more faculty computer support rooms as an extension of the activities in these rooms.

Description: Included in this category are storage rooms, closets, and similar rooms that serve a faculty computer support room.

Limitations: This category does not include rooms that service class laboratories (215), nonscheduled class laboratories (255), individual study laboratories (235), research laboratories (255), scheduled class computer laboratories (265), nonscheduled class computer laboratories (275), open computer laboratories (285), or institutional computer training rooms (325).

350 Conference Room

Definition: A room serving an office complex and used primarily for staff meetings and departmental activities.

Description: A conference room is typically equipped with tables and chairs. Normally a specific organizational unit or office area uses it, whereas meeting rooms (680 & 681) are used for general purposes such as community or campus group meetings not associated with a particular department. If a room is used for both conference and meeting room functions, then the room should be classified according to its principal use. A conference room is distinguished from facilities such as seminar rooms, lecture rooms, and classrooms (110, 120, & 130) by the fact that it is used primarily for activities other than scheduled classes. A conference room is intended primarily for formal gatherings whereas a lounge is intended for relaxation and casual interaction. This category includes teleconference rooms.

Limitations: Does not include classrooms, seminar rooms, lecture rooms (see 110, 120, & 130), auditoria (see 610), departmental lounges (see 315), open lounges (see 650), or meeting rooms (see 680 & 681).

355 Conference Room Service

Definition: A room that directly serves one or more conference rooms as an extension of the activities in those rooms.

Description: Includes kitchenettes, storage rooms, telecommunications control booths, projection rooms, sound equipment rooms, etc., if they serve conference rooms.

Limitations: Excluded are service rooms that support meeting rooms (see 685) or offices (see 315).

400 - Study Facilities

General

Study space is classified into six categories: study space, stack, open-stack study room, processing room, study service, and informal learning area. Offices used for library activities are coded as office facilities. A study space may contain equipment or materials, which aid the study or learning process (e.g., microcomputers, computer terminals, multimedia carrels, typewriters, records and tapes) and which do not restrict the room to a particular academic discipline or discipline group. A study space (410) is restricted to central, branch, or departmental libraries while an informal learning area (411) may appear in any type of building on campus except a library (e.g., academic, residential, student service). Stacks (420), open-stack study rooms (430), and processing rooms (440) are typically located in, but not limited to, central, branch, or departmental libraries.

410 Study Room

Definition: A room or area in the central, branch, or departmental library used by individuals to study at their convenience, which is not restricted to a particular subject or discipline by contained equipment.

Description: Includes study or reading spaces located in central, branch, or departmental libraries which are intended for general study purposes or informal learning. Study spaces are used primarily by students or staff for learning at their convenience.

Limitations: Does not include informal learning spaces (411) that are distributed throughout the campus or lounges (650) that are intended for relaxation and casual interaction.

411 Informal Learning Space

Definition: A room or area used by individuals to study at their convenience, which is not restricted to a particular subject or discipline by contained equipment.

Description: Includes rooms and spaces distributed throughout the college in a variety of campus facilities. Informal Learning Spaces may accommodate individuals or groups. They may have four walls but usually are part of a larger space, like a hallway or lobby. Informal Learning Spaces may include technologies to facilitate collaboration or enhance learning. Informal Learning Spaces are used primarily by students or staff for learning at their convenience.

Limitations: Does not include study areas (410) that are associated with libraries or lounges (650) that are intended for relaxation and casual interaction.

420 Stack

Definition: A room used to house arranged collections of educational materials for use as a study resource.

Description: Stacks typically appear in central, branch, or departmental libraries and are characterized by accessible, arranged, and managed collections. Collections can include books, periodicals, journals, monographs, micro-materials, electronic storage media (e.g., tapes, disks, slides, etc.), musical scores, maps, and other educational materials.

Limitations: Does not include general storage areas for such materials that serve a particular room or area; such rooms would take the appropriate service code. Examples of these service

rooms include tape storage rooms for language laboratories (see 225), book storage rooms for classrooms (see 115), music for general listening enjoyment (see 675). Also does not include collections of educational materials, regardless of form or type (i.e., from books to soils collections), which are for exhibition use as opposed to a study resource (see 620).

430 Open-Stack Study Room

Definition: A combination study room and stack, generally without physical boundaries between the stack and the study areas.

Description: Seating areas include those types of station and seating arrangements described under study room (410). The stack areas of these rooms may include any of the educational material collections described under stack (420).

Limitations: Does not include study rooms (410) that have no stack areas or informal learning areas (411). Those stack areas that have only a few incidental chairs or other seating, without a formally arranged study seating area, should be coded to stack (420). Institutions may wish to separate and code the seating or study areas (see 410) and stack areas (see 420) into separate room records. As with stack (420) and processing rooms (440), open-stack study rooms (430) appear primarily in central, branch and departmental libraries.

440 Processing Room

Definition: A room or area devoted to processes and operations in support of library functions.

Description: A processing room is intended for specific library operations that support the overall library mission. Included are card, microfiche, and on-line catalog areas, reference desk and circulation areas, bookbinding rooms, on-line search rooms, multimedia materials processing areas, interlibrary loan processing areas, and other areas with a specific process or operation in support of library functions.

Limitations: Areas, which serve both, as office stations and processing rooms should be coded according to primary use. Small incidental processing areas in larger stack or study areas should be included within the larger primary activity category (see 410, 411, 420, 430). Does not include typical support rooms that serve study and other primary activity areas, such as storage rooms, copy rooms, closets, and other service-type rooms (see 455). Acquisitions work areas with a primary office use should be classified as an office (see 300 Series).

455 Study Service

Definition: A room that directly serves study rooms, stacks, open-stack study rooms, processing rooms, or informal learning areas as a direct extension of the activities in those rooms.

Description: Includes storage rooms, copy rooms, closets, locker rooms, coatrooms, and other typical service areas that support a primary study facilities room (see 410, 411, 420, 430, 440).

Limitations: Does not include processing rooms (440) that house specific library support processes and operations (e.g., bookbinding rooms, multimedia processing rooms).

500 - Special Use Facilities

General

This category includes several room use categories that are sufficiently specialized in their primary activity or function to merit a unique room code. Areas and rooms for military training, athletic activity, media production, clinical activities, and animal and plant shelters are included here. Although many of these special use facilities provide service to other areas, their special use or configuration dictates that these areas not be coded as service rooms.

510 Armory

Definition: A room or area used by Reserve Officer Training Corps (ROTC) and ancillary units for military training and/or instructional activities.

Description: Rooms that are obviously designed or equipped for use in a military training or instructional program, such as indoor drill areas, indoor rifle ranges, and specially designed or equipped military science rooms, are included in the category. Ancillary units may include special rifle and drill teams.

Limitations: Conventional room use types such as classrooms (110), class laboratories (210), offices (300 Series), and study rooms (410) are designated as such, even though they are located in an armory building. Military supply and weapons rooms are coded armory service (515).

515 Armory Service

Definition: A room that directly serves an armory facility as an extension of the activities in that facility.

Description: This category includes supply rooms, weapons rooms, and military equipment storage rooms.

Limitations: Rooms directly serving conventional primary activity areas are classified with the appropriate corresponding service code (e.g., 115-Classroom Service, 215-Class Laboratory Service, 315-Office Service, and 455-Study Service).

520 Athletic Or Physical Education

Definition: A room or area used by students, staff, or the public for athletic or physical education activities.

Description: Includes gymnasias, basketball courts, handball courts, squash courts, wrestling rooms, weight or exercise rooms, racquetball courts, indoor swimming pools, indoor putting areas, indoor ice rinks, indoor tracks, indoor stadium fields, and field houses. This category includes rooms used to teach dancing and bowling only if they are part of the physical education instructional program.

Limitations: This room use code does not distinguish instructional from intercollegiate, intramural, or recreational use of these areas. Additional classification through function and academic discipline codes makes this distinction.

Classroom facilities (100 series), laboratory facilities (200 series), office facilities (300 series), and other primary room use categories are coded as such, even though these areas may be located in an athletic or physical education building. Permanent spectator seating areas associated with

athletic facilities are coded 523. Outdoor athletic areas, such as outdoor tennis and basketball courts, archery ranges, golf courses, and other outdoor fields, do not meet the definition of buildings and, therefore, are not assignable area. Recreational or amusement areas such as billiards rooms, game or arcade rooms, and music listening areas are classified recreation (670), if they are not used for instructional purposes.

523 Athletic Facilities Spectator Seating

Definition: The seating area used by students, staff, or the public to watch athletic events.

Description: Includes indoor permanent or fixed seating areas in gymnasias, field houses, ice arenas, covered stadia, natatoria, and cycling arenas.

Limitations: Does not include temporary or movable seating areas (e.g., movable bleachers). Outdoor permanent seating is not assignable space although it may contain assignable areas under it (e.g., locker rooms, offices, etc.).

525 Athletic Or Physical Education Service

Definition: A room that directly serves an athletic or physical education facility as an extension of the activities in that facility.

Description: Includes locker rooms, shower rooms, non-office coaches' rooms, ticket booths, and rooms for dressing, equipment, supply, storage, first-aid, skate sharpening, towels, etc.

Limitations: Does not include public rest rooms, which should be classified as non-assignable building service space. Rooms, which directly serve offices, classrooms, laboratories, etc., are classified with the appropriate corresponding service code. Cashiers' desks serving recreation facilities (see 670) are classified recreation service (675). Central ticket outlets serving multiple facilities or services are classified as merchandising (660).

530 Media Production

Definition: A room used for the *production* or *distribution* of multimedia materials or signals.

Description: Includes rooms generally called TV studios, radio studios, sound studios, photo studios, video or audiocassette and software production or distribution rooms, and media centers. These rooms have a clearly defined production or distribution function that serves a broader area (e.g., department, entire campus) than would a typical service room.

Limitations: Does not include rooms that merely store media materials and equipment. Such rooms would be coded a media production service (535) rooms if serving the primary production or distribution room (see 530), or the appropriate service category for the room(s) they serve. Radio or TV broadcasting areas and other media rooms used for teaching broadcasting to students for instructional purposes should be coded as laboratories (see 210, 220, 230). This classification also does not include centralized computer-based data processing and telecommunications equipment facilities (see 710).

535 Media Production Service

Definition: A room that directly serves a media production or distribution room as an extension of the activities in that facility.

Description: The primary criterion here is that the room should serve a media production or distribution room and not another primary activity room. Examples include film, tape, or cassette

libraries or storage areas, media equipment storage rooms, recording rooms, engineering maintenance rooms, dark rooms, preparation rooms, studio control booths, and other support areas that specifically serve a media production or distribution room (see 530).

Limitations: Those rooms containing media materials, equipment or operations that serve a primary activity room other than a media production room (530) should be assigned the appropriate corresponding service code.

540 Clinic

Definition: A room used for providing diagnosis, consultation, treatment, or other services to patients or clients in facilities other than those separately organized health care facilities related to medicine, veterinary medicine, dentistry, or student health care.

Description: Included are patient or client examination rooms, testing rooms, and consultations rooms. Clinics are typically associated with such educational areas as psychology, law, speech, hearing, and similar areas.

Limitations: Does not include clinics associated with student health care, student-counseling services, or clinics for the medical or dental treatment of humans or animals (see 800 series). Also does not include rooms used for remedial instruction, which should be classified as classrooms or laboratories (see 100 and 200 series) or testing or counseling rooms in non-health- or non-discipline-related programs (see 315).

545 Clinic Service

Definition: A room that directly serves a clinic facility as an extension of the activities in that facility.

Description: Included are waiting rooms, observation rooms, control rooms, records rooms, and similar supporting rooms.

Limitations: Does not include rooms that serve separately organized health care facilities (see 800 series). Also does not include first-aid treatment rooms that serve other primary activity areas (e.g., 525-Athletic Or Physical Education Service, 645-Day Care Service).

550 Demonstration

Definition: A room or group of rooms used to practice, within an instructional program, the principles of certain disciplines such as teaching, childcare or development, and home management or economics.

Description: The key criterion here is practice activity within an instructional program, which closely simulates a real world or occupational setting. Includes demonstration day care and development centers, laboratory schools and home economics or management houses, when these facilities are used for practice as a part of collegiate training or instruction.

Limitations: Does not include day care and development centers, which are not used as part of an instructional program (see 640). This category also does not include laboratories (see 200 series) that are used for direct delivery of instruction as opposed to practice. Demonstration schools, laboratory schools, day care centers, and home management houses in which students serve as the subjects for a research study are classified as research/non-class laboratories (250).

555 Demonstration Service

Definition: A room that directly serves a demonstration facility as an extension of the activities in that facility.

Description: Includes facilities generally called storerooms, pantries, etc., in a home demonstration facility, and kitchens, lockers, shower rooms, etc., in a laboratory school. Similar support rooms that directly serve primary care and training areas in a demonstration day care center (see 550) are included in this category.

Limitations: Generally, the primary activity areas--such as kitchen, dining room, living room (in a home-demonstration house), or classrooms, laboratories, gymnasias that serve nursery, elementary, or secondary school students in a laboratory school)--should be designated as demonstration (550). Primary care and training areas in a (practice) day care center are also demonstration (550) rooms. Kitchen and food preparation rooms in a demonstration day care facility are classified as service areas; eating or training rooms for staff in demonstration day care centers are classified as service areas; eating or training rooms for children are classified as primary activity areas (see 550).

560 Field Building

Definition: A barn or similar agricultural structure used for animal shelters or for the handling, storage, or protection of farm products, supplies, vehicles, or implements.

Description: Includes barns, animal and poultry shelters, sheds, silos, feed units, and hay storage. Structures are typically of light-frame construction with unfinished interiors and are frequently located outside the central campus area. Also includes storage space for farm vehicles and implements. Service areas that support field buildings are classified within this category.

Limitations: Animal quarters directly supporting research or instructional laboratories should be coded 570. Location of a building, on or off the main campus, is not sufficient justification for classification as a field building. Finished rooms with other uses (e.g., laboratories, classrooms, etc.) should be coded as appropriate. Does not include buildings that house nonagricultural or non-farm related vehicles (see 740).

570 Animal Quarters

Definition: A room that houses laboratory animals used for research or instructional purposes.

Description: Includes animal rooms, cage rooms, stalls, wards, and similar rooms for instruction and research.

Limitations: Animal quarters are typically subject to the rules and regulations of agencies regarding the care and use of laboratory animals (e.g., requirements of the American Association for Accreditation of Laboratory Animal Care [AAALAC]). Does not include areas for treatment of veterinary patient animals (see Health Care Facilities-800 series). Does not include agricultural field buildings sheltering animals that do not directly support instruction or research (see 560).

575 Animal Quarters Service

Definition: A room that directly serves an animal quarters facility as an extension of the activities in that facility.

Description: Includes feed storage rooms, feed mixing rooms, cage-washing rooms, non-patient surgery rooms, casting rooms, or instrument rooms.

Limitations: Does not include areas that directly serve facilities used for the treatment of veterinary patient animals (see Health Care Facilities-800 series).

580 Greenhouse

Definition: A building or room, usually composed chiefly of glass, plastic, or other light-transmitting material, which is used for the cultivation or protection of plants or seedlings for research, instruction, or campus physical maintenance or improvement purposes.

Description: The primary criterion here is the combination of structural design as a greenhouse and the use for cultivation or protection. An example would be a greenhouse that serves as a laboratory or service area for a botany or vocational (e.g., horticulture) educational program. This category includes any facility serving the greenhouse function (e.g., warehouse facilities equipped with special lighting controls for the cultivation or protection of plants).

Limitations: Greenhouses that are not used for plant cultivation or protection should be classified according to specific use (e.g., a greenhouse used for central storage should be coded 730).

585 Greenhouse Service

Definition: A room that directly serves a greenhouse facility as an extension of the activities in that facility.

Description: Includes equipment or materials storage areas and rooms generally called head houses.

Limitations: Excludes storage areas that do not directly serve greenhouses.

590 Other

Definition: A category of last resort

Description: Included as a category of last resort to be used only for those rooms or facilities that cannot be described, even approximately, with other codes and definitions. Use of this code can only occur after review with the State Board and concurrence there is no other option.

Limitations: Should have very limited use, if used at all.

600 - General Use Facilities

General

General use facilities are characterized by a broader availability to faculty, students, staff, or the public than are special use facilities (500 series), which are typically limited to a small group or special population. General use facilities comprise a campus general service or functional support system (assembly, exhibition, dining, relaxation, merchandising, recreation, general meetings, day care) for the institutional and participant community populations.

610 Assembly

Definition: A room designed and equipped for the assembly of many persons for such events as dramatic, musical, devotional, livestock judging, or commencement activities.

Description: Includes theaters, auditoria, concert halls, arenas, chapels, and livestock judging pavilions that are used primarily for general presentations (speakers), performances (dramatic, musical, dance), and devotional services. Seating areas, orchestra pits, chancels, arenas, and aisles (if not used primarily for instruction) are included in and usually aggregated into the assembly space. However, drama-related space (e.g., dressing rooms, green rooms, prop storage rooms, set construction shops, wardrobes, etc.), even if it is not used in support of an instructional program, will be aggregated with instructionally related drama space.

Limitations: Stage areas used primarily for instruction or practice (dance, music, drama) are typically coded separately as laboratory space (see 210, 220). Assembly facilities that are used primarily as instructional lecture halls are classified as classroom (110) space.

615 Assembly Service

Definition: A room or area that directly serves an assembly facility as an extension of the activities in that facility.

Description: Includes check rooms, coat rooms, ticket booths, projection booths, property storage, multimedia and telecommunications control rooms, etc. which will be aggregated with assembly space. However, property storage rooms, make-up rooms, costume and scenery shops, dressing rooms, and green rooms will be aggregated with instructionally related drama space for CAM purposes.

Limitations: Entrance lobbies and other circulation areas outside of the primary assembly room are classified as non-assignable (circulation) space. A concession stand in an assembly facility is classified as merchandising (660). Lounge areas that are remote from the assembly area within an assembly facility are classified by the appropriate service code or the lounge (650) code.

620 Exhibition

Definition: A room or area used for exhibition of materials, works or art, artifacts, etc., and intended for general use by faculty, students, staff, and the public.

Description: Includes both departmental and institution-wide museums, galleries, and similar exhibition areas which are used to display materials and items for viewing by *both* the institutional population *and* the public. Planetariums used primarily for exhibition are also included in this category. Planetariums used primarily for research should be classified in the laboratory (200) series.

Limitations: Displays that are intended only for instructional purposes and not for general exhibitions (e.g., departmental instructional displays of anthropological, botanical, or geological specimens) should be classified as laboratory or laboratory service (see 200 series). Does not include bulletin boards and similar temporary or incidental displays in hallways, student centers, etc. Also does not include collections of educational materials, regardless of form or type (e.g., books, tapes, soils collections), which are for *study resource* as opposed to *exhibition* use (see 420).

625 Exhibition Service

Definition: A room that directly serves an exhibition facility as an extension of the activities in that facility.

Description: Includes preparation workrooms, storage rooms, vaults, etc., that serve general exhibition areas (see 620).

Limitations: Research areas in museums are classified as research/non-class laboratory (250) or research/non-class laboratory service (255). Service areas for displays that are part of an instructional program are classified as classroom service or laboratory service areas.

630 Food Facility

Definition: A room used for eating.

Description: Includes dining halls, cafeterias, snack bars, restaurants, and similar eating areas, including such areas in residence halls, faculty clubs, etc. This category includes facilities open to students, faculty, staff, or the public at large. The primary distinction of a food facility (630) area is the availability of some form of accommodation (seating, counters, tables, etc.) for eating or drinking. This is, therefore, an area intended for the actual consumption of food and drink. Vending areas with seating, counters or tables and sit-down lunch or vending rooms that serve a shop facility are included in this category.

Limitations: Vending areas *not* provided with seating, counters, or tables are classified as merchandising (660) or with the appropriate service code if the vending directly supports or is adjacent to a specific room for consuming the products (e.g., a 635-vending room serving a 630-dining hall).

Lounges (650) with vending machines that are incidental to the primary use of the room (i.e., relaxation) are coded as part of the lounge, if within the room, or as lounge service (655) if separate from and directly supporting the main lounge facility (see 650). Break rooms serving specific office areas are classified as office service (315). Eating areas for children in demonstration or day care facilities are classified as primary activity categories within these respective areas (see 550, 640); staff-only eating or break rooms in these facilities are classified as service areas (see 555, 645).

635 Food Facility Service

Definition: A room that directly serves a food facility as an extension of the activities in that facility.

Description: Includes kitchens and other preparation areas, cold storage and freezer refrigeration rooms, dishwashing rooms, food serving areas, cleaning areas, etc. Includes first aid and vending areas directly serving food facilities, or adjacent to an eating area.

Limitations: Does not include any type of food preparation room, which does not serve a food facility or eating area (see 630). Kitchenettes in residence facilities that do not serve a dining area are classified as sleep/study service (935). Service areas for vending rooms (see 660) are classified as merchandising service (665). Kitchens and food preparation areas in demonstration or day care facilities are classified as service areas to those facilities (see 555, 645).

640 Day Care

Definition: A room used to provide day or night, child or elderly adult care as a non-medical service to members of the institutional community.

Description: Includes all primary activity rooms that provide oversight, supervision, developmental training and general personal care for assigned children or adults (e.g., play areas, non-staff eating areas, and child training rooms). This type of facility serves as a central service center for faculty, staff, and students, with members of the community being served as needed. This is not a medical care facility (i.e., medical attention is strictly limited to maintaining prescribed medication schedules and providing first aid).

Limitations: Does not include those support rooms (e.g., storage rooms, closets, and pantries) typically used as service rooms (see 645). This category also does not include demonstration houses, laboratory schools or other facilities with a primary function of providing collegiate practice as part of the instructional process (see 550). Also excluded from this category are those service areas classified as central service (750) and laboratory facilities (200 series) that directly support instruction (e.g., vocational training programs for parent education and early childhood education).

645 Day Care Service

Definition: A room that directly serves a primary activity room in a day care facility as an extension of the activities in that room.

Description: Includes storage rooms, closets, kitchens, pantries, private or staff restrooms, and other typical service rooms that support a primary activity area.

Limitations: Does not include those rooms (e.g., child training rooms, playrooms--see 640) where primary day care activities are conducted. Restrooms designed for child training should be coded 640; staff-only restrooms should be coded 645. Kitchen or food preparation areas in a day care facility are classified as service areas (see 645). Staff eating or break areas should be coded 645, whereas eating or training areas for children are classified as primary activity space (see 640). Staff office areas should be coded 310.

650 Lounge

Definition: A room used for rest and relaxation that is not restricted to a specific group of people, unit or area.

Description: A lounge facility is typically equipped with upholstered furniture, draperies, or carpeting, and may include vending machines. A general use lounge (see 650) differs from an office area or break room lounge (see 315) by virtue of its public availability. If a room is open for use by people visiting or passing through a building or area, it is coded lounge (650). Such a room may have vending machines if the primary use of the room is rest, relaxation, informal socializing and not for eating (see 630).

Limitations: A lounge facility is distinguished from a conference room (350) and a meeting room (680), both of which are intended of formal meetings, by its more informal function or rest, relaxation, or casual interaction *and* its public availability. A lounge area associated with a public restroom is included with the restroom as non-assignable (building service area) space. A room devoted to vending machines without accommodation (seating, counters or tables) for local food or drink consumption is classified as merchandising (660). A lounge that directly serves a specific or restricted area is classified by the appropriate corresponding service code (e.g., a lounge serving an assembly facility is classified 615-Assembly Service). A lounge differs from a lobby (non-assignable circulation area) in placement, use, and intent. A lobby is generally located at a major entrance with openings to hallways on more than one side; and although it may have seating furniture, it is designed more for walking through (or having standing conversations) than for sitting and relaxing. Separate waiting rooms in other than health care facilities are classified with the appropriate service code according to the room or area they serve. A receptionist room that includes a waiting area should be classified as office (300 series). Public waiting areas in health care facilities are coded as 880.

655 Lounge Service

Definition: A room that directly serves a general use lounge facility.

Description: Includes kitchenettes, storage areas, and vending rooms that directly serve a general use lounge facility (see 650).

Limitations: This category does not include kitchenettes, storage rooms, and small vending areas that directly serve other room use types (e.g., a small vending area serving a dining hall eating area should be classified as 635-Food Facility Service).

660 Merchandising

Definition: A room used to sell products or services.

Description: Includes product and service sales areas such as bookstores, student supply stores, barber or beauty shops, post offices, campus food stores, walk-away vending machine rooms, and central ticket outlets servicing multiple facilities or activities.

Limitations: Does not include dining rooms, restaurants, snack bars, and similar food facilities (630). A vending machine room that directly serves a dining, lounge or other primary activity area is classified with the appropriate service code; a vending machine area within a general use lounge is included in lounge (650) space. Vending areas that include accommodations (seating, counters or tables) for consuming the products are classified as food facility (630). Cashiers' desks that serve a specific recreational facility or area are classified as service space for that area (see 670, 675). Day care centers used for practice within an instructional program are classified as demonstration (550). Day care centers that are not part of such a program are classified under day care (640).

665 Merchandising Service

Definition: A room that directly serves a merchandising facility as an extension of the activities in that facility.

Description: Includes storage rooms and closets, sorting rooms, private restrooms, and other support rooms if they directly serve a merchandising (660) facility.

Limitations: Storage rooms, sorting rooms, and private restrooms that do not serve a merchandising area should be classified using the appropriate service code for the corresponding room use type.

670 Recreation

Definition: A room used by students, staff or the public for recreational purposes.

Description: Includes exercise and general fitness rooms, billiards rooms, game and arcade rooms, bowling alleys, table tennis rooms, dance or ballrooms, chess rooms, card playing rooms, hobby rooms, TV rooms, reading (non-study) rooms, and music listening rooms that are used for recreation and amusement and not for instructional purposes. Recreation rooms and areas are used for relaxation, amusement-type activities, whereas athletic or physical education (520) facilities are typically used for the more vigorous pursuits within physical education, intercollegiate athletics, and intramural programs.

Limitations: Does not include gymnasias, basketball courts, weight rooms, racquetball courts, handball courts, squash courts, wrestling rooms, indoor swimming pools, indoor ice rinks, indoor tracks, indoor stadium fields, indoor golf and other areas primarily used for physical education, intramural or intercollegiate athletic activities (see 520). Outdoor athletic and physical education fields, courts, and other non-enclosed areas are also excluded because they are not building space. This category also does not include bowling alleys, dance rooms, or any other activity areas that are primarily used for instruction. Reading or media use rooms that are designed and intended as study rooms are also excluded from this category (see 410).

675 Recreation Service

Definition: A room that directly serves a recreation facility as an extension of the activities in that facility.

Description: Includes storage rooms, closets, equipment issue rooms, cashiers' desks, first aid, and other support areas that directly serve a recreation (670) facility.

Limitations: Does not include kitchens, snack bars, or other food facilities (630) and food facility service (635) areas. Locker rooms, shower rooms, ticket booths, dressing rooms, equipment rooms, and other areas directly serving athletic or physical education (520) facilities are classified as service rooms (see 525) to those facilities. Central ticket outlets serving multiple facilities or services are classified as merchandising (660)

680 Meeting Room

Definition: A room that is used by the institution or the public for a variety of non-class meetings.

Description: The key concept here is public availability. Conference rooms (350) are often confused with meeting rooms because they are both primarily used for non-class meetings. However, conference rooms are restricted service components of an office complex or used by office occupants of a specific area and are generally limited to staff meetings or other departmental non-class activities. Although it may be assigned to a specific organizational unit, a meeting room is more available and open to study groups, boards, governing groups, community groups, various student groups, non-employees of the institution, and various combinations of institutional and community members. For-fee meeting rooms are included in this category.

Meeting rooms may be configured like classrooms (i.e., with participant focus to the front of the room), and may be equipped with a variety of furniture types (e.g., tables and chairs, lounge-type furniture, tablet armchairs, or a large table) in various combinations and arrangements.

Limitations: Rooms serving an office complex and used primarily for staff meetings are classified as conference rooms (350). Seminar and lecture rooms used primarily for scheduled

classes are classified as classroom (110). Rooms designed and equipped for the assembly of many persons for such events as dramatic, musical or devotional activities, etc., should be classified as assembly (610).

681 Interactive Meeting Room (Telecommunication Conference Room)

Definition: A room that is used by the institution or the public for a variety of non-class meetings and which is equipped with telecommunications and interactive video equipment allowing interactive video conferencing with remote sites.

Description: Interactive meeting rooms may be configured like classrooms (i.e., with participant focus to the front of the room), and may be equipped with a variety of furniture types (e.g., tables and chairs, lounge-type furniture, tablet armchairs, or a large table) in various combinations and arrangements but all are equipped with interactive video equipment allowing remote conferencing. Usually, because of the cost and fragile nature of the teleconferencing equipment, the interactive meeting room has a more restricted and supervised use than does the regular meeting room.

Limitations: Rooms serving an office complex and used primarily for staff meetings are classified as conference rooms (350). Seminar and lecture rooms used primarily for scheduled classes are classified as classroom (110). Rooms designed and equipped for the assembly of many persons for such events as dramatic, musical or devotional activities, etc., should be classified as assembly (610). Rooms used by the institution for a variety of non-class meetings but are not interactive video capable should be coded meeting room (680).

700 - Support Facilities

General

Support facilities, which provide centralized space for various auxiliary support systems and services of a campus, help keep all institutional programs and activities operational. While not as directly accessible to institutional and community members as general use facilities (600 series), these areas provide a continuous, indirect support system to faculty, staff, students, and the public. Support facilities are centralized in that they typically serve an area ranging from an entire building or organizational unit to the entire campus. Included are centralized areas for computer-based data processing and telecommunications, shop services, general storage and supply, vehicle storage, central services (e.g., printing and duplicating, mail, shipping and receiving, environmental testing or monitoring, laundry, or food stores), and hazardous materials areas.

710 Central Computer Or Telecommunications

Definition: A room used as a computer-based data processing or telecommunications center with applications that are broad enough to serve the overall administrative or academic primary equipment needs of a central group of users, department, college, school, or entire institution.

Description: A central computer or telecommunications room may be one of a *group* of rooms which constitute a *center* for delivering computer-based data processing or telecommunications services to various levels of user groups. Although the ongoing *primary activity* of this category is tied more closely to equipment than human activity, these areas require technical support staff, and physical access may be restricted to these personnel. These central equipment rooms appear most frequently at the campus wide and large organizational unit levels and are generally subject to environmental and security controls and procedures limiting users to electronic terminal, telephone or modem access. Includes central rooms housing computer(s) (e.g., large mainframe, minicomputers, etc.), peripheral input (e.g., data entry terminals, input tape or disk drives, data reading equipment, etc.), and output (e.g., printers, output tape or disk drives, etc.) devices. This category also includes rooms in a central computer complex, which are primarily or exclusively dedicated to data or program code entry of job submissions through one or more terminals.

Computer-based telecommunications equipment rooms, ranging from the micro-driven LAN (local area) to the larger PBX (private branch) network centers, including central rooms housing satellite signal reception or transmission equipment, should be assigned the 710 code. This equipment may be dedicated to data, audio or telephone, video or any combination of these electronic transmissions.

Limitations: Does not include office space (see 300 series) assigned to programmers, analysts, engineers, data entry personnel, and other technical staff even though these rooms usually contain an access terminal. Also does not include instructional laboratories and study rooms equipped with personal computers or terminals (see 210, 220, 410), or offices with data processing equipment used as office tools (see 300 series). Personal computer or terminal workrooms and printer rooms that serve an office area should be coded office service (315). Small closet areas housing reception or distribution telecommunications equipment and wiring which are not used by technical or sport staff on a regular basis (i.e., repair or modification only) should be classified as non-assignable mechanical space.

715 Central Computer Or Telecommunications Service

Definition: A room that directly serves a central computer or telecommunications facility as an extension of the activities in that facility.

Description: Includes paper and forms storage, off-line tape and disk storage, separate control or console rooms or booths, tool and parts rooms, bursting and decollating rooms, areas used to store only inactive support equipment (e.g., multiplexers, modems, spoolers, etc.), and separate areas used for delivering tapes or picking up printouts. Also includes the repair and assembly rooms that directly serve the central computer or telecommunications facility.

Limitations: Does not include office areas for personnel (e.g., technicians, engineers, analysts, programmers) assigned to the central computer facility (see 300 series), primary equipment (computer, I/O device) rooms (see 710), and office areas containing data processing or networking office service equipment or materials (see 300 series). Also does not include rooms directly supporting study rooms (see 455) or laboratories (see 215, 225, 235, 255, 265, 275, 285) that contain special computer equipment used for study, instruction or research. A non-office workroom containing a remote printer or data/job entry terminal that is part of an office area, and not the central computer facility, should be coded office service (315). A printer room serving a general-purpose terminal room in a dormitory should be classified as study service (455).

720 Shop

Definition: A room used for the manufacture, repair, or maintenance of products or equipment.

Description: Includes carpenter, plumbing, HVAC, electrical and painting shops, and similar physical plant maintenance facilities. This category also includes centralized shops for construction or repair of research or instructional equipment, and repair and maintenance of multimedia equipment and devices. Special purpose shops (e.g., glass blowing, machining) supporting multiple rooms for scientific instruction and research are included in this category.

Limitations: Does not include instructional “shops” (i.e., industrial arts or vocational-technical shops used for instruction), which should be classified as laboratory facilities (200 series). Facilities used for producing and distributing multimedia materials and signals are classified as media production (530). Architectural and engineering drafting rooms serving the physical plant operation are classified as office (300 series). Blueprint storage rooms are classified as office service (315). Small, incidental equipment repair, assembly or cleaning rooms that directly serve an adjacent or nearby primary activity room should be classified according to the appropriate corresponding service code. This category also does not include areas used for the repair and maintenance of institution-owned vehicles (see 745) or rooms directly serving media production or distribution areas (see 535). Also excludes costume and scene “shops” serving theater areas (see 615). Greenhouses used for campus physical maintenance or improvements should be coded 580.

725 Shop Service

Definition: A room that directly serves a shop facility as an extension of the activities in that facility.

Description: Includes tool storage rooms, materials storage rooms, and similar equipment or material supply or storage rooms. Locker, shower, first-aid, and similar nonpublic areas that serve the shop facility should be included.

Limitations: Does not include service areas for class laboratories (see 215) or research/non-class laboratories (see 255). Also does not include vehicular repair facilities (garages) classified as vehicle storage service (745). Blueprint storage rooms should be classified as office service (315). Rooms directly serving media production or distribution facilities are coded 535. Sit-down lunch or vending rooms that serve a shop facility are classified food facility (630).

730 Central Storage

Definition: A room or building that is used to store equipment or materials and that serve multiple room use categories, organizational units, or buildings.

Description: The concept of *central* or *general* is key to applying this code correctly. The vast majority of storage rooms on a campus are service rooms (e.g., 115, 225, 355, 615, etc.) that directly support a primary activity room or room group; for example, a paper storage room (see 315) can serve several offices (see 300 series) in an area. Service storage rooms are somewhat close to the areas they serve and are used more than occasionally. Central storage areas include areas commonly called warehouses, surplus storage, central campus supply or storage and inactive storage. A storage room incidentally used to store janitorial supplies would remain in this category. It also includes storage rooms in a building or building area that serve multiple room use categories and which are used for general or surplus (e.g., furniture, equipment) collection or storage. The 730 code can usually be used for all storage areas that do not qualify as service rooms.

Limitations: Does not include a storage room directly serving a primary room use category or group of such rooms (i.e., a room that is clearly a service room). Also, this category does not include non-assignable area (circulation, building service, or mechanical areas). Offices within warehouses or other central storage buildings are coded as office (300 series). Centralized food stores and laundries are classified central service (750).

735 Central Storage Service

Definition: A room that directly serves a central storage facility as an extension of the activities in that facility.

Description: Central storage service rooms are typically limited to support rooms associated with the transporting of materials in and out of large central storage facilities and warehouses. Storage rooms for hand trucks and other moving equipment, shelving storage, and other rooms supporting the central storage function are included.

Limitations: Only those rooms directly supporting the (usually) larger central storage (730) area should be classified with this code.

740 Vehicle Storage

Definition: A room or structure that is used to house or store vehicles.

Description: Includes structures, buildings, and rooms generally called shops, boathouses, and airplane hangars. The definition of “vehicle” is broadly interpreted here to include forklifts, moving equipment, and other powered transport devices or equipment.

Limitations: This category does not include unroofed surface parking lots. It also does not include structures that house or store farm vehicles and implements (see 560).

745 Vehicle Storage Service

Definition: A room that directly serves a vehicle storage facility as an extension of the activities in that facility.

Description: Includes any areas or rooms directly serving a vehicle storage facility, such as material storage rooms and areas used for maintenance and repair of automotive equipment, boats, airplanes, and other vehicles as defined in vehicle storage (740).

Limitations: Does not include shops as defined in shop (720) above (e.g., carpenter, plumbing, electrical, painting, etc.). Offices within a vehicle storage facility should be classified as such (see 300 series).

750 Central Services

Definition: A room or area that is used for the processing, preparation, testing, or delivery of a complex-central or campus wide support service.

Description: The central service delivery may be provided by special equipment, human activity, the special availability of space, or any combination of these elements. Includes centralized food stores and laundries, which typically serve the occupants or activities of more than one building. Also includes central facilities for printing and duplication services, central mail facilities, central shipping and receiving areas, and central environmental testing or monitoring facilities, if they serve the occupants and activities of more than one building. Institutions may wish to differentiate individual central services through the use of additional codes in this series. Most of these centralized areas have a campus wide service scope.

Limitations: Does not include those rooms providing the above-listed functions if they support other primary activity rooms in the same building. For example, a food storage area in a cafeteria should be coded 635; a copy or mailroom in an office area is coded 315, etc. Media production (530) or distribution facilities and computer-based data processing and telecommunications equipment centers (see 710) are coded separately. Facilities used for the manufacture, repair or maintenance of products or equipment should be coded shop (720). Central storage (730) or supply facilities and vehicle storage (740) facilities also have separate codes.

755 Central Service Support

Definition: A room that directly serves a central service facility as an extension of the activities in that facility.

Description: Central service support rooms are typically limited to extension storage rooms for supplies, parts, and moving or non-active equipment; and adjacent, directly supporting repair and maintenance areas.

Limitations: Offices within a central service area or complex should be coded office (series 300). Centralized physical plant repair and maintenance facilities that do not directly support a central service (750) facility should be coded shop (720).

760 Hazardous Materials

Definition: A centralized facility used for the storage, treatment, or disposal of hazardous or toxic waste materials.

Description: Hazardous or toxic materials include any materials, which have been designated for specific or formal regulation or controls on the basis of a potential harm to plant or animal life. Includes facilities devoted to the treatment or disposal of toxic or hazardous waste.

Limitations: Does not include temporary storage or disposal sites located near or adjacent to instructional or research facilities (see 215, 225, 235).

765 Hazardous Materials Service

Definition: A facility that serves a centralized facility used for the storage, treatment or disposal of hazardous or toxic waste materials.

Description: Includes those facilities that directly serve the hazardous materials (760) facility.

Limitations: Does not include facilities that serve temporary storage or disposal sites located near or adjacent to instructional or research facilities.

800 - Health Care Facilities

General

This series provides room use classifications for patient care rooms that are located in separately organized health care facilities: student infirmaries, teaching hospitals and clinics, and veterinary and medical schools. This series has limited use in the community and technical college system and will only be used to code student infirmaries and/or student treatment and first-aid rooms where such rooms serve the entire college student community. The other types of health care facilities addressed by this classification are not found on community or technical college campuses.

850 Treatment/Examination

Definition: A room used for diagnostic and therapeutic treatment.

Description: Included are rooms used for radiology, fluoroscopy, angiography, physical and occupational therapy, dialysis, body scanning (e.g., CAT, MRI, ultrasound), cardiac catheterization, pulmonary function and vascular testing, EEG, ECG, EMC, EMR, linear acceleration, and dental examination and treatment. Also includes combined doctors or nurse's offices and treatment/examination rooms and central first-aid facilities.

Limitations: Does not include treatment/examination rooms associated with instructional laboratories or athletic facilities.

855 Treatment/Examination Service

Definition: A room that directly serves a treatment/examination room as an extension of the activities in that facility.

Description: Included are dressing rooms, x-ray and film reading or viewing rooms, film processing rooms, dark rooms, work preparation areas, equipment and supply storage areas, sound-proof rooms, patient dressing rooms, and clean and dirty linen rooms if these areas directly serve the primary activity treatment/examination facility.

Limitations: Does not include service areas for athletic training/treatment rooms (525) or laboratory first aid/treatment rooms (215).

900 - Residential Facilities

General

Residential facilities include housing for students, faculty, staff, and visitors to the institution. Hotel or motel and other guest facilities are included in this series if they are owned or controlled by the institution and used for purposes associated with defined institutional missions (i.e., excluding commercial investment).

000 - Unclassified Facilities/Non-assignable Area

General

050 Inactive Area

Definition: Rooms that are available for assignment to an organizational unit or activity but that are unassigned at the time of the inventory and are typically unfurnished.

Limitations: Rooms that are being modified or are not completed at the time of the inventory are so classified (060 or 070). Rooms furnished or ready for a specific use (such as office) but not currently assigned and in use should be coded to the apparent specific use (i.e. 310) with program code 81 (capable of use).

060 Alteration or Conversion Area

Definition: Rooms that are temporarily out of use because they are being altered, remodeled, or rehabilitated at the time of the inventory.

Limitations: Rooms that are inactive or are not completed at the time of the inventory are classified 050 or 070, respectively.

070 Unfinished Area

Definition: All potentially assignable areas in new buildings or additions to existing buildings that are not completely finished at the time of the inventory.

Limitations: This category is intended only for the unfinished part of a building or addition. The parts that are in use should be classified elsewhere.

080 Circulation Area

Definition: The sum of all areas on all floors of a building which is required for physical access to some subdivision of space whether directly bounded by partitions or not.

Basis for Measurement: Should be computed by measuring from the inner faces of walls or partitions, which enclose horizontal spaces used for such purposes. Deductions should not be made for columns and minor projections necessary to the building. Do not include unusable areas having less than 6'6" clear headroom.

Description: Circulation space includes corridors, fire towers, elevator lobbies, tunnels, bridges, and each floor's footprint of elevator shafts, escalators and stairways. Receiving areas such as loading docks should be treated as circulation space. Any part of a loading dock that is not covered is to be excluded from both circulation areas and the gross building area.

Limitations: When determining corridor areas, only horizontal spaces required for *general* access should be included - not aisles, which are used only for circulation within office suites, auditoriums, or other, working areas. Deductions should not be made for columns and projections necessary to the building.

081 Building Service Area

Definition: That portion of the non-assignable area, which is the sum of all areas of a building used to support its cleaning and public hygiene functions.

Basis for Measurement: These areas should be measured from the inside surfaces of enclosing walls or permanent partitions. Deductions should not be made for columns and minor projections necessary to the building. Do not include unusable areas with less than 6'6" clear headroom.

Description: Included should be such areas as trash rooms, janitor's closets, custodial supply rooms, custodial locker rooms, sink rooms, and public restrooms.

Limitations: This category should not include central physical plant shop areas, nor should it include special purpose storage or maintenance rooms.

082 Mechanical, Electrical, and Communication Areas

Definition: That portion of the gross area designed to house mechanical equipment, utility services, and shaft areas.

Basis for Measurement: Mechanical area should be computed by measuring from the inner faces of the walls, partitions, or screens, which enclose such areas. Do not include unusable areas with less than 6'6" clear headroom.

Description: Mechanical area should include, but not be limited to, mechanical areas in central utility plants, air duct shafts, boiler rooms, fixed mechanical and electrical equipment rooms, fuel rooms, mechanical service shafts, meter and communications closets, service chutes, and stacks.

Limitations: Deductions should not be made for columns and projections necessary to the building.

083 Structural Area

Definition: "Structural Area" is that portion of the gross area, which cannot be occupied or put to use because of the presence of structural features of the building.

Basis for Measurement: Precise computation of structural area by direct measurement is not contemplated under these definitions. Structural area should generally be determined by assuming it to be the residual area after the assignable, circulation, custodial, and mechanical areas have been subtracted from the gross area.

Description: Examples of building features normally classified as structural area are exterior walls, firewalls, permanent partitions, and unusable areas in attics, basements, or comparable portions of a building.

NACUBO CLASSIFICATION CATEGORIES

SUMMARY

<u>Code</u>	<u>Description</u>	<u>Code</u>	<u>Description</u>
10	<u>Instruction Program</u>	50	<u>Student Services Program</u>
11	General Academic Instruction	51	Student Service Administration
12	Occupations & Vocational Instruction	52	Social & Cultural Development
13	Community Service/Self-Support	53	Counseling & Career Guidance
14	Basic Skills & Developmental Studies	54	Financial Aid
		55	Student Auxiliary Services
		56	Intercollegiate Athletics
20	<u>Research Program</u>	60	<u>Institutional Support Program</u>
21	Institutes & Research Centers	61	Executive Management
22	Individual or Project Research	62	Fiscal Operations
		63	General Administrative Serv.
		64	Logistical Services
30	<u>Public Service Program</u>	65	Physical Plant Operations
31	Patient Services	66	Faculty/Staff Auxiliary Serv.
32	Community Services	67	Community Relations
33	Cooperative Extension Service	68	Student Recruitment, Admissions and Records
34	Public Broadcasting Services		
		70	<u>Independent Operations Program</u>
40	<u>Academic Support Program</u>	71	Institutional Operations
41	Libraries	72	Outside Agencies
42	Museums and Galleries		
43	Audio/Visual Services	80	<u>UNASSIGNED (For Assignable Areas Only)</u>
44	Computing Support		
45	Ancillary Support		
46	Instructional Administration	81	Capable of Use
47	Course and Curriculum Development	82	Incapable of Use
48	Instructional Personal Develop.	90	<u>Building Service (For Non-assignable Areas Only)</u>

NACUBO PROGRAM CLASSIFICATION CATEGORIES

10. Instruction Program

Definition: The instruction program consists of all direct instructional activities whether the outputs are eligible for credit and lead toward a postsecondary degree or certificate or are not eligible for credit and/or are not applicable to a postsecondary degree or certificate.

Facilities Application: Areas that house activities of the instruction program are to be classified here if they serve the entire program, or under one of the subprogram classifications listed subsequently if they house specific portions of the instruction program. All general classrooms (room use 110) except those leased to other agencies are to be coded with the program code 10.

Limitations: Areas that house activities which would normally be contained in the instruction program but which are leased out to other institutions or agencies are to be classified in program 72 "Outside Agencies."

Coding Detail: Four subprograms listed below.

11. General Academic Instruction

Definition: This subprogram consists of instructional program elements (as defined by the institution) that are managed by the academic (transfer and vocational support) departments.

Facilities Application: Instructional elements, typically faculty offices and laboratories, are classified under this subprogram. Areas that house elements of the general academic instruction subprogram may be further classified under the Classification of Instruction. Program (CIP) categories, are listed in another section of the manual.

Limitations: Areas that house subprograms and/or activities typically associated with two-year (or less) vocational degree or certificate should be included under subprogram 12. Areas that house community service (13) and basic skills (14) are also excluded. All general classrooms are to be coded with the program code 10.

Coding Detail: No further breakdown required.

12. Occupational and Vocational Instruction

Definition: This subprogram consists of those activities established primarily to provide instruction in vocational disciplines.

Facilities Application: Areas that house instructional elements serving two-year (or less) terminal degree and certificate programs are classified here. Typically, faculty offices and laboratories that serve vocational programs are classified here.

Limitations: Areas that serve community service/self-support (13) and basic skills (14) are excluded. All general classrooms are to be coded with program category code 10.

Coding Detail: No further breakdown required.

13. Community Service/Self-support

Definition: This subprogram consists of activities that are managed within the academic departments or elsewhere within the institution to provide instructional services on a self-supporting basis. These courses are recreation and avocational in nature or are professional review courses, short courses, refresher courses, etc.

Facilities Application: Areas that house self-supporting instructional services are classified here, e.g., offices for a continuing education coordinator.

Limitations: All general classrooms are to be coded with program category code 10.

Coding Detail: No further breakdown required.

14. Basic Skills and Developmental Education

Definition: This subprogram consists of those activities that have been established primarily to provide matriculated students with supplemental instruction outside of the normal academic program. Generally, activities within this subprogram are established to provide remedial education service as contrasted to instructional activities that are a part of the degree curriculum, e.g., adult basic education, English-As-A-Second-Language, general education development (GED), high school completion, reading/study skills, remedial instruction, tutorial workshops, etc.

Facilities Application: Areas specifically assigned to providing supplemental instruction outside the normal academic program to matriculated students are included here. Some faculty or support office space may be assigned specifically for this type of usage.

Limitations: Areas that house regular academic programs are excluded. Areas assigned to non-degree instructional activities to members of the community are also excluded. All general classrooms are to be coded with program category code 10.

Coding Detail: No further breakdown required.

20. Research Program

Definition: The primary objective of an organized research program is the creation and dissemination of new knowledge. It consists of activities that have been specifically organized to produce research outcomes commissioned by an agency either external to the institution or authorized by an organization unit within the institution.

Facilities Application: Facilities that house elements of the organized research program are to be classified here if they serve the entire program, or under one of the subprogram classifications listed subsequently if they house specific elements of the organized research program.

Limitations: Facilities that house externally funded educational activities such as workshop, short courses, and training grants would normally be considered as either instruction or public service.

Coding Detail: Two subprograms listed below.

21. Institutes and Research Centers

Definition: This subprogram consists of all those research-related activities that are part of formal research organization typically created to manage a number of research efforts.

Facilities Application: Areas that house formal research organizations created to manage a number of research efforts within the institution are classified under this category.

Limitations: Areas that serve research activities that are normally managed within academic departments are excluded from this category.

Coding Detail: No further breakdown required.

22. Individual or Project Research

Definition: This subprogram consists of all those research activities that are normally managed within the academic departments. This subprogram consists of the various research-related activities that have been created as a result of a contract, grant, or specific allocation of institutional resources to conduct a study or investigation of a specific scope. Generally, such activities may be identified with the principal investigator and should be coded within his assigned discipline. Activities within this subprogram are normally of a temporary nature, i.e., created for a specified period of time, as contrasted to the more permanent nature of the research organizations within the institute's and research center's subprogram.

Facilities Application: Areas that house research-related elements created as a result of a contract, grant, or specific allocation of institutional resources are classified here. Typically, faculty offices and non-class laboratories devoted to project research are classified here. If the space has multiple uses, primary intent should be the guiding factor as to where to classify it.

Limitations: Areas that house research organizations are not to be classified here.

Coding Detail: No further breakdown required.

30 Public Service Program

Definition: Public service activities are established to make available to the public the various unique resources and capabilities of higher education. The objective of a public service program is to provide services that are beneficial to groups external to the institution.

Facilities Application: Areas that house elements of the public service program are to be classified here if they serve the entire public service program. Areas that house specific elements of the public service program are to be classified under one of the subprograms listed below.

Limitations: Areas that house activities established to provide supplemental or remedial services for matriculated students should be appropriately coded under the student service program (50).

Coding Detail: Four subprograms listed below.

31 Patient Services (not used in Washington community colleges)

32 Community Service

Definition: This subprogram consists of those activities that are established to provide general community services, excluding instructional activities. Community service activities are managed either within the academic departments or elsewhere within the institution and have been established to provide general public services to the community at large or special sectors within the community. Community service is concerned with making available to the public various resources and unique capabilities that exist within the institution. Examples of community service may be conferences and institutes, general advisory services and reference bureaus, urban affairs, international affairs, radio and television, consultation, and similar activities. Community service activities are those for which the primary intent for establishing and maintaining the activity is to provide services that are beneficial to groups and individuals outside of the institution.

Facilities Application: Areas that house general community services, excluding instructional activities, are to be classified here, e.g., offices devoted to conference coordination, outreach advisory services, etc.

Limitations: Areas that house activities established primarily for the institution's staff or student body or that house instructional activities are excluded.

Coding Detail: No further breakdown required.

33 Cooperative Extension Service (not used in Washington community colleges)

34 Public Broadcasting Services

Definition: This subprogram consists of those activities associated with the operation and maintenance of broadcasting services intended primarily for the public.

Facilities Application: Areas that house activities supporting the operation and maintenance of broadcasting services, e.g., radio stations and television stations.

Limitations: Excluded are areas that house broadcasting services that are primarily in support of the instruction program, or broadcasting activities, which represent independent operations.

Coding Detail: No further breakdown required.

40 Academic Support Program

Definition: The objectives of the academic support program are to provide support services that are an integral part of the operations of non-vocational instruction programs through the retention, preservation, and display of materials, or provide services that directly assist the academic functions of the institution.

Facilities Application: Areas that house activities of the academic support program are to be classified here if they serve the entire program, or under one of the subprogram classifications listed subsequently if they house specific segments of the academic support program.

Limitations: Excluded are areas that house activities established to maintain the organization and provide operational support for the day-to-day functioning of the organization. Such areas are classified under the institutional support program (60).

Coding Detail: Seven subprograms listed below.

41 Libraries

Definition: This subprogram consists of all activities that directly support the operation of a cataloged or otherwise classified collection of published material.

Facilities Application: Areas that house activities supporting the operation and maintenance of a collection of published material are classified here, e.g., the general campus library, law library, engineering library, etc.

Limitations: Areas that are intended to serve as departmental reading rooms should be classified under the appropriate category of the instruction program.

Coding Detail: No further breakdown required.

42 Museums and Galleries

Definition: This subprogram consists of all activities established to provide services related to the collection, preservation, and exhibition of historical materials, art objects, scientific displays, etc.

Facilities Application: Areas such as museums, galleries, and arboretums are included in this category.

Limitations: Research areas in museums or galleries should be classified under the appropriate category of the organized research program (20).

Coding Detail: No further breakdown required.

43 Audio/Visual Services

Definition: This subprogram consists of those activities associated with providing audio and/or visual materials to support the academic programs of the institution.

Facilities Application: Areas that house activities established to provide audio and/or visual materials for use in the academic programs are classified here.

Limitations: Areas that house activities that use audio/visual technology as part of the instructional process, e.g., language laboratories, are excluded. Areas housing dial access centers and learning resource centers are more appropriately coded under libraries (41).

Coding Detail: No further breakdown required.

44 Computing Support

Definition: This subprogram consists of those activities established to provide computing support to both administrative and instructional programs.

Facilities Application: Areas that house such computing support activities are classified here such as central computing and/or telecommunications facilities. Institutional computer repair facilities, data transmission hubs, and support staff offices and support space are also classified here.

Limitations: Excluded are areas that house computer laboratories and support space associated with actual instruction, curriculum development, or faculty development. Such areas are more properly coded to their relevant functional categories, for example, Academic (11), Vocational (12), Community Service (13), Basic Skills (14), Course and Curriculum Development (47), or Instructional Personnel Development (48).

Coding Detail: No further breakdown required.

45 Ancillary Support

Definition: This subprogram consists of those activities that provide support services to the primary programs and are not appropriately classified with the previous subprograms. Such ancillary support activities, when they exist, normally provide joint services to the instruction, organized research, and public service programs.

Facilities Application: Areas that house ancillary support activities typically are teaching hospitals, demonstration schools, and special areas such as general glass blowing shops.

Limitations: Shops and similar areas that serve specifically identifiable program categories should be coded under the appropriate category of the instruction (10), organized research (20), or public service (30) programs.

Coding Detail: No further breakdown required.

46 Academic Administration and Personnel Development

Definition: This subprogram consists of all activities that provide administrative support and management direction for the primary programs. The intent of this subprogram is to provide a well-defined identification of the management function.

Facilities Application: Areas that house the activities of department chairmen, college deans, and associated support staff are included in this category.

Limitations: Areas that house the activities of the institution's executive and general administrative officers are more appropriately coded under the institutional support program (60).

Coding Detail: No further breakdown required.

47 Course and Curriculum Development

Definition: This subprogram consists of those activities established to accomplish the planning and developmental activities for future (i.e., subsequent to the current budget period) instruction programs. The intent of this subprogram is to separate initially from the current operational aspects of the instruction program those activities that may result in instructional offerings at some point beyond the current budget period. This subprogram may be thought of as reflecting investment costs for future instruction program elements.

Facilities Application: Areas that are specifically devoted to course and curriculum development activities are classified here.

Limitations: Areas that cannot be identified separate from the instruction program should be so coded (10).

Coding Detail: No further breakdown required.

48 Instructional Personnel Development

Definition: This subprogram consists of activities that provide the faculty with opportunities for increasing their personal and professional growth and development or that evaluate and reward their professional performance.

Facilities Application: Areas that house activities, which are primarily devoted to faculty professional development.

Limitations: Areas that house general personnel functions, which include faculty and staff development activities are more appropriately coded under the institutional support program, program code 60.

Coding Detail: No further breakdown required.

50 Student Services Program

Definition: The overall objective of the student service program is to contribute to the student's emotional and physical well being, outside the context of the formal academic program.

Facilities Application: Areas that house activities of the student service program are to be classified here if they serve the entire program, or fewer than one of the subprogram classifications listed subsequently if they house specific portions of the student service program.

Limitations: Areas that house activities that are creditable toward degrees are coded under the appropriate category of the instruction program (10). Areas that house activities whose primary intent is to offer non-degree instruction to members of the community are coded to the appropriate category of the public service program (30).

Coding Detail: Six subprograms listed below.

51 Student Service Administration

Definition: This subprogram consists of those student service activities that cut across multiple student support subprograms or provide central administrative services to student service programs, e.g., Dean of Men, Dean of Student Personnel Services, Dean of Students, Dean of Women, Director of Student Services, etc.

Facilities Application: Areas that house activity that are established to administer several or all of the activities in the student services program, e.g., Dean of Students' office, general student services support staff, etc.

Limitations: Areas that house administrators of specific student service programs such as the Director of Counseling are excluded. They are more properly coded to their respective subprograms, e.g., the area housing the Director of Counseling. Such specific student service administration should be coded, as in the case above, to the specific activity. For example, the Director of Counseling should be coded to subprogram code 53, Counseling and Career Guidance. Also excluded are chief administrative offices for student affairs such as vice presidents and vice chancellors. These activities are more appropriately coded to subprogram 61, Executive Management.

Coding Detail: No further breakdown required.

52 Social and Cultural Development

Definition: This subprogram consists of all those activities that have been established to provide for the student's social and cultural development outside of the degree curriculum.

Facilities Application: Areas to be classified under this category include those that house activities such as student activities, cultural events, student organizations, recreation, intramural athletics, and intercollegiate athletics. Areas such as student unions, bowling alleys, and sports complexes are included here.

Limitations: Areas that house instructional activities creditable toward a degree are excluded.

Coding Detail: No further breakdown required.

53 Counseling and Career Guidance

Definition: This subprogram consists of those activities established to provide counseling services, career guidance, and placement services for the student body.

Facilities Application: Areas that house the activities of placement bureaus, counseling centers, etc., are included in this category.

Limitations: Areas used by faculty for informal student counseling are excluded.

Coding Detail: No further breakdown required.

54 Financial Aid

Definition: This subprogram consists of those activities established to provide financial aid and assistance to students.

Facilities Application: Such activities as financial analysis and counseling, work study and student employment, scholarships, loans, grants, and records and collections are included here. Typically, such areas are offices and associated conference rooms.

Limitations: Excluded are placement bureaus for students leaving the institution.

Coding Detail: No further breakdown required.

55 Student Auxiliary Services

Definition: This subprogram consists of those activities established within the institution to provide convenience services to the student body or services to special student groups. For many institutions, it will often be difficult to discriminate between convenience services provided for the benefit of students and those provided for faculty and staff, e.g., a central cafeteria for both. In such instances, the program element will typically be identified to the student support subprogram unless the primary intent is clearly to provide services for the faculty and staff.

Facilities Application: Areas that house such activities as student housing, health services, veteran's assistance, disadvantaged assistance, food services, and retail services and concessions are included here. Typically, bookstores, student health centers, residential complexes, and cafeterias are classified under this category.

Limitations: Excluded are areas that house similar activities specifically for members of the staff.

Coding Detail: No further breakdown required.

56 Intercollegiate Athletics

Definition: This category includes activities associated with the performance of intercollegiate athletics. It is assumed that the primary intent of such activities is to enhance the student's development.

Facilities Application: This category is provided to keep a separate tabulation of facilities devoted to the institution's intercollegiate athletics program. Areas such as basketball arenas, team locker rooms, and coach's offices are to be included in this category if their primary function is intercollegiate athletics.

Limitations: Areas used primarily for intramural activities and/or instructional activities are excluded.

Coding Detail: No further breakdown required.

60 Institutional Support Program

Definition: The institutional support program consists of those activities that provide operational support for the day-to-day functioning of the organization. The overall objective of the institutional support program is to maintain the institution's organizational effectiveness and continuity.

Facilities Application: Areas that house the activities of the institutional support program are to be classified here if they serve the entire program, or fewer than one of the subprograms listed subsequently if they house specific portions of the independent operations program.

Limitations: Areas that house activities associated with management of specific academic organizational units are excluded.

Coding Detail: Eight subprograms listed below.

61 Executive Management

Definition: This subprogram consists of all central executive level activities and other activities concerned with the management and long-range planning of the entire institution, as contrasted to any one program within the institution.

Facilities Application: Areas that house such central operations activities as legal services, executive direction (the governing board, the chief and senior executive officers), analytical studies, institutional research, and long-range planning, etc., are included here.

Limitations: Areas housing administrative data processing activities, logistical services, and physical plant operations are excluded.

Coding Detail: No further breakdown required.

62 Fiscal Operations

Definition: This subprogram consists of those central operations activities related to fiscal control, investments, and functional program elements related to the fiscal operations of the institution.

Facilities Application: Areas that house the activities of the fiscal operations of the institution are included here.

Limitations: Areas housing financial aid and counseling activities for the student bodies are excluded.

Coding Detail: No further breakdown required.

63 General Administrative Services

Definition: This subprogram consists of those activities established to provide central administrative services to the institutional support program, e.g., administrative data processing, and functional program elements related to student records and staff personnel.

Facilities Application: Areas that house general administrative activities such as administrative data processing are classified here.

Limitations: Areas housing data processing activities that serve instructional programs explicitly are to be coded under the academic support program (40).

Coding Detail: No further breakdown required.

64 Logistical Services

Definition: This subprogram consists of activities established to provide procurement services, supply and maintenance of provisions, and the orderly movement of support materials for the campus operation. Included within logistical services are central activities related to the environmental health and safety of the staff and students.

Facilities Application: Areas that house activities such as central stores, central laundry, and campus enforcement officers are included in this category.

Limitations: Excluded are areas that house the logistical service activities of specific organizational units within the institution.

Coding Detail: No further breakdown required.

65 Physical Plant Operations

Definition: This subprogram consists of those activities established to provide services related to the campus grounds and facilities.

Facilities Application: Areas that house activities related to maintaining existing grounds and facilities, operating utility services, creating new facilities, and/or modifying existing facilities are included here.

Limitations: This category includes only those areas that house the activities of physical plant departments, not the areas maintained by them.

Coding Detail: No further breakdown required.

66 Faculty and Staff Auxiliary Services

Definition: This subprogram consists of those activities established to provide support services for the faculty and staff, and those activities for which the primary intent of their establishment is to provide support and convenience services to the faculty and staff.

Facilities Application: Areas such as faculty clubs are to be included in this category.

Limitations: Areas that house service activities where the primary intent is not limited to faculty and staff, e.g., a central cafeteria should be classified under the student service subprogram (50).

Coding Detail: No further breakdown required.

67 Community Relations

Definition: This subprogram consists of those activities that have been established to maintain relationships with the general community, the institution's alumni, or other constituents, and to conduct activities related to development, fund raising or a college foundation.

Facilities Application: Areas housing community relations activities should be classified here, e.g., the alumni office, the public relations office.

Limitations: Areas that house activities established primarily to provide public service to the community are excluded.

Coding Detail: No further breakdown required.

68 Student Recruitment, Admissions, and Records

Definition: This subprogram consists of those activities that have been established to recruit new students and to administer the admissions process and student records.

Facilities Application: Area housing the admissions and records functions as well as the student recruitment activities at the institution, e.g., admissions offices, registrar's office, etc. This subprogram also includes advertising, marketing and sales activities associated with student recruitment efforts.

Limitations: Chief administrative officers for student affairs, such as vice presidents and vice chancellors are excluded. These activities are more properly coded to subprogram 61, Executive Management.

Coding Detail: No further breakdown required

70 Independent Operations Program

Definition: The independent operations program is established to collect those activities that may be viewed as not related directly to the objectives of the institution of higher education.

Facilities Application: Areas that house activities of the independent operations program are to be classified here if they serve the entire program, or fewer than one of the subprograms if they house a specific portion of the independent operations program.

Limitations: Areas that house activities related to the objectives of the institution are excluded.

Coding Detail: Two subprograms listed below.

71 Institutional Operations

Definition: This subprogram includes those activities that represent operations owned or controlled by the institution and are foreign to, or independent of, the institution's mission.

Facilities Application: Areas such as commercial rental property for income, a pancake house, a spaghetti factory, etc., are included here.

Limitations: Areas that house operations controlled by external organizations are excluded.

Coding Detail: No further breakdown required.

72 Outside Agencies

Definition: This subprogram consists of those activities that are controlled or operated by outside agencies but are housed or otherwise supported by the institution.

Facilities Application: Areas that house the activities of outside agencies are classified here, e.g., offices of another institution of higher education.

Limitations: Excluded are areas that house operations controlled by the institution.

Coding Detail: No further breakdown required.

80 Unassigned (For Assignable Areas Only)

Definition: This category is limited to classifications of facilities that are assignable by nature but are not in use at the time of the inventory.

Coding Detail: Two subprograms listed below.

81 Capable of Use

Definition: This category is limited to rooms that are not in use but are capable of use at the time of the inventory.

Coding Detail: No further breakdown required.

82 Incapable of Use

Definition: This category is limited to rooms that are not in use at the time of the inventory because they are incapable of use.

Coding Detail: No further breakdown required.

90 Building Service (For Non-assignable Areas Only)

Definition: This category is limited to classifications of non-assignable areas.

Facilities Application: This category is included only for purposes of completing the program classification dimension of the procedures. The non-assignable areas to be classified here are recommended to be inventoried, so that institutions may use them for plant management purposes.

Coding Detail: No further breakdown required.

Classification of Instructional Programs

Two-digit CIP Definitions

CIP GRP	CIP CAT TITLE
01	Managerial
02	Health Related
03	Other Professional/Technical
04	Sales
05	Agriculture/Forestry
06	Administrative Support (clerical)
07	Service Occupations
08	Repairs/Machinist/Construction
09	Technical/Prof (usually combined with 03)
10	Technical/Trades (usually combined with 08)
11	Other Vocational
12	Consumer Homemaking/Parent Education
21	Transfer Business/Accounting
22	Natural Science
23	Math
24	Social Science
25	Humanities
26	English Composition/Speech
27	Health/PE/Other
31	Community Service
32	Basic Skills
33	Developmental
41	Info Tech
42	Nursing (AND & LPN)
43	Other Health Tech
44	Electronics & Other Tech
45	Machinist, Welding, & Transportation Operator
46	Accounting & Business Admin.
47	Auto
48	Construction
49	Protection & Legal Asst.
50	Other Health Related
51	Administrative Services
52	Education & Social Services
53	Marketing & Sales
54	Other Services
55	Other Technical
56	Support Courses, Parent Ed.

01. AGRICULTURAL BUSINESS AND PRODUCTION

- 01.0101** *Agricultural Business and Management, General.* An instructional program that generally prepares individuals to apply modern economic and business principles involved in the organization, operation, and management of farm and agricultural businesses.
- 01.0102** *Agricultural Business/Agribusiness Operations.* An instructional program that prepares individuals to apply modern business and economic principles relating to the purchasing, selling, producing, and marketing of agricultural products and services for maximizing profit. (Academic)
- 01.0103** *Agricultural Economics.* An instructional program that prepares individuals to apply modern business and economic principles relating to the allocation of resources to the production and marketing of agricultural products and services in the domestic and international markets. (Academic)
- 01.0104** *Farm and Ranch Management.* An instructional program that prepares individuals to manage a farm or ranch. Includes instruction in computer-assisted management analysis, accounting, taxes, production, financing, capital resources, purchasing, government programs, farm inputs, performance records, contracts, estate planning, and marketing.
- 01.0198** *Agricultural Natural Resources.* An instructional program that prepares individuals in the scientific management of agriculture and natural resources specifically allied with agriculture. Includes instruction in crops, range management, chemicals, water resources, grazing, irrigation, nutrition, feeds, and feeding.
- 01.0201** *Agricultural Mechanization, General.* An instructional program that prepares individuals in a general way to sell, select, and service agriculture or agribusiness technical equipment and facilities, including computers, specialized software, power units, machinery, equipment, structures, and utilities. Includes instruction in agricultural power units; the planning and selection of materials for the construction of agricultural facilities; the mechanical practices associated with irrigation and water conservation; erosion control; and data processing systems.
- 01.0204** *Agricultural Power Machinery Operator.* An instructional program that prepares individuals to install, operate, service, maintain, and repair various agricultural power units, vehicles, machinery, and equipment. Includes instruction in gas, diesel, and electric power units; welding; refrigeration; and hydraulic systems.
- 01.0297** *Turf Equipment Mechanics.* An instructional program that prepares individuals to assemble, install, service, maintain, and repair various agricultural turf equipment. Instruction includes gas, diesel, and electric power units; welding; and hydraulic systems.
- 01.0298** *Farm Irrigation Technology.* An instructional program that prepares individuals to implement soil and water management by surveying, planning, laying out, constructing, using, and maintaining irrigation, drainage, and run-off systems.

- 01.0301** *Agricultural Production Workers and Managers, General.* An instructional program that generally prepares individuals to plan and economically use facilities, natural resources, labor, and capital in the production of plant and animal products.
- 01.0302** *Agricultural Animal Husbandry and Production Management.* An instructional program that prepares individuals to operate animal production enterprises by developing competencies concerning the selection, breeding, physiology, nutrition, health, housing, feeding, and marketing of animals such as dairy cattle, beef cattle, horses, swine, sheep, poultry, bees, rabbits, cats, dogs, and earthworms.
- 01.0303** *Aquaculture Operations and Production Management.* An instructional program that prepares individuals to select, culture, propagate, harvest, and market domesticated fish, shellfish, and marine plants. Includes instruction in the operation of fish farms and related enterprises.
- 01.0304** *Crop Production Operations and Management.* An instructional program that prepares individuals to operate enterprises concerned with the production of cereal grain, fiber, forage, oilseed, tree fruits and nuts, small fruits, vegetables, and other crops. Includes instruction in soils, plant nutrition, plant and seed identification, genetics, physiology, entomology, plant pathology, plant disease, and pest control, including insecticides, fungicides, herbicides, nonchemical controls, and plant genetic resistance.
- 01.0391** *Milker.* An instructional program that prepares individuals to perform the task of milking dairy cows. Includes instruction in the ability to recognize any health ailments in a cow that may affect the quality of the milk or milk products and to perform basic health and nutrition prevention and treatment tasks.
- 01.0392** *Orchard Worker.* An instructional program that prepares individuals for working in fruit orchards. Training is included in specific areas such as spraying, pruning, planting, and propagation of trees for the production of edible crops.
- 01.0393** *Viticulture.* An instructional program that prepares individuals in the scientific management of grapevines and grape products. Includes instruction in propagation, irrigation, maintaining grapevines in relation to quality of grape juice and/or wine production.
- 01.0394** *Tree Fruit Production.* An instructional program that prepares individuals to produce, process, and market fruit grown on trees. Includes instruction in machinery and equipment used in the production of fruit, pruning, grafting, fertilization, irrigation, thinning, harvesting, and the application of chemicals.
- 01.0397** *Beekeeping.* An instructional program that prepares individuals to operate a bee and honey production enterprise by developing competencies concerning the selection, keeping, propagation, management, and marketing of bees and honey.
- 01.0398** *Aquatic Specialist.* An instructional program that prepares individuals for the production of food in both salt and fresh water. Includes instruction in feeding, culturing, protection, and propagating commercially-produced marine food products.

- 01.0401** *Agricultural and Food Products Processing Operations and Management.* An instructional program that generally prepares individuals to process food and non-food products and to inspect those products preparatory to marketing. Includes instruction in the characteristics and properties of agriculture-related processing techniques and skills (including quality control and mechanical operations involved in marketing, grading, inspecting, packaging, storing, and marketing).
- 01.0501** *Agricultural Supplies Retailing and Wholesaling.* An instructional program that generally prepares individuals to sell supplies for agricultural production, provide agricultural services, and purchase and market agricultural products.
- 01.0507** *Equestrian/Equine Studies, Horse Management and Training.* An instructional program that prepares individuals to operate horse production, training, and stabling enterprises by developing competencies concerning the selection, breeding, physiology, nutrition, health, housing, feeding, training, and showing of horses.
- 01.0596** *Horseshoeing (Farriery).* An instructional program that prepares individuals to select or forge aluminum and steel shoes (plates) and fit, shape, and nail shoes to animals' hooves.
- 01.0597** *Agriculture Chemicals.* An instructional program that prepares individuals to identify, store, market, and apply chemicals used in agriculture. Includes instruction in the effects of these chemicals on the environment.
- 01.0598** *Seed and Grain.* An instructional program that prepares individuals to inspect, select for purchasing, store, grade, transport, and market feeds, seeds, and grains.
- 01.0601** *Horticulture Services Operations and Management, General.* An instructional program that generally prepares individuals to produce, process, and market plants, shrubs, and trees used principally for ornamental, recreational, and aesthetic purposes and to establish, maintain, and manage horticultural enterprises such as arboriculture, floriculture, greenhouse operation and management, landscaping, nursery operation and management, and turf management. Includes instruction in machinery and equipment necessary for each horticultural enterprise.
- 01.0603** *Floriculture.* An instructional program that prepares individuals to produce flowers, foliage, and related plant materials in fields and greenhouses for ornamental purposes, and to arrange, package, and market these materials. Includes instruction in enterprise management.
- 01.0604** *Greenhouse Operations and Management.* An instructional program that prepares individuals to produce commercial plant species in controlled environments, and to manage commercial and experimental greenhouse operations.
- 01.0605** *Landscaping Operations and Management.* An instructional program that prepares individuals to locate, plant, and maintain turf, plants, shrubs, or devices for the beautification of home grounds and other areas of human habitation and recreation. Includes instruction in equipment maintenance and facilities management.

- 01.0606** *Nursery Operations and Management.* An instructional program that prepares individuals to produce turf, plants, shrubs, and/or trees for the purpose of transplanting or propagating them. Includes instruction in enterprise management.
- 01.0607** *Turf Management.* An instructional program that prepares individuals to establish, manage, and maintain ornamental or recreational grassed areas, to prepare and maintain athletic playing surfaces, and to produce turf for transplantation.
- 01.0698** *Horticulture Therapy Aide.* An instructional program that prepares individuals to utilize horticulture as a media for treating individuals with physical or health disabilities such as chronic disease, tuberculosis, muscular dystrophy, heart disease, diabetes, epilepsy, cerebral palsy, visually impaired, mentally retarded, behavior disorders, or those with communication disabilities.

02. AGRICULTURAL SCIENCES

- 02.0101** *Agriculture/Agricultural Sciences, General.* An instructional program that generally describes the principles and practices of agricultural research and production, and may prepare individuals to apply such knowledge and skills to the solution of practical agricultural problems. Includes instruction in basic animal, plant, and soil science; animal husbandry and plant cultivation; and soil conservation. (Academic)
- 02.0201** *Animal Sciences, General.* An instructional program that generally describes the scientific principles that underlie the breeding and husbandry of agricultural animals, and the production, processing, and distribution of agricultural animal products. (Academic)
- 02.0206** *Dairy Science.* An instructional program that describes the biological theories, principles, and applications that apply to the production and management of dairy animals and the production of milk products. (Academic)
- 02.0301** *Food Sciences and Technology, General.* An instructional program that describes the biological, chemical, physical, and engineering principles and practices involved in converting agriculture products to forms suitable for direct human consumption or for storage, and the solution of problems relating to product transportation, storage, and marketing. (Academic)
- 02.0402** *Agronomy and Crop Science.* An instructional program that describes the chemical, physical, and biological relationships of crops and the soils nurturing them. Includes instruction in the growth and behavior of agricultural crops, the breeding of improved and new crop varieties, and the scientific management of soils for maximum plant nutrition and health. Includes instruction in plant breeding, plant diseases, soils, insect control, and weed control. (Academic)
- 02.0403** *Horticulture Science.* An instructional program that describes the scientific principles involved in the cultivation of garden and ornamental plants, including fruits, vegetables, flowers, landscape, and nursery crops. Includes instruction in specific types of plants, plant breeding, plant physiology, and the management of garden/nursery crops throughout the plant life cycle. (Academic)

02.0501 *Soil Sciences.* An instructional program that describes the scientific classification and study of soils and soil properties. Includes instruction in soil chemistry, soil physics, soil biology, soil fertility, morphogenesis, mineralogy and hydrology, and soil conservation and management.

03. CONSERVATION AND RENEWABLE NATURAL RESOURCES

03.0101 *Natural Resources, Conservation.* An instructional program that generally prepares individuals for activities involving the conservation and/or improvement of natural resources such as air, soil, water, land, fish, and wildlife for economic and recreational purposes.

03.0201 *Natural Resources Management.* An instructional program that prepares individuals to plan, develop, and conduct programs to protect and maintain natural habitats and renewable natural resources. Includes instruction in wildlife biology, animal population surveys, economics, conservation techniques, public education, and administration. (Academic)

03.0301 *Fishing and Fisheries Sciences and Management.* An instructional program that describes the scientific study of the husbandry of fish populations for recreational, ecological, and commercial purposes; and the application of such studies to the management of marine life resources and fisheries. Includes instruction in the principles of aquatic and marine biology, water resources, fishing production and management operations, fishing regulations, water quality monitoring, and the management of recreational and commercial fishing activities.

03.0396 *Shellfish Culturist.* An instructional program that prepares individuals to provide services as a shellfish culturist. Instruction includes the skills needed to cultivate the production of shellfish in both the natural and artificial habitat. Additional instruction is provided in small boat handling, water quality, shellfish biology, and business operations.

03.0397 *Net Pen Operator.* An instructional program that prepares individuals to assist in the production of aquatic food products for human consumption. Includes instruction in the propagation, feeding, harvesting, and general care of these food sources.

03.0398 *Fish Hatchery Operator.* An instructional program that prepares individuals to operate and manage fish hatchery operations. Includes instruction in the harvesting and fertilization of fish eggs, the control of diseases, water quality monitoring, feeding, and release of fish fry either for food or sport uses.

03.0401 *Forest Harvesting and Production Technology.* An instructional program that prepares individuals to assist foresters in managing, protecting, and harvesting timber stands and specialty forest crops. Includes instruction in equipment maintenance and repair, tree planting, selection and identification of trees for special attention, transplantation and harvesting, and forest management and safety procedures.

- 03.0404** *Forest Products Processing Technology.* An instructional program that prepares individuals to assist a manager, engineer, chemist, or forest product scientist in the measurement, analysis of quality, testing, and processing of harvested forest raw materials. Includes instruction in identifying types of raw forest materials; procedures and processes involved, including measuring, assessing quality, evaluating commercial value, and testing strength of fiber or cut products; cutting into finished or semi-finished products; drying or otherwise conditioning; finishing or laminating into plywood marketable products; and cutting, digesting, and fabricating into paperboard or other product form.
- 03.0405** *Logging/Timber Harvesting.* An instructional program that prepares individuals to operate logging equipment and machinery for the direct harvesting of timber crops, including equipment maintenance and the practice of safety procedures.
- 03.0501** *Forestry, General.* An instructional program that generally prepares individuals to manage and develop forest areas for economic, recreational, and ecological purposes. Includes instruction in forest-related sciences, mapping, statistics, harvesting and production technology, resource protection, management and economics, ecology and biology, administration, and public relations. (Academic)
- 03.0506** *Forest Management.* An instructional program that prepares individuals in the principles and processes of the movement and disposition of water on forest and land, including watershed management. (Academic)
- 03.0509** *Wood Science and Pulp/Paper Technology.* An instructional program that prepares individuals to apply scientific and engineering principles to analyze the properties and behavior of wood and wood products; to analyze the chemical and physical processes involved in converting wood into paper and other products; and the design and development of related machinery and systems.
- 03.0598** *Urban Forestry.* An instructional program that prepares individuals in the planning, care, and maintenance of individual trees, or forested areas in or close to areas of dense habitation where special practices may be needed.
- 03.0601** *Wildlife Management.* An instructional program that prepares individuals in the principles and practices used in the production and improvement of wildlife resources for aesthetic, ecological, and recreational uses of public and private lands.
- 03.0698** *Taxidermy.* An instructional program that prepares individuals to skin, preserve, mount, do the necessary artwork, and display animals, fish, fowl, and other forms of life in their natural state.

04. ARCHITECTURE AND RELATED PROGRAMS

- 04.0201** *Architecture.* An instructional program that prepares individuals for the independent professional practice of architecture. Includes instruction in architectural design; architectural history and theory; building structures and environmental systems; site planning; construction; professional responsibilities and standards; and the cultural, social, economic, and environmental issues relating to architectural practice. (Academic)

- 04.0301** *City/Urban, Community and Regional Planning.* An instructional program that prepares individuals to apply principles of planning and analysis to the development and improvement of urban areas or surrounding regions, including the development of master plans, the design of urban services systems, and the economic and policy issues related to planning and plan implementation. (Academic)
- 04.0401** *Environmental Design.* An instructional program prepares individuals for the independent professional practice of environmental architecture--the processes and techniques of designing total environments and living systems for human populations, both indoor and outdoor. Includes instruction in relating the structural, aesthetic, and social concerns affecting life and work to the needs of clients and the constraints of the site environment. (Academic)
- 04.0601** *Landscape Architecture.* An instructional program that prepares individuals for the independent professional practice of landscape architecture. Includes instruction in site planning, site analysis, site engineering, environmental impact, garden and landscape art and design, horticulture, and applicable regulations. (Academic)
- 04.0701** *Urban Design and Planning.* An instructional program that prepares individuals for the independent professional practice of urban systems design and planning--the processes and techniques of designing and modifying the physical elements constituting built urban environments. Includes instruction in regional and community site planning, architecture, systems planning, transportation and logistics design, human services planning, legal codes and zoning development, and related economic and policy issues. (Academic)
- 04.9998** *Land Use Management and Reclamation.* An instructional program that describes the systematic process of planned use of land and reclaiming land which has been defaced or for which original uses are no longer needed.

05. AREA, ETHNIC AND CULTURAL STUDIES

- 05.0101** *African Studies.* An instructional program that describes the history, society, politics, culture, and economics of Africa, with emphasis on societies south of the Sahara. (Academic)
- 05.0103** *Asian Studies.* An instructional program that describes the general history, society, politics, culture, and economics of the continent of Asia and its boundaries, including related island groups. (Academic)
- 05.0107** *Latin American Studies.* An instructional program that describes the history, society, politics, culture, and economics of Mexico, the Caribbean, Central and South America. (Academic)
- 05.0115** *Canadian Studies.* An instructional program that describes the history, society, politics, culture, and economics of Canada, including the English- and French-speaking peoples. (Academic)
- 05.0201** *Afro-American (Black) Studies.* An instructional program that describes the history, society, politics, culture, and economics of the black populations of the Western Hemisphere, with emphasis on the United States and the Caribbean. (Academic)

- 05.0202** *American Indian/Native American Studies.* An instructional program that describes the history, society, politics, culture, and economics of the original inhabitants of the Western Hemisphere, including American Indians, Aleuts, and Eskimos. (Academic)
- 05.0203** *Hispanic-American Studies.* An instructional program that describes the history, society, politics, culture, and economics of Hispanic Americans in the United States, including Mexican-Americans, Puerto Ricans, Cuban-Americans, and others. (Academic)
- 05.0206** *Asian-American Studies.* An instructional program that describes the history, society, politics, culture, and economics of Asian-Americans in the United States, including immigrants and their descendants from East Asia, South Asia, and Southeast Asia. (Academic)
- 05.0207** *Women's Studies.* An instructional program that describes the history, society, politics, culture, and economics of women as individuals and social actors. Includes instruction in feminist theory and perspectives, as well as other approaches and methods. (Academic)

08. MARKETING OPERATIONS/MARKETING AND DISTRIBUTION

- 08.0102** *Fashion Merchandising.* An instructional program that generally prepares individuals to perform marketing functions and tasks in retail establishments, wholesale establishments, and manufacturing firms primarily engaged in the marketing of clothing and related articles for personal wear and adornment.
- 08.0103** *Fashion Modeling.* An instructional program that prepares individuals to model garments such as dresses, coats, underclothing, swimwear, and suits for garment designers, buyers, sales personnel, and customers.
- 08.0297** *Display Design.* An instructional program that prepares individuals to assume responsibilities associated with the creation of product or institutional displays and exhibits for the purpose of stimulating sales and good will.
- 08.0401** *Financial Management.* An instructional program that generally prepares individuals to perform marketing functions and tasks, in financial institutions such as commercial banks, savings and loan associations, credit agencies, credit unions, consumer-finance companies, collection agencies, security and commodity brokerages, and credit departments of business enterprises.
- 08.0503** *Floristry Marketing Operations.* An instructional program that prepares individuals to perform marketing tasks specifically applicable to the floristry industry.
- 08.0601** *Food Marketing.* An instructional program that generally prepares individuals to perform marketing functions and tasks in retail and wholesale establishments, and in food processing and manufacturing firms that deal primarily with food and beverage products for either home preparation and consumption, or for use in commercial and institutional food service installations.

- 08.0694** *Supermarket Checker.* An instructional program that prepares individuals to operate the appropriate cash register machinery used for recording sales in a supermarket. Includes instruction in scan and electronic systems, checkstand procedures, bagging, scales, product knowledge, money handling, check cashing, and food stamps.
- 08.0695** *Food Specialty Clerk.* An instructional program that prepares individuals to perform marketing tasks specifically applicable to specialty areas of the food marketing industry. Specific instruction is provided in produce, meats, deli, or dairy products.
- 08.0696** *Supermarket Merchandise Clerk/Stocker.* An instructional program that prepares individuals to display, stock, and order the products marketed in a supermarket. Instruction is also provided in several types of checkout procedures.
- 08.0697** *Marketing Assistant.* An instructional program that prepares individuals to perform marketing functions and tasks in retail and wholesale establishments, and manufacturing firms dealing with hardware, building material, and equipment primarily used for furnishing and maintaining the home or products, equipment, and supplies used in public and private office operations. Some instruction is furnished in the fashion merchandising and wholesale purchasing applications necessary for preparing individuals with broad employment capability.
- 08.0698** *Cashier/Checker.* An instructional program that prepares individuals to operate the appropriate cash register machinery used for recording the sales and all types of retail establishments. Includes instruction in customer relations, processes of balancing cash, and internal security processes.
- 08.0705** *Retailing.* An instructional program that prepares individuals to perform marketing tasks specifically applicable to retail operations in a wide variety of settings.
- 08.0706** *Sales.* An instructional program that prepares individuals to perform the techniques of direct consumer persuasion, involving planned, personalized communications, as agents for a wide variety of industries and product types.
- 08.0708** *Marketing, General.* An instructional program that prepares individuals to perform various marketing tasks applicable to a wide variety of industries and commercial settings. (Academic)
- 08.0791** *Transportation Agent/Clerk.* An instructional program that prepares individuals to calculate and compile freight rates, passenger fares, and other charges for transportation services from rate tables and tariff schedules; utilize maps to select, lay out, and measure travel routes; calculate total freight, storage, redelivery, and reconsignment charges; and answer inquiries from shippers concerning rates, routing, packing, and procedures. Includes instruction in arranging for shipping and in public relations skills.

- 08.0792** *Service Representative.* An instructional program that prepares individuals to interview applicants for utility services such as water, gas, electric, or telephone; interview customers who have complaints relative to merchandise purchased in department stores; fill out contract forms; determine charges for services requested; collect deposits; prepare change of address records; and issue discontinuance orders. May solicit sale of new or additional services, adjust complaints concerning billings or services rendered, refer complaints to service failures such as faulty manufacturing. In the case of utility complaints, such as low voltage or low pressure, designates the appropriate departments for investigation. The individual may specialize in visiting customers at their place of residence to investigate conditions preventing completion of service orders and to obtain contract and deposit when service is being used without contracts. Includes instruction in human relations, business management procedures, and how to handle irate and unruly customers.
- 08.0796** *Receiving Clerk.* An instructional program that prepares individuals to receive, warehouse, rotate stock, and keep the appropriate records on goods received from manufacturers, wholesalers, or jobbers. The training covers goods that may be received and used in retail establishments, manufacturing, or warehouse settings.
- 08.0896** *Building Materials Marketing.* An instructional program that prepares individuals to perform marketing activities primarily associated with the marketing of lumber and a general line of building materials such as millwork, roofing, wallboard, bricks, and cement; plumbing products and supplies; heating and air conditioning equipment; plumbing products and supplies; or electrical products and supplies.
- 08.0897** *Home and Office Products Marketing.* An instructional program that generally prepares individuals to perform marketing functions and tasks in retail establishments, wholesale establishments, and manufacturing firms dealing with hardware and building material products and equipment primarily used for furnishing and maintaining the home; or products, equipment, and supplies used in public and private business office operations. Includes instruction in the proper display and selection of fabrics.
- 08.0898** *Microprocessor Sales and Service.* An instructional program that prepares individuals to sell, install, program, operate, maintain, service, and diagnose basic operational problems in microcomputer systems arising from mechanical or electrical malfunctions in computer units or systems. Includes instruction in the related physical sciences and supporting mathematics. Also included is computer design, installation, construction, programming, operation maintenance, and functional diagnosis, and how to detect, isolate, and correct malfunctions. Instruction is also included in electrical and electronic circuits and mechanical devices used in computer construction and their combination and assistance in individual computers or computing installations as well as instruments used to detect weaknesses and failures in electrical systems in microprocessor components. Also included is instruction in the use of and programming within basic software.
- 08.0902** *Hotel/Motel Services and Operations.* An instructional program that prepares individuals for entry level employment in all areas of hotel/motel operations, such as front desk, night audits, sales, security, maintenance, housekeeping, guest services, and financial procedures.

- 08.1105** *Travel Services Marketing Operations.* An instructional program that prepares individuals to furnish travel information and to act as agents in arranging tours and transportation, or to act as independent ticket agencies for transportation carriers.
- 08.1197** *Warehouse Services and Marketing.* An instructional program that prepares individuals to undertake the marketing responsibilities associated with the storage of farm products, furniture and other household goods, or commercial products of any kind. Includes instruction in the use of refrigeration as a storage medium.
- 08.1198** *Transportation Marketing.* An instructional program that prepares individuals to facilitate the provision of any form of transport used for the physical movement of raw materials, products, and personal effects.
- 08.1203** *Vehicle Parts and Accessories Marketing Operations.* An instructional program that prepares individuals to perform marketing tasks specifically applicable to the retail vehicular parts and accessories industry.
- 08.1209** *Petroleum Products Retailing Operations.* An instructional program that prepares individuals to perform activities involved in retail marketing of gasoline, lubricating oils, and related products in automobile and marine service stations.
- 08.1297** *Automotive Service Writing.* An instructional program that prepares individuals to become service writers in automotive repair facilities. Includes instruction in the preparation and disposition of pertinent forms and records; federal, state, and local laws governing automotive repair and environmental issues; and employer/employee/customer relations. Training includes instruction in preliminary diagnosis of basic automotive systems.
- 08.1298** *Tool and Equipment Rental Worker.* An instructional program that prepares individuals to inspect, clean, store, and prepare for rental all items that are normally rented for short- and long-term usage. Includes instruction in inventory control, minor repair techniques, warehousing, invoicing, and sales practices.

09. COMMUNICATIONS

- 09.0201** *Advertising.* An instructional program that describes the creation, execution, transmission, and evaluation of commercial messages concerned with the promotion and sale of products and services, and that prepares individuals to function as advertising assistants, technicians, managers and executives. Includes instruction in advertising theory; marketing strategy; advertising copy/art, layout and production methods; and media relations. (Academic)
- 09.0298** *Advertising.* An instructional program that describes the methods and techniques by which the public can be induced to have understanding for and goodwill toward a person, firm, or institution. Instruction is also provided in the methods and processes for advertising of the person, firm, or institution in coordination with the total educational endeavor. Includes instruction in the many media used in the advertising industry.

- 09.0401** *Journalism (Mass Communications)*. An instructional program that describes the methods and techniques for gathering, processing and delivering news, and that prepares individuals to be professional print journalists. Includes instruction in news writing and editing, reporting, journalism law and policy, professional standards and ethics, and journalism history and research.
- 09.0402** *Journalism (Newsriting)*. An instructional program that describes the principles and methods of gathering, processing, evaluating, and disseminating through mass media, information about current events and issues in the college transfer area. (Academic)
- 09.0403** *Mass Communications*. An instructional program that describes the study of the media by which entertainment and information messages are delivered, and the social effects of such messages. Includes instruction in communications theory; communications laws and policies; international communications media; propaganda and political communications; social issues in entertainment and mass communications; and the study of specific media and media organizations. (Academic)
- 09.0597** *Emergency Dispatcher*. An instructional program that prepares individuals with entry-level skills in emergency communications. Includes instruction in police, fire, and medical terminology, stress management, and crisis intervention.
- 09.0701** *Radio and Television Broadcasting*. An instructional program that describes the methods and techniques used to plan, produce and direct entertainment and informational programs and short subjects in the broadcast media, and that prepares individuals to function as professional announcers, directors and producers. Includes instruction in scheduling; film and tape editing; on- and off-camera/microphone procedures and techniques; sound mixing; studio direction; personnel and facilities management; and broadcast law, policies and code regulations. (Academic)
- 09.0997** *Audio Engineering*. An instructional program that prepares individuals for employment in recording studios, concert halls, and other areas where quality sound transmission and recording services are used. Includes instruction in the methods of sound mixing and recording.
- 09.9998** *Telecommunications*. An instructional program that prepares individuals in the area of management of telecommunications equipment, facilities, and systems for voice, visual, and data communications for business and governmental organizations. Also included is instruction in cost effective design utilization, transmission and switching systems, methods of encoding messages for delivery, and terminal equipment. Students will develop skills in management of systems and cost control as well as interpreting corporate needs for communication and developing knowledge of legal aspects of telecommunications, government regulations, and tariff interpretations.

10. COMMUNICATION TECHNOLOGIES

- 10.0101** *Educational/Instructional Media Technology.* An instructional program that prepares individuals to operate, adjust, make minor repairs for, and diagnose difficulties in audiovisual devices, equipment, and systems used in education or communication applications, including loud-speaker systems, slides, movie film, or overhead projection equipment and tape-recording equipment. Includes instruction in construction of equipment; the procedures, processes, and techniques for making overhead projection materials, photographic slides, graphs, charts, tables, or other projectable materials; the administration of equipment acquisition, storage, servicing, controlling, and packaging for transportation; cost and maintenance.
- 10.0103** *Photographic Laboratory Technology.* An instructional program that prepares individuals to develop and print photography still or motion picture film; control resultant prints; touch-up negatives; and finish, color, restore, and copy prints.
- 10.0104** *Radio and Television Production and Broadcasting Technology.* An instructional program that prepares individuals to support broadcast managers in the production of materials and the production and broadcasting of materials or programs. Includes instruction in the equipment, processes, and procedures used in producing and making radio or television broadcasts; various components, specialized equipment, and systems of devices employed in broadcast operations; electronic communication, both radio and television; script and program preparation; photographic and audio-recording of material to be broadcast; monitoring, modulating, and controlling the broadcast processes; and recording and storing broadcast materials.
- 10.0195** *Electronic Graphics and Publishing.* An instructional program that prepares individuals for entry level skills in the techniques, methods, and processes for creating and producing electronically generated graphics and publications through computer hardware and software use.
- 10.0197** *Radio Broadcasting Technology.* An instructional program that prepares individuals to support radio broadcast managers in the production of materials and broadcasting of materials or programs. Includes instruction in the equipment processes and procedures used in producing and making radio broadcasts; various components, specialized equipment, and systems and devices employed in broadcasting operations, electronic communication, radio script, and program preparation; audio recording of material to be broadcast; monitoring, modulating, and controlling the broadcast process; and recording and storing broadcast materials.
- 10.0198** *Micrographics.* An instructional program that prepares individuals to operate, adjust, make minor repairs for, and diagnose major difficulties in using microfilming and microfiche equipment. Instruction is also included in filing, preserving, and retrieval techniques in the field of micrographic storage of records.

11. COMPUTER AND INFORMATION SCIENCES

- 11.0101** *Computer and Information Sciences.* An instructional program that generally describes the study of data and information storage and processing systems, including hardware, software, basic design principles, user requirements analysis, and related economic and policy issues. (Academic)

- 11.0201** *Computer Programming.* An instructional program that prepares individuals to apply methods and procedures used in designing and writing computer programs to developing solutions to specific operational problems and use requirements, including testing and trouble-shooting prototype software packages. (Academic)
- 11.0298** *Computer Programming.* An instructional program that describes the methods and procedures used in flow charting and writing instructions in computer language for the direction of computer operation in the solution of a problem.
- 11.0301** *Data Processing Technology.* An instructional program that prepares individuals to use and operate computers and associated software packages to perform a variety of tasks, including text processing, number processing, graphics, and data base management.
- 11.0401** *Information Sciences and Systems.* An instructional program that describes the scientific study and development of electronic systems for transmitting information via signaling networks, and the study of information transmission from the point of generation to reception and human interpretation. Includes instruction in information systems planning and design, user needs analysis, and provider capacity and requirements analysis.
- 11.0501** *Computer Systems Analysis.* An instructional program that prepares individuals to apply computer programming principles to the design and implementation of large-scale computer applications and networking systems. Includes instruction in system design, user prioritization, system and component optimization, and computer security systems. (Academic)
- 11.9994** *Multidisciplinary Computer Labs.* An instructional support activity allowing scheduled and unscheduled access to microcomputer equipment, to enhance personal computer skills, and/or to do computing in support of any academic or vocational instruction. *This code has been developed for the use of the Washington State community and technical colleges for facility identification and is not to be used for instructional coding.*
- 11.9995** *Multimedia Technician.* An instructional program that prepares individuals for technical careers in multimedia design. Instruction includes the combined use of text, video, graphics, animation, photography, and sound. Also included is the application of all media to the computer.
- 11.9996** *Computer Client Server Specialist.* An instructional program that prepares individuals to apply methods and procedures in programming new computer languages in networked systems. Additional studies in math, communications, and human relations skills will be included.
- 11.9997** *Microcomputer Applications Instructional Support.* An instructional support activity allowing unscheduled access to microcomputer equipment, to enhance personal computer skills, and/or to do computing in support of any academic or vocational instruction. *This code has been developed for the use of the Washington State community and technical colleges for facility identification and is not to be used for instructional coding.*

11.9998 *Microcomputer Applications.* An instructional program that describes the methods and procedures used in flow charting and writing instructions in computer software for the direction of a micro-processor or microcomputer in its operation for the solution of a problem.

12. PERSONAL AND MISCELLANEOUS SERVICES

12.0401 *Beauty Shop Management.* An instructional program that describes the management functions, policies, and procedures that are characteristic to the operation of a beauty shop or hair design salon.

12.0402 *Barber/Hairstylist.* An instructional program that prepares individuals to cut, shampoo, and style hair; and shave; with special attention to hygiene, skin and scalp disease, and equipment sterilization. Instruction qualifies students for licensing examinations.

12.0403 *Cosmetology.* An instructional program that prepares individuals to care for and beautify hair, complexion, and hands by giving shampoos, rinses, and scalp treatments, styling, setting, cutting, dyeing, tinting, permanent waving, and bleaching hair; and giving facials, manicures, and hand and arm massages, with emphasis on hygiene, sanitation, customer relations, and salon management. Instruction qualifies student for licensing examinations.

12.0498 *Manicurist.* An instructional program that prepares individuals to care for and beautify the skin and nails. Instruction includes the application and removal of artificial nails, skin care involving hot compresses, massage, or the use of electrical appliances or chemical compounds, and the temporary removal of superfluous hair by means of lotions, creams, or mechanical or electrical apparatus or appliances.

12.0501 *Baker/Pastry Chef.* An instructional program that prepares individuals in the preparation of bakery food products for use in commercial food establishments, retail distribution, or special functions. Includes instruction in making, freezing, and handling baked products; decorating; counter display; and service and packaging of bakery products.

12.0503 *Culinary Arts/Chef Training.* An instructional program that prepares individuals to provide professional chef and related cooking services in restaurants and other commercial food establishments. Includes instruction in recipe and menu planning, preparing and cooking of foods, supervising and training kitchen assistants, the management of food supplies and kitchen resources, aesthetics of food presentation, and familiarity or mastery of a wide variety of cuisines and culinary techniques.

12.0504 *Restaurant Management.* An instructional program that prepares individuals to manage and supervise food and beverage service operations, including catering services, banquet management, and executive chef positions. Includes instruction in food and beverage cost control, food and beverage purchasing and storage, restaurant and food services operation, personnel supervision and management, menu planning and event coordination, and the principles of general hospitality industry management and operations.

- 12.0506** *Meatcutter.* An instructional program that prepares individuals to apply technical knowledge and skills to cut, trim, and prepare carcasses and portions of meat for sale in wholesale, retail, or food-service establishments. Includes instruction in the use of meat-cutting tools; identification of and cutting techniques for different cuts of meat; dressing poultry; processing fish; counter display; and refrigeration and sanitation.
- 12.0507** *Waiter/Waitress and Dining Room Manager.* An instructional program that prepares individuals to serve food to customers in formal or informal settings. Includes instruction in formal rules of serving etiquette, table and counter service, dining room operations and procedures, service personnel supervision and management, food and beverage preparation and presentation, communication skills, business math and procedures, and sanitation.
- 12.0596** *Banquet Chef.* An instructional program that prepares individuals to provide professional chef and related cooking services to large groups of individuals in a banquet setting. Instruction is provided in recipe and menu planning, preparing and cooking of large quantities of food, supervising and training kitchen assistants, cooking supplies and kitchen resources, aesthetics of food presentation, and the serving of large quantities of food in an expedient manner.
- 12.0598** *Sous Chef.* An instructional program that prepares individuals to provide professional chef and related cooking services to small groups of individuals with artistic presentation. Instruction is provided in planning and preparing menus and the use of food items for decoration.

13. EDUCATION

- 13.0101** *Education, General.* An instructional program that generally describes the theory and practice of learning and teaching; the basic principles of educational psychology; the art of teaching; the planning and administration of educational activities; and the social foundations of education. (Academic)
- 13.1314** *Physical Education Teaching and Coaching.* An instructional program that prepares individuals to teach physical education programs and/or to coach sports at various educational levels. (Academic)
- 13.1319** *Technical Teacher Education (Vocational).* An instructional program in teacher education that prepares individuals in the theories, methods, and techniques of delivering vocational education to students who are enrolled in vocational education programs for either preparing, upgrading, or retraining in specialized fields or occupations.
- 13.1396** *Cadet Instructor—Cosmetology.* An instructional program that prepares individuals to provide instructional assistance in a cosmetology instructional setting. Instruction is provided in instructional techniques and the use of teaching aids.
- 13.1398** *Ski School Instructor.* An instructional program that prepares individuals to teach skiing to all ages of individuals through hands-on application on the ski slopes. Instruction is included in teaching techniques, preparing course materials, the use of audio-visual materials, safety, and emergency treatment of injured persons.

13.1401 *Teaching English as a Second/Foreign Language.* An instructional program that describes the theories, methods, and techniques of designing, implementing, and evaluating organized learning activities for students whose native language is not English. (Academic)

13.1501 *Teacher Assistant/Aide/Educational Paraprofessional.* An instructional program that prepares individuals to assist a teacher in regular classroom settings or in providing instruction and supervision to special student populations, such as bilingual/bicultural students, special education students, adult learners, and students learning English. Includes instruction in techniques of general classroom supervision, maintaining order, assisting with lessons and carrying out related assignments.

14. ENGINEERING

14.0101 *Engineering, General.* An instructional program that generally describes the mathematical and natural sciences gained by study, experience, and practice, and applied with judgment to develop ways to economically utilize the materials and forces of nature for the benefit of mankind. (Academic)

14.0801 *Civil Engineering, General.* An instructional program that generally prepares individuals to apply mathematical and scientific principles to the design, development, and operational evaluation of structural, load-bearing, material moving, transportation, water resource, and material control systems; pollution control systems; water treatment systems; appurtenant works; and related equipment and environmental safety measures. (Academic)

14.1101 *Engineering Mechanics.* An instructional program that generally describes the application of the mathematical and scientific principles of classical mechanics to the analysis and evaluation of the behavior of structures, forces and materials in engineering problems. Includes instruction in statics, kinetics, dynamics, kinematics, celestial mechanics, stress and failure, and electromagnetism. (Academic)

14.1401 *Environmental Health Engineering.* An instructional program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of systems for controlling contained living environments and for monitoring and controlling factors in the external natural environment, including pollution control, waste and hazardous material disposal, health and safety protection, conservation, life support, and requirements for protection of special materials and related work environments. (Academic)

14.1901 *Mechanical Engineering.* An instructional program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of physical systems used in manufacturing and end-product systems used for specific uses, including machine tools, jigs and other manufacturing equipment; stationary power units and appliances; engines; self-propelled vehicles; housings and containers; hydraulic and electric systems for controlling movement; and the integration of computers and remote control with operating systems. (Academic)

14.2701 *Systems Engineering.* An instructional program that prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of total systems solutions to a wide variety of engineering problems, including the integration of human, physical, energy, communications, management, and information requirements as needed, and the application of requisite analytical methods to specific situations. (Academic)

15. ENGINEERING-RELATED TECHNOLOGIES

15.0101 *Architectural Design Technology.* An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of architects, engineers and planners engaged in designing and developing buildings, urban complexes, and related systems. Includes instruction in design testing procedures, building site analysis, model building and computer graphics, engineering drawing, structural systems testing, analysis of prototype mechanical and interior systems, test equipment operation and maintenance, and report preparation.

15.0201 *Civil Engineering Technology.* An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of civil engineers engaged in designing and executing public works projects such as highways, dams, bridges, tunnels and other facilities. Includes instruction in site analysis, structural testing procedures, field and laboratory testing procedures, plan and specification preparation, test equipment operation and maintenance, and report preparation.

15.0293 *Traffic Engineering Technology.* An instructional program that prepares individuals to assist a traffic engineer in the design, testing, and development of traffic control devices, traffic flow, and the movement of vehicular traffic in a safe and expeditious manner. Additional instruction is provided in alternate methods of transportation that could assist in the uniform and efficient flow of traffic.

15.0294 *Urban Planning.* An instructional program that prepares individuals to work as team members with civil engineers, social scientists, and urban-planning professionals. Includes instruction in methods used in urban design and land utilization; methods of demographic study, including population growth, transportation in urban settings, and housing; building and construction codes and regulations; urban traffic management and control; distribution of water and wastewater systems; electrical systems relating to the overall planning for redevelopment of an urban area; urban mapping and engineering drawings; reading architectural or engineering drawings; methods of urban growth determination and projection; cost determination; analysis and comparison of different types of configurations and the sociological aspects of housing, transportation, recreation, park and living space, employment, and logistics in an urban setting.

15.0295 *Structural Design Technology.* An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of civil and structural engineers. Includes instruction in the use of computer assisted design techniques, structural testing procedures, field and laboratory testing procedures, plant and specification preparation, test equipment operation and maintenance, and report preparation.

- 15.0298 Highway Engineering Technology.** An instructional program that prepares individuals to inspect and oversee the construction of bridges and highways to ensure that procedures and materials comply with plans and specifications under the supervision of an engineer. Instruction is included in measurement, drafting, blueprint reading, and materials testing.
- 15.0301 Computer Engineering Technology.** An instructional program that prepares individuals to support engineers and scientists in the design, development, and testing of computer and peripheral devices. Includes instruction in electronic circuitry; prototype development and testing; systems design, selection, installation, and testing; solid state and microminiature circuitry to data storage devices, and the preparation of reports and documentation of test results.
- 15.0303 Electronics Engineering Technology.** An instructional program that prepares individuals to support electronic engineers and other professionals in the design, development, modification, and testing of electronic circuits, devices, and systems. Includes instruction in practical circuit feasibility; prototype development and testing; systems analysis, including design, selection, installation, calibration, and testing; solid-state and microminiature circuits; and the application of engineering data to specific problems in the electronics field.
- 15.0396 Electrical Design Technology.** An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of electrical engineers. Includes instruction in electrical circuitry, prototype development and testing, systems analysis and testing, systems maintenance, instrument calibration, and report preparation.
- 15.0398 Semi-conductor Technology/Computer Electronics.** An instructional program that prepares individuals to assist engineers, scientists, electronics engineering technicians in the manufacture and testing of various semi-conductor medias. Instruction is also provided in basic electronics and the use of test equipment.
- 15.0401 Biomedical Equipment Maintenance and Repair.** An instructional program that prepares individuals to manufacture, install, calibrate, operate, and maintain sophisticated life-support equipment found in hospitals, medical centers, and research laboratories. Includes instruction in the use of testing and diagnostic instruments; calibrating techniques; potential hazards and safety precautions; and methods of installation, repair, maintenance, and operation of the equipment.
- 15.0402 Computer Maintenance Technology.** An instructional program that prepares individuals to install, program, operate, maintain, service and diagnose operational programs in computer systems arising from mechanical or electrical malfunctions in computer units or systems. Includes instruction in the underlying physical sciences and supporting mathematics of computer design, installation, construction, programming, operation, maintenance, and functional diagnosis, and how to detect, isolate, and correct malfunctions. Programs describe the electrical and electronic circuits and mechanical devices used in computer construction and their combination into systems in individual computers or computing installations, as well as instruments used to detect weaknesses or failures in electrical systems in computers.

- 15.0403** *Electromechanical Technology.* An instructional program that prepares individuals to assist mechanical and electrical engineers and other managers in the design, development and testing of electromechanical devices and systems such as plant automation, automated control systems, servomechanisms, vending machines, elevator controls, missile controls, tape-control machines, and auxiliary computer equipment. Includes instruction in assisting with feasibility testing of engineering concepts; systems analysis (including design, selection, testing, and application of engineering data); and the preparation of written reports and test results.
- 15.0404** *Instrumentation and Control Technology.* An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of engineers engaged in developing control and measurement systems and procedures. Includes instruction in instrumentation design and maintenance, calibration, design and production testing, and scheduling, automated equipment functions, applications to specific industrial tasks, and report preparation.
- 15.0405** *Robotics Technology.* An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing and using robots. Includes instruction in the principles of robotics, design and operational testing, system maintenance and repair procedures, robot computer systems and control language, specific system types and applications to specific industrial tasks, and report preparation.
- 15.0496** *Printed Wiring Technology.* An instructional program that prepares individuals to design, manufacture, and test printed wiring circuit boards and integrated circuits for use in various electronic applications.
- 15.0498** *Electronic Instrumentation.* An instructional program that provides continuing industrial education for persons currently employed in industrial instrumentation occupations, or training for those desiring to enter this trade. Instruction includes process control instrumentation concepts and scientific and technical principles; related theories, technical principles, functions, and industrial applications of industrial automatic control systems.
- 15.0501** *Heating, Air Conditioning, and Refrigeration Technology.* An instructional program that prepares individuals to work in engineering departments or independently as entrepreneurs capable of designing, installing, maintaining, and operating small or medium air conditioning, heating, and refrigeration systems. Instruction prepares individuals to work in a commercial organization performing special tasks related to design, assembly, installation, servicing, operation, and maintenance of heating or cooling systems, according to the standards of the American Society of Heating, Refrigeration, and Air Conditioning Engineers, Inc. Includes instruction in air conditioning, heating, refrigeration devices, equipment, techniques, and systems; evaluation of amount of heating, air conditioning, or refrigeration capacity needed to accomplish a particular task; and maintenance and operation of a system that meets the requirements of the task.

- 15.0503** *Energy Management and Systems Technology.* An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing energy-efficient systems or monitoring energy use. Includes instruction in principles of energy conservation, instrumentation calibration, monitoring systems and test procedures, energy loss inspection procedures, energy conservation techniques, and report preparation.
- 15.0506** *Water Quality and Wastewater Treatment Technology.* An instructional program that prepares individuals to process, purify, store, control pollution in, distribute, and dispose of wastewater. Includes design, construction, operation, and maintenance of equipment for water or wastewater collection, processing, pollution control, and distribution; operation of machines, devices, and control systems which use sophisticated modern instrumentation; testing of samples of materials at various stages in the process design; hydraulics; liquid collection; liquid-processing equipment; pumping and conveying; sampling and testing, both chemically and biologically; processes of purification, digestion, biological deterioration, and disintegration of wastewater products; plant layout, operation, and safety; and regulations and standards controlling water or wastewater purification.
- 15.0507** *Hazardous Materials Technology.* An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing and using indoor and outdoor environmental pollution control systems, and in disposing of hazardous materials. Includes instruction in environmental safety principles, biohazard identification, testing and sampling procedures, laboratory techniques, instrumentation calibration, hazardous waste disposal procedures and systems, safety and protection procedures, equipment maintenance, and report preparation.
- 15.0589** *Automotive Recycler.* An instructional program that prepares individuals for employment as automotive recyclers. Instruction is included in hazardous waste recovery, processing, and disposal. Additional skills are acquired in used auto parts cataloging, storage, and preparation for shipment. Special coursework is included in welding and cutting, basic auto body, and automotive theory and practice. Business practices, including computer usage and laws concerning documentation for automotive title processing will also be covered.
- 15.0590** *Habitat Technician.* An instructional program that prepares individuals to test, protect, repair, construct, and maintain habitat for the environment. Includes instruction in applied research, earth science, ecological systems, collaboration with other environmental specialties as they apply to the habitat preservation, and restoration processes.
- 15.0591** *Earth Science Technician.* An instructional program that prepares individuals to test and analyze soils and other earth matter as they relate to environmental issues. Includes instruction in laboratory techniques and practices, soil nutrients, geological formations, well installation, and basic surveying techniques.

- 15.0592** *Air Pollution Control Technology.* An instructional program that prepares individuals to detect, measure, and control air pollution. Includes instruction in the chemistry of combustion from which the majority of polluting elements in the air are derived; major sources of air pollution, such as internal combustion engines, power plants, and industrial or home use of fuels; methods of sampling smokestacks; detection and source identification and analysis of air pollutants, both gaseous and particulate; and construction, use, calibration, and maintenance of automatic samplers, recorders, and other analytical devices.
- 15.0594** *Environmental and Pollution Control Technology.* An instructional program that trains individuals to test, handle, process, treat, or dispose of air, solid and liquid wastes, and hazardous chemicals produced by both domestic and industrial operations. Includes instruction in the treatment of water for domestic and industrial use as well as industrial and domestic waste.
- 15.0595** *Residential Conservation Specialist.* An instructional program that prepares individuals to work independently in identifying and measuring quantities of energy used or wasted in the heating and cooling of residential facilities. Instruction is also included in how to assess efficiency in the use of energy and the amount lost through wasteful processes or lack of insulation and prescribed remedial steps to conserve energy within the residence. Instruction is also included in the utilization and conservation of energy in its various forms, technologies for improving use or preventing loss of energy, and the quantification of the net minimum or optimum energy required in a domestic residence.
- 15.0596** *Residential Energy Efficiency.* An instructional program that prepares individuals to work independently in measuring and identifying energy used in the heating and cooling of a residence. Instruction is also included in measuring the energy lost through the lack of insulation and prescribed remedial steps to conserve energy within the residence. Includes instruction in the efficiency and effectiveness of appliances.
- 15.0597** *Water Treatment Technology.* An instructional program that prepares individuals to process, purify, store, and distribute water. Includes instruction in the design, construction, operation, and maintenance of equipment for water collection, processing, and distribution; operation of machines, devices, and control systems which use sophisticated modern instrumentation; testing of water; hydraulics; pumping and conveying; sampling and testing, both chemically and biologically; processes of purification; plant layout, operation, and safety; and the regulations and standards controlling water purification.
- 15.0603** *Industrial/Manufacturing/Materials Processing Technology.* An instructional program that prepares individuals to assist an industrial engineer in production and planning; design and installation of integrated systems of materials, equipment and personnel; measurement, testing, and management of quality control in the manufacturing, transportation, assembly, installation, and operation of processes and products. Includes instruction in operation of testing equipment (destructive and nondestructive), measuring devices, specification reading, and design and measurement for levels of tolerance compatible with overall production specifications.

- 15.0607** *Plastic Technology.* An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing and using industrial polymers. Includes instruction in the principles of macromolecular chemistry, polymerization and plastic manufacturing processes and equipment, design and operational testing procedures, equipment maintenance and repair procedures, safety procedures, applications to specific products, and report preparation.
- 15.0611** *Metallurgy Technology.* An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and metallurgists engaged in developing and using industrial metals and manufacturing processes. Includes instruction in principles of metallurgy, related manufacturing systems, laboratory techniques, testing and inspection procedures, instrument calibration, system and equipment maintenance and repair, applications to specific processes, and report preparation.
- 15.0693** *Fabric Worker.* An instructional program that prepares individuals to analyze specifications, design, and construct objects from fabric materials. Instruction includes safety in the use of rolling stock, lifting equipment, materials damage prevention, hazardous material and waste. Also included is layout, design, and drafting techniques.
- 15.0694** *Manufacturing Technology.* An instructional program that prepares individuals to technically assist in optimization of design, construction, and application of machinery tools, equipment, and processes used in the production of goods. Includes instruction in the automated control and operation of such machinery.
- 15.0695** *Concrete Technology.* An instructional program that prepares individuals to assist civil engineers in materials control, and testing and building of various structures from concrete. Instruction includes physical sciences; mathematics; layout of forms and pre-stressed components; specifications for construction of these items; structural detailing and design testing; construction estimating; and both destructive and non-destructive testing and sampling of concrete.
- 15.0696** *Composite Materials.* An instructional program that prepares individuals to manufacture, maintain, and repair materials used on land, water, air, and space transportation vehicles and housing using resin matrix composite materials. Instruction includes fabrication methods, material management, inspection, and repair or reconstruction of composite materials.
- 15.0697** *Tooling.* An instructional program that prepares individuals to analyze specifications and design and assist in the manufacture of devices to expedite production and assembly of parts for manufacturing. Instruction is also included in metal properties, applications and construction of tool and dye designs, and other devices needed in our mechanized manufacturing society.

- 15.0701** *Occupational Safety and Health Technology.* An instructional program that prepares individuals to work with safety engineers and managers in analyzing working conditions in places of employment to ensure maximum safety to workers and occupants. Includes instruction in safety engineering principles and science; related federal, state, and local legislation; procedures, practices, techniques, and methods used in analyzing all aspects of working conditions in an employment establishment including physical, water, atmospheric, and other environmental elements which may constitute hazards; determination of potentially unsafe working practices; chemical contamination of workers through the air they breathe; methods for correction or prevention of unsafe conditions; cost analysis of various corrective measures for working conditions or practices on the job; capability in reading engineering drawings; and use of orthographic projection practices in drawing, diagramming, or sketching safety devices or plant layouts.
- 15.0702** *Quality Control Technology.* An instructional program that prepares individuals to support engineers or managers by utilizing the sciences of measurement and quality control, quality design, production and inspection, testing (both destructive and nondestructive), statistical sampling, and mathematical probability as related to quality control in mass-produced items manufactured by modern production procedures and processes. Includes instruction in intensive study of physical and related engineering sciences and supporting mathematics related to material testing devices; testing; inspection techniques; organization of systems of quality control; statistical sampling; management of quality in manufacturing, transportation, assembly, installation, and operation; assurance of maximum accuracy or quality control in all phases of manufacturing; and utilization of all components and units in modern sophisticated machine devices or systems. Special study is required to understand operation of testing equipment (particularly nondestructive equipment), measuring devices, reading specifications, design and measuring tolerances to assure that a certain level of quality will be met in producing a component, unit, or system. Includes instruction in preparation of scientific or technical reports and in development of interpersonal skills required in performing tasks or in supervising the work of others.
- 15.0797** *Electronic/Fire Security Technician.* An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of electronic engineers with specialty in low voltage systems. Includes instruction in electronic circuitry, low voltage applications, fire and security systems, fire and building codes, installation of fire alarm and security systems, and testing techniques.
- 15.0798** *Materials Testing.* An instructional program that prepares individuals to support engineers or managers by utilizing the sciences of measurement, quality control and inspection, and testing both the destructive and non-destructive statistical sampling and mathematical probability as it relates to materials testing and quality control. Includes instruction in the preparation of scientific or technical reports and the development of interpersonal skills required in the performance of tasks or in the supervision of the work of others.

- 15.0805** *Mechanical Design Technology.* An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of engineers engaged in the design and development phases of a wide variety of projects involving mechanical systems. Includes instruction in principles of mechanics, applications to specific engineering systems, design testing procedures, prototype and operational testing and inspection procedures, manufacturing system testing procedures, test equipment operation and maintenance, and report preparation.
- 15.0897** *Marine Propulsion Technology.* An instructional program that prepares individuals to support propulsion engineers, ship officers, managers of marine units and fleets, or to work as manufacturers' representatives of marine propulsion units. Includes instruction in various marine propulsion units and systems and their related controls; various fuels and fuel systems and problems and hazards involved in their use; power capacity of various units; basic design, installation, operation, and maintenance and servicing of various marine propulsion units and systems; use and design of cooling systems; operational controls; cost efficiency of various alternative propulsion systems and maintaining operation and service logs.
- 15.0903** *Petroleum Technology.* An instructional program that prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in the development and operation of oil and natural gas extraction and processing facilities. Includes instruction in principles of petroleum extraction and related geology, petroleum field mapping and site analysis, testing and sampling methods, instrument calibration, laboratory analysis, test equipment operation and maintenance, environment and safety monitoring procedures for oil/gas fields and facilities, facility inspection procedures, and report preparation.
- 15.1001** *Construction/Building Technology.* An instructional program that prepares individuals to inspect and oversee construction of bridges, buildings, dams, highways, and other types of construction to ensure that the procedures and materials comply with plans and specifications. Special instruction is also included in the applications necessary to preserve safety and health of the construction worker.
- 15.1102** *Surveying and Mapping Technology.* An instructional program that prepares individuals to apply mathematical and scientific principles to the delineation, determination, planning and positioning of land tracts, land and water boundaries, land contours and features; and the preparation of related maps, charts and reports. Includes instruction in applied geodesy, computer graphics, photointerpretation, plane and geodetic surveying, mensuration, traversing, survey equipment operation and maintenance, instrument calibration, and basic cartography.
- 15.1103** *Fluid Power Technology.* An instructional program that prepares individuals to fabricate, assemble, test, and repair equipment used to provide pressure movement of fluids for the purpose of power machinery, lifting devices, or press-type operations. Instruction is also included in the basic design of systems, piping and hoses, cylinders, accumulators, pumps, gauges, and related equipment used in this industry.

- 15.1195** *Principles of Technology.* Instructional courses that deliver the science of physics in an applied manner. Included is the scientific study of matter and energy, and the formulation and testing of the laws governing the behavior of the matter-energy continuum. Includes instruction in classical and modern physics, electricity and magnetism, thermodynamics, mechanics, wave methods, and laboratory processes that connect the theoretical science to applications in daily work and living applications.
- 15.1196** *Geographic Information Systems.* An instructional program that prepares individuals to prepare map overlays, digitize map overlays, and generate map products from a geographic information system. Includes instruction in the use of computer systems and the software for supporting database queries and statistical reports.
- 15.1197** *Survey Drafting.* An instructional program that prepares individuals to provide drafting services in support of land surveyors. Includes instruction in the use of computer aided drafting techniques, associated software, writing property descriptions, laws effecting property ownership, reading and interpreting maps, aerial photographs, historical land records, and the making of maps.
- 15.1198** *Survey Chain Person.* An instructional program that prepares individuals to participate on a survey crew and perform those tasks that support the surveyor. Includes instruction in the use of reading, recording, and transcribing field notes. Instruction is also provided in the use of maps, aerial photographs, and historical land records.
- 15.9998** *Engineering Technology.* An instructional program that prepares individuals in the general engineering technologies, including civil, mechanical, electronic, architectural, some chemical, and petroleum engineering. This instructional program is primarily designed for the smaller school that does not have sufficient employment needs in any one of the specialties, but can train individuals with a broad perspective who then can adapt in any one of the specific fields. Instruction is also provided in the drafting and technical report writing areas.

16. FOREIGN LANGUAGES AND LITERATURES

- 16.0101** *Foreign Languages and Literatures, General.* An instructional program that describes the language, literature, and culture of more than one specific group of people. (Academic)
- 16.1201** *Classics and Classical Languages and Literatures.* An instructional program that describes the study of the languages, literatures and general civilization of the classical Greco-Roman world, including both ancient Greek and Latin, and related studies. (Academic)
- 16.9998** *Foreign Language for the Workplace.* An instructional program that prepares individuals to converse in languages other than English with workers who have limited English proficiency. Instruction emphasizes the conversational part of the language but will also provide skills in the interpretation of worker task and safety signage.

19. HOME ECONOMICS

- 19.0101** *Home Economics, General.* An instructional program that generally describes the study of the relationship between the physical, social, emotional, and intellectual environment and the health and wellness of individuals and families. (Academic)
- 19.0401** *Consumer Economics/Home Management.* An instructional program that generally describes the concepts, skills, and processes through which decisions about the use of resources are directed toward goal achievement in home and family living; also involved is an understanding of goal formulation and of management functions and processes through which the household and financial activities of the individuals and families are accomplished. (Academic)
- 19.0501** *Foods and Nutrition Studies, General.* An instructional program that generally describes the study of the role of food and nutrition in individual and family health and wellness, and in the study of food production, preparation and service operations. Includes instruction in food product consumption, nutritional care and education, and the organization and administration of food systems. (Academic)
- 19.0503** *Dietetics/Human Nutritional Services.* An instructional program that describes the provision of nutritional services, menu planning and diet consultation for individuals, families and institutions. Includes instruction in planning and directing food service activities, diet and nutrition analysis and plan formulation, food preparation management, client education and related services.
- 19.0601** *Home Equipment/Home Decoration.* An instructional program that generally describes the study of the behavioral, social, economic, functional and aesthetic aspects of housing and other environments. Includes instruction in planning, designing, furnishing, and equipping households, and the behavioral, developmental, public policy, and cultural issues related to households. (Academic)
- 19.0701** *Individual and Family Development Studies.* An instructional program that generally describes the study of the developmental and behavioral characteristics of the individual, within the context of the family, across the life span. (Academic)
- 19.0901** *Textiles and Clothing.* An instructional program that generally describes ways of meeting psychological, sociological, economic, and physiological needs for clothing and textiles, including techniques of production, distribution, marketing, consumption, refurbishing, and relevant legislation. (Academic)

20. VOCATIONAL HOME ECONOMICS

- 20.0101** *Comprehensive Homemaking.* An instructional program that generally prepares individuals for the occupation of homemaking, emphasizing the acquisition of knowledge and the development of attitudes, standards, values, and skills relevant to individual and family life and nurturing. Includes instruction in consumer education, food and nutrition, family living and parenthood education, child growth and development, housing and home management (including resource management), and clothing and textiles. Also, prepares individuals for balancing work and family roles and enhancing employability skills.

- 20.0102** *Child Development/Parent Education.* An instructional program that prepares individuals to understand children's physical, mental, emotional, and social growth and development, as well as their care and guidance, and draws on aspects of the social and biological sciences of which home economics is a component. Observation and actual experiences with children and their parents are integral parts of the program.
- 20.0103** *Clothing and Textiles.* An instructional program that prepares individuals to understand the social, psychological, and physiological aspects of clothing and textiles; the nature, acquisition, and use of clothing and textile products; the selection, construction, maintenance, and alteration of clothing and textile products; and the effect of consumer choices on the individual and family as well as the clothing and textile industry.
- 20.0104** *Consumer Education.* An instructional program that prepares individuals to understand the values, needs, wants, goals, and resources that enable youth and adults to make rational decisions that contribute to family stability and quality of life. Includes instruction in budgeting and spending plans, use of credit, savings, investments, taxes, consumer buying, and consumer rights and responsibilities.
- 20.0106** *Family/Individual Health.* An instructional program that prepares individuals to understand the related aspects of health in family living with special emphasis on nutrition, emotional health, and physical health; the relationship of the health of an individual to the well-being of the family; the prevention of illness; and the basic care of the ill and convalescent in the home, including the elderly, the young child, and the handicapped.
- 20.0107** *Family Living and Parenthood.* An instructional program that prepares individuals to understand the nature, function, and significance of human relationships within the family/individual units. Includes instruction in concepts and principles related to various family living conditions; establishment and maintenance of relationships; and preparation for marriage, parenthood, and family life. Instruction emphasizes the uniqueness of families and individuals, development and socialization of individuals, and meeting the needs and interests of individuals and family members.
- 20.0108** *Food and Nutrition.* An instructional program that prepares individuals to understand the principles of nutrition; the relationship of nutrition to health and well-being; selection, preparation, and care of food; meal management to meet individual and family food needs and patterns of living; good economics and ecology; and optimal use of the food dollar.
- 20.0109** *Home Management.* An instructional program that prepares individuals to understand the establishment and maintenance of a satisfying home and family life, including decision-making regarding human and non-human resources. Includes instruction in the societal and economic influences on individual and family management; and the organization of activities in the home as a means of successfully combining the roles of homemaker and wage earner.

- 20.0110** *Housing, Home Furnishings, and Equipment.* An instructional program that prepares individuals to understand the physical, psychological, and social influences pertaining to complex housing decisions required for creating a desirable living environment. Includes instruction in the human and environmental factors influencing the form and use of housing; the varied types of housing; costs; exterior and interior design; home furnishings and equipment; and the selection, use, and care of available resources for achieving improved living space to meet individual and family needs.
- 20.0199** *Homemaking Education, Other.* Any instructional program in consumer and homemaking home economics not described above.
- 20.0201** *Child Care and Guidance Workers and Managers, General.* An instructional program that generally prepares individuals for occupations in child care and guidance, foster care/family day care, and teacher assistance, often under the supervision of professional personnel. Includes instruction in child growth and development; nutrition; program planning and management; safety and behavior guidance; recreational and play activities; child abuse and neglect; parent-child personal relationships; learning experiences for children; interpersonal relationships; and laws, regulations, and policies relating to child-care services and maintenance of children's environments.
- 20.0202** *Child Care Provider/Assistant.* An instructional program that prepares individuals to assist with the care and guidance of infants and young children under the supervision of professional personnel. Includes instruction in planning, organizing, and conducting activities which promote physical, interpersonal, motor, mental, and social growth and development of acceptable behavior, cleanliness, eating, playing, resting, and toilet habits. Programs prepare individuals as child-care assistants to assume major responsibilities for caring and guiding the development of young children, or as child-care aides to work under the direction of child-care assistants or professionals. Also instruction is given in supervision of other child care personnel.
- 20.0203** *Child Care Services Manager.* An instructional program that prepares individuals to develop and manage effective child care programs by providing instruction in the management of financial operations; selecting and/or developing facilities; selecting staff and staffing patterns; providing staff development opportunities; developing a total program for children; and working with parents, community agencies and organizations, and others concerned with children.
- 20.0297** *Early Childhood/Foster Care Aide.* An instructional program that prepares individuals to assume the duties of a foster parent or skilled family day care worker under the supervision of the sponsoring agency. Includes instruction in child growth and development; special needs of deprived or handicapped children; health and safety; nutrition; program/play activities; parental involvement; and laws, regulations, and policies related to family day care services.
- 20.0298** *Early Childhood Special Education.* An instruction program that prepares individuals to assist special education teachers in conducting and carrying out the objectives of a child care program(s) within the context of the school or particular setting. Includes instruction in program planning for child development for children with special education needs, playground activities, the health and safety of children, special services for this group of children, and managerial activities.

- 20.0301** *Clothing, Apparel, and Textile Workers and Managers, General.* An instructional program that generally prepares individuals for occupations concerned with the entire spectrum of clothing, apparel, and textiles management, production, and services, including but not limited to construction; fabric and fabric care; pattern design; principles in clothing construction and selection; fitting and alterations of ready-to-wear garments; custom tailoring; clothing maintenance; and textiles testing.
- 20.0303** *Power Sewing Machine Operation.* An instructional program that prepares individuals to construct ready-to-wear garments and apparel. Includes instruction in standardized sizes; selecting appropriate fabric; cutting of fabric with commercial cutting equipment; stitching fabric on commercial power sewing equipment; applying finishes and notions to garments and apparel; and pressing and packing garments or apparel.
- 20.0305** *Tailoring and Alteration.* An instructional program that prepares individuals to construct, alter, and repair men's women's, and children's garments. Includes instruction in selection of design, fabric, and notions to customer specifications; taking measurements and fitting; preparing patterns; cutting and sewing, and altering by hand; and/or finishing of garments.
- 20.0306** *Apparel Management.* An instructional program that prepares individuals to assist in coordinating garments for various occasions. Includes instruction in fashion design, trends, characteristic styles, and merchandising; describing to customers the garment construction, quality, and fiber content; care and durability; selecting current fashion for figure types, fitting garments on customers; planning and presenting fashion shows; developing fashion displays; assisting home sewers with construction techniques; advising on quantity of fabric needed; measuring and cutting fabric; ordering, receiving, and displaying fabric and merchandising; keeping shop and store clean and orderly; and taking inventories and replenishing stock.
- 20.0309** *Commercial Drycleaning and Laundering.* An instructional program that prepares individuals to perform clothing and apparel cleaning services and to operate and manage laundry and drycleaning facilities. Includes instruction in routine clothing repairs, fabric identification, spot removing and special cleaning, dyeing and bleaching, ironing and pressing, equipment operation and maintenance, and business management.
- 20.0398** *Custom Apparel—Design and Construction.* An instructional program that prepares individuals to construct, alter, and prepare garments to customer specifications. Includes instruction in knowledge of fibers, textiles, fabrics, and notions; understanding and applying metrication in measuring and fitting as may be necessary; constructing, altering, and preparing garments for women, men, and children according to customer specifications; using standard or power sewing machines or various hand stitches; designing, making, and fitting patterns to individuals; laying out patterns on the fabric and cutting out fabric with hand or power-driven scissors or shears; basting fabric pieces together and fitting garments to customers; sewing fabrics together with specific seam finishes for particular fabrics; refitting and adjusting garments to customers; finishing by hand or power-operated equipment; and pressing to remove wrinkles and smooth seams, collars, cuffs, and so forth.

- 20.0404** *Dietetic Assistant.* An instructional program that prepares individuals to utilize nutritional knowledge in preparing and serving meals to individuals with specific dietary needs under the direction of a professional dietitian. Includes instruction in selecting and using specific pieces of equipment for particular tasks in food preparation and services; preparing and serving simple foods according to diet instruction; examining assembled trays for conformance with diet regulations and nutritional values; handling foods, beverages, equipment, utensils, and table settings in order to prevent contamination; observing safety and sanitary standards and regulations; following appropriate emergency procedures; and assisting in the management of dietary facilities. Programs prepare dietetic aides to work under the direction of an assistant and a professional dietitian in performing the less complicated dietetic tasks and dietetic assistants to work under the direction of a professional dietitian.
- 20.0405** *Caterer.* An instructional program that prepares individuals to book, plan and manage the preparation food and services for special occasions. Includes instruction in arranging for equipment, decorations, entertainment, and transportation of food and equipment to the site of the event.
- 20.0409** *School Food Buffet Service.* An instructional program that prepares individuals for overall planning, supervising, purchasing, preparing, and serving goods and food products in school food-service establishments. Includes instruction in planning appetizing and nutritional menus suitable for school-age students; creating an enjoyable and pleasant environment for serving of foods; recording meals served and food used on a daily basis; taking inventory of supplies and equipment; assisting in cleaning school food-service facilities; and performing dishwashing tasks and storage of equipment or food according to health, safety, and sanitation regulations.
- 20.0498** *Institutional Food Workers and Administrators.* An instructional program that generally prepares individuals in managerial, production, and service skills used in governmental, commercial, or independently owned institutional food establishments and related food industry occupations. Includes instruction in planning, selecting, storing, purchasing, preparing, and serving food and food products; basic nutrition, sanitation, and food safety; the use and care of commercial equipment; serving techniques; and the operation of institutional food establishments.
- 20.0501** *Home Furnishings and Equipment Management.* An instructional program that generally prepares individuals in the entire spectrum of home furnishings and equipment. Includes instruction in assisting purchasers in selecting and maintaining suitable home furnishings and/or equipment; assisting interior designers, decorators, or professional home service directors; making slipcovers, draperies, curtain/window treatments, and upholstery; and designing accessories such as floral arrangements.
- 20.0598** *Interior Decoration.* An instructional program that prepares individuals in processing procedures, observations, and techniques essential to the development of designs for home environments.

- 20.0601** *Institutional and Home Management.* An instructional program that generally prepares individuals for occupations in institutional/executive housekeeping; hotel/motel housekeeping; commercial cleaning; provision of services to the aged in their home and institutions; assistance in the management of household tasks; and assistance to consumers in decision-making in relation to housing, food, clothing, community resources, and other homemaking concerns.
- 20.0602** *Elder Care Provider/Companion.* An instructional program that prepares individuals to assist aged persons with personal, social, and business affairs, including grooming and dressing; care for clothing and household linens; preparation and service of meals; practice of safety measures to prevent accidents; keeping house; answering correspondence and paying bills; outings for exercise or social activities; and reading, playing games, playing cards, or other entertainment activities. Programs prepare individuals to perform other duties to protect or promote the well-being of the aged/elderly by assisting them to live independently in their own homes, thus preventing adverse effects of isolation and loneliness.
- 20.0604** *Custodial/Building Services.* An instructional program that prepares individuals to clean and care for buildings; fixtures; furnishings; floor surfaces such as linoleum, plastic, terrazzo, tile, rugs, and wood; and wall coverings such as panel, paint, plastic, wood, and synthetic materials. Instruction is given in using and caring for tools; dusting, wet mopping, scrubbing, waxing, and refinishing surfaces; cleaning toilets, windows and walls; applying various cleaning agents, protective coatings, and disinfectants; scheduling work; and purchasing custodial supplies.
- 20.0605** *Executive Housekeeper.* An instructional program that prepares individuals to provide comprehensive cleaning and housekeeping services for institutions and to supervise and manage such services. Includes instruction in floor maintenance and care; walls, woodwork, and window cleaning; furnishings and equipment maintenance; laundry and linen services; supply ordering and storage; and record-keeping.

22. LAW AND LEGAL STUDIES

- 22.0103** *Paralegal/Legal Assistant.* An instructional program that prepares individuals to perform research, drafting, investigatory, record-keeping and related administrative functions under the supervision of an attorney. Includes instruction in legal research, drafting legal documents, appraising, pleading, courthouse procedures and legal specializations.

23. ENGLISH LANGUAGE AND LITERATURE/LETTERS

- 23.0101** *English Language and Literature, General.* An instructional program that generally describes the English language, including its history, structure and related communications skills; and the literature and culture of English-speaking peoples. (Academic)

- 23.0301** *Comparative Literature.* An instructional program that describes the study of the literatures of different societies and linguistic groups in comparative perspective, including analyses of cross-cultural influences, national literary styles, the influence of translation, and the shared international literary heritage. Includes instruction in the study of literatures in the original languages as well as in English translation. (Academic)
- 23.0401** *English Composition.* An instructional program that describes the principles of English vocabulary, grammar, morphology, syntax and semantics; and techniques of selecting, developing, arranging, combining and expressing ideas in appropriate written forms. (Academic)
- 23.0501** *English Creative Writing.* An instructional program that describes the process and techniques of original composition in various literary forms such as the short story, poetry, the novel, and others. Includes instruction in technical and editorial skills, criticism, and the marketing of finished manuscripts. (Academic)
- 23.0601** *Linguistics/Sign Language Lip Reading.* An instructional program that describes the scientific and scholarly study of language and the relationships among languages. Includes instruction in psycholinguistics, anthropological linguistics, historical linguistics, mathematical linguistics, grammatical theory, philosophy of language, philology, sociolinguistics, language and culture studies, and the study of written scripts and their evolution. (Academic)
- 23.0801** *Literature, English.* An instructional program that describes British writings in prose or verse, especially those of an imaginative or critical character, including biography, criticism, drama, essay, fiction, poetry, myths, and legends. (Academic)
- 23.1001** *Speech, Debate, and Forensics.* An instructional program that describes the study of human interpersonal communication from the scientific/behavioral and humanistic perspectives. Includes instruction in the theory and physiology of speech, the history of discourse, the structure and analysis of argument and types of public speech, the social role of speech, oral interpretation of literature, interpersonal interactions, and the relation of speech to nonverbal and other forms of message exchanges. (Academic)
- 23.1101** *Technical and Business Report Writing.* An instructional program that describes the theory, methods, and skills needed for writing scientific, technical and business papers, and monographs.
- 23.1102** *Technical/Business Writing.* An instructional program that describes the theory, methods, and skills needed for writing scientific, technical and business papers, and monographs. Offered as a transfer course. (Academic)
- 23.1201** *English as a Second Language (not Basic Skills).* Any instructional program in English as a second language that is college transfer level. (Academic)
- 23.9998** *English, Communications.* This group of courses provides the related training needed in the English, Communications, area for those individuals involved in any vocational education field.

24. LIBERAL ARTS AND SCIENCES, GENERAL STUDIES AND HUMANITIES

24.0101 *Liberal Arts and Sciences/Liberal Studies.* An instructional program that describes a structured combination of the arts, biological and physical sciences, social sciences, and humanities, emphasizing breadth of study. Includes instruction in either independently designed, individualized, or regular programs. (Academic)

24.0103 *Humanities/Humanistic Studies.* An instructional program that describes combined studies and research in the humanities subjects as distinguished from the social and physical sciences, emphasizing languages, literatures, art, music, philosophy and religion. (Academic)

25. LIBRARY SCIENCE

25.0101 *Library Science/Librarianship.* An instructional program that describes the knowledge and skills required to develop, organize, store, retrieve, administer, and facilitate the use of collections of information in such formats as books, documents, manuscripts, machine-readable data bases, filmed and recorded materials, and that prepares individuals for professional service as librarians and information consultants. (Academic)

25.0301 *Library Assistant.* An instructional program that prepares individuals to assist professional librarians. Includes instruction in principles, systems, processes, and procedures of library operation; library resources and services; processes of acquisition, cataloging, storage, and display systems; discovery and retrieval of requested materials; management of books, periodicals, and other documents.

26. BIOLOGICAL SCIENCES/LIFE SCIENCES

26.0101 *Biology, General.* An instructional program that generally describes the scientific study of the structure, function, reproduction, growth, heredity, evolution, behavior and distribution of living organisms, and their relations to their natural environments. (Academic)

26.0202 *Biochemistry and Biophysics.* An instructional program that describes the chemical processes of living organisms. Includes instruction in the chemical mechanisms of genetic information storage and transmission; the chemistry of cell components; blood chemistry; the chemistry of biological systems and biological products; and the chemistry of life processes such as respiration, digestion and reproduction. (Academic)

26.0307 *Botany/Plant Physiology.* An instructional program that describes the scientific study of plant functions and life processes, including such metabolic processes as photosynthesis, respiration, assimilation, and transpiration; and plant systems, including movement, reproduction, digestion and anatomical system functions. (Academic)

26.0401 *Cell Biology.* An instructional program that describes the scientific study of the cell as a biological system in plants and animals. Includes instruction in cellular structure and function, biosynthesis, enzyme production, cell communication and nutrition, chromosome organization and function, cell life cycles, and cell pathology. (Academic)

- 26.0501** *Microbiology/Bacteriology.* An instructional program that describes the scientific study of microorganisms, including bacteria and viruses, as distinguished from the cellular components of larger organisms. Includes instruction in the ecological behavior of microorganisms, their anatomy and physiology, pathogenesis, and microbe evolution and mutation. (Academic)
- 26.0601** *Anatomy.* An instructional program that describes the scientific study of the structure and function of living organisms, tissues, organs, and systems. Includes instruction in gross anatomy, histology, ultrastructure, neuroanatomy, microscopy, dissection, electrical and atomic analytical methods, and quantification methods. (Academic)
- 26.0603** *Ecology.* An instructional program that describes the scientific study of ecological systems and the physical interactions among system components. Includes instruction in population biology, large and small ecosystems, environmental factors affecting organisms, evolution and extinction, and symbiotic relationships. (Academic)
- 26.0607** *Marine/Aquatic Biology.* An instructional program that describes the scientific study of marine organisms and their environments. Includes instruction in freshwater and saltwater organisms, physiological and anatomical marine adaptations, ocean and freshwater ecologies, marine microbiology, marine mammalogy, ichthyology, marine botany, and biochemical products of marine life used by humans. (Academic)
- 26.0611** *Radiation Biology/Radiobiology.* An instructional program that describes scientific study of the effects of radiation on organisms and biological systems. Includes instruction in particle physics, ionization, biophysics of radiation perturbations, cellular and organismic repair systems, genetic and pathological effects of radiation, and the measurement of radiation dosages. (Academic)
- 26.0613** *Genetics, Plant and Animal.* An instructional program that describes the scientific study of biological inheritance and variation in organisms, and the mechanisms of gene behavior. Includes instruction in molecular genetics, mutation, gene expression, specification, cloning, the study of inherited diseases and disorders, breeding, genetic biochemistry and biophysics, gene transference, and gene modification. (Academic)
- 26.0699** *Natural History/Life Sciences.* Any instructional program in specialized areas of life sciences not described above. (Academic)
- 26.0701** *Zoology.* An instructional program that generally describes the scientific study of animals, including their structure, reproduction, growth, heredity, evolution, behavior, and distribution. (Academic)
- 26.9998** *Science.* This group of courses provides the related training needed in the science areas for those individuals involved in any vocational education field.

27. MATHEMATICS

27.0101 *Mathematics, General.* An instructional program that describes the rigorous analysis of quantities, magnitudes, forms, and their relationships, using symbolic logic and language. Includes instruction in algebra, calculus, functional analysis, geometry, number theory, logic, topology and other mathematical specializations. (Academic)

27.0501 *Mathematical Statistics.* An instructional program that describes the mathematical theory and proofs forming the basis of probability and inference, and their applications to the collection, analysis and description of data. Includes instruction in statistical theory, experimental analysis, sampling techniques, survey research, projections, and related evaluations of numerical data. (Academic)

27.9998 *Mathematics.* This group of courses provides the related training needed in mathematics for those individuals involved in any vocational education field.

29. MILITARY TECHNOLOGIES

29.0101 *Military Science.* An instructional program that describes the purpose and objectives of the United States military and all its branches, its rank structure, its customs and tradition, and its importance in national defense and security. (Academic)

29.0198 *Military Science Technology.* An instructional program that prepares individuals to undertake advanced and specialized leadership and technical responsibilities for the armed services and related national security organizations. Includes instruction in such areas as weapons systems and technology, communications, intelligence, management, logistics, and strategy.

30. MULTI/INTERDISCIPLINARY STUDIES

30.0101 *Biological and Physical Sciences.* An instructional program that describes either a general synthesis of one or more of the biological and physical sciences (for example, applied science or general science), or a specialization which draws from the biological and physical sciences (for example, environmental science/studies). (Academic)

31. PARKS, RECREATION, LEISURE AND FITNESS STUDIES

31.0101 *Parks, Recreation and Leisure Studies.* An instructional program that describes the study of the principles underlying recreational and leisure activities, and the practices involved in providing indoor and outdoor recreational facilities and services for the general public.

31.0398 *Golf Management.* An instructional program that prepares individuals to apply business and coaching principles to the organization, administration, and management of professional golf industry, and related services. Includes instruction in program planning and development; business and financial management principles; sales, marketing and recruitment; event promotion, scheduling and management; facilities and equipment management; public relations; and applicable health and safety standards.

- 31.0501** *Physical Education, General.* An instructional program that generally describes the study and practice of activities and principles that promote physical fitness, achieve and maintain athletic prowess, and accomplish related research and service goals. Includes instruction in human movement studies, motivation studies, rules and practice of specific sports, exercise and fitness principles and techniques, basic athletic injury prevention and treatment, and organizing and leading fitness and sports programs. (Academic)
- 31.0502** *Individual Activities/Health.* A group of instructional programs that generally describes the promotion of the health of individuals. (Academic)
- 31.0504** *Sports Training Assisting.* An instructional program that prepares individuals to apply business, coaching and physical education principles to the organization, administration and management of athletic programs and teams, fitness/rehabilitation facilities and health clubs, sport recreation services, and related services. Includes instruction in program planning and development; business and financial management principles; sales, marketing and recruitment; event promotion, scheduling and management; facilities management; public relations; legal aspects of sports; and applicable health and safety standards.
- 31.0597** *Team Sports.* An instructional program that teaches physical education activities involving team efforts. (Academic)
- 31.0598** *Aquatic Activities.* An instructional program that provides instruction in physical education activities that involve water-related efforts. (Academic)
- 31.9997** *Water Resources.* An instructional program that describes the physical, biological, and social sciences and practices which are essential to the understanding and management of water resources for optimum yield and use, as well as conservation.
- 31.9998** *Park Ranger.* An instructional program that prepares individuals in public relations, forest practices, conservation, nature and environment, park maintenance and supervision, and preventative law enforcement.

32. BASIC SKILLS

- 32.0201** *Educational Interviewing.* Variable 1-3 credit (with a maximum three credits per learning per year) course for adult and family literacy students in all competency levels. Course outcomes include orientation to the program, its resources, and services; current student abilities, characteristics, styles, and readiness to learn; student's personal, educational, and employment background and interests; student's skill gaps, learning deficiencies, and difficulties; barrier identification with strategies, recommendations, and interventions for improvement; student's long-term and short-term goals; identification of the skills needed to reach those goals; and a plan of action for the student to achieve the goals (personal learning/action plan).
- 32.0203** *Basic GED Preparation.* Non-transfer credit courses that prepare adult and family literacy students with a goal of earning the General Educational Development (GED) equivalency certificate to pass any two of the five GED subject-area tests.

- 32.0204** *Advanced GED Preparation.* Non-transfer credit courses that prepare adult and family literacy students who have a goal of earning the GED equivalency certificate to pass any of the remaining three GED subject-area tests (after completing the GED preparation).
- 32.0205** *Basic High School Completion.* Non-transfer high school credit courses that meet the state high school graduation requirements (includes all high school courses, such as English, Math, U.S. and Washington Histories, Contemporary World Problems, PE/Health, Science, Occupational Education, Fine/Visual/Performing Arts, electives, etc.) for students whose goals include earning a high school diploma. Completion of this competency level is accumulating at least nine of the 19 credits, or the equivalent student learning goals, required for high school graduation.
- 32.0206** *Basic Life Skills/Sheltered Workshop.* Non-credit courses in personal or home management, communication, computation, reading, writing, basic living and work skills to prepare developmentally-challenged individuals to live and work more independently.
- 32.0207** *Workplace Basics 1. Basic skills level* courses that prepare individuals to re-enter, transition, or enhance employment opportunities. Instruction consists of basic reading, writing, and computation classes at a level below ninth grade. Included in the course work are career planning, job search, personal and interpersonal skills that will enhance the individual's ability to be successful in the workplace.
- 32.0208** *Advanced High School Completion.* Non-transfer high school credit courses that meet the state high school graduation requirements (includes all high school courses, such as English, Math, U.S. and Washington Histories, Contemporary World Problems, PE/Health, Science, Occupational Education, Fine/Visual/Performing Arts, electives, etc.) for students whose goals include earning a high school diploma. Completion of this competency level is accumulating all 19 credits, or the equivalent student learning goals, required for high school graduation.
- 32.0210** *ABE Level 1 (Beginning ABE Literacy).* Non-transfer credit instructional courses designed to teach reading, writing, and computational skills to individuals who have a goal to improve basic skills and, at intake, score less than 201 on a CASAS appraisal test (grade equivalents 0–1.9).
- 32.0220** *ABE Level 2 (Beginning Basic Education).* Non-transfer credit instructional courses designed to teach reading, writing, and computational skills to individuals who have a goal to improve basic skills and, at intake, score less than 201-210 on a CASAS appraisal test (grade equivalents 2.0–3.9).
- 32.0230** *ABE Level 3 (Low Intermediate Basic Education).* Non-transfer credit instructional courses designed to teach reading, writing, and computational skills to individuals who have a goal to improve basic skills and, at intake, score less than 211-220 on a CASAS appraisal test (grade equivalents 4.0–5.9).
- 32.0240** *ABE Level 4 (High Intermediate Basic Education).* Non-transfer credit instructional courses designed to teach reading, writing, and computational skills to individuals who have a goal to improve basic skills and, at intake, score less than 221-235 on a CASAS appraisal test (grade equivalents 6.0–8.9).

- 32.0301** *ESL Level 1 (Beginning ESL Literacy).* Non-transfer credit courses in listening and observing, speaking, reading, and writing competencies for limited English-proficient adults with a goal to improve their English literacy who, at intake, score less than 181 on a CASAS appraisal test.
- 32.0302** *ESL Level 2 (Beginning ESL).* Non-transfer credit courses in listening and observing, speaking, reading, and writing competencies for limited English-proficient adults with a goal to improve their English literacy who, at intake, score less than 181-200 on a CASAS appraisal test.
- 32.0303** *ESL Level 3 (Low Intermediate ESL).* Non-transfer credit courses in listening and observing, speaking, reading, and writing competencies for limited English-proficient adults with a goal to improve their English literacy who, at intake, score less than 201-210 on a CASAS appraisal test.
- 32.0304** *ESL Level 4 (High Intermediate ESL).* Non-transfer credit courses in listening and observing, speaking, reading, and writing competencies for limited English-proficient adults with a goal to improve their English literacy who, at intake, score less than 211-220 on a CASAS appraisal test.
- 32.0305** *ESL Level 5 (Low Advanced ESL).* Non-transfer credit courses in listening and observing, speaking, reading, and writing competencies for limited English-proficient adults with a goal to improve their English literacy who, at intake, score less than 221-235 on a CASAS appraisal test.
- 32.0306** *ESL Level 6 (High Advanced ESL).* Non-transfer credit courses in listening and observing, speaking, reading, and writing competencies for limited English-proficient adults with a goal to improve their English literacy who, at intake, score 236 or more on a CASAS appraisal test.

33. DEVELOPMENTAL STUDIES

- 33.0101** *Developmental Computational Skills.* Non-transferable credit courses that describe the development of pre-college mathematical skills that are needed to perform day-to-day tasks and to form the basis for later learning and achievement.
- 33.0102** *Developmental Education/Reading.* Non-transferable credit courses designed for the development of reading skills needed to form the basis for later learning and achievement.
- 33.0103** *Developmental Education/Writing.* Non-transferable credit courses designed for the development of grammar and writing skills needed to form the basis for later learning and achievement.
- 33.0104** *Developmental Education/Coordinated Studies in Reading and Writing.* Non-transferable credit courses designed for the integrated development of reading and writing skills needed to perform day-to-day tasks and to form the basis for later learning and achievement. Approximately equal amounts of time are devoted to the development of each of these subject areas.
- 33.0105** *Developmental Education Career Exploration.* Non-transferable credit courses in career exploration.

- 33.0106** *Workplace Basics 2. Developmental education level* courses (non-transferable credit) including applied academics that prepare individuals to re-enter, transition, or enhance employment opportunities. Instruction includes course work in reading, writing, and computation at a level of ninth grade or above. Included in the course work are career planning, job search, personal and interpersonal skills that will enhance the individual's ability to be successful in life and work.
- 33.0107** *Visually Impaired Skills.* Non-transferable credit courses designed to teach basic survival skills for visually impaired students that do not fit into specific vocational or developmental education categories (for example, a course in Braille).
- 33.0108** *Developmental Education/ESL.* Non-transferable credit courses in English as a second language at any pre-college level.
- 33.0109** *Developmental Education/Other.* Non-transferable credit courses in developmental education not described above. Examples include study skills, vocabulary, spelling, and pre-college speech and any other pre-vocational or academic course that is at a non-transfer level.
- 34. HEALTH-RELATED KNOWLEDGE AND SKILLS**
- 34.0194** *Personal Health Improvement and Maintenance.* An instructional program that describes the principles, techniques, and methods by which individuals can maintain or improve their overall physical and emotional well-being, as well as work on specific areas of personal health. (Academic)
- 34.0195** *Addiction Prevention and Treatment.* An instructional program that describes how individuals can avoid addictive substances and behaviors; the methods by which individuals can be treated for various addictions and related behavior problems; and the knowledge and coping skills needed by relatives and associates of addicted individuals. (Academic)
- 36. LEISURE AND RECREATIONAL ACTIVITIES**
- 36.0102** *Handicrafts and Model-Making.* An instructional program that describes the fashioning of objects of decoration, utility, or representation from various materials, including related matters of research, tool use, and appreciation.
- 36.0103** *Board, Card, and Role-Playing Games.* An instructional program that describes the rules and techniques of participation and skill-building in competitive activities of skill or chance, such as board games, card games, or role-playing activities.
- 36.0105** *Home Maintenance and Improvement.* An instructional program that describes the knowledge and skills associated with maintaining living space and related equipment and furnishings, as well as do-it-yourself repairs and improvement projects of varying complexity.
- 36.0106** *Nature Appreciation.* An instructional program that describes how to increase one's understanding and knowledge of the natural environment in which we live, as well as techniques of wildlife observation and management.

- 36.0107** *Pet Ownership and Care.* An instructional program that describes how to increase one's ability to care for domesticated animals kept for pleasure or work.
- 36.0108** *Sports and Exercise.* An instructional program that describes the rules and techniques of participation and skill-building in competitive physical activities, as well as non-competitive physical fitness programs.
- 36.0109** *Travel and Exploration.* An instructional program that describes a particular geographic areas or phenomena, and provides opportunities for organizes trips or tours, including related knowledge and skills.
- 36.0110** *Art.* An instructional program that describes the techniques and methods of creative self-expression in visual or plastic media, such as painting or sculpture.
- 36.0111** *Collecting.* An instructional program that describes the knowledge and techniques necessary for acquiring and maintaining personal collections of objects, such as autographs, stamps, models, specimens, vehicles, and antiques.
- 36.0112** *Cooking and Other Domestic Skills.* An instructional program that describes the knowledge and skills related to food buying and preparation, home decoration, sewing and other domestic activities, either as hobbies or as routine tasks.
- 36.0113** *Computer Games and Programming Skills.* An instructional program that describes the knowledge and skills associated with creating, acquiring, maintaining, and using computer hardware and software, as well as the playing of computer-based games.
- 36.0114** *Dancing.* An instructional program that describes the knowledge and skills related to recreational dance, such as square dance, ballroom dancing, classical or modern dance.
- 36.0115** *Music.* An instructional program that describes the knowledge and skills associated with personal music appreciation, the playing of a musical instrument, singing, or recreational composition.
- 36.0116** *Reading.* An instructional program that describes the activity of reading for pleasure, either alone or as part of a group experience.
- 36.0117** *Theater.* An instructional program that describes the knowledge and skills associated with participation in amateur theatrical productions, drama appreciation, and writing amateur plays.
- 36.0118** *Writing.* An instructional program that describes the knowledge and skills related to creative writing and poetry composition for pleasure or profit, including methods of publication.
- 36.0119** *Agriculture and Natural Resources.* An instructional program that describes topics related to agriculture and natural resources, such as agricultural business, horseshoeing, landscaping, and water resources.

- 36.0120** *Business and Office/Marketing and Sales.* An instructional program that describes topics related to business, office, marketing, and sales, such as accounting, office clerk, records/information management, secretarial, paralegal, teller training, and word processing.
- 36.0121** *Electrical and Electronics.* An instructional program that describes topics related to electrical and electronics, such as communications electronics, electrician, computer electronics, robotics/digital control, and telecommunications technician.
- 36.0122** *Engineering-Related.* An instructional program that describes topics related to engineering, such as civil engineering technician, diving technician, drafting/CAD, quality control, surveying, and technical illustration.
- 36.0123** *Hospitality and Recreation.* An instructional program that describes topics related to hospitality and recreation, such as culinary arts, hotel/motel and restaurant management, and professional entertainment.
- 36.0124** *Health Occupations.* An instructional program that describes topics related to health occupations, such as dental hygiene, nursing, emergency medical technician, pharmacy assistant, etc.
- 36.0125** *Construction and Manufacturing.* An instructional program that describes topics related to construction and manufacturing, such as carpentry, cabinetmaking, machine shop, welding, and commercial refrigeration and air conditioning.
- 36.0126** *History.* An instructional program that describes the past, including the recording, gathering, criticizing, synthesizing, and interpreting evidence about past events.
- 36.0127** *Mathematics.* An instructional program that describes the sciences of logical symbolic language and their applications, including such topics as algebra, calculus, geometry, and trigonometry.
- 36.0128** *Science.* An instructional program that describes topics related to life sciences, such as chemistry, physics, geology, and biology.
- 36.0129** *Social Sciences.* An instructional program that describes topics related to social sciences, such as psychology and sociology.
- 36.0130** *Personal Services.* An instructional program that describes topics related to personal services, such as cosmetology and early childhood education.
- 36.0131** *Mechanics-Related.* An instructional program that describes topics related to mechanics, such as automotive technology, aircraft mechanics, and auto parts merchandising.
- 36.0132** *Public Services.* An instructional program that describes topics related to public service, such as administration of justice, fire fighting, chemical dependency counselor, radio/television broadcasting, human services, and sign language interpreting.
- 36.0133** *Transportation.* An instructional program that describes topics related to transportation, such as air traffic control, commercial pilot, and drivers training.

36.0134 *Flagging and Traffic Control.* An instructional program that describes the State-approved course in flagging and traffic control.

36.0198 *Hobbies, Leisure and Recreational Activities, Other.* Any instructional program in hobbies, leisure, and recreational activities not described above.

37. PERSONAL AWARENESS AND SELF-IMPROVEMENT

37.0102 *Stress Management and Coping Skills.* An instructional program that describes the knowledge and skills useful in avoiding stressful situations and managing them when they occur, including dealing with complex and long-term stressful relationships. (Academic)

37.0103 *Personal Decision-making Skills.* An instructional program that describes how to develop individuals' abilities to assess decisions affecting their lives and to make life choices consistent with needs and beliefs. Seminar courses in cooperative education covering multi-disciplines should be coded in this area.

37.0104 *Self-Esteem, Study Skills, and Values Clarification.* An instructional program that describes the development of personal philosophies and ideas of self-worth, and how to apply such knowledge and skills in everyday circumstances. Includes all college-level study skill, instruction, and speed reading techniques. (Academic)

38. PHILOSOPHY AND RELIGION

38.0101 *Philosophy.* An instructional program that describes the study of ideas and their logical structure, including arguments and investigations about abstract and real phenomena. Includes instruction in logic, ethics, aesthetics, epistemology, metaphysics, symbolism, history of philosophy, and applications to the theoretical foundations and methods of other disciplines. (Academic)

40. PHYSICAL SCIENCES

40.0101 *Physical Sciences, General.* An instructional program that generally describes the major topics, concepts, processes, and interrelationships of non-living matter and associated phenomena. (Academic)

40.0201 *Astronomy.* An instructional program that describes the scientific study of matter and energy in the universe, using observational techniques such as spectroscopy, photometry, interferometry, radio astronomy and optical astronomy. Includes instruction in celestial mechanics, cosmology, and stellar physics; and applications to research on lunar, planetary, solar, stellar, and galactic phenomena. (Academic)

40.0401 *Atmospheric Sciences and Meteorology.* An instructional program that describes the scientific study of the composition and behavior of the atmospheric envelopes surrounding the earth and other planets, the effect of earth's atmosphere on terrestrial weather, and related problems of environment and climate. Includes instruction in atmospheric chemistry and physics, atmospheric dynamics, climatology and climate change, weather simulation, weather forecasting, climate modeling and mathematical theory; and studies of specific phenomena such as clouds, weather systems, storms, and precipitation patterns. (Academic)

- 40.0501** *Chemistry, General.* A group of instructional programs that generally describes the scientific study of the composition and behavior of matter, including its micro- and macro-structure, the processes of chemical change, and the theoretical description and laboratory simulation of these phenomena. (Academic)
- 40.0502** *Analytical Chemistry.* An instructional program that describes the scientific study of techniques for analyzing and describing matter, including its precise composition and the interrelationships of constituent elements and compounds. Includes instruction in spectroscopy, chromatography, atomic absorption, photometry, chemical modeling, mathematical analysis, laboratory analysis procedures and equipment maintenance, and applications to specific research, industrial and health problems. (Academic)
- 40.0503** *Inorganic Chemistry.* An instructional program that describes the scientific study of the elements and their compounds, other than the hydrocarbons and their derivatives. Includes instruction in the characterization and synthesis of non-carbon molecules, including their structure and their bonding, conductivity, and reactive properties; research techniques such as spectroscopy, x-ray diffraction, and photoelectron analysis; and the study of specific compounds, such as transition metals, and compounds composed of inorganic and organic molecules. (Academic)
- 40.0504** *Organic Chemistry.* An instructional program that describes the scientific study of the properties and behavior of hydrocarbon compounds and their derivatives. Includes instruction in molecular conversion and synthesis, the molecular structure of living cells and systems, the mutual reactivity of organic and inorganic compounds in combination, the spectroscopic analysis of hydrocarbon compounds, and applications to specific problems in research, industry, and health. (Academic)
- 40.0506** *Physical and Theoretical Chemistry.* An instructional program that describes the scientific study of the theoretical properties of matter, and the relation of physical forces and phenomena to the chemical structure and behavior of molecules and other compounds. Includes instruction in reaction theory, calculation of potential molecular properties and behavior, computer simulation of structures and actions, transition theory, statistical mechanics, phase studies, quantum chemistry, and the study of surface properties. (Academic)
- 40.0601** *Geology.* An instructional program that describes the scientific study of the earth; the forces acting upon it; and the behavior of the solids, liquids and gases comprising it. Includes instruction in historical geology, geomorphology, sedimentology, the chemistry of rocks and soils, stratigraphy, mineralogy, petrology, geostatistics, volcanology, glaciology, geophysical principles, and applications to research and industrial problems. (Academic)
- 40.0602** *Geochemistry.* An instructional program that describes the scientific study of the chemical properties and behavior of the silicates and other substances forming, and formed by geomorphological processes of the earth and other planets. Includes instruction in chemical thermodynamics, equilibria in silicate systems, atomic bonding, isotopic fractionation, geochemical modeling, specimen analysis, and studies of specific organic and inorganic substances. (Academic)

- 40.0701** *Metallurgy.* An instructional program that describes the scientific study of the chemical and physical properties of metals and related compounds in their solid, liquid, and gaseous states, together with applications to industrial problems. Includes instruction in x-ray diffraction, metallurgical microscopy, solid-state chemistry, thermodynamics of solids and solutions, crystallography, surface physics, molecular bonding, electrostatics of metals, elasticity and mechanical properties, and processing behavior. (Academic)
- 40.0702** *Oceanography.* An instructional program that describes the scientific study of the oceans and associated phenomena, including the land/water and water/atmosphere boundaries. Includes instruction in physical oceanography, marine chemistry, marine geology, and biological oceanography; and applications to specific research problems such as coastal erosion, seawater corrosion and reactive behavior, seafloor volcanism, underwater acoustics and optics, oceanic environments and conservation, and global climate change. (Academic)
- 40.0703** *Earth and Planetary Sciences.* An instructional program that describes the scientific study of the earth and other planets as comprehensive physical systems incorporating solid, liquid, gas, and radiation constituents, as well as exhibiting interactions with other systems. Includes instruction in planetary evolution, gravitational physics, atmospheric evolution, volcanism and crustal movement studies, organic systems and ecologies, orbital mechanics, radiation physics, and the study of planetary and satellite systems. (Academic)
- 40.0797** *Marine Science Technology.* The marine science technology program is a combined program of oceanography technology and marine biology technology. Students will be trained to perform entry-level work as marine science technicians. They will be able to assist scientists in marine, oceanographic, and biological research both in the field and in laboratories.
- 40.0798** *Oceanographic Technology.* An instructional program that prepares individuals to support marine biologists or oceanographers in collecting or identifying samples of marine organisms, invertebrates, or vertebrates; identifying them biologically; and determining the degree of normalcy or abnormalcy of the specimens. Includes instruction in the biology of marine organisms; processes and materials for collecting, identifying, preserving, dissecting, describing, straining, drawing, and labeling marine organisms found in oceans, lakes, rivers, and stream systems; the development, maintenance, and exploration of fisheries and marine plants; ecology; and effective functioning on board all types of boats and ships.
- 40.0801** *Physics, General.* An instructional program that generally describes the scientific study of matter and energy, and the formulation and testing of the laws governing the behavior of the matter-energy continuum. Includes instruction in classical and modern physics, electricity and magnetism, thermodynamics, mechanics, wave properties, nuclear processes, relativity and quantum theory, quantitative methods, and laboratory methods. (Academic)

40.0802 *Chemical and Atomic/Molecular Physics.* An instructional program that describes the scientific study of the behavior of matter-energy phenomena at the level of atoms and molecules. Includes instruction in chemical physics, atomic forces and structure, fission reactions, molecular orbital theory, magnetic resonance, molecular bonding, phase equilibria, quantum theory of solids, and applications to the study of specific elements and higher compounds. (Academic)

40.0806 *Nuclear Physics.* An instructional program that describes the scientific study of the properties and behavior of atomic nuclei instruction in nuclear reaction theory, quantum mechanics, energy conservation, nuclear fission and fusion, strong and weak atomic forces, nuclear modeling, nuclear decay, nucleon scattering, pairing, photon and electron reactions, statistical methods, and research equipment operation and maintenance. (Academic)

41. SCIENCE TECHNOLOGIES

41.0101 *Biological Laboratory Technology.* An instructional program that prepares individuals to support biological scientists in commercial, governmental, or other biological or pharmaceutical laboratories, or to assist teachers in biological science classrooms or laboratory situations. Includes instruction in identification of biological and zoological specimens (both microorganisms and macroorganisms) and in preparing or processing specimens for biological-science research or operational procedures.

41.0204 *Industrial Radiology.* An instructional program that prepares individuals to apply scientific principles and technical skills to the operation of industrial and research testing equipment using radioisotopes. Includes instruction in x-ray analysis of materials, nondestructive testing and inspection of materials, and continuous measurement of paper or metal thicknesses.

41.0205 *Nuclear/Nuclear Power Technology.* An instructional program that prepares individuals to apply scientific principles and technical skills in support of research scientists and operating engineers engaged in the running of nuclear reactors, and in nuclear materials processing and disposal. Includes instruction in basic nuclear physics and nuclear engineering, monitoring and safety procedures, radioactive materials handling and disposal, equipment maintenance and operation, and record-keeping.

41.0301 *Chemical Technology.* An instructional program that prepares individuals to apply scientific principles and technical skills in support of chemical research and industrial operations. Includes instruction in material handling, crushing, grinding, and sizing; extraction, distillation, evaporation, drying, absorption, and heat transfer; and assisting in design, installation, and operation of pilot plants for chemical manufacturing processes.

42. PSYCHOLOGY

42.0101 *Psychology, General.* An instructional program that generally describes the scientific study of individual and collective behavior, the physical and environmental bases of behavior, and the analysis and treatment of behavior problems and disorders. Includes instruction in the principles of the various subfields of psychology, research methods, and psychological assessment and testing methods. (Academic)

- 42.0201** *Clinical Psychology.* An instructional program that prepares individuals for the independent professional practice of clinical psychology, involving the analysis, diagnosis, and clinical treatment of psychological disorders and behavioral pathologies. Includes instruction in clinical assessment and diagnosis, personality appraisal, psychopathology, clinical psychopharmacology, behavior modification, therapeutic intervention skills, patient interviewing, personalized and group therapy, child and adolescent therapy, cognitive and behavioral therapy, supervised clinical practice, ethical standards, and applicable regulations. (Academic)
- 42.0601** *Counseling Psychology.* An instructional program that prepares individuals for the independent professional practice of psychological counseling, involving the rendering of therapeutic services to individuals and groups experiencing psychological problems and exhibiting distress symptoms. Includes instruction in counseling theory, therapeutic intervention strategies, patient/counselor relationships, testing and assessment methods and procedures, group therapy, marital and family therapy, child and adolescent therapy, supervised counseling practice, ethical standards, and applicable regulations. (Academic)
- 42.0701** *Developmental Psychology.* An instructional program that describes the scientific study of the psychological growth and development of individuals from infancy through adulthood. Includes instruction in cognitive and perceptual development, emotional development, personality development, the effects of biological maturation on behavior, theories of cognitive growth and related research methods, testing and assessment methods for different age levels, research on child and adolescent behavior therapy, and the psychology of aging. (Academic)
- 42.0801** *Experimental Psychology.* An instructional program that describes the scientific study of behavior under experimental conditions, and the analysis of controlled behavioral responses. Includes instruction in learning theory, research design and experimental methods, psychological measurement, statistical design and methods, analysis of cognitive and behavioral variables, and the conduct of specialized and large-scale studies. (Academic)
- 42.0901** *Industrial and Organizational Psychology.* An instructional program that describes the scientific study of individual and group behavior in institutional settings, applications to related problems of organization and industry, and that may prepare individuals to apply such principles in industrial and organizational settings. Includes instruction in group behavior theory, organizational theory, reward/punishment structures, human-machine and human-computer interactions, motivation dynamics, human stress studies, environmental and organizational influences on behavior, alienation and satisfaction, and job testing and assessment. (Academic)
- 42.1601** *Social Psychology.* An instructional program that describes the scientific study of individual behavior in group contexts, group behavior, and associated phenomena. Includes instruction in social learning theory, group theory and dynamics, sex roles, social cognition and inference, attribution theory, attitude formation, criminal behavior and other social pathologies, altruistic behavior, social development, and social ecology. (Academic)

43. PROTECTIVE SERVICES

- 43.0102** *Corrections.* An instructional program that describes the theories, principles, and techniques of developing, administering, and managing services for the incarceration, behavior modification, rehabilitation, and returning of legal offenders to society.
- 43.0103** *Criminal Justice/Law Enforcement Administration.* An instructional program that prepares individuals to apply the theories and practices of criminal justice to structuring, managing, directing, and controlling criminal justice agencies, including police departments, sheriff's departments, law enforcement divisions and units, and private protective services. (Academic)
- 43.0104** *Administration of Justice.* An instructional program that prepares individuals to work in a law enforcement agency, crime laboratory, mobile unit dealing with physical evidence, juvenile court, or correctional institution. Includes instruction in patrol and investigative activities; traffic control; using polygraph equipment; procedures for initial contact with the public in such matters as obtaining information, preparing reports, and testifying in court; techniques for collection, preparation, and transportation of physical evidence; methods of crime prevention; and methods for investigation and referral of neglected dependent children, delinquents, and youthful offenders.
- 43.0106** *Forensic Technology.* An instructional program that prepares individuals to conduct crime scene and laboratory analyses and evaluations of evidentiary materials, including human remains, under the supervision of a pathologist, forensic administrator, or other law enforcement personnel. Includes instruction in principles of pathology, laboratory technology and procedures, dusting and fingerprinting, reconstructive analysis, and related skills.
- 43.0107** *Law Enforcement/Police Science.* An instructional program that prepares individuals to perform the duties of police and public security officers, including patrol and investigative activities, traffic control, crowd control and public relations, witness interviewing, evidence collection and management, basic crime prevention methods, weapon and equipment operation and maintenance, report preparation, and other routine law enforcement responsibilities.
- 43.0109** *Security and Loss Prevention Services.* An instructional program that prepares individuals to perform routine inspection, patrol and crime prevention services for private clients. Includes instruction in the provision of personal protection as well as property security.
- 43.0194** *Correctional Mental Health.* An instructional program that prepares individuals to work with mentally challenged offenders. Additional instruction is provided to help individuals correlate specific behaviors of offenders with certain mental illnesses for the application of skills in using appropriate interaction with offenders for making appropriate referrals.
- 43.0195** *Private Investigator.* An instructional program that prepares individuals for licensure by the State of Washington as a private investigator. Instruction includes legal courses in sociology, psychology, investigation techniques, photography, and the legal practices that affect evidence collection, law enforcement, and the trial room.

- 43.0196** *Public Safety Communications.* An instructional program that prepares individuals to be employed as dispatchers in emergency services. Instruction is provided in practical applications of public safety communications and dispatching and the evaluation of handling of public calls to emergency and law enforcement agencies.
- 43.0197** *Police Records Technology.* An instructional program that prepares individuals to manage through the development of formats, data entry, filing, and retrieval of records used in the criminal justice system. Includes instruction in computer skills.
- 43.0198** *Polygraph Examiner Technology.* An instructional program that prepares individuals to conduct criminal examinations of individuals by using a polygraph. Instruction also is provided in evaluating and interpreting the results in a narrative report for use in the criminal justice system.
- 43.0202** *Fire Services Administration.* An instructional program that prepares individuals to structure, manage, direct, and control fire departments, fire prevention services, fire inspection and investigation offices, and ancillary rescue services. Provides the necessary preparation to meet requirements of Fire Officer 1 and 2.
- 43.0203** *Fire Science/Firefighting.* An instructional program that prepares individuals to perform the duties of fire fighters. Includes instruction in firefighting equipment operation and maintenance, principles of fire science and combustible substances, methods of controlling different types of fires, hazardous material handling and control, fire rescue procedures, public relations, and applicable laws and regulations.
- 43.0297** *Emergency Management.* An instructional program that prepares individuals to perform as field or support function managers for disaster or other emergency situations that require larger numbers of individuals representing one or more agencies or groups. Includes instruction in incident command procedures, community resource management, contracting procedures, and the development of interagency agreements.
- 43.0298** *Forest Fire Supervision and Management.* An instructional program that prepares individuals to supervise and manage a group of individuals who are engaged in the practice of fighting or suppressing forest fires. Skills in incident command systems and resource management are also taught.

44. PUBLIC ADMINISTRATION AND SERVICES

- 44.0201** *Community Organization, Resources, and Services.* An instructional program that describes the theories, principles, and practice of providing services to communities, organizing communities and neighborhoods for social action, serving as community liaisons to public agencies, and using community resources to furnish information, instruction, and assistance to all members of a community. May prepare individuals to apply such knowledge and skills in community service positions. (Academic)

- 44.0401** *Public Administration Technician.* An instructional program that prepares individuals to serve as managers in the executive arm of local, state, and Federal government; and that describes the systematic study of executive organization and management. Includes instruction in the roles, development, and principles of public administration; the management of public policy; executive-legislative relations; public budgetary processes and financial management; administrative law; public personnel management; professional ethics; and research methods.
- 44.0701** *Social Work.* An instructional program that prepares individuals for the professional practice of social welfare administration and counseling, and that describes the study of organized means of providing basic support services for vulnerable individuals and groups. Includes instruction in social welfare policy; case work planning; social counseling and intervention strategies; administrative procedures and regulations; and specific applications in areas such as child welfare and family services, probation, employment services, and disability counseling. (Academic)
- 44.0798** *Social Service Training.* An instructional area designed to give general social service instruction to students enrolled in vocational education programs. The instruction is specific in relation to one or more vocational instruction program areas.

45. SOCIAL SCIENCES AND HISTORY

- 45.0201** *Anthropology.* An instructional program that describes the systematic study of human beings, their antecedents and related primates, and their cultural behavior and institutions, in comparative perspective. Includes instruction in biological/physical anthropology, primatology, human paleontology and prehistoric archeology, hominid evolution, anthropological linguistics, ethnography, ethnology, ethnohistory, socio-cultural anthropology, psychological anthropology, research methods, and applications to areas such as medicine, forensic pathology, museum studies, and international affairs. (Academic)
- 45.0301** *Archaeology.* An instructional program that describes the systematic study of extinct societies, and the past of living societies, via the excavation, analysis and interpretation of their artifactual, human, and associated remains. Includes instruction in archeological theory, field methods, dating methods, conservation and museum studies, cultural and physical evolution, and the study of specific selected past cultures. (Academic)
- 45.0401** *Criminology.* An instructional program that describes the systematic study of crime as a sociopathological phenomenon, the behavior of criminals, and the social institutions evolved to respond to crime. Includes instruction in the theory of crime, psychological and social bases of criminal behavior, social value systems and the theory of punishment, criminal law and criminal justice systems, penology, rehabilitation and recidivism, studies of specific types of crime, social attitudes and policy, and applications to specific issues in law enforcement administration and policy. (Academic)

- 45.0501** *Demography and Population Studies.* An instructional program that describes the systematic study of population models and population phenomena, and related problems of social structure and behavior. Includes instruction in population growth, spatial distribution, mortality and fertility factors, migration, dynamic population modeling, population estimation and projection, mathematical and statistical analysis of population data, population policy studies, and applications to problems in economics and government planning. (Academic)
- 45.0601** *Economics.* An instructional program that generally describes the systematic study of the production, conservation and allocation of resources in conditions of scarcity, together with the organizational frameworks related to these processes. Includes instruction in economic theory, micro- and macro-economics, comparative economic systems, money and banking systems, international economics, quantitative analytical methods, and applications to specific industries and public policy issues. (Academic)
- 45.0701** *Geography.* An instructional program that describes the systematic study of the spatial distribution and interrelationships of people, natural resources, plant and animal life. Includes instruction in historical and political geography, cultural geography, economic and physical geography, regional science, cartographic methods, remote sensing, spatial analysis, and applications to areas such as land-use planning, development studies, and analyses of specific countries, regions, and resources. (Academic)
- 45.0801** *History.* An instructional program that generally describes the study and interpretation of the past, including the gathering, recording, synthesizing and criticizing of evidence and theories about past events. Includes instruction in historiography; historical research methods; studies of specific periods, issues and cultures; and applications to areas such as historic preservation, public policy, and records administration. (Academic)
- 45.0901** *International Relations and Affairs.* An instructional program that describes the systematic study of international politics and institutions, and the conduct of diplomacy and foreign policy. Includes instruction in international relations theory, foreign policy analysis, national security and strategic studies, international law and organization, the comparative study of specific countries and regions, and the theory and practice of diplomacy. (Academic)
- 45.1001** *Political Science and Government.* An instructional program that describes the systematic study of political institutions and behavior. Includes instruction in political philosophy, political theory, comparative government and politics, political parties and interest groups, public opinion, political research methods, studies of the government and politics of specific countries, and studies of specific political institutions and processes. (Academic)
- 45.1010** *Citizenship, Society and Technology, and Leadership.* An instructional program that describes and analyzes political institutions and processes, including the origin, development, geographical units, forms, sources of authority, powers, purposes, functions, and operations of government, their relationship with society, and general leadership activities. Offered as a transfer course. (Academic)

- 45.1101** *Sociology.* An instructional program that describes the systematic study of human social institutions and social relationships. Includes instruction in social theory, sociological research methods, social organization and structure, social stratification and hierarchies, dynamics of social change, family structures, social deviance and control, and applications to the study of specific social groups, social institutions, and social problems. (Academic)
- 45.1201** *Urban Affairs/Studies.* An instructional program that describes the application of social science principles to the study of urban institutions and the forces influencing urban social and political life. Includes instruction in urban theory, the development and evolution of urban areas, urban sociology, principles of urban and social planning, and the politics and economics of urban government and services. (Academic)
- 45.9997** *Applied Geography.* A course of instruction in applied geography used as related support for instructional programs. Instruction is included in geographic information systems; reading maps and performing map analysis; acquiring socioeconomic and environmental data; and creating spatial databases, raster, vector, and complex software for generating output design and archiving databases.
- 45.9998** *Social Science Industrial Relations.* This group of courses provides the related training needed in social science and industrial relations field for those individuals involved in any vocational education field. Includes instruction in the free enterprise system and organized labor.

46. CONSTRUCTION TRADES

- 46.0101** *Masonry and Bricklaying.* An instructional program that prepares individuals to lay bricks and/or blocks. Includes instruction in laying out and/or spacing bonds; determining vertical and horizontal alignment of courses using gauges, plumb-bobs, and levels; and cutting, notching, and shaping blocks, bricks, terracotta veneer, glass, and stone to construct or repair walls, partitions, arches, sewers, and fireplaces.
- 46.0197** *Tile Setting.* An instructional program that prepares individuals to apply tile to walls, floors, ceilings, and roof decks. Includes instruction in fastening lath to walls; spreading plaster and/or concrete; leveling to the desired depth; spreading mastic or adhesive base; and in cutting, shaping, and positioning tile.
- 46.0198** *Cleaning/Pointing/Caulking.* An instructional program that trains individuals for entry-level skills in the cleaning, pointing, and caulking of bricks, tiles, blocks, and other masonry or stoneware.
- 46.0201** *Carpentry.* An instructional program that prepares individuals to apply technical knowledge and skills to lay out, fabricate, erect, install, and repair wooden structures and fixtures, using hand and power tools. Includes instruction in areas such as common systems of framing, construction materials, estimating, blueprint reading and finish carpentry techniques.
- 46.0298** *Pile Driving.* An instructional program that prepares individuals in the operation of pile driving machinery mounted on sheds, barges, crawler treads or locomotive cranes to drive piling as foundations for structures, such as buildings, bridges, and piers. Instruction also includes the placement and driving of such piling.

- 46.0301** *Electrical and Power Transmission Installation.* An instructional program that prepares individuals to apply technical knowledge and skills to install, operate, maintain, and repair residential, commercial, and industrial electrical systems, and the power lines that transmit electricity from its source of generation to its place of consumption.
- 46.0302** *Industrial Electrician.* An instructional program that prepares individuals to install, operate, maintain, and repair electrically-energized systems such as residential, commercial, and industrial electric power wiring, and D.C. and A.C. motors, and electrical distribution panels. Includes instruction in the use of test equipment.
- 46.0303** *Utility Electrician and Lineworker.* An instructional program that prepares individuals to apply technical knowledge and skills to install, operate, maintain and repair local, long-distance, and rural electric power cables and communication lines; erect and construct pole and tower lines; and install underground lines and cables.
- 46.0398** *Residential Electrician.* An instructional program that prepares individuals to apply technical knowledge and skills to install, maintain, and repair electrical systems for residential facilities. Includes instruction in the use of blueprints, building and electrical codes, and the use of tools and test equipment.
- 46.0401** *Building and Grounds Maintenance.* An instructional program that prepares individuals to keep a building functioning; service a variety of structures including commercial and industrial buildings and manufactured housing. Includes instruction in the basic maintenance and repair skills related to the air conditioning, heating, plumbing, electrical, and other mechanical systems.
- 46.0403** *Construction/Building Inspection.* An instructional program that prepares individuals to apply technical knowledge and skills to inspect and oversee construction of buildings, dams, highways, and other structures, in order to ensure that procedures and materials comply with plans, specifications, codes and regulations.
- 46.0408** *Painter and Wall Coverer.* An instructional program that prepares individuals to apply technical knowledge and skills to finish exterior and interior surfaces by applying protective or decorative coating materials, such as paint, lacquer, and wallpaper. Includes instruction in surface preparation; selecting, preparing, and applying paints and other coatings; hanging wallpaper; and equipment operation and maintenance.
- 46.0493** *Concrete Placing and Finishing.* An instructional program that prepares individuals to construct forms; cut, erect, and fasten steel reinforcing bars and wire mesh; compact concrete by hand or with pneumatic vibrators; and finish exposed surfaces during hardening and after forms have been removed. Includes instruction in the use of chemical additives, and in hand and power concrete-handling equipment.
- 46.0494** *Dry Wall Finishing.* An instructional program that prepares individuals in dry wall surface preparation, smoothing, and finishing. Includes instruction in the application of sealants and special finishes.

- 46.0496** *Mobile Home Set-Up.* An instructional program that prepares individuals to set up, repair, and maintain mobile or modular housing constructed using a variety of materials including concrete, metals, woods, and plastics. Special instruction is provided in leveling techniques, distribution of weight, and the appropriate building codes regulating the setting up and anchoring of mobile home and modular structures.
- 46.0498** *Acoustical Applications.* An instructional program that prepares individuals to install and repair acoustical tile and coatings on the interior surfaces of structures.
- 46.0499** *Construction and Building Finishers and Managers, Other.* Any instructional program in miscellaneous construction trades not described above.
- 46.0501** *Plumbing, Pipefitting, and Steamfitting.* An instructional program that prepares individuals to apply technical knowledge and skills to lay out, assemble, install, and maintain piping fixtures and piping systems for steam, hot water, heating, cooling, drainage, lubricating, sprinkling, and industrial processing systems. Includes instruction in material selection and use of tools to cut, bend, join, and weld pipes.
- 46.0598** *Boilermaker.* An instructional program that prepares individuals to assemble, erect, and repair boilers and related equipment, attachments, and accessories. Instruction includes layout, cutting, fitting, bolting, welding, or riveting heavy metal plates, boiler tubes, and castings.
- 46.9993** *Drywall Installation.* An instructional program that prepares individuals to install wallboard, plasterboard, or other interior surfaces in structures.
- 46.9994** *Plastering.* An instructional program that prepares individuals to apply plaster, stucco, and similar materials to interior and exterior surfaces. Includes instruction in lathing and in surface preparation, smoothing, and finishing.
- 46.9995** *Insulating.* An instructional program that prepares individuals to install, batt, blanket, board, loose fill, and other forms of insulations in residential, commercial, and industrial buildings in order to heat and cool interiors in energy-efficient ways.
- 46.9996** *Glazier.* An instructional program that prepares individuals to prepare, fit, and install glass in structural openings such as windows, doors, and partitions or in display cases and table tops.
- 46.9997** *Floor Covering Installation.* An instructional program that prepares individuals to test and repair subfloors and to install resilient tile, sheet goods, and carpeting. Includes instruction in installing underlayments; cutting, fitting, and gluing lining; tacking, stapling, or taping padding; planning, laying out, fitting and installing resilient flooring by gluing or loose-lay methods; installing cover bases, self-coving and carpet fasteners; trimming and seaming carpet; and installing stair treads, risers, and countertops.
- 46.9998** *Job Skills for Construction Trades.* An instructional program that prepares individuals to enter the building and construction trades in an entry level position, usually as an apprentice. Includes instruction in the use of tools and general skill knowledge of the various construction trades, physical strength skill building, blueprint reading, and general safety practices.

47. MECHANICS AND REPAIRERS

- 47.0101** *Electrical and Electronics Equipment Installer and Repairer.* An instructional program that generally prepares individuals to apply technical knowledge and skills to operate, maintain, and repair electrical and electronic equipment. Includes instruction in electrical circuitry, simple gearing, linkages and lubrication of machines and appliances, and the use of testing equipment.
- 47.0102** *Office Machine Repair.* An instructional program that prepares individuals to apply technical knowledge and skills to maintain and repair a wide variety of office machines such as electric typewriters, word processing and dictation machines, calculators, data-processing equipment, duplicating machines, and mailing machines. Includes instruction in diagnostic techniques, the use of testing equipment, and the principles of mechanics, electricity, and electronics as they relate to the repair of business machines.
- 47.0103** *Communication Systems Installer and Repairer.* An instructional program that prepares individuals to assemble, install, operate, maintain, and repair one- and two-way communications equipment and systems, including AM and FM radio, television, hearing aids, and other electronic communication devices or systems. Includes instruction in using actual equipment or educational trainers, in various types of equipment, motors, mechanical devices, power suppliers, amplifiers, and digital circuitry; the use of testing equipment; and Federal Communications Commission (FCC) licensing requirements.
- 47.0105** *Industrial Electronics Installer and Repairer.* An instructional program that prepares individuals to apply technical knowledge and skills to assemble, install, operate, maintain, and repair electrical/electronic equipment used in industry and manufacturing. Includes instruction in using actual equipment, in various types of equipment such as power supplies, amplifiers, motors, controls, digital and computer circuitry, synchro mechanisms and servomechanisms, mechanical power transfer systems, hydraulic systems, and three-phase A.C., electronic wave-shaping, and control circuitry.
- 47.0106** *Major Appliance Installer and Repairer.* An instructional program that prepares individuals to apply technical knowledge and skills to repair, install, and service major gas, electric, and microwave consumer appliances such as stoves, refrigerators, dryers, water heaters, washers, dishwashers, and commercial units such as ice makers and coffee makers.
- 47.0190** *Bowling Center Maintenance and Repair Technician.* An instructional program that prepares individuals for employment as repairers of bowling equipment and operators of bowling centers. Includes instruction in pinsetter and pinspotter systems, ball return systems, component parts, and associated equipment and skills for the operation of bowling centers.
- 47.0191** *Aircraft Electrical Fabrication and Installation.* An instructional program that prepares individuals to fabricate electrical cables, wiring harnesses, and related subassemblies for use on aircraft. Includes instruction in reading electrical blueprints, electrical wiring techniques, quality control, and the use of test equipment.

- 47.0192** *Vending and Amusement Machine Repair.* An instructional program that prepares individuals to install and repair automated vending machines. Includes instruction in public relations, electrical/electronic control principles, mechanical principles of servomechanisms, coin and bill changers, and the use of related test and repair equipment.
- 47.0193** *Data Communications Technician.* An instructional program that prepares individuals to apply technical knowledge and skills to assemble, install, operate, maintain, and repair data communications systems. Includes instruction in the principles of data communications, design practices, basic electronics, computer principles and usage, peripheral equipment, and associated software.
- 47.0194** *Electronic Equipment Service.* An instructional program that prepares individuals to apply technical knowledge and skills to maintain and repair electrical and electronic equipment. Includes instruction in electrical/electronic theory, trouble-shooting practices, and the use of testing equipment.
- 47.0195** *Industrial Video Maintenance.* An instructional program that prepares individuals to apply technical knowledge and skills to maintain and repair industrial video and related equipment. Includes instruction in electrical/electronic, video communications theory and application, and the use of related test equipment.
- 47.0196** *Food Dispensing Equipment Repair.* An instructional program that prepares individuals to install, service, adjust, and repair commercial vending machines used in the preparation and dispensing of food in restaurants and food processing plants. Instruction is included in performing functional tests on the icemaking, refrigeration, carbonation, and evaporation systems; the dispensing of the quantities of food; and the identification and correction of malfunctions including the replacement of worn and defective electrical and/or mechanical parts using the proper hand tools, power tools, and the manuals distributed by the equipment manufacturer. Instruction is also included in the refinishing and refurbishing of units, preparation for transportation, storage, and the connection of these machines to the appropriate water/refrigeration/electrical systems.
- 47.0197** *Home Entertainment Electronics.* An instructional program that prepares individuals to install and repair radios, televisions, and the various types of equipment found in the home entertainment centers. Instruction is also included in the use of hand tools, power tools, and testing equipment used in the repair of the related equipment.
- 47.0198** *Micro-Computer Technology.* An instructional program that prepares individuals to assemble, install, operate, and service microcomputers. Special instruction emphasis is placed on the use of data bases and other software packages commonly found available for micro-computers.
- 47.0201** *Heating, Air Conditioning, and Refrigeration Mechanics.* An instructional program that prepares individuals to apply technical knowledge and skills to repair, install, service and maintain the operating condition of heating, air conditioning, and refrigeration systems. Includes instruction in diagnostic techniques, the use of testing equipment, and the principles of mechanics, electricity, and electronics as they relate to the repair of heating, air conditioning and refrigeration systems.

- 47.0298** *Residential Refrigeration Technology.* An instructional program that prepares individuals to apply technical knowledge and skills to repair, install, service, and maintain the operating condition of air conditioning and refrigeration systems found in the residential setting. Includes instruction in diagnostic techniques, the use of testing equipment, and the principles of mechanics, electricity, and electronics as they relate to the repair of air conditioning and refrigeration systems.
- 47.0302** *Industrial Maintenance Technology/Millwright.* An instructional program that prepares individuals to apply technical knowledge and skills in the field maintenance and repair of heavy equipment, and in the general maintenance and overhaul of such equipment. Includes instruction in inspection, maintenance, and repair of tracks, wheels, brakes, operating controls, pneumatic and hydraulic systems, electrical circuitry, engines, and in techniques of welding and brazing.
- 47.0395** *Electro-fluid Power Specialist.* An instructional program that prepares individuals to maintain and repair various types of meters; measuring and control devices such as heating and air conditioning controls; dial pressure gauges; scales and balances; electrical or electronic controls, measuring, and recording devices; and optical, aeronautical, and navigational instruments. Includes instruction in diagnosing malfunctions; disassembling, repairing, and/or replacing faulty parts; and cleaning, assembling, and adjusting instruments using special bench tools, hand tools, and other meters and standards.
- 47.0396** *Processing Machinery Maintenance and Repair Technology.* An instructional program that prepares individuals to apply technical knowledge and skills to repair and maintain industrial machinery and equipment such as pumps, motors, pneumatic tools, conveyor systems, production machinery, pipeline distribution systems, and automated equipment used in the food processing industry. Includes instruction in diagnostic techniques, the use of testing equipment, and the principles of mechanics, electricity, and electronics as they relate to the repair of food processing equipment.
- 47.0404** *Music-Band Instrument Service and Repair.* An instructional program that prepares individuals to apply technical knowledge and skills to make, repair, maintain, and tune acoustic and electric musical instruments. Includes instruction in methods and equipment for making musical instruments, electronic instrument amplification systems, techniques of cleaning, and methods of tuning musical instruments.
- 47.0408** *Watch, Clock, and Jewelry Repairer.* An instructional program that prepares individuals to make, maintain, and repair clocks, watches, chronometers, and other types of time-measuring devices by diagnosing malfunctions; disassembling, repairing, and/or replacing faulty parts; cleaning, assembling, and adjusting parts; and replacing straps, bands, crystals, crowns, and hands. Includes instruction in the use of various bench and hand tools such as lathes, staking tools, loupes, truing calipers, timing machines, pallet warmers, and other grinding, drilling, and polishing tools. Also includes instruction in the use of various materials such as metals, plastics, chemicals, oils, waxes, and abrasives.
- 47.0494** *Audio-Visual Equipment Repair.* An instructional program that prepares individuals to maintain and repair equipment designed to photograph illustrations and other copy, to develop negatives, prepare photosensitized metal plates for use in printing, and other equipment used for projecting audio and video images. Includes instruction in basic electrical and electronic repair techniques.

- 47.0495** *Computer Integrated Manufacturing.* An instructional program that prepares individuals to install, troubleshoot, and repair devices used in automated manufacturing. Skills taught include: electronics, pneumatics, hydraulics, servomechanisms, robotics, conveyors, belts, and the computer systems that operate these devices.
- 47.0496** *Camera Repair.* An instructional program that prepares individuals to repair and adjust cameras using specialized tools and testing devices. Training is provided in the disassembly of cameras; tests and alignments; repair of the lens mounts, film transports, and optical systems connected therein. Basic instruction is provided in electronics and the use of small machine and hand tools such as the bench lathe, grinder, and drill press as needed for modification of parts and/or repairs.
- 47.0497** *Power Sewing Machine Repair.* An instructional program that prepares individuals to repair and adjust sewing machines used for domestic and industrial establishments. Instruction is provided in the adjustment and preventive maintenance of all types of power sewing equipment, the dismantling of machines, replacement or repair of broken or worn parts, and general inspection procedures.
- 47.0498** *Industrial Plant Services.* An instructional program that prepares individuals to provide preventive maintenance and service a variety of structures, including commercial and industrial buildings. Includes instruction in basic maintenance and repair skills relative to the air conditioning, heating, plumbing, electrical, and mechanical systems as well as the total building structure.
- 47.0501** *Stationary Energy Sources Installer and Operator.* An instructional program that generally prepares individuals to install, operate, and maintain large power sources used for such purposes as generating electricity, pumping, and heating.
- 47.0597** *Electrical Power Generation.* An instructional program that prepares individuals to install, operate, and maintain electric power generating stations, and to operate and maintain gas, oil, and coal furnaces, boilers, and electric generators; steam, gas, or hydroturbines; and diesel engines. Includes instruction in special instrumentation, controls, and emergency and safety procedures.
- 47.0598** *Electrical Power Technology.* An instructional program that prepares individuals to operate and maintain electrical power generating stations and to operate and maintain gas, oil, and coal furnaces, boilers, and electrical generators, steam, gas or hydroturbines. Instruction is also included in special instrumentation, controls, emergency and safety procedures.
- 47.0603** *Automotive Body Rebuilding and Refinishing.* An instructional program that prepares individuals to apply technical knowledge and skills to repair, reconstruct and finish automobile bodies, fenders, and external features. Includes instruction in all phases of body work preparation and finishing.

- 47.0604** *Automotive Mechanic/Technician.* An instructional program that prepares individuals to engage in the servicing and maintenance of all types of automobiles. Includes instruction in the diagnosis of malfunctions in and repair of engines; fuel, electrical, cooling, and brake systems; and drive train and suspension systems. Instruction is also given in the adjustment and repair of individual components and systems such as radiators, transmissions, and carburetors.
- 47.0605** *Diesel and Heavy Equipment Mechanics.* An instructional program that prepares individuals to repair diesel engines in vehicles such as buses, ships, trucks, railroad locomotives, and construction equipment, and to repair stationary diesel engines in electrical generators and related equipment. Includes instruction in diagnosing malfunctions; disassembling engines and replacing parts; and in repairing and adjusting fuel injection systems, oil and water pumps, generators, governors, auxiliary and accompanying power units, controls, and transmissions, using a variety of tools and testing and diagnostic equipment.
- 47.0606** *Small Engine/Marine/Motorcycle Mechanic and Repairer.* An instructional program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain small internal-combustion engines used on portable power equipment such as lawnmowers, chain saws, rotary tillers, and snowmobiles.
- 47.0607** *Aircraft Mechanics, Airframe.* An instructional program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain all aircraft components other than engines, propellers, avionics, and instruments. Includes instruction in layout and fabrication of sheet metal, fabric, wood, and other materials into structural members, parts, and fittings, and replacement of damaged or worn parts such as control cables and hydraulic units.
- 47.0608** *Aircraft Mechanics, Powerplant.* An instructional program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain all types of aircraft powerplants and related systems. Instruction includes engine inspection and maintenance, lubrication and cooling, electrical and ignition systems, carburetion, fuels and fuel systems, propeller and fan assemblies. This program is designed to meet the Federal Aviation Administration requirements for licensing as a power plant mechanic.
- 47.0611** *Motorcycle Repair.* An instructional program that prepares individuals to repair and service motorcycles, motor scooters, and similar motor vehicles. The individual, when fully trained, will have learned to listen to the engine, examine the vehicle's frame, and confer with the customer to determine the nature and extent of the malfunction or damage. The individual will be trained to connect the test panel to the engine and measure the generator output, ignition, timing, and other engine performance indicators. Also included is instruction in dismantling of the engine and repair or replacement of defective parts such as magnetos, carburetors, or generators; removal of cylinder heads; valve grinding; scraping off of carbon; and replacement of defective valves, pistons, cylinders, and rings using hand and power tools. Repair on the frame will be taught for the removal of dents; removal of tears by welding; reassembly of components; installation of engines, adjustment of clutch, brakes, and drive chain. Instruction is also included in the use of hand and small power tools.

- 47.0685** *Recreational Vehicle Technician.* An instructional program that prepares individuals to repair and rebuild motor homes, travel trailers, and campers and their components. Includes instruction in sheet metal repair, refrigeration, plumbing, electrical, woodworking, small engine repair, and upholstery techniques needed for the industry.
- 47.0686** *Aviation Electronics.* An instructional program that prepares individuals to inspect, test, adjust, and repair aircraft communications, navigation, and flight control systems. Instruction is included in the replacement of defective instruments, headsets, dopplers, transponders, and autopilots using electronic tools, circuit analyzers, oscilloscopes, and other testing devices.
- 47.0687** *Aircraft Airframe/Powerplant Mechanics.* An instructional program that prepares individuals to inspect, repair, service, and overhaul all airplane parts, including engines, propellers, instruments, airframes, fuel and oil tanks, control cables, and hydraulic units. This program is designed to meet Federal Aviation Administration requirements for licensing as an airframe/power plant mechanic.
- 47.0688** *Auto Detailer.* An instructional program that prepares individuals to restore to near new condition the interior and exterior of automobiles and trucks using cleaning and polishing equipment and supplies. Includes instruction in the use of tools, knowledge of fabrics, paints, cleaners, and coatings used in the automotive industry.
- 47.0689** *Auto Painter.* An instructional program that prepares individuals to prepare surfaces and paint finishes on automobiles, trucks, vans, trailers, and related equipment. Instruction includes the properties of paints and coatings, thinners, cleaning agents, their uses, and the proper disposal of the related hazardous materials.
- 47.0690** *Auto Electronics Technician.* An instructional program that prepares individuals to install and repair electrical and electronic systems on automobiles, trucks, and other motorized transportation equipment.
- 47.0692** *Helicopter Mechanics.* An instructional program that prepares individuals to inspect, repair, and service all helicopter engine and block parts including instruments, airframes, fuel and oil tanks, controls, and hydraulic units. This program is designed to meet the Federal Aviation Administration requirements for licensing as a helicopter mechanic.
- 47.0694** *Materials Handling Equipment Mechanics.* An instructional program that generally prepares individuals to maintain and repair forklifts, pallet stackers, and other types of equipment found in the shipping and warehousing industry. Includes instruction in diagnosing malfunctions, disassembling engines, replacing parts, and repair and adjustment of fuel injection systems, oil and water pumps, generators, governors, auxiliary and accompanying power units such as the hydraulics and electrical controls.
- 47.0696** *Trailer Rebuilding and Refinishing.* An instructional program that prepares individuals to repair body and flat sheet metal work on both the over-road transport trailers and the large trailer shipping containers used for overseas transportation. Includes instruction in surface preparation for painting and finishing.

- 47.0697** *Truck and Auto Rebuilding/Refinishing.* An instructional program that prepares individuals to repair truck and trailer bodies and the related tasks of painting and refinishing.
- 47.0698** *Automotive Service Specialist.* An instructional program that prepares individuals to engage in the specialized servicing and maintenance of all types of automobiles. Includes instruction in the diagnosis of malfunctions in, and the adjustment of, engines, fuel, electrical and braking systems as well as the replacement and repair alignment of the suspension systems. Special instruction is provided in the adjustment of the carburetion system and the related sub-components which affect emissions control standards.

48. PRECISION PRODUCTION TRADES

- 48.0101** *Drafting, General.* An instructional program that generally prepares individuals to apply technical knowledge and skills to plan and prepare scale pictorial interpretations of engineering and design concepts. Includes instruction in the use of precision drawing instruments, computer-assisted design programs, sketching and illustration, and specification interpretation.
- 48.0102** *Architectural Drafting.* An instructional program that prepares individuals to apply technical knowledge and skills to plan and prepare scale pictorial interpretations of plans and design concepts for buildings or other structures. Includes instruction in creating layouts and designs, architectural blueprints and renderings; in the use of computer-assisted design programs; in keeping with building codes, zoning laws, ordinances, and other regulations; and in styling and planning in keeping within cost limitations and client preferences.
- 48.0103** *Structural Drafting Technology.* An instructional program that prepares individuals to apply technical knowledge and skills to plan and prepare scale pictorial interpretations of plans and design concepts for construction projects, including topographical profiles, related maps and specifications sheets for use by civil engineers and other land use planning specialists. Includes instruction in performing all stages of design illustration and interpretation from initial concept to prototype, and the use of computer-assisted design programs.
- 48.0104** *Electrical/Electronics Drafting.* An instructional program that prepares individuals to apply technical knowledge and skills to plan and prepare scale pictorial interpretations of plans and design concepts for wiring diagrams and schematics used by electrical/electronics engineers, electrical contractors and repairers to plan, install and modify electrical equipment and systems. Includes instruction in performing all stages of design illustration and interpretation from initial concept to prototype, and the use of computer-assisted design programs.
- 48.0105** *Mechanical Drafting.* An instructional program that prepares individuals to apply technical knowledge and skills to plan and prepare scale pictorial interpretations of plans and design concepts for mechanical devices and machinery, including vehicles and other major systems. Includes instruction in performing all stages of design illustration and interpretation from initial concept to prototype, and the use of computer-assisted design programs.

- 48.0194** *Aircraft Drafting.* An instructional program that prepares individuals to apply technical knowledge and skills to plan and prepare scale pictorial interpretations of engineering and design concepts. Includes instruction in the use of precision drawing instruments, computer assisted design programs, sketching and illustration, and specification interpretation for aircraft.
- 48.0195** *Fluid Power Drafting.* An instructional program that prepares individuals to assist hydraulic and mechanical engineers in the design and drafting of fluid power components and systems. Includes instruction in the preparation of engineering plans, layouts, and detailed drawings according to conventional projection principles and techniques; preparation of charts, graphs, or diagrams; model making and the use of handbook data germane to design and drafting in the fluid power industry.
- 48.0196** *Blueprint Reading.* An instructional program that trains individuals to read and interpret blueprints, construction drawings, assembly drawings, and other manufacturing illustrations. Includes instruction in the interpretation of related specifications.
- 48.0197** *Design and Drafting, General.* An instructional program that generally prepares individuals to plan, prepare, and interpret mechanical, architectural, structural, pneumatic, marine, electrical, electronic, topographical, and other sketches; to use reproduction materials and equipment; and processes to develop, plan, and process charts and drawings. Instruction will also be provided in developing models and preparation of reports and data sheets for writing specifications.
- 48.0198** *Civil Drafting.* An instructional program that prepares individuals to develop detailed construction drawings, topographical profiles, and related maps and specification sheets for use in the planning and construction of highways, wastewater treatment facilities, river and harbor improvements, flood control structures, and drainage structures. Includes instruction in computing the volume of excavation and fill tonnage and preparing drafts and hauling diagrams for use in earthmoving operations.
- 48.0201** *Graphic Arts and Printing.* An instructional program that generally prepares individuals to apply technical knowledge and skills to plan, prepare and execute commercial and industrial visual image and print products using mechanical, electronic, and digital graphic and printing equipment.
- 48.0206** *Lithography, Photography, and Platemaking.* An instructional program that prepares individuals to apply technical knowledge and skills to make prints from chemically prepared stone or metal plane surfaces. Includes instruction in platemaking, stripping, lithographic photography, and related processes.
- 48.0212** *Desktop Publishing Equipment Operation.* An instructional program that prepares individuals to apply technical knowledge and skills to plan and execute entire publication tasks using desktop publishing equipment and software, including designing, printing, and binding.
- 48.0295** *Silk Screen Technology.* An instructional program that prepares individuals to make silk screens and to perform silk screen printing operations.

- 48.0296** *Sign Painting.* An instructional program that prepares individuals to commercially design, lay out, and paint signs.
- 48.0297** *Visual Communications.* An instructional program that prepares individuals to design, produce, display, and present material of all types (advertising, education, illustrative, etc.) using the media that best displays the illustration. Medias taught include photography, printing, computerized graphics, television, and artistic presentation.
- 48.0298** *Photo-Journalism.* An instructional program that prepares individuals to photograph or videotape newsworthy events, locations, people or other illustrations or educational material for use in publications or telecasts, using still and video cameras. Instruction in videotape editing, darkroom work, developing, printing, and enlargements is included. All phases, news, sports, special events, are covered.
- 48.0303** *Upholstering.* An instructional program that prepares individuals to apply technical knowledge and skills to install springs, filling, padding, covering and finishing on items such as furniture, automobile seats, caskets, mattresses, and bedsprings.
- 48.0398** *Saddlemaking and Repair.* An instructional program that prepares individuals to construct and repair saddles. Includes instruction in cutting, assembling, and joining leather parts and other materials according to specification of saddle size, type, color, or grain of leather, using hand and power stitching machines; positioning covering and cushioning materials such as cotton batting, foam rubber, or mohair; attaching accessories and ornamentation; applying paint and liquid dressings for flossy finish; and cutting and stamping leather surfaces with lettering or decoration. Also included is related horse handling techniques.
- 48.0501** *Machinist/Machine Technology.* An instructional program that prepares individuals to apply technical knowledge and skills to plan, manufacture, assemble, test, and repair parts, mechanisms, machines, and structures in which materials are cast, formed, shaped, molded, heat treated, cut, twisted, pressed, fused, stamped, or worked.
- 48.0506** *Sheet Metal Worker.* An instructional program that prepares individuals to apply technical knowledge and skills to form, shape, bend and fold extruded metals, including the creation of new products, using hand tools and machines such as cornice brakes, forming rolls, and squaring shears.
- 48.0507** *Tool and Die Maker/Technologist.* An instructional program that prepares individuals to analyze specifications and to lay out metal stock, set up and operation; machine tools to fit and assemble parts for the manufacture and repair of metalworking dies, cutting tools, fixtures, gauges, and machinists' hand tools. Includes instruction in metal properties and in the applications and construction of tool and die designs.
- 48.0508** *Welding, Brazing, and Soldering Technology.* An instructional program that prepares individuals to apply technical knowledge and skills to unite or separate metal parts by heating, using a variety of techniques and equipment, such as brazing, arc, gas and laser operations.

- 48.0584** *Manufacturing Technology Core Competencies.* A series of instructional courses that prepare individuals to meet the performance standards in the manufacturing core competency areas. This instruction includes skill building in group dynamics and communication, measurement, safety and health, quality assurance, print interpretation, shop skills, business economics, resource management and manufacturing computing, product and process control, and labor and industry.
- 48.0585** *Thermoplastic Welding and Bonding.* An instructional program that prepares individuals in the welding or bonding of thermoplastic material both in initial construction and repair. Instruction is provided in both the mechanical and chemical methods of bonding.
- 48.0586** *Machinist Specialist.* An instructional program that prepares individuals to apply technical knowledge and skills to fabricate and modify metal parts using specialized machine tools. Includes instruction in the use of measuring and calibration tools and equipment, computerized numerical control machining, and related equipment.
- 48.0587** *Patternmaking.* An instructional program that prepares individuals to fit, assemble, and hand-finish castings and parts in the manufacture of metal foundry cores and patterns, according to specifications and patternmaking methods.
- 48.0588** *Welding Specialist.* An instructional program that prepares individuals to apply technical knowledge and skills to unite or separate metal parts by heating, using specialized equipment for specific joining operations or special metals. Includes instruction in metallurgy, blueprint reading, and fabricating techniques.
- 48.0589** *Pipe Welder.* An instructional program that prepares individuals in the skill of joining metal pipe. Includes instruction in arc, mig, and tig welding; laser techniques; and visual and non-destructive testing for quality and integrity.
- 48.0590** *Riveter Mechanic.* An instructional program that prepares individuals to apply and wedge rivets for sheet metal applications. Includes instruction in sizing holes to receive rivets, calculations for correct rivet length, bucking, and driving techniques.
- 48.0591** *Metal Fabrication.* An instructional program that prepares individuals to fabricate and assemble a variety of products. Includes instruction in lay-out; sequence of operations; set-up and operation of fabricating machines; design and construction of templates and fixtures; and the positioning, aligning, fitting, and welding of parts.
- 48.0592** *Computerized Numerical Control Manufacturing.* An instructional program that prepares individuals for specialty work in the mass production of parts through the use of computerized numerical machine tools. Includes instruction in the techniques of programming the machine tool through the use of a computer and transfer of the program to the machine by any one of several modern technologies.
- 48.0593** *Electroplating.* An instructional program that prepares individuals for job entry work as an electroplater. Instruction includes basic metallurgy, electrical theory, basic physics, and hazardous materials handling.

- 48.0594** *Coppersmithing.* An instructional program that prepares individuals to lay out, fabricate, form, erect or install, and maintain items made of copper, using hand tools and power machinery such as shears, forming rolls, brakes, and bonding machinery. Includes instruction in computer assisted drafting and layout.
- 48.0595** *Ornamental Ironworking.* An instructional program that prepares individuals to design, fabricate, and assemble decorative ironwork. Special instruction is provided in welding, bending, and forging techniques needed for the completion of ornamental iron products.
- 48.0596** *Maintenance Welding.* An instructional program that prepares individuals to use welding processes to braze, solder, weld, or join metal parts that have been broken or are in need of other repair to nearly original condition. Special instruction is provided in diagram, blueprint reading, and written specifications skills.
- 48.0597** *Structural Ironworker.* An instructional program that prepares individuals not only for both ornamental and decorative ironwork but also the assembly of structural steel components for the construction industry. This phase of instruction includes welding, rigging, crane operation, safety, steel concrete reinforcement installation, and mechanical fastening.
- 48.0598** *Automotive Machining.* An instructional program that prepares individuals in the operation of machine tools, inspection, quality control, assembly and testing of automotive and diesel engines.
- 48.0599** *Foundry Worker.* An instructional program that prepares individuals to engage in activities at ferrous and nonferrous foundries. Includes instruction in foundry equipment, various sands and refractories, sand and machine molding, core-making, chipping, grinding, foundry chemistry, and metallurgy.
- 48.0703** *Millwork and Cabinetmaking.* An instructional program that prepares individuals to engage in the mass production of such articles as window frames, moldings, trim and panels; and such products as store fixtures, kitchen cabinets, and office equipment. Includes instruction in cutting, shaping, assembling, and refinishing articles; installing hinges, catches, drawer pulls, and other hardware; and planning and drafting lay outs.
- 48.9995** *Production Millworking.* An instructional program that prepares individuals to manufacture wooden items through the use of mass production techniques. Includes instruction in the properties and composition of the various hard and soft woods used in manufacturing. Also included is the safe operation of the machine tools used in these processes.
- 48.9996** *Model Making Technology.* An instructional program in building models and prototypes for industrial applications. Instruction includes the building of clay or plaster models and patterns of one-of-a-kind or mass produced products made of metallic or plaster materials. The instruction also includes using the appropriate hand tools, grinders, polishing wheels, paints, and other finishes.

48.9997 *Electronics Assembly.* An instructional program that prepares individuals to assemble electronic components on printed circuit boards, soldering, minor testing, and packaging.

48.9998 *Electronics Packaging.* An instructional program that prepares individuals to sort and categorize, make minor adjustments, and operate the equipment for packaging products produced by industry. Includes instruction in storage and shipping techniques.

49. TRANSPORTATION AND MATERIALS MOVING WORKERS

49.0101 *Aviation and Airway Science.* An instructional program that generally describes the study of aviation and the aviation industry, including in-flight and ground support operations. Includes instruction in the technical, business, and general aspects of air transportation systems. (Academic)

49.0102 *Commercial Aircraft Pilot.* An instructional program that prepares individuals to pilot aircraft and assume the eventual command responsibility of carrying passengers and freight. Includes instruction in aircraft structure, behavior, operation, and controls; radio communications, meteorology; navigation; airways safety and traffic regulations; and governmental rules and regulations pertaining to piloting aircraft. Completion of this program prepares individuals to take Federal Aviation Administration (FAA) examinations for a commercial pilot's certificate.

49.0105 *Air Traffic Controller.* An instructional program that prepares individuals in air traffic management and control, usually with additional training at the FAA Flight Control Center in a cooperative education program. Includes instruction in flight control; the use of radar and electronic scanning device; plotting of flights; radio communication; interpretation of weather conditions affecting flights; flight instrumentation used by pilots; and maintenance of flight control center or control tower log books and reports.

49.0106 *Flight Attendant.* An instructional program that prepares individuals to apply technical knowledge and skills to the performance of a variety of personal services conducive to the safety and comfort of airline passengers during flight, including verifying tickets, explaining the use of safety equipment, providing passenger services, and responding to in-flight emergencies.

49.0196 *Commercial Helicopter Pilot.* An instructional program that prepares individuals to pilot helicopters for both passenger and freight transport. Instruction includes helicopter structure, behavior, operation, and controls; radio communications; meteorology; navigation; airways safety and traffic regulations; and governmental rules and regulations pertaining to flying helicopters. Completion of this program of instruction prepares individuals to take Federal Aviation Administration (FAA) examinations for a commercial helicopter pilot's certificate.

49.0197 *Commercial Pilot—Crop Dusting.* An instructional program that prepares individuals to perform crop dusting tasks while piloting a fixed-wing or rotary wing aircraft.

- 49.0198** *Air Cargo.* An instructional program that generally prepares individuals to engage in activities concerned with the preparation, labeling, logging, and handling of materials being shipped by air freight. Includes instruction in the proper loading and securing of such cargo in aircraft as well as the rules and regulations pertaining to air shipment--both domestic and international.
- 49.0202** *Construction Equipment Operation.* An instructional program that prepares individuals to operate and maintain a variety of heavy equipment, such as a crawler tractor, motor graders and scrapers, and shovels, including dragline, hoe, and cranes. Includes instruction in digging, ditching, sloping, stripping, grading, backfilling, clearing, and excavating.
- 49.0205** *Truck, Bus, and Other Commercial Vehicle Operator.* An instructional program that prepares individuals to apply technical knowledge and skills to drive trucks and buses, delivery vehicles, for-hire vehicles and other commercial vehicles. Includes instruction in operating gas, diesel, or electrically-powered vehicles; loading and unloading cargo or passengers; reporting delays or accidents on the road; verifying load against shipping papers; arranging transportation for personnel; and keeping records of receipts and fares.
- 49.0297** *Vehicle and Equipment Operation.* An instructional program that generally prepares individuals to drive automobiles, light trucks and small vans.
- 49.0298** *Earth and Rock Drilling.* An instructional program that prepares individuals to operate the equipment used to drill water wells and other earth drilling equipment. Instruction includes geological formations, drilling machine maintenance, pumps, and Washington State water well rules and regulations.
- 49.0303** *Commercial Fishing.* An instructional program that prepares individuals to apply technical knowledge and skills to function as commercial fishermen, fishing operations supervisors, or in related fishing industry operations. Includes instruction in fishing vessel operation; fishing equipment operation and maintenance; equipment repair; catch identification, sorting, and storage; safety procedures; record-keeping; and applicable legal regulations.
- 49.0304** *Professional Diving Technology.* An instructional program that prepares individuals to apply technical knowledge and skills to function as professional deep-water or scuba divers, diving instructors, or diving support personnel. Includes instruction in the use of diving equipment and related specialized gear; diving safety procedures; operation and maintenance of underwater life-support systems; underwater communication systems; decompression systems; underwater salvage; exploration, rescue, and photography; and installation of underwater mechanical systems and their maintenance, repair or demolition.
- 49.0306** *Marine Maintenance and Repair/Power Boat.* An instructional program that prepares individuals to apply technical knowledge and skills to repair outboard and inboard engines; test, maintain, and repair steering devices and electrical systems; repair metal, wood, and fiberglass hulls and vessel components; fabricate and maintain sails; and repair and balance propellers and drive shafts.

- 49.0309** *Merchant Marine Officer.* An instructional program that prepares individuals to serve as captains, executive officers, engineers and ranking mates on commercially licensed inland, coastal and ocean-going vessels. Includes instruction in maritime traditions and law; maritime policy; economics and management of commercial marine operations; basic naval architecture and engineering; shipboard power systems engineering; crew supervision; and administrative procedures.
- 49.0395** *Net Hanger.* An instructional program that prepares individuals to apply technical knowledge and skills to function as a net hanger in the commercial fishing industry. Includes instruction in the techniques of net mending, weighting, floating, treating, and storage.
- 49.0396** *Marina Services Technology.* An instructional program that prepares individuals to manage and operate commercial marinas. Includes instruction in accommodating, docking, servicing, and provisioning recreational or small commercial fishing or other boats; designing, installing, and maintaining docks, wharves, and related equipment; ensuring sanitation of facilities; fueling and preventing fires; protecting wharf and docking facilities from biological or other destructive agents; maintaining facilities and manning the establishment to serve the public; and basic marine laws and legal responsibilities.
- 49.0397** *Shipwright.* An instructional program that prepares individuals to install, repair, and replace mechanical equipment on commercial fishing, merchant, and military ships. Instruction includes courses in welding, electrical, mechanical, and machine shop practices.
- 49.0398** *Marine Carpentry/Boat Building.* An instructional program that teaches entry-level skills in the building and repair of wood and fiberglass boats. Instruction includes lofting, interpretation of designs, and operation of power tools. Also includes instruction in the techniques of working with fiberglass and related chemicals.
- 49.0401** *Railroad Operations Technology.* An instructional program that prepares individuals for employment the railroad industry. Instruction includes the history of railroading, railroad operations, intermodal transportation, safety, and environmental issues. Also includes instruction in business management practices for railroad occupations.
- 49.9996** *Warehouse and Distribution Specialist.* An instructional program that prepares individuals for employment in warehouse and distribution centers. Instruction is also provided in distribution, order filling, shipping, equipment safety, inventory, product knowledge, first aid, fork lift operation, and occupational assistance skills.
- 49.9997** *Transportation.* An instructional program that generally prepares individuals to perform marketing and management functions and tasks in enterprises engaged in passenger and freight transportation, travel services, warehousing, and other services incidental to transportation, storage, travel, or tourism.
- 49.9998** *Transportation Management.* An instructional program that describes the nature and application of management methods and techniques related to transportation enterprises.

50. VISUAL AND PERFORMING ARTS

- 50.0101** *Visual and Performing Arts.* An instructional program that generally describes an undifferentiated program in the visual and performing arts, and that may prepare individuals in any of the visual artistic media or performing disciplines. (Academic)
- 50.0201** *Crafts, Folk Art, and Artisanry.* An instructional program that describes the aesthetics, techniques, and creative processes for designing and fashioning objects in one or more of the handcraft or folk art traditions, and that prepares individuals to create in any of these media. (Academic)
- 50.0301** *Dance.* An instructional program that prepares individuals to express ideas, feelings, and/or inner visions through the performance of one or more of the dance disciplines, including but not limited to ballet, modern, jazz, ethnic, and folk dance, and that describes the study and analysis of dance as a cultural phenomenon. Includes instruction in choreography, labanotation, dance history and criticism, and dance production. (Academic)
- 50.0401** *Design.* An instructional program in the applied visual arts that describes the general principles and techniques for effectively communicating ideas and information, and packaging products, to business and consumer audiences, and that may prepare individuals in any of the applied art media. (Academic)
- 50.0402** *Commercial Art and Illustration.* An instructional program in the applied visual arts that prepares individuals to use artistic techniques to effectively communicate ideas and information to business and consumer audiences via illustrations and other forms of printed media. Includes instruction in concept design, layout, paste-up, and techniques such as engraving, etching, silkscreen, lithography, offset, drawing and cartooning, painting, collage, and computer graphics.
- 50.0404** *Industrial Design.* An instructional program in the applied visual arts that prepares individuals to use artistic techniques to effectively communicate ideas and information to business and consumer audiences via the creation of effective forms, shapes, and packaging for manufactured products. Includes instruction in designing in a wide variety of media, prototype construction, design development and refinement, principles of cost-saving, and product structure and performance criteria relevant to aesthetic design parameters.
- 50.0406** *Commercial Photography.* An instructional program in the applied visual arts that prepares individuals to use artistic techniques to effectively communicate ideas and information to business and consumer audiences, and recording events and people, via film, still and video photography. Includes instruction in specialized camera and equipment operation and maintenance; applications to commercial and industrial needs; photography business operations; portrait, commercial, and industry photography; processing microfilm; and preparing copy for printing or other graphic arts processing.

- 50.0408** *Interior Design.* An instructional program in the applied visual arts that prepares individuals to apply artistic principles and techniques to the professional planning, designing, equipping, and furnishing residential and commercial interior spaces. Includes instruction in drafting and graphic techniques; principles of interior lighting, acoustics, systems integration, and color coordination; furniture and furnishings; textiles and their finishing; the history of interior design and period styles; basic structural design; building codes and inspection regulations; and applications to office, hotel, factory, restaurant and housing design.
- 50.0497** *Interior Design.* Instructional courses that describe the processes, procedures, observations, and techniques essential to the development of designs for interior environments as transfer courses. (Academic)
- 50.0498** *Package Design Technology.* An instructional program that prepares individuals to design packages and other containers that promote the role of products, complete with advertising or illustrating art work.
- 50.0501** *Drama/Theater Arts.* An instructional program that generally describes the study of dramatic works and their performance. Includes instruction in major works of dramatic literature, dramatic styles and types, and the principles of organizing and producing full productions. (Academic)
- 50.0602** *Cinematography/Film.* An instructional program that prepares individuals to communicate dramatic information, ideas, moods, and feelings through the making and producing of films and videos. Includes instruction in theory of film; film technology and equipment operation; film production; film directing; film editing; cinematographic art; film audio; techniques for making specific types of films and/or videos; and the planning and management of film/video operations. (Academic)
- 50.0605** *Photography.* An instructional program that describes the historic development, aesthetic qualities, theories, techniques, and creative processes of producing images on photographic film or plates. (Academic)
- 50.0703** *Art History, Criticism, and Conversation.* An instructional program that describes the study of the historical development of art as social and intellectual phenomenon, the analysis of works of art, and art conservation. Includes instruction in the theory of art, art history research methods, connoisseurship, the preservation and conservation of works of art, and the study of specific periods, cultures, styles, and themes. (Academic)
- 50.0705** *Drawing.* An instructional program that prepares individuals creatively and technically to express emotions, ideas, or inner visions through representation by lines made on a surface. Includes instruction in eye-hand coordination; line, value, shape, and perspective; figure and still life drawing; the use of media such as pen and ink, pencil, charcoal, pastel, and brush; and personal style development. (Academic)
- 50.0708** *Painting.* An instructional program that prepares individuals creatively and technically to express emotions, ideas, or inner visions by the application of paints and related chemical color substances to canvases or other materials. Includes instruction in color and color mixing; surface preparation; composition; oil and acrylic media; watercolor media; painting techniques; and personal style development. (Academic)

- 50.0709** *Sculpture.* An instructional program that prepares individuals creatively and technically to express emotions, ideas, or inner visions by creating three-dimensional art works. Includes instruction in the analysis of form in space; round and relief concepts; sculptural composition; modern and experimental methods; different media such as clay, plaster, wood, stone, and metal; techniques such as carving, molding, welding, casting, and modeling; and personal style development. (Academic)
- 50.0711** *Ceramic Arts and Ceramics.* An instructional program that prepares individuals creatively and technically to express emotions, ideas, or inner visions by producing art works out of clay and similar materials. Includes instruction in hand-built and wheel-thrown techniques; molding; slips and glazes; trimming and decorating; firing and kiln operation; oxidation; mixed media; ceramic murals; and personal style development. (Academic)
- 50.0713** *Jewelry Design and Repair.* An instructional program that prepares individuals creatively and technically to express emotions, ideas, or inner visions by fashioning art works from gems, other stones, and precious metals. Includes instruction in gemology; metalsmithing and finishing; stone cutting and polishing; metal and non-metal casting and molding; electroforming; metal coloring; enameling; photo etching; lapidary technique and art; design concepts; and personal style development.
- 50.0798** *Museum/Gallery Operations.* An instructional program that prepares individuals for employment in museum and gallery operations. Coursework is offered in business operations; art appreciation, design, and display; art and supply framing; security, preservation, and storage. Additional coursework will be completed in related courses that support this occupation.
- 50.0902** *Music History and Literature.* An instructional program that describes the study of the historical evolution of music as a social and intellectual phenomenon, the development of musical instruments and techniques, and the analysis and criticism of musical literature. Includes instruction in music history research methods, aesthetic analysis of musical compositions, history of musical writing and notation, the development of musical instruments, the development of music theory, and the study of specific periods, cultural traditions, styles, and themes. (Academic)
- 50.0903** *Music—General Performance.* An instructional program that generally prepares individuals to master musical instruments and performing art as solo and/or ensemble performers. Includes instruction on one or more specific instruments. (Academic)
- 50.0904** *Music Theory and Composition.* An instructional program that describes the study of the principles of sound manipulation as applied to the creation of music, and the techniques of creating and arranging music. Includes instruction in aural theory, melody, counterpoint, complex harmony, modulation, chromaticism, improvisation, progressions, musical writing, instrumentation, orchestration, electronic and computer applications, studies of specific musical styles, and development of original creative ability. (Academic)

- 50.0909** *Music Business Management and Merchandising.* An instructional program that prepares individuals to organize and manage music organizations, operations, facilities, and personnel. Includes instruction in business and financial management; marketing and fundraising; personnel management and labor relations; event promotion and management; music products merchandising; artist agency and promotion; music law; and applications to specific activities such as managing theaters, recording studios and companies, bands and other ensembles, individual artists, and music organizations.
- 50.0997** *Professional Entertainment.* An instructional program that prepares individuals to apply economic and business principles to the management and operation of profit and non-profit organizations that specialize in the entertainment business.
- 50.0998** *Music Instrument Digital Interface (MIDI).* An instructional program that prepares individuals to work in the music instrument digital interface industry. Training includes music theory, analysis, form, history, sight-reading, and keyboard proficiency. Additional course work in merchandising, recording, production, publishing, synthesis sequencing, sampling, drum machine programming, and computer software applications are taught.

51. HEALTH PROFESSIONS AND RELATED SCIENCES

- 51.0204** *Speech-Language Pathology/Audiology.* An instructional program that prepares individuals to provide therapeutic care to persons with hearing and related communications disorders. Includes instruction in the principles of audiology; structure and development of hearing and communications disorders; speech disorder and hearing loss identification and assessment; aural rehabilitation; psychosocial and educational effects of speech and hearing disorders; and the planning and management of patient therapy. (Academic)
- 51.0205** *Sign Language Interpreter.* An instructional program that prepares individuals to interpret oral speech for the hearing impaired. Includes instruction in American Sign Language or other deaf language, fingerspelling, orientation to deaf culture, and interpreting from signing to voice as well as from voice to signing.
- 51.0298** *Hearing Instrument Fitter and Dispenser Technician.* An instructional program that prepares individuals to properly fit and service hearing aids. Includes instruction in performing hearing evaluations; fitting and dispensing hearing aids; repairing and adjusting hearing aids; and operation of a variety of equipment related to the field. Additional course work in sales activities and administrative office procedures is taught.
- 51.0301** *Community Health Worker.* An instructional program that prepares individuals to serve as liaison between public health and other social services, and the recipients of health services in communities. Includes instruction in the basics of human health and nutrition, communicable diseases, environmental health, personal hygiene, care of infants, medications, and family and community services.

- 51.0391** *Negotiation and Mediation.* An instructional program that provides training to individuals who provide services for helping people deal more effectively with conflict and dispute. Instruction includes interpersonal communications and group effectiveness training that provides the necessary background to effectively deal with negotiation and mediation techniques.
- 51.0392** *Human Service Training.* An instructional program that describes how to remedy human service problems that relate specifically to conditions such as mental health, mental retardation, physical health, chemical dependency, and others that generally occur in health care settings. Additional instruction is provided in social interventions that enhance, conserve, and augment the means by which persons individually or collectively can solve disruptions in their service to humanity.
- 51.0394** *Social/Human Services Counseling/Casework.* An instructional program that prepares individuals to assist social/human services counselors by performing specific tasks in the remedy of social problems relating to health conditions, mental health, mental retardation, physical health, chemical dependency, physical abuse, economic depression, and other areas of general social/human service nature.
- 51.0395** *Social Legal Advocate.* An instructional program that prepares individuals to assist with the remedy of legal problems associated with those individuals in care of social agencies.
- 51.0396** *Guidance Assisting.* An instructional program that prepares individuals to assist rehabilitation counselors, social and human service counselors in routine tasks related to the care, treatment, rehabilitation activities for the aged, chemically dependent, mentally ill, mentally handicapped, or other individuals needing such services as supervised by a guidance counselor.
- 51.0601** *Dental Assistant.* An instructional program that prepares individuals to assist a dentist or dental hygienist in performing the functions of a dental practice. Includes instruction in chairside assistance, patient preparation, dental office functions, selected dental office laboratory procedures, and dental radiography.
- 51.0602** *Dental Hygienist.* An instructional program that prepares individuals to practice the cleaning of teeth and related oral health therapies, either independently or in collaboration with dentists. Includes instruction in basic preventive oral health care, oral health education, dental hygiene therapy, initial periodontal therapy, patient examination and counseling, dental radiography, local anesthesia, prosthetic casts, equipment operation and maintenance, and record-keeping.
- 51.0603** *Dental Laboratory Technician.* An instructional program that prepares individuals to make and repair dental prostheses and restorative appliances as prescribed by a dentist. Includes instruction in complete and partial denture construction, crown and fixed bridge fabrication, cast metal partial, customized porcelain and acrylic restorations, and building orthodontic appliances.

- 51.0696** *Denture Technician.* An instructional program that prepares individuals to perform the duties of a denturist. The program includes exposure/infection control, anatomy, oral pathology, complete and partial denture processes and techniques, microbiology, clinical denture procedures, medical emergencies, ethics and jurisprudence, dental sciences, dental office management, and advanced specialized services. In addition, instruction is provided in the development of critical thinking, problem solving, team building, and interpersonal and written communication skills required as preparation for personal advancement within a global economy.
- 51.0697** *Sterilization/Disinfection Technician.* An instructional program that prepares individuals to support medical and dental providers with the sterilization and disinfection of medical related equipment. Includes instruction in the proper use of dry and wet sterilizers and handling and storage of medical equipment and supplies.
- 51.0698** *Dental X-Ray Technician.* An instructional program that prepares individuals to assist the dentist or dental hygienist in x-rays of the mouth. Includes instruction in the loading, exposing, handling, developing, taking, and mounting of dental x-rays.
- 51.0702** *Hospital/Health Facilities Administration.* An instructional program that prepares health and other professionals to apply the principles of management to the running of hospitals and similar health facilities. Includes instruction in building and facility management, planning and coordination, scheduling, business and financial management, fund-raising and marketing, public relations, human resources management and labor relations, technical hospital operations, resource allocation, and health law.
- 51.0703** *Health Unit Coordinator/Ward Clerk.* An instructional program that prepares individuals to perform routine clerical and reception duties in a patient care unit within a hospital or other health care facility. Includes instruction in receiving and directing visitors, transcribing medical orders, preparing requisition forms, scheduling appointments and monitoring the location of patients and personnel, under the supervision of a head nurse or ward supervisor.
- 51.0705** *Medical Office Reception/Management.* An instructional program that prepares individuals to manage the administrative and business aspects of a medical practice or other health care office. Includes instruction in policy administration, conference planning, scheduling and coordination, managing business records and reports, financial record-keeping, personnel supervision, public relations, administrative aspects of health law, and office operations.
- 51.0707** *Medical Records Technology.* An instructional program that prepares individuals to classify medical information and prepare records, under the supervision of a medical records administrator. Includes instruction in medical records science, medical terminology, record classification, user needs, indexing, special records systems; computer operation; applicable laws and regulations; taking records to court; handling requests for medical information; recording minutes of medical staff committee meetings; and supervising filing areas and activities of medical records clerks.

- 51.0708** *Medical Transcription.* An instructional program that prepares individuals to execute verbatim medical minutes, reports and orders. Includes instruction in dictation, analysis of written notes or visual evidence, computer and transcription machine operation, formal medical correspondence and report formats and requirements, and applicable laws and regulations.
- 51.0795** *Health Records Clerk.* An instructional program that prepares individuals to work in a medical facility for the purpose of organizing and handling medical records, respond to requests for medical information, maintain filing practices, and handle appropriate billing processes required in medical offices.
- 51.0796** *Medical Clerk.* An instructional program that prepares individuals to record statistical information for the purpose of compiling reports, code diseases and operations, and maintain indexes according to accepted procedures, prepare records for taking to court, handle requests for medical information, record minutes of medical staff committee meetings, and perform filing tasks in a medical records office.
- 51.0797** *Health Care Planning.* An instructional program that describes the processes involved in the development of alternative ways of achieving the health goals and expectations of society, including the identification of consequences of each alternative for the purpose of guiding decision-makers in their deliberations.
- 51.0798** *Hospital Central Supply Technology.* An instructional program that prepares individuals to adjust, clean, sterilize and assemble hospital equipment, supplies, and instruments according to prescribed procedures and techniques. Includes instruction in inspection, evaluation, and purchasing of equipment and materials and in the distribution and inventory of equipment supplies.
- 51.0801** *Medical Assistant.* An instructional program that prepares individuals to support physicians by providing assistance during patient examinations, treatment administration, and monitoring; by keeping patient and related health record information; and by performing a wide range of practice-related duties.
- 51.0803** *Occupational Therapy Assistant.* An instructional program that prepares individuals to support occupational therapists by providing assistance during patient examinations, treatment administration, and monitoring; by keeping patient and related health record information; and by performing a wide range of practice-related duties.
- 51.0805** *Pharmacy Technician/Assistant.* An instructional program that prepares individuals to assist the pharmacist in performing routine duties related to maintaining and dispensing pharmaceutical supplies and medications under supervision of a registered pharmacist.
- 51.0806** *Physical Therapy Assistant.* An instructional program that prepares individuals to support physical therapists by providing assistance during patient examinations, treatment administration, and monitoring; by keeping patient and related health record information; and by performing a wide range of practice-related duties.

- 51.0808** *Veterinarian Assistant/Technician.* An instructional program that prepares individuals to support veterinarians by providing assistance during animal examinations, treatment administration, and monitoring; by keeping animal and related health record information; and by performing a wide range of practice-related duties.
- 51.0894** *Phlebotomy.* An instructional program that prepares individuals to perform skin and venipunctures, to obtain suitable laboratory specimens, and to function as a member of a medical laboratory team. Includes instruction in basic anatomy and physiology, asepsis, disease processes, equipment and supplies, collection procedures, quality assurance, and medical and legal issues.
- 51.0895** *Massage Therapist.* An instructional program that prepares individuals to become professionally licensed to practice therapeutic massage for health maintenance, and for assessment and rehabilitation of body tissue and systems for various conditions. Instruction is provided in injury evaluation and treatment, pathology, pathophysiology, and indications, neuromuscular techniques, body mechanics, first aid and cardiopulmonary resuscitation, and foundations of massage. Related instruction is provided in kinesiology, business skills, professionalism and ethics, human anatomy and physiology, hydrotherapy, and special massage techniques.
- 51.0896** *Health Physics Technology.* An instructional program that prepares individuals to collect air, soil, water, fuel, and other material samples to determine concentration of radioactivity and also the analysis of these samples, monitoring and determination of radiation levels.
- 51.0897** *Chiropractic Assisting.* An instructional program that prepares individuals to assist chiropractors by cleaning and setting up equipment, assisting in lifting and moving patients, maintaining cleanliness and order in treatment areas, ordering and storing supplies, keeping records, providing clerical services, and escorting patients between the waiting rooms and treatment areas.
- 51.0898** *Podiatric Assisting.* An instructional program that prepares individuals to support the podiatrist in servicing patients by preparing them for treatment, sterilizing the instruments, performing general office duties, and assisting the podiatrist in preparing dressings, administering treatments, and developing x-rays.
- 51.0901** *Cardiovascular Technology.* An instructional program that prepares individuals to perform invasive and non-invasive tests to monitor human heart and circulatory system health, and to administer prescribed treatment therapies, under the supervision of a physician. Includes instruction in the administration of tests such as EKG, phonocardiogram, and stress tests; therapeutic procedures such as cardiac catheterization and Holter monitoring; patient preparation; equipment preparation and maintenance; and record-keeping.
- 51.0902** *Electrocardiograph Technology.* An instructional program that prepares individuals to perform examinations of electromotive variations in human heart activity using an electrocardiograph machine, under the supervision of a physician. Includes instruction in patient preparation, equipment operation and maintenance, making minor repairs, and record-keeping.

- 51.0904** *Paramedic—Emergency Medical Technician.* An instructional program that prepares individuals to perform initial medical diagnosis, treatment, and comprehensive care in medical crises, under the general supervision of a coordinating physician. Includes instruction in all aspects of basic health care; disease, disorder, and injury symptomology and diagnosis; emergency medical treatment procedures for various injuries and disease outbreaks; basic pharmacology; anesthetics; intravenous and other drug administration procedures; obstetrics procedures; basic surgical techniques; emergency medical equipment operation and maintenance; special care of patients exposed to heat, cold, radiation, or contagious disease; and administrative aspects of emergency medicine. Programs may include emergency vehicle operation and patient transportation procedures, depending on level of training.
- 51.0905** *Nuclear Medical Technology.* An instructional program that prepares individuals to prepare and administer radioactive isotopes via injections, and to measure glandular and other bodily activity by means of *in vitro* and *in vivo* detection and specimen testing. Includes instruction in equipment operation and maintenance, materials storage and safety, patient preparation, and record-keeping.
- 51.0907** *Medical Radiologic Technology.* An instructional program that prepares individuals to perform diagnostic examinations, and administer therapeutic procedures, using x-rays and related radiations, under the supervision of a radiologist. Includes instruction in conducting CAT scans (computer tomography), xeradiography, thermography and x-ray procedures; equipment operation and maintenance; patient preparation; and record-keeping.
- 51.0908** *Respiratory Therapy Technician.* An instructional program that prepares individuals to perform therapeutic and life-support procedures using respiratory equipment, under the supervision of a physician. Includes instruction in administering inhalants via mist, mask, tent or other procedures; monitor heart-lung machines and other intensive care therapies; anesthesia; emergency procedures; equipment operation and maintenance; storage and safety methods; and record-keeping.
- 51.0909** *Surgical/Operating Room Technician.* An instructional program that prepares individuals to perform general technical support tasks in the operating room before, during, and after surgery. Includes instruction in pre-operation patient and surgical team preparation, handling surgical instruments at tableside, supply inventory maintenance before and during operations, sterilization and cleaning of equipment, maintaining clean and sealed environments, operating room safety procedures, and record-keeping.
- 51.0910** *Diagnostic Medical Sonography.* An instructional program that prepares individuals to perform diagnostic and monitoring procedures using acoustic energy, under the supervision of a physician. Includes instruction in patient preparation, ultrasound testing and examination procedures, sonogram evaluation, record-keeping, and equipment operation and maintenance.
- 51.0991** *Polysomnographic Technology.* An instructional program that prepares individuals to assist medical specialists in the diagnosis and treatment of sleep-related disorders. Includes instruction in the physiological bases for sleep studies, instrumentation, electrode application, overnight testing procedures, and therapeutic interventions.

- 51.0992** *Intravenous Therapy.* An instructional program that prepares individuals to provide intravenous therapy. Includes instruction in goals of intravenous therapy, and choosing the correct peripheral access device and site for therapy. Instruction is also included in the use and care of typical access devices, possible complications, and safety.
- 51.0993** *Radiation Therapy Technology.* An instructional program that prepares individuals to use and administer, under the direction of a professional, radioactive isotopes and x-ray therapy for the treatment of patients with glandular and other body malfunctions or diseases. Includes instruction in equipment operation and maintenance, materials storage and safety, patient preparation, and record keeping.
- 51.0994** *First Aid and Safety.* An instructional program that prepares individuals to provide emergency first aid treatment to the sick or injured. Training includes maintaining heartbeat and breathing, control of bleeding, patient assessment, treatment of and prevention of shock, as well as the summons for assistance. (Academic)
- 51.0995** *Pulmonary Diagnosis Technology.* An instruction program that prepares individuals to participate in the evaluation and diagnosis of patients with pulmonary diseases. Under the direction of a physician, they perform, analyze, and interpret a wide range of lung tests such as lung volume, static and dynamic lung measurements, measurement of oxygen, and carbon dioxide gas transfer, ventilation, bronchoscopy, arterial blood sampling and analysis, and expired gas analysis.
- 51.0996** *Cardiac Invasive Technology.* An instructional program that prepares individuals to participate in the diagnosis and treatment of patients with heart disease, assisting the physician in performing cardiac invasive procedures such as cardiac catheterization, angiography, pacemakers, arterial dilation, intensive care monitoring, physiologic testing, and open heart surgery.
- 51.0997** *Echocardiographic Technology.* An instructional program that prepares individuals to use acoustic energy for the diagnosis of internal parts of the human body. Prepares individuals to operate echocardiographic equipment, to obtain diagnostic results and evaluate them for quality of technique, and, in emergency situations, make interim reports to medical staff.
- 51.0998** *Industrial First Aid.* An instructional program that prepares individuals to function at the emergency level to treat various emergency problems such as cardio-pulmonary resuscitation and the use of emergency equipment for splinting fractures, treating hemorrhages, emergency childbirth, and the special care of patients exposed to heat, cold, radiation, or contagious diseases. Includes instruction in preparation of individuals for transportation to health care facilities.
- 51.1004** *Medical Laboratory Technology.* An instructional program that prepares individuals to perform general medical laboratory procedures and routines, under the supervision of a physician or laboratory director. Includes instruction in medical laboratory procedures; equipment operation and maintenance; principles of different bacteriological, biological, and chemical test procedures; equipment and sample inventorying and storage; laboratory safety procedures; laboratory assistant supervision; and record-keeping.

- 51.1097** *Biological Laboratory Technology.* An instructional program that prepares individuals as a highly-skilled laboratory scientist with a strong generalist orientation but specializing in the biological areas to perform complex and specialized procedures in all major areas of the biological laboratory. The biological laboratory technologist is responsible for complex analysis requiring the exercise of individual judgment, and must be able to relate findings to the presence or absence of specific cell structures.
- 51.1098** *Histologic Technology.* An instructional program that prepares individuals to prepare, section, and stain tissue for microscopic study by a pathologist or other clinical scientist.
- 51.1501** *Substance Abuse Counseling.* An instructional program that prepares individuals to counsel drug users, addicts, family members, and associates in a wide variety of settings, using various preventive strategies and treatment regimes. Includes instruction in outreach; patient education; therapeutic intervention methods; diagnostic procedures; addiction symptomology; record-keeping; liaison with community health, social services, law enforcement, and legal services; and applicable regulations.
- 51.1502** *Mental Health Services Technician.* An instructional program that prepares individuals to assist psychiatrists, psychologists, nurses and other mental health personnel in patient care and treatment of the aged, mentally ill, mentally or physically handicapped, or chemically dependent. Includes instruction in patient interviewing, data recording, taking vital signs, the supervised administration of routine medication, assisting in examinations and treatment procedures.
- 51.1597** *Alcoholism Counseling.* An instructional program that prepares individuals to advise and assist people in their efforts to overcome personal, family, and social problems that are manifested in alcoholism addiction.
- 51.1598** *Drug Abuse Counseling.* An instructional program that prepares individuals to advise and assist people in their efforts to overcome personal, family, and social problems that are manifested in drug addiction.
- 51.1601** *Associate Degree Nursing.* An instructional program that generally prepares individuals in the knowledge, techniques and procedures for promoting health, providing care for sick, disabled, infirmed, or other individuals or groups. Includes instruction in the administration of medication and treatments, assisting a physician during treatments and examinations, referring patients to physicians and other health care specialists, and planning education for health maintenance.
- 51.1611** *Nursing, Public Health.* An instructional program that prepares registered nurses (R.N.) to promote health and provide preventive and curative nursing services for individuals, groups or communities under the supervision of a public health agency. (Academic)
- 51.1613** *Practical Nursing.* An instructional program that prepares individuals to assist in providing general nursing care under the direction of a registered nurse, physician or dentist. Includes instruction in taking patient vital signs, applying sterile dressings, patient health education and assistance with examinations and treatment.

- 51.1614** *Nurse Assistant/Aide.* An instructional program that prepares individuals to perform routine nursing-related services to patients in hospitals or long-term care facilities, under the training and supervision of a registered nurse or licensed practical nurse.
- 51.1615** *Home Health Aide.* An instructional program that prepares individuals to assist elderly, convalescent or handicapped patients in their homes by providing for their physical, mental, emotional and/or social health care needs, under the supervision of a registered nurse.
- 51.1801** *Opticianry/Dispensing Optician.* An instructional program that prepares individuals to fill prescriptions ordered by ophthalmologists or optometrists and to dispense optical supplies and equipment. Includes instruction in shaping and grinding lenses, frame selection and fitting, patient counseling, supervision of assistants and the operation of a business.
- 51.1802** *Optometric Technology.* An instructional program that prepares individuals to assist optometrists or ophthalmologist providing diagnostic, treatment and dispensing services. Includes instruction in vision testing, corneal measurement, color screening, patient counseling, eyewear fitting and modification, and office administration duties.
- 51.1804** *Orthoptics.* An instructional program that prepares individuals, under the supervision of an ophthalmologist, to correct vision defects in children and adults via therapeutic exercises. Includes instruction in strabismus, amblyopia, patient care and counseling, and diagnostic testing.
- 51.2205** *Health Physics/Radiologic Health.* An instructional program that describes the scientific measurement of radiation levels and dosages affecting human beings, and that prepares individuals to monitor radiation health. Includes instruction in radiation dosimetry methods; the health effects of natural and man-made radiation; operation and maintenance of test and monitoring equipment; and applicable standards and regulations pertaining to radiation emissions. (Academic)
- 51.2307** *Orthotics/Prosthetics.* An instructional program that prepares individuals, under the supervision of a physician and in consultation with therapists, to make and fit orthoses and prostheses. Includes instruction in design, crafting and production techniques, properties of materials, anatomy and physiology, and patient counseling.
- 51.2309** *Recreational Therapy Technology.* An instructional program that prepares individuals to plan, organize, and direct medically approved programs of leisure activity to promote patient physical and mental health and functioning in social interactions. Includes instruction in volunteer and staff supervision, patient evaluation and monitoring, behavioral therapy, and recreation program and pre-discharge planning.
- 51.2310** *Rehabilitation Counseling.* An instructional program that prepares individuals, under the supervision of physicians or psychologists, to assist patients in coping with physical and/or mental disabilities that affect work. Includes instruction in vocational counseling, employment assistance and placement, patient evaluation and monitoring, administering psychological and psychomotor tests, and the planning of training programs.

- 51.2395** *Orthopedic Assisting.* An instructional program that prepares individuals to assist physicians by applying, adjusting, and removing casts; assembling traction apparatus; fitting strappings and splints for orthopedic patients; assembling exercise frames; and adjusting crutches and canes to fit patients. Training may include instructing patients with casts, braces, and crutches in walking and in care of the devices.
- 51.2398** *Rehabilitation Service Worker.* An instructional program that prepares individuals, under the supervision of physicians or psychologists, to assist patients in coping with physical and/or mental disabilities that affect patient abilities to perform in a normal manner. Includes instruction on the resources for specialized assistance through educational or therapeutic settings.
- 51.2696** *Geriatric Aide.* An instructional program that prepares individuals to perform tasks involved in providing nursing and personal care to elderly patients under the supervision of qualified nursing staff members. Emphasis is on the maintenance of daily living activities of these patients.
- 51.2697** *Recreational Therapy Aide.* An instructional program that prepares individuals to assist a therapeutic recreational technician in providing recreational activities to patients. Instruction may be given in collecting, setting up, ordering, and storing equipment and supplies; maintaining records; escorting patients between nursing units and therapy centers; and maintaining cleanliness and order in treatment areas.
- 51.2698** *Speech/Hearing Therapy Aide.* An instructional program that describes the theories, methods, and techniques of designing, implementing, and evaluating organized learning activities for students who have an impairment in hearing which adversely affects their educational performance.
- 51.2703** *Medical Illustrating.* An instructional program that prepares individuals to demonstrate medical facts by the creation of illustrations such as drawings, models, photographs, and films; either independently or under physicians' supervision. Includes instruction in illustrating live treatment situations as well as working from data, notes and samples.
- 51.2798** *Medical Photography.* An instructional program that prepares individuals as highly-skilled photographic technicians in the medical world. Includes instruction in basic and applied physics and chemistry with supporting mathematics of photographic processes; light optical systems of black-and-white and color photography; the science of design and function of cameras; related devices such as light meters; source and applications of special photographic light; systems and mechanisms for still photography, moving pictures, photographic composition, and videotaping. Also included are the techniques for taking, developing, and mounting still pictures; techniques for cutting, splicing, and modifying moving pictures; and editing of videotape.

51.9998 *Multi-Skilled Health Care Technician.* An instructional program that prepares individuals as multi-skilled health care workers. The program of instruction will provide novice students with a set of skills that cross traditional health related disciplines. Participants will select a track ranging from expanding existing competencies to help meet the needs established by physicians, hospitals, and clinics. Course competencies may include diagnostic skills, therapeutic skills, client management skills, and administrative skills. Instruction is included in related areas of math, science, communications, and social interaction skills needed to perform the competencies that the individual is credentialed to perform.

52. BUSINESS MANAGEMENT AND ADMINISTRATIVE SERVICES

52.0101 *Business, General.* An instructional program that generally describes the world of business, including the processes of interchanging goods and services (buying, selling and producing), business organization, and accounting as used in profit-making and nonprofit public and private institutions and agencies. Programs may prepare individuals to apply business principles and techniques in various occupational settings. (Academic)

52.0201 *Business Administration and Management.* An instructional program that generally prepares individuals to plan, organize, direct, and control the functions and processes of a firm or organization. Includes instruction in management theory, human resources management and behavior, accounting and other quantitative methods, purchasing and logistics, organization and production, marketing, and business decision-making.

52.0202 *Purchasing, Procurement and Contract Management.* An instructional program that prepares individuals to manage and/or administer the processes by which a firm or organization contracts for goods and services to support its operations, as well as contracts it to sell to other firms or organizations. Includes instruction in contract law, negotiations, buying procedures, Government contracting, cost and price analysis, vendor relations, contract administration, auditing and inspection, relations with other firm departments, and applications to special areas such as high-technology systems, international purchasing, and construction. (Academic)

52.0204 *Secretarial and Office Management.* An instructional program that prepares individuals to supervise and manage the operations and personnel of business offices and management-level divisions. Includes instruction in employee supervision, management, and labor relations; budgeting; scheduling and coordination; office systems operation and maintenance; office records management, organization, and security; office facilities design and space management; preparation and evaluation of business management data; and public relations.

52.0205 *Product Management.* An instructional program that prepares individuals to manage and direct the physical and/or technical functions of a firm or organization, particularly those relating to development, production, and manufacturing. Includes instruction in principles of general management, manufacturing and production systems, plant management, equipment maintenance management, production control, industrial labor relations and skilled trades supervision, strategic manufacturing policy, systems analysis, productivity analysis and cost control, and materials planning.

- 52.0206** *Foundation Technology.* An instructional program that prepares individuals to manage the business affairs of non-profit corporations, including foundations, educational institutions, associations, and other such organizations, and public agencies and governmental operations. Includes instruction in business management, principles of public administration, principles of accounting and financial management, human resources management, taxation of non-profit organizations, business law as applied to non-profit organizations, making informed decisions, gathering pertinent information, managing the non-profit corporation, relating to the volunteer board of trustees, raising private and public funds, handling public relations, and interacting appropriately with various segments of society.
- 52.0297** *Purchasing.* An instructional program that prepares individuals to undertake responsibility for purchasing 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.
- 52.0301** *Accounting.* An instructional program that prepares individuals to practice the profession of accounting, and to perform related business functions. Includes instruction in accounting principles and theory, financial accounting, managerial accounting, cost accounting, budget control, tax accounting, legal aspects of accounting, auditing, reporting procedures, statement analysis, planning and consulting, business information systems, accounting research methods, professional standards and ethics, and applications to specific for-profit, public, and non-profit organizations. (Academic)
- 52.0302** *Accounting Technician.* An instructional program that prepares individuals to provide technical administrative support to professional accountants and other financial management personnel. Includes instruction in posting transactions to accounts, record-keeping systems, accounting software operation, and general accounting principles and practices.
- 52.0397** *Accounting and Computing.* An instructional program that prepares individuals to perform paraprofessional duties supporting the accountant in organizing, designing, and computing numerical and financial data.
- 52.0398** *Bookkeeping.* An instructional program that prepares individuals to compute, classify, and record numerical data to keep financial records and ledgers and prepare tax reports and monthly statements.
- 52.0401** *Secretary.* An instructional program that generally prepares individuals to perform the duties of administrative assistants and/or secretaries and stenographers. Includes instruction in business communications, principles of business law, word processing and data entry, office machines operation and maintenance, office procedures, public relations, secretarial accounting, filing systems and records management, and report preparation.

- 52.0402** *Executive Assistant/Secretary.* An instructional program that prepares individuals to perform the duties of special assistants and/or personal secretaries for business executives and top management. Includes instruction in business communications, principles of business law, public relations, scheduling and travel management, secretarial accounting, filing systems and records management, conference and meeting recording, report preparation, office equipment and procedures, office supervisory skills, and professional standards and legal requirements.
- 52.0403** *Legal Administrative Assistant/Secretary.* An instructional program that prepares individuals to perform the duties of special assistants and/or personal secretaries for lawyers, judges, and legal counsels. Includes instruction in business and legal communications, principles of law, public relations, scheduling and travel management, secretarial accounting, filing systems and records management, conference and meeting recording, report preparation, office equipment and procedures, office supervisory skills, legal terminology and research methods, and professional standards and legal requirements.
- 52.0404** *Medical Administrative Assistant/Secretary.* An instructional program that prepares individuals to perform the duties of special assistants and/or personal secretaries for physicians, hospital and health services administrators, and other health professionals. Includes instruction in business and medical communications, principles of health services operations, public relations, scheduling and travel management, secretarial accounting, filing systems and records management, conference and meeting recording, report preparation, office equipment and procedures, office supervisory skills, medical terminology, medical legal and business procedures, and professional standards and legal requirements.
- 52.0405** *Court Reporter.* An instructional program that prepares individuals to record examinations, testimony, judicial opinions, judges' charges to juries, judgments or sentences of courts, or other formal legal proceedings by machine shorthand or other acceptable procedures. Includes instruction in specialized terminology in the medical and insurance fields; skills for recording two-, three-, and four-way conversations; procedures and equipment; and professional standards and applicable regulations.
- 52.0406** *Receptionist.* An instructional program that prepares individuals to perform public relations duties for a business, organization, or answering service. Includes instruction in telephone answering techniques, responding to information requests, keeping caller and/or visitor records, placing business calls, operating telephone switchboards and/or other communications equipment, relaying incoming and interoffice calls, schedule maintenance, and public relations skills.
- 52.0407** *Information Data Entry.* An instructional program that prepares individuals to support business information operations by using computer equipment to enter, process, and retrieve data for a wide variety of administrative purposes. Includes instruction in using basic business software and hardware; business computer networking; principles of desktop publishing; preparing mass mailings; compiling and editing spreadsheets; list maintenance; preparing tables and graphs; receipt control; and preparing business performance reports.

- 52.0408** *Clerk Typist.* An instructional program that prepares individuals to provide basic administrative support under the supervision of office managers, administrative assistants, secretaries, and other office personnel. Includes instruction in typing, keyboarding, filing, general business correspondence, office equipment operation, and communications skills.
- 52.0485** *Word Processing.* An instructional program that prepares individuals to produce and edit written communications utilizing personal computers and associated software, as well as special purpose machines to correct, format, and print information.
- 52.0486** *Records Management.* An instructional program that prepares individuals to supervise and coordinate activities of workers engaged in maintaining central records files. Directs and assists workers in searching files to retrieve lost or missing records, utilizing knowledge of common filing errors. Also included is training in clerical duties such as copying data, compiling records and reports, tabulating and posting data in record books. Also included is instruction in providing information and conducting interviews, operating office machines, and handling mail and correspondence.
- 52.0487** *Stock and Inventory Clerk.* An instructional program that prepares individuals to assemble, pack, address, stamp, and record data on outgoing merchandise and materials; receive, unpack, verify contents, and record data on incoming merchandise and materials; make loading and unloading arrangements; store and issue supplies, materials, and equipment; maintain inventories, requisition stock; keep records; and prepare stock and inventory reports.
- 52.0488** *Duplicating Machine Operation.* An instructional program that prepares individuals to operate machines for the reproduction of handwritten or typewritten material. Includes instruction in keeping records of the number of copies made and basic duplicating-machine maintenance.
- 52.0489** *General Office/Clerical.* An instructional program that prepares individuals to perform a variety of clerical duties such as copying data; compiling records and reports; tabulating and posting data in record books; providing information and conducting interviews; operating personal computers and associated software and other office machines; and handling mail and correspondence.
- 52.0490** *Typing/General Office.* An instructional program that generally prepares individuals to record, duplicate, and retrieve data, including classifying, sorting, and filing correspondence, records, and other data. Includes instruction in shipping and receiving procedures, stock and inventory maintenance, and operation of office machines, including personal computers and associate software.
- 52.0491** *Machine Shorthand.* An instructional program that prepares individuals to record examinations, testimony, minutes of meetings, legal depositions or other proceedings by machine shorthand. Includes instruction in the specialized terminology and procedures used in legal, medical, and insurance fields. Skills for recording two-, three-, and four-way conversations is also covered.

- 52.0492** *Educational Secretary.* An instructional program that prepares individuals to perform secretarial duties in an education setting utilizing a knowledge of educational terminology and school administration procedures. Includes instruction in writing reports, case histories, and educational legal forms. Instruction is also included in scheduling appointments, giving information to callers, taking and transcribing dictation, and relieving school administrators of minor administrative and business details. Also includes instruction in the use of personal computers and associated software.
- 52.0493** *Secretarial Home Arts.* An instructional program that describes the concepts, skills, and processes to which decisions about the use of resources are directed toward goal achievement in home and family living. Also involved is an understanding of goal formulation and management functions and processes through which either a household or other administrative agency that serves group living, nursing homes, senior services, and their related financial activities of the individuals, families, and agencies or groups are accomplished. A major emphasis is focused on the secretarial minor bookkeeping and office management skills used by such agencies or facilities.
- 52.0494** *Real Estate Secretary.* An instructional program that prepares individuals to work in real estate offices performing secretarial duties utilizing a knowledge of real estate terminology and property transaction procedures. Includes instruction in writing reports, understanding real estate legal terminology, preparation of property transfer agreements, and recording of various documents with the appropriate agencies. Instruction is also provided in the use of personal computers and associated software.
- 52.0495** *Dental Office Manager/Receptionist.* An instructional program that prepares individuals for employment as dental office managers. Instruction is provided in human relations, accounting, supervision, business management, bank records, word processing, and computer usage in addition to regular dental assisting courses.
- 52.0496** *Insurance Secretary.* An instructional program that prepares individuals to perform secretarial duties utilizing a knowledge of insurance terminology, claims process, and legal procedures. Includes instruction in writing reports and understanding legal and insurance forms. Also includes instruction in the use of computer terminals, personal computers, and related software.
- 52.0497** *Office Assistant.* An instructional program that prepares individuals to take direct dictation of correspondence, reports, and other materials, by hand or machine and to transcribe dictated materials. Instruction is also provided in the user of personal computers and associated word processing software.
- 52.0498** *Filing/Records Management.* An instructional program that prepares individuals to perform management practices in record filing or archiving. Includes instruction in the use of computer file management, hard copy filing techniques, and short- and long-term storage practices.
- 52.0701** *Small Business/Enterprise Management.* An instructional program that generally prepares individuals to perform development, marketing and management functions associated with owning and operating a business.

- 52.0797** *Small Business Ownership.* An instructional program that prepares individuals to undertake the formation and operation of small business enterprises (including franchise operations) for the purpose of marketing a product line or service, with emphasis given to the social responsibilities, legal requirements, and risks involved in the conduct of a private enterprise.
- 52.0798** *Apartment and Condominium On-site Management.* An instructional program that prepares individuals to manage and operate apartment and condominium enterprises. Includes instruction in management, record keeping, inspection, and minor maintenance techniques.
- 52.0803** *Banking and Financial Support Services.* An instructional program that prepares individuals to perform a wide variety of customer services in banks, insurance agencies, savings and loan companies, and related enterprises. Includes instruction in communications and public relations skills, business equipment operation, and technical skills applicable to the methods and operations of specific financial or insurance services. (Academic)
- 52.0805** *Insurance and Risk Management.* An instructional program that prepares individuals to manage risk in organizational settings and provide risk-aversion services to businesses, individuals, and other organizations. Includes instruction in risk theory, casualty insurance and general liability, property insurance, employee benefits, social and health insurance, loss adjustment, underwriting, and pension planning.
- 52.0807** *Investments and Securities.* An instructional program that prepares individuals to manage assets placed in capital markets, and related technical operations. Includes instruction in security analysis, debt and equity analysis, investment strategies, securities markets, computer-assisted research, portfolio management, portfolio performance analysis, and applications to specific investment problems and business situations. (Academic)
- 52.0894** *Insurance Clerk.* An instructional program that prepares individuals to examine insurance policies held for commercial or personal loans and property under control of the bank of financial institution; determine adequacy of coverage and insurance requirements; verify cash value and premium of policies; and maintain records concerning bank-owned insurance and fire protection on commodities.
- 52.0895** *Banking and Financial Support Services.* An instructional program that generally prepares individuals to perform financial or banking services. Includes instruction in credit collection, transit routing of notes and drafts, receiving and paying out money, and functions associated with processing loans and insurance claims.
- 52.0896** *Insurance Adjuster.* An instructional program that describes the principles and processes of evaluating damage to insured items such as automobiles, homes, personal property and industrial property. Instruction is included in human relations skills, basic investigation practices, and legal procedures.

- 52.0898** *Teller Training.* An instructional program that prepares individuals to receive and pay out money, and keep records of money and negotiable instruments used in various banking and financial transactions. Includes instruction in computing finance or service charges and transactions, and in operating various computing and recording office machines used in financial institutions.
- 52.0901** *Resort Management.* An instructional program that prepares individuals to serve as general managers and directors of hospitality operations on a system-wide basis, including both travel arrangements and promotion and the provision of traveler facilities. Includes instruction in principles of operations in the travel and tourism, hotel and lodging facilities, food services, and recreation facilities industries; hospitality marketing strategies; hospitality planning; management and coordination of franchise and unit operations; business management; accounting and financial management; hospitality transportation and logistics; and hospitality industry policies and regulations.
- 52.0902** *Hotel/Motel Management.* An instructional program that prepares individuals to manage operations and facilities that provide food and/or lodging services to the traveling public. Includes instruction in hospitality industry principles; supplies purchasing, storage, and control; hotel and restaurant facilities design and planning; hospitality industry law; personnel management and labor relations; financial management; facilities management; marketing and sale promotion strategies; convention and event management; front desk operations; and applications to specific types of hotel, motel, and/or restaurant operations.
- 52.0903** *Hospitality and Tourism Management.* An instructional program that prepares individuals to manage travel-related enterprises and related convention and/or tour services. Includes instruction in travel agency management, tour arranging and planning, convention and event planning, travel industry operations and procedures, tourism marketing and promotion strategies, travel counseling, travel industry law, international and domestic operations, and travel and tourism policy.
- 52.0995** *Gaming/Casino Operations.* An instructional program that prepares individuals for employment in the casino gaming industry. Special instruction in card dealing skills, gaming techniques, and related instruction in human relations, front and back of casino operations, mathematics, computer software applications, written and oral communications, and business operations will also be included in this program.
- 52.0996** *Club and Tavern Management.* An instructional program that describes the managerial functions and ownership principles involved in operating a small club or tavern. Instruction is also provided in the general operation of a small business enterprise for the purpose of marketing the product line or service with emphasis given to the social responsibilities, legal requirements, and the risks involved.

- 52.1001** *Personnel Technician.* An instructional program that prepares individuals to manage the development of human capital in organizations, and to provide related services to individuals and groups. Includes instruction in personnel and organization policy, human resource dynamics and flows, labor relations, sex roles, civil rights, human resources law and regulations, motivation and compensation systems, work systems, career management, employee testing and assessment, recruitment and selection, managing employee and job training programs, and the management of human resources programs and operations.
- 52.1002** *Labor/Industrial Relations.* An instructional program that describes the study of employee-management interactions and the management of issues and disputes regarding working conditions and worker benefit packages, and that may prepare individuals to function as labor or personnel relations specialists. Includes instruction in labor history, policies and strategies of the labor movement, union organization, labor-management negotiation, labor law and contract interpretation, labor economics, welfare and benefit packages, grievance procedures, and labor policy studies.
- 52.1098** *Personnel Supervision and Leadership.* An instructional program that describes the methods, principles, procedures, and understandings necessary to manage and administer programs that are directed to the welfare and working conditions of employees in a business or other organization.
- 52.1101** *International Trade.* An instructional program that prepares individuals to manage international businesses and/or business operations. Includes instruction in the principles and processes of export sales, trade controls, foreign operations and related problems, monetary issues, international business policy, and applications to doing business in specific countries and markets.
- 52.1401** *Business Marketing and Marketing Management.* An instructional program that prepares individuals to undertake and manage the process of developing consumer audiences and moving products from producers to consumers. Includes instruction in buyer behavior and dynamics, principle of marketing research, demand analysis, cost-volume and profit relationships, pricing theory, marketing campaign and strategic planning, market segments, advertising methods, sales operations and management, consumer relations, retailing, and applications to specific products and markets.
- 52.1496** *Research and Survey Technician.* An instructional program that prepares individuals to do surveys for market research, public opinions, trends combined with a research of existing documentation for the purpose of compiling reports or papers in support of issues in public bodies, research and development organizations, and marketing or advertising. Includes instruction in the proper use of the telephone and personal computer for data collection and processing.
- 52.1497** *Retail Management.* An instructional program that prepares individuals to manage retail sales operations in general or specific lines of merchandise. Instruction is provided in the preparation of work schedules, employee assignment, pricing policies of merchandise, profitability of store operation, and promoting and advertising.

- 52.1498** *Supermarket Management.* An instructional program that describes the techniques, principles, and methods of managing grocery stores and other supermarket retail establishments. Instruction is included in the behavior and motivation of individuals functioning in groups; the influence of style of leadership that may be used by managers; and the means of intervention that may be used to improve interpersonal relations and team behavior. Instruction is also included in display services, marketing research, building maintenance, and the development of manual or procedural skills that are required in the day-to-day operation of a grocery or supermarket operation.
- 52.1501** *Real Estate.* An instructional program that prepares individuals to develop, buy, sell, appraise, and manage real property. Includes instruction in land use development policy, real estate law, real estate marketing procedures, agency management, brokerage, property inspection and appraisal, real estate investing, leased and rental properties, commercial real estate, and property management.
- 52.1596** *Real Estate.* An instructional program that generally describes the theories and techniques of buying, selling, appraising, renting, managing, and leasing of real property as a transfer course. (Academic)
- 52.1597** *Real Estate Escrow.* An instructional program that prepares individuals for specialized work in the real estate escrow business. Includes instruction in real estate law, loan processing, and researching and filing of legal escrow documents.
- 52.1598** *Real Estate Appraisal.* An instructional program that prepares individuals to support the real estate industry with property value appraisals. Includes instruction in appraisal techniques, property comparisons, local building codes, building inspection practices, and the use of computers and associated software.
- 52.1601** *Tax Practices.* An instructional program that prepares individuals to provide tax advice and management services to individuals and corporations. Includes instruction in tax law and regulations, tax record systems, individual and corporate income taxation, tax planning, partnerships and fiduciary relationships, estates and trusts, property depreciation, capital gains and losses, dispositions, transfers, liquidity, valuation, and applications to specific tax problems.

54. MULTI-OCCUPATIONAL

- 54.9993** *Multi-occupational (Specialty Program).* An instructional area that prepares individuals in any identified occupation or "specialty" conducted by an educational institution. This specialty is provided in a field that is new or emerging and where employment opportunities are limited. An institution is limited to no more than four individuals being enrolled in any specialty.
- 54.9994** *Preparation for Training.* An instructional program that prepares individuals with skills in career and decision making for future use in either educational endeavors or seeking employment. Included is career information, assessment, evaluation, and development of an educational plan. General skills such as basic computer usage and learning skills are also included.

- 54.9995** ***Multi-Disciplinary Facilities Not Otherwise Defined.*** An instructional code that references facilities not otherwise described in the *Course Coding and Crosswalk Manual*. *This code has been developed for the use of the Washington State community and technical colleges for facility identification and is not to be used for instructional coding.*
- 54.9996** ***Instruction Administrative Space Not Otherwise Defined.*** An instructional code that references space on community and technical college campuses in the state of Washington for the purpose of identification of generalized instructional administration. *This code has been developed for the use of the Washington State community and technical colleges for facility identification and is not to be used for instructional coding.*
- 54.9997** ***Conference Rooms/Multi-Disciplinary.*** An instructional code that references conference rooms on community and technical college campuses in the state of Washington for the purpose of identification. *This code has been developed for the use of the Washington State community and technical colleges for facility identification and is not to be used for instructional coding.*
- 54.9998** ***Part-time Faculty Office Facilities.*** An instructional code that references part-time faculty office facilities on community and technical college campuses in the state of Washington for the purpose of identification. *This code has been developed for the use of the Washington State community and technical colleges for facility identification and is not to be used for instructional coding.*
- 54.9999** ***New Chance.*** An instructional program that prepares individuals for re-entry into the workforce. Instruction includes basic skill review that may be necessary to accommodate degradation of skills due to non-use and technology courses to prepare individuals for new employment or training opportunities.