

## DOCUMENT RESUME

ED 466 998

CE 083 614

TITLE The Handbook: Secondary Career and Technical Education Resource Handbook for CTE Administrators. Revised.

INSTITUTION Arizona State Dept. of Education, Phoenix.

PUB DATE 2002-06-00

NOTE 365p.; Helen Bootsma is the manager of the Career Pathways Team.

AVAILABLE FROM For full text: <http://www.ade.state.az.us/cte/careerpathways>.

PUB TYPE Guides - Non-Classroom (055) -- Reference Materials - Directories/Catalogs (132)

EDRS PRICE EDRS Price MF01/PC15 Plus Postage.

DESCRIPTORS Administrator Guides; Articulation (Education); Community Colleges; \*Competency Based Education; Course Descriptions; Curriculum; Daily Living Skills; Data Collection; Definitions; \*Education Work Relationship; \*Educational Objectives; Employment Qualifications; Entry Workers; Guidelines; Job Skills; Occupational Clusters; \*Program Administration; Records (Forms); Secondary Education; Skill Development; Statewide Planning; Student Certification; Tech Prep; Technical Writing; Technology Education; Two Year Colleges; \*Vocational Education

IDENTIFIERS \*Arizona; \*Career and Technical Education

## ABSTRACT

This document is intended as a user-friendly resource for administrators of career and technical education (CTE) programs in Arizona. The first section presents course descriptions, including a complete list of current competencies for each of Arizona's CTE programs, which are organized on four levels as follows: (1) technological foundations (grades 7-8); (2) courses in five occupational "clusters" designed to serve as a transition between foundation and occupationally specific instruction (grades 9-10); (3) occupationally specific instruction in 9 fields (grades 11-12); and (4) tech prep programs articulated with community colleges (designed for entry-level workers or learners enrolled in advanced education and training). The next two sections list Arizona's CTE programs and CTE program codes and titles. The fourth section details the coherent sequence and certification requirements for the 36 programs included in Arizona's CTE system. Descriptions of each program and each course in the recommended sequence for each program are presented. The remaining four sections contain the following materials: (1) a list of life skills taught in Arizona's CTE courses; (2) descriptions of the six occupational clusters into which Arizona's CTE programs are categorized; (3) an overview of the state's data reporting requirements, 13 sample forms, and definitions; and (4) county type district school numbers. (MN)

# THE HANDBOOK

## Secondary Career and Technical Education Resource Handbook For CTE Administrators

April 2001

Revised June 2002

PERMISSION TO REPRODUCE AND  
DISSEMINATE THIS MATERIAL HAS  
BEEN GRANTED BY

*L. Edgington*

1  
TO THE EDUCATIONAL RESOURCES  
INFORMATION CENTER (ERIC)

U.S. DEPARTMENT OF EDUCATION  
Office of Educational Research and Improvement  
EDUCATIONAL RESOURCES INFORMATION  
CENTER (ERIC)

- This document has been reproduced as received from the person or organization originating it.
- Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.



Published by the Arizona Department of Education



# Secondary Career and Technical Education Resource Handbook

Published by the Arizona Department of Education

April 2002 (Revised June 2002)

This document is also available in Adobe © Acrobat © .pdf format at:  
<http://www.ade.az.gov/cte/careerpathways/CTE/Handbook.pdf>

## INTRODUCTION

This Handbook has been designed as a “user friendly” resource book for Career and Technical Education (CTE) administrators. This information will be used when reporting enrollment data beginning in the 2001-2002 school year.

A complete list of current competencies for each CTE program is located in the Comprehensive CTE Programs section. Each CTE program offers a coherent sequence of instruction identified by the curriculum design teams made up of representatives from business and industry, CTE educators, the Arizona Department of Education (ADE) and university staff. The competencies identified for each CTE program establish what should be taught. The Local Education Agency (LEA) determines how it will be taught.

The LEA is responsible for maintaining records on individual student assessment for each Level III competency until a state-adopted proficiency is in place. Information on attainment for each Level III competency will include all of the following:

- Attaining or not attaining the competency
- Method of assessment (e.g., written exam, oral presentation, demonstration performance, class/group project, take home exam)
- Written criteria defining how to judge performance to meet or not meet the competency
- Date at the end of the grading period or when attainment occurred

There are seven CTE programs listed in the Handbook that are still in development. After ADE has completed curriculum design/adoption process for these seven programs, the competencies and coherent sequence will be available.

Administrators, teachers, data reporting personnel, ADE staff and other interested individuals will use this Handbook. It will be used for the following activities:

- Reporting enrollment data for 2001-2002 school year
- Developing and reviewing the Basic Grant application
- Utilizing the CTE Program List
- Planning new comprehensive CTE programs
- Modifying existing comprehensive CTE programs
- Identifying teacher certification requirements
- Locating phone numbers and email addresses for ADE staff

Our goal is to make this document available to you on the Arizona Department of Education CTE web page. You will find it located at <http://www.ade.state.az.us/cte> and available in PDF format.

Helen Bootsma  
[hbootsm@ade.az.gov](mailto:hbootsm@ade.az.gov)

## TABLE OF CONTENTS

### Comprehensive CTE Program Description

Overview .....	1
Level I	
Technological Foundations .....	3
Level II Clusters	
Applied Biological Systems .....	5
Business Management Technology .....	8
Human Services Technology .....	9
Industrial Technology .....	10
Information Technology .....	11
Level II Clusters By Program .....	12
Level III Competencies By Program .....	15

### CTE Programs List

CTE Program List .....	59
------------------------	----

### CTE Program Codes and Titles

Comprehensive Program Codes And Titles .....	61
--	----

### Coherent Sequence and Certification

Accounting .....	72
Administrative Information Services .....	76
Ag. Business Management-Agriscience .....	80
Ag. Business Management-Horticulture .....	84
Ag. Business Management-Renewable Natural Resources .....	88
Allied Health Services .....	92
Apparel Design And Merchandising .....	96
Building Maintenance .....	100
Building Trades .....	104
Business Information Technology Services .....	108
Business Management And Administrative Services .....	112
Cabinetmaking .....	116
Carpentry .....	120
Cosmetology .....	124
Dental Services .....	128
Drafting Technology .....	132
Early Childhood Professions .....	136
Electronics Technology .....	140

## Coherent Sequence and Certification (continued)

Financial Services .....	144
Fire Science .....	148
Food Production/Culinary Arts .....	152
Graphic Communication .....	156
Heating, Ventilation, Air Conditioning/Refrig .....	160
Heavy Equipment Operation .....	164
Hospitality Services .....	168
Law Enforcement .....	172
Masonry.....	176
Media Communication.....	180
Nursing Services .....	184
Plumbing .....	188
Precision Metal Workers .....	192
Residential Electrician .....	196
Sales And Marketing .....	200
Upholstering .....	204
Vehicle And Mobile Equipment Technicians .....	206
Visual Communications.....	214

### LifeSkills

LifeSkills .....	220
------------------	-----

### Occupational Clusters

Description .....	227
Agricultural Education .....	228
Business Education.....	229
Family And Consumer Sciences Education .....	230
Health Careers Education .....	231
Industrial Technological Education.....	232
Marketing Education.....	233

## Data Reporting

Overview .....	235
40 <sup>th</sup> Day Course Enrollment Report .....	236
40 <sup>th</sup> Day Verification Reports.....	238
100 <sup>th</sup> Day Course Enrollment Report .....	242
100 <sup>th</sup> Day Verification Reports.....	244
Improper Teacher Certification Report.....	248
Course Enrollment Master Report.....	250
Comprehensive Program Enrollment .....	252
Final Non-Funding Report.....	254
Summary Notification of Vocational Education Allocations .....	256
Program Enrollment Verification and Master Reports .....	258
Preliminary and Final Funding Reports .....	262
Concentrator and Placement Survey Reports.....	268
Calendar.....	269
Definitions.....	271

## County Type District School (CTDS) Numbers

CTDS Numbers .....	277
--------------------	-----

## COMPREHENSIVE CAREER AND TECHNICAL EDUCATION PROGRAMS

Beginning in 1987, the Arizona Department of Education initiated a major effort to update and restructure vocational education. The Division of Vocational Technological Education in cooperation with representatives of business and industry, and full participation of teachers and administrators, developed a new framework for vocational instruction. This framework was called the "Arizona Model for Vocational Technological Education."

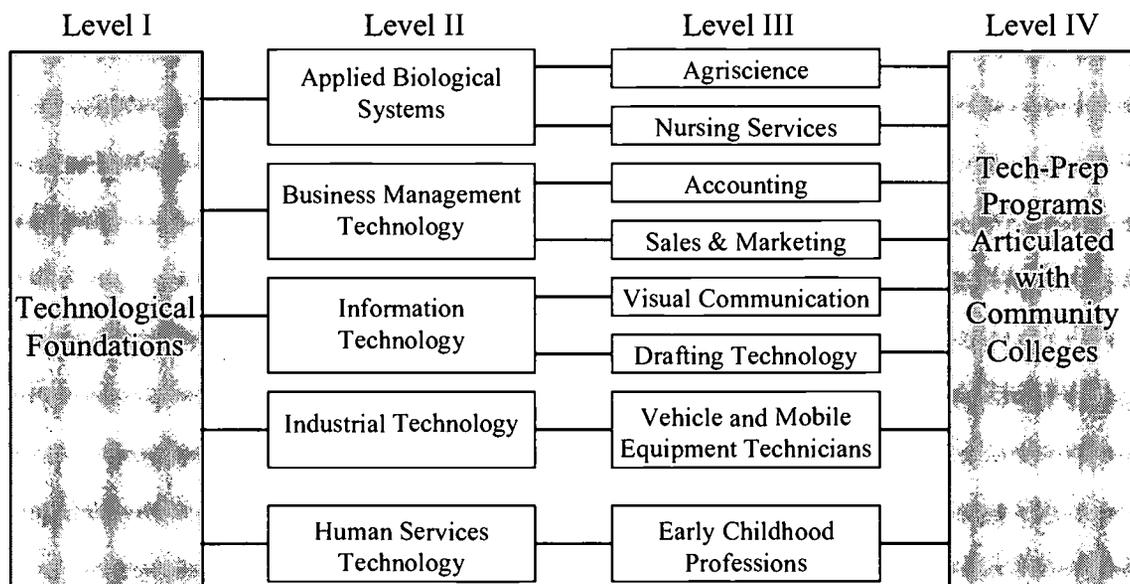
During the past decade, the Vocational Technical Education/School to Work Division at the Arizona Department of Education has been involved in assisting schools and districts to restructure their vocational education programs. This restructure came about as the result of the recognition that many students were not being prepared adequately for the workforce. It was determined that more emphasis needed to be placed on students' acquiring a strong foundation in academic and technical skills as well as having access to quality state-of-the-art technology - the driving force behind tomorrow's jobs.

On September 25, 2000 the State Board of Vocational Technological Education approved the name change from Vocational Education to Career and Technical Education (CTE). Today all career and technical education programs are comprehensive in that they are designed around an instructional sequence consisting of four levels. Courses in each level focus on developing decision-making skills, career development skills, academic skills, teamwork and leadership skills, technology skills, workplace skills and occupational skills. The four instructional levels are as follows:

- Level I, which is designed for grades 7 and 8 is the exploratory level. It represents a core of academic and technical competencies that support all occupations and career exploration for all interest areas. These competencies may also be taught at the high school level.
- Level II, which is designed for grades 9 and 10, serves as the transition between the broad exploration provided at Level I and occupationally specific instruction provided at Level III. Students develop higher levels of proficiency in one or more occupational "clusters." The five Level II clusters provide CTE students with the foundation of core skills necessary to continue their training in the specific occupational program.
- Level III, which is designed for grades 11 and 12, provides students with occupationally specific preparation that leads to employment after graduation and /or further education and training.
- Level IV, which is designed for the years after high school, is the final level in this sequence. Students begin entry-level employment and/or receive advanced training and education at a community college, a proprietary school, an university or in the military.

Students also have the option of participating in tech-prep programs and/or work-based learning experiences-both of which can provide them access and exposure to technology used in the workplace as well as all aspects of the industry.

The sequence for several comprehensive programs are outlined in the chart below:



## TECHNOLOGICAL FOUNDATIONS

**COURSE CODE:** 90.0000.10

**DESCRIPTION:** LEVEL I

Level I is the foundation experience for all Career and Technical Education Programs. The Arizona Department of Education approved curriculum introduces students to the world of work, related technologies and includes academic and occupational competencies designed for all seventh and eighth grade students. These competencies may also be delivered at the high school level. Six skill strands have been identified and incorporated as a component of this curriculum: Career Development, Applied Academics, Life Management, Technology, Business/Economic, and Leadership skills. The instruction is supported by a flexible learning environment, appropriate technology and support systems.

The competencies developed for Level I students address career exploration and core skill development common to **virtually all occupations:**

- 1.0 Explore career interests
- 2.0 Explore the world of work
- 3.0 Explore human relations skills
- 4.0 Explore health and safety in the workplace
- 5.0 Explore technology in the workplace
- 6.0 Explore problem solving in the workplace

## APPLIED BIOLOGICAL SYSTEMS-AGRICULTURE

**COURSE CODE:** 99.0300.20

**DESCRIPTION:** LEVEL II

The Level II experience is designed for students in grades nine through ten and includes core skill development for a cluster of related occupations. Students may select one or more of the five Level II clusters, which have been grouped together by common skills, knowledge and a set of Employability Skills found in a range of occupations. The Applied Biological Systems cluster serves as a transition between the broad exploration provided through the Level I Technological Foundations experience and the occupationally specific instruction provided at Level III.

**Applied Biological Systems-Agriculture** is defined as an instructional experience that provides students with an appreciation for living systems as applied to the science of food and fiber production, food processing and human health, and allows students to attain the following competencies:

- 1.0 Demonstrate laboratory procedures and safety practices
- 2.0 Describe mammal health needs
- 3.0 Describe basic principles of nutrition
- 4.0 Examine the interaction of biological systems within the environment
- 5.0 Describe principles of plant growth production
- 6.0 Describe principles of animal growth and production
- 7.0 Describe food safety and processing practices
- 8.0 Describe advances in technology
- 9.0 Discuss bioethical issues
- 10.0 Demonstrate group dynamics and leadership skills
- 11.0 Demonstrate communication skills in a business situation
- 12.0 Develop an employment plan
- 13.0 Identify job-seeking tools and skills
- 14.0 Prepare for employment

## APPLIED BIOLOGICAL SYSTEMS-FOOD SCIENCE

**COURSE CODE:** 99.0300.40

**DESCRIPTION:** LEVEL II

The Level II experience is designed for students in grades nine through ten and includes core skill development for a cluster of related occupations. Students may select one or more of the five Level II clusters, which have been grouped together by common skills, knowledge and a set of Employability Skills found in a range of occupations. The Applied Biological Systems cluster serves as a transition between the broad exploration provided through the Level I Technological Foundations experience and the occupationally specific instruction provided at Level III.

**Applied Biological Systems-Food Science** is defined as an instructional experience that provides students with an appreciation for living systems as applied to the science of food and fiber production, food processing and human health, and allows students to attain the following competencies:

- 1.0 Demonstrate laboratory procedures and safety practices
- 2.0 Apply the basic principles of nutrition
- 3.0 Demonstrate chemical reactions and physical changes that occur during food preparation
- 4.0 Describe food safety and food processing practices
- 5.0 Analyze technology used in food product development and marketing
- 6.0 Research careers in food science, food preparation, dietetics, and nutrition
- 7.0 Develop an employment plan
- 8.0 Demonstrate job search skills
- 9.0 Demonstrate employability skills

## APPLIED BIOLOGICAL SYSTEMS-HEALTH

**COURSE CODE:** 99.0300.30

**DESCRIPTION:** LEVEL II

The Level II experience is designed for students in grades nine through ten and includes core skill development for a cluster of related occupations. Students may select one or more of the five Level II clusters, which have been grouped together by common skills, knowledge and a set of Employability Skills found in a range of occupations. The Applied Biological Systems cluster serves as a transition between the broad exploration provided through the Level I Technological Foundations experience and the occupationally specific instruction provided at Level III.

**Applied Biological Systems-Health** is defined as an instructional experience that provides students with an appreciation for living systems as applied to human health, and allows students to attain the following competencies:

- 1.0 Demonstrate safety compliance in the laboratory
- 2.0 Describe the human body systems
- 3.0 Describe basic principles of human nutrition
- 4.0 Examine health and wellness issues
- 5.0 Analyze the influence of technology on health
- 6.0 Develop an employment plan
- 7.0 Demonstrate job search skills
- 8.0 Demonstrate employability skills

## BUSINESS MANAGEMENT TECHNOLOGY

**COURSE CODE:** 99.0400

**DESCRIPTION:** LEVEL II

This Level II experience is designed for students in grades nine through ten and includes core skill development for a cluster of business related occupational skills. The Business Management Technology cluster serves as a transition between the broad exploration provided through the Level I Technological Foundations experience and the occupationally specific instruction provided at Level III.

**Business Management Technology** is defined as an instructional experience that provides students with an understanding of, and a familiarity with, the principles and practices of business. Students will attain the following competencies:

- 1.0 Initiate business communication
- 2.0 Communicate using technology
- 3.0 Solve problems and make decisions
- 4.0 Organize business information
- 5.0 Use computer technology to support business operations
- 6.0 Apply economic principles to business operations and management
- 7.0 Demonstrate the principles of business management
- 8.0 Analyze the legal and ethical environment of business
- 9.0 Calculate and prepare financial records
- 10.0 Apply marketing principles to business operations
- 11.0 Develop an employment plan
- 12.0 Identify job-seeking skills
- 13.0 Prepare for employment

## HUMAN SERVICES TECHNOLOGY

**COURSE CODE:** 99.0500

**DESCRIPTION:** LEVEL II

The Level II experience is designed for students in grades nine through ten and includes core skill development for a cluster of related occupations. Students may select one or more of the five Level II clusters, which have been grouped together by common skills, knowledge and a set of Employability Skills found in a range of occupations. The Human Services Technology cluster serves as a transition between the broad exploration provided through the Level I Technological Foundations experience and the occupationally specific instruction provided at Level III.

**Human Services Technology** is defined as an instructional experience that provides students with an orientation to, and an understanding of, occupations that directly address the welfare of human beings. Students will attain the following competencies:

- 1.0 Analyze careers in human services
- 2.0 Analyze growth and development of humans
- 3.0 Analyze factors influencing human behavior
- 4.0 Demonstrate communication skills in human services occupations
- 5.0 Examine legal and ethical issues in human services occupations
- 6.0 Explore the use of technology in human services occupations
- 7.0 Develop an employment plan
- 8.0 Demonstrate job search skills
- 9.0 Demonstrate employability skills

## INDUSTRIAL TECHNOLOGY

**COURSE CODE:** 99.0200

**DESCRIPTION:** LEVEL II

The Level II Experience is designed for students in grades nine through ten and includes core skill development for a cluster of related occupations. Students may select one or more of the five Level II clusters, which have been grouped together by common skills, knowledge and a set of Employability Skills found in a range of occupations. The Industrial Technology cluster serves as a transition between the broad exploration provided through the Level I Technological Foundations experience and the occupationally specific instruction provided at Level III.

**Industrial Technology** is defined as an instructional experience that provides students an understanding of, and orientation to, occupations involved in the design, production, processing, assembling, testing, maintaining, servicing and repairing of goods. Student will attain the following competencies:

- 1.0 Practice safe working procedures
- 2.0 Utilize and practice safe use of tools and machines
- 3.0 Describe types of construction
- 4.0 Demonstrate the elements of construction
- 5.0 Evaluate the elements of construction technology
- 6.0 Describe types of manufacturing systems
- 7.0 Demonstrate the elements of the manufacturing process
- 8.0 Evaluate the elements of manufacturing technology
- 9.0 Describe transportation systems
- 10.0 Demonstrate transportation components
- 11.0 Evaluate the elements of transportation technology
- 12.0 Demonstrate the use of an electrical/electronic system
- 13.0 Describe properties of materials
- 14.0 Demonstrate methods of energy applications
- 15.0 Describe industrial career opportunities
- 16.0 Develop an employment plan
- 17.0 Demonstrate job search skills
- 18.0 Demonstrate employability skills

## INFORMATION TECHNOLOGY

**COURSE CODE:** 99.0100

**DESCRIPTION:** LEVEL II

The Level II experience is designed for students in grades nine through ten and includes core skill development for a cluster of related occupations. Students may select one or more of the five Level II clusters, which have been grouped together by common skills, knowledge and a set of Employability Skills found in a range of occupations. The Information Technology cluster serves as a transition between the broad exploration provided through the Level I Technological Foundations experience and the occupationally specific instruction provided at Level III.

**Information Technology** is defined as an instructional experience that provides students with an understanding of, and orientation to, occupations involved in communications, design of systems and processes and information management. Student will attain the following competencies:

- 1.0 Demonstrate communication as a system
- 2.0 Demonstrate drawing and visualization skills
- 3.0 Capture data for media applications
- 4.0 Edit data for media applications
- 5.0 Demonstrate media production skills
- 6.0 Apply resource management to media tasks
- 7.0 Develop an employment plan
- 8.0 Demonstrate job search skills
- 9.0 Demonstrate employability skills

## LEVEL II CLUSTERS BY PROGRAM

Programs	Applied Biological Systems-Agriculture	Applied Biological Systems-Food Science	Applied Biological Systems-Health	Human Services Technology	Industrial Technology	Information Technology	Business Management Technology
Accounting						o	•
Administrative Information Services							•
Ag Bus Mgmt: Agriscience	•	o	o				o
Ag Bus Mgmt: Horticulture	•	o	o				o
Ag Bus Mgmt: Renewable Natural Resources	•	o	o				o
Allied Health Services			•	o			
Apparel Design and Merchandising				•		o	o
Building Maintenance					•	o	o
Building Trades					•		o
Business Information Technology Services						•	o
Business Management and Administrative Services						o	•
Cabinetmaking					•		o
Carpentry					•		o
Cosmetology			o	•			o
Dental Services			•	o			
Drafting Technology					o	•	
Early Childhood Professions		o		•			o
Electronics Technology					•	o	o

- Level II Cluster students **should** take
- o Additional Level II Clusters students **may** elect to take

## LEVEL II CLUSTERS BY PROGRAM

Programs	Applied Biological Systems-Agriculture	Applied Biological Systems-Food Science	Applied Biological Systems-Health	Human Services Technology	Industrial Technology	Information Technology	Business Management Technology
Financial Services				o			•
Fire Science	o			o	•		
Food Production/ Culinary Arts		•		o			o
Graphic Communication					o	•	
Heating, Ventilation, Air Conditioning/Refrigeration					•	o	o
Heavy Equipment Operation					•		o
Hospitality Services		o		o			•
Law Enforcement				•		o	o
LifeSkills		o		•			o
Masonry					•		o
Media Communication					o	•	o
Nursing Services			•	o			
Plumbing					•		o
Precision Metal Workers					•		o
Residential Electrician					•	o	o
Sales and Marketing				o		o	•
Upholstering					•		o
Vehicle & Mobile Equipment Technicians					•		o
Visual Communications					o	•	

- Level II Cluster students **should** take
- o Additional Level II Clusters students **may** elect to take

## ACCOUNTING

**PROGRAM CODE:** 52.0300

**DESCRIPTION:** LEVEL III

The Accounting instructional program is designed to prepare students for employment with business knowledge and accounting technical skills for careers in accounting, such as: accounts payable clerks, accounts receivable clerks, payroll clerks, inventory clerks and bookkeeping clerks in all industries. A student completing this program will also possess the foundation skills needed for further education in the accounting profession.

Accounting competencies include:

- 1.0 Perform general ledger functions
- 2.0 Perform accounts payable functions
- 3.0 Perform accounts receivable functions
- 4.0 Perform payroll functions
- 5.0 Perform general accounting functions
- 6.0 Utilize technology to support accounting functions
- 7.0 Demonstrate customer service skills
- 8.0 Conduct a job search
- 9.0 Secure a job
- 10.0 Succeed on the job

## ADMINISTRATIVE INFORMATION SERVICES

**PROGRAM CODE:** 52.0400

**DESCRIPTION:** LEVEL III

The Administrative Information Services program is designed to prepare students for employment in positions, which provide administrative and organizational assistance to internal and external customers. These professionals use a variety of office technology and computer-based business applications (data base, spreadsheet, word processing, graphics, etc.,) and are often called upon to be in-house experts on adapting such technology applications to the varied needs of their internal/external customers. They also support and help facilitate accurate communication and processing of information to the right customers at the right times.

Administrative Information Services competencies include:

- 1.0 Identify and satisfy customer needs and plan work activities
- 2.0 Manage schedules, activities, and events
- 3.0 Prepare and maintain financial information
- 4.0 Generate and maintain documents and information
- 5.0 Manage resources
- 6.0 Develop, implement, and evaluate work processes and procedures
- 7.0 Initiate and facilitate communication
- 8.0 Conduct a job search
- 9.0 Secure a job
- 10.0 Succeed on the job

## AGRICULTURAL BUSINESS MANAGEMENT – AGRISCIENCE

**PROGRAM CODE:** 01.0300

**DESCRIPTION:** Level III

**CIP 01.0300 in Development.** Use competencies identified for either Animal Science or Plant Science listed below, until the new program for Agriscience is developed.

Agricultural Business Management-Animal Science competencies include:

- 1.0 Practice personal and human relations skills in career development
- 2.0 Demonstrate business management practices
- 3.0 Demonstrate financial management practices
- 4.0 Apply approved practices in purchasing/marketing to maximize profit
- 5.0 Apply approved practices of animal feeding and nutrition
- 6.0 Apply approved practices in animal breeding and reproduction
- 7.0 Apply approved practices of animal health
- 8.0 Describe biotechnology techniques used in animal production
- 9.0 Construct and maintain animal facilities and equipment
- 10.0 Apply approved practices for environmental control of confined animals
- 11.0 Apply approved practices in laying concrete for facilities
- 12.0 Apply approved practices in using woodworking to construct animal facilities
- 13.0 Apply approved practices in using metalworking to construct animal facilities
- 14.0 Apply approved safety practices when working with animals
- 15.0 Conduct a job search
- 16.0 Secure a job
- 17.0 Succeed on the job

Agricultural Business Management-Plant Science competencies include:

- 1.0 Demonstrate personal and human relations skills
- 2.0 Demonstrate business management practices
- 3.0 Demonstrate financial management practices
- 4.0 Apply approved practices in purchasing/marketing to maximize profit
- 5.0 Demonstrate approved seed selection and germination practices
- 6.0 Demonstrate approved biotechnology techniques in plant production
- 7.0 Identify approved practices in renewable and natural resources

## **AGRICULTURAL BUSINESS MANAGEMENT – AGRISCIENCE, CONTINUED**

- 8.0 Demonstrate personal and human relations skills
- 9.0 Demonstrate business management practices
- 10.0 Demonstrate financial management practices
- 11.0 Apply approved practices in purchasing/marketing to maximize profit
- 12.0 Demonstrate approved seed selection and germination practices
- 13.0 Demonstrate approved biotechnology techniques in plant production
- 14.0 Identify approved practices in renewable and natural resources
- 15.0 Design, construct, and operate irrigation systems
- 16.0 Manage a pest control program
- 17.0 Manage a plant disease control program
- 18.0 Manage a weed control program
- 19.0 Apply approved practices in plant nutrition
- 20.0 Harvest crops to ensure maximum yield
- 21.0 Operate and maintain equipment machinery
- 22.0 Construct and maintain facilities and equipment
- 23.0 Apply approved construction principles of plant science
- 24.0 Apply approved safety practices
- 25.0 Conduct a job search
- 26.0 Secure a job
- 27.0 Succeed on the job

## AGRICULTURAL BUSINESS MANAGEMENT - HORTICULTURE

**PROGRAM CODE** 01.0600

**DESCRIPTION:** LEVEL III

The Agricultural Business Management-Horticulture program is designed to prepare students for employment in various production, sales, and supply positions related to horticulture. Specific careers include: landscape design, installation and maintenance; nursery management; biotechnology; and turf grass management. In addition to required technical skills, students will possess leadership skills, advanced employability skills, applied academics, and life management skills.

Agricultural Business Management-Horticulture competencies include:

- 1.0 Demonstrate personal and human relations skills
- 2.0 Demonstrate business management practices
- 3.0 Demonstrate business accounting practices
- 4.0 Demonstrate sales and merchandising techniques
- 5.0 Identify and select ornamental plants
- 6.0 Operate and maintain plant growth structures
- 7.0 Propagate, grow, and maintain nursery stock
- 8.0 Design landscapes
- 9.0 Install landscapes
- 10.0 Construct hardscapes
- 11.0 Apply approved practices in laying concrete
- 12.0 Install and maintain residential and commercial turf
- 13.0 Perform golf course maintenance practices
- 14.0 Design, construct and operate irrigation systems
- 15.0 Maintain exterior landscapes
- 16.0 Maintain interior landscapes
- 17.0 Design and prepare floral arrangements
- 18.0 Produce fruit, nut and vegetable crops
- 19.0 Apply approved safety practices in horticultural occupations
- 20.0 Apply fertilizer and chemicals
- 21.0 Operate and maintain horticultural equipment
- 22.0 Conduct a job search
- 23.0 Secure a job
- 24.0 Succeed on the job

## **AGRICULTURAL BUSINESS MANAGEMENT - RENEWABLE NATURAL RESOURCES**

**PROGRAM CODE:** 03.0200

**DESCRIPTION:** Level III

The Agricultural Business Management - Renewable Natural Resources program is designed to prepare students for employment in various occupations related to fisheries, wildlife, range management, forestry, ecology, and environmental science. Students completing this program will possess the technical knowledge and skills associated with natural resources careers. In addition to the required technical skills, students will possess leadership skills, advanced employability skills, communication skills, critical thinking skills, applied academics, and life management skills.

Agricultural Business Management-Renewable Natural Resources competencies include:

- 1.0 Demonstrate personal and human relations skills
- 2.0 Demonstrate business management practices
- 3.0 Demonstrate approved safety practices to natural resources occupations
- 4.0 Describe environmental sciences
- 5.0 Describe the ecology of natural resources
- 6.0 Describe soil and water management practices
- 7.0 Describe range management practices
- 8.0 Demonstrate wildlife management practices
- 9.0 Demonstrate fisheries management practices
- 10.0 Demonstrate forestry practices
- 11.0 Describe renewable energy resources
- 12.0 Describe air resources
- 13.0 Operate and maintain equipment and machinery
- 14.0 Construct and maintain facilities and equipment
- 15.0 Apply approved practices in laying concrete for facilities
- 16.0 Apply approved practices in using woodworking to construct facilities
- 17.0 Apply approved practices in using metalworking to construct facilities
- 18.0 Conduct a job search
- 19.0 Secure a job
- 20.0 Succeed on the job

## ALLIED HEALTH SERVICES

**PROGRAM CODE:** 51.0800

**DESCRIPTION:** Level III

**CIP 51.0800 in Development.** Use competencies identified for either Medical Laboratory Assisting or Physical Therapy Aide listed below, until the new program for Allied Health Services is developed.

Medical Laboratory Assisting competencies include:

- 1.0 Functions as a part of the medical laboratory staff
- 2.0 Utilize professional communication techniques to maintain rapport with clients and health team members
- 3.0 Demonstrate medical ethics with other health professionals, the patient and the public
- 4.0 Utilize general safety measures for the protection of personnel and patients in the clinical laboratory
- 5.0 Apply cardiopulmonary resuscitation techniques to persons in cardiac distress
- 6.0 Utilize human relations skills to support physical, emotional and intellectual needs of each patient
- 7.0 Utilize principles of work relationships, supervision and management to maximize working conditions with health care team members
- 8.0 Utilize clinical laboratory terminology to communicate with health care team members
- 9.0 Utilize laboratory measurement, mathematics and statistics to assist in analyzing and scrutinizing laboratory data
- 10.0 Describe quality assurance (qa) in the clinical laboratory
- 11.0 Maintain aseptic technique to aid in the control of infection within the health care environment
- 12.0 Procure specimens for laboratory analysis
- 13.0 Obtain blood specimens for laboratory analysis
- 14.0 Obtain urine and stool and other specimens for laboratory analysis
- 15.0 Process specimens for clinical laboratory analysis
- 16.0 Perform urinalysis tests ordered by physician
- 17.0 Perform microbiological tests ordered by physician
- 18.0 Perform hematology testing in a clinical laboratory
- 19.0 Describe other tests in a clinical laboratory

## ALLIED HEALTH SERVICES, CONTINUED

- 20.0 Perform clinical chemistry testing
- 21.0 Record and report laboratory test data
- 22.0 Maintain inventory control of laboratory supplies
- 23.0 Conduct a job search
- 24.0 Secure a job
- 25.0 Succeed on the job

Physical Therapy Aid competencies include:

- 1.0 Describe the health care system including multi-disciplinary team approach
- 2.0 Identify critical factors related to patient/health care providers' interaction in the health care environment
- 3.0 Demonstrate ethical and legal practices
- 4.0 Demonstrate general safety procedures
- 5.0 Demonstrate knowledge of infection control
- 6.0 Read and interpret medical terminology associated with physical therapy
- 7.0 Describe basic human anatomy and physiology
- 8.0 Assist physical therapist or physical therapist assistant with application of physical modalities
- 9.0 Assist physical therapist or physical therapist assistant with application of therapeutic exercises
- 10.0 Assist physical therapist or physical therapy assistant with application of gait training
- 11.0 Demonstrate use of specialized equipment for the physically disabled
- 12.0 Conduct a job search
- 13.0 Secure a job
- 14.0 Succeed on the job

## APPAREL DESIGN AND MERCHANDISING

**PROGRAM CODE:** 20.0300

**DESCRIPTION:** Level III

The Apparel Design and Merchandising program is designed to prepare students for employment in various apparel design and production careers and sales, customer service, and/or first-line supervisory positions in apparel wholesale and retail establishments. A student completing this program will possess the technical knowledge and skills associated with apparel design and production, and apparel selection, purchase, sales, and promotion. In addition to the required technical skills, students will possess advanced employability skills including critical and conceptual thinking skills, applied academics, life management, and technology.

Apparel Design and Merchandising competencies include:

- 1.0 Analyze the apparel design and merchandising industry
- 2.0 Examine business opportunities in apparel design and merchandising
- 3.0 Demonstrate store operation procedures
- 4.0 Demonstrate design techniques
- 5.0 Demonstrate garment construction techniques
- 6.0 Conduct a job search
- 7.0 Secure a job
- 8.0 Succeed on the job

## BUILDING MAINTENANCE

**PROGRAM CODE:** 46.0400

**DESCRIPTION:** Level III

The Building Maintenance program prepares individuals to maintain the physical plant and operating systems of commercial and residential buildings. It includes instruction in safety, construction, installation, and repair skills related to carpentry, air conditioning, heating, plumbing, electrical, masonry, custodial equipment, and other mechanical systems. In addition to the required technical skills, students will possess advanced employability skills including critical and conceptual thinking skills, applied academics, life management, and technology.

Building Maintenance competencies include:

- 1.0 Demonstrate safe work habits
- 2.0 Perform carpentry duties
- 3.0 Perform electrical duties
- 4.0 Perform HVAC/R multi disciplinary maintenance duties
- 5.0 Perform masonry duties
- 6.0 Perform plumbing duties
- 7.0 Perform general building maintenance duties
- 8.0 Conduct a job search
- 9.0 Secure a job
- 10.0 Succeed on the job

## BUILDING TRADES

**PROGRAM CODE:** 46.9900

**DESCRIPTION:** Level III

This program provides practical experience and related technical information for occupations specializing in residential building trades. Construction processes in carpentry, electrical wiring, plumbing and masonry are the main occupational areas taught. Instruction includes identification and usage of materials, blueprint reading, and the use of hand and power tools. In addition to the required technical skills, students will possess advanced employability skills including critical and conceptual thinking skills, applied academics, life management, and technology.

Building Trades competencies include:

- 1.0 Demonstrate safe work habits
- 2.0 Operate hand and power tools/equipment
- 3.0 Use plans, specifications and codes
- 4.0 Lay out building lines
- 5.0 Perform concrete/masonry work
- 6.0 Frame floors/walls/roof
- 7.0 Identify thermal, sound and moisture protection
- 8.0 Apply exterior finishes
- 9.0 Install doors and windows
- 10.0 Install interior drywall/paneling
- 11.0 Install interior trim, case goods and hardware
- 12.0 Assemble plumbing system and water distribution system
- 13.0 Describe HVAC systems
- 14.0 Install electrical components/system(s)
- 15.0 Apply interior/exterior finishes
- 16.0 Perform records and management duties
- 17.0 Conduct a job search
- 18.0 Secure a job
- 19.0 Succeed on the job

## BUSINESS INFORMATION TECHNOLOGY SERVICES

**PROGRAM CODE:** 52.1200

**DESCRIPTION:** Level III

This program prepares individuals for careers involved with the design, development, support and management of hardware, software, multimedia and systems integration services in business environments. The program includes instruction in accounting information systems, management control systems, data storage and retrieval, business systems networking, computer equipment and operation and management information systems planning. The program will provide opportunities to attain specified Arizona Academic Standards.

Business Information Technology Services competencies include:

- 1.0 Develop an individual career plan
- 2.0 Prepare for employment
- 3.0 Participate in work-based learning experiences
- 4.0 Demonstrate oral communication skills
- 5.0 Demonstrate written communication skills
- 6.0 Evaluate the role of small business in the economy
- 7.0 Demonstrate business and financial management practices needed for entrepreneurs
- 8.0 Evaluate leadership styles appropriate for the workplace
- 9.0 Participate in leadership activities such as those supported by career and technical student organizations
- 10.0 Demonstrate work ethic
- 11.0 Evaluate the role of ethics in an electronic communications environment
- 12.0 Demonstrate workplace safety in an electronic/electrical environment
- 13.0 Describe the functions of basic information handling systems and their components
- 14.0 Use computerized information in a business setting
- 15.0 Describe the development/evolution of the computer
- 16.0 Demonstrate the comprehension of basic computer mathematics
- 17.0 Communicate with technology users
- 18.0 Install application software

## **BUSINESS INFORMATION TECHNOLOGY SERVICES, CONTINUED**

### **OPTION A—COMPUTER MAINTENANCE**

- 19.0 Use electronic/electrical tools and testing/measuring instruments
- 20.0 Install computers and peripherals
- 21.0 Protect computers/hardware system
- 22.0 Repair/maintain computers and peripherals

### **OPTION B—NETWORK TECHNOLOGY**

- 23.0 Use electronic/electrical tools and testing/measuring instruments
- 24.0 Demonstrate knowledge of network architecture and technologies
- 25.0 Install basic networks
- 26.0 Manage network operations
- 27.0 Perform maintenance on network

### **OPTION C—SOFTWARE DEVELOPMENT**

- 28.0 Determine software specifications and perform top level design
- 29.0 Design programs
- 30.0 Code and test programs
- 31.0 Verify program/system operation

### **OPTION D—INFORMATION SUPPORT AND SERVICES**

- 32.0 Perform data entry operations
- 33.0 Complete job run on system
- 34.0 Initiate customer dialogue
- 35.0 Follow diagnostic procedures
- 36.0 Perform technical support to correct problems
- 37.0 Complete follow up procedures

## BUSINESS MANAGEMENT AND ADMINISTRATIVE SERVICES

**PROGRAM CODE:** 52.0200

**DESCRIPTION:** Level III

This program prepares individuals for employment to perform administrative, managerial, applied research and technical support services essential to the operation of a business enterprise. The program will provide opportunities to attain specified Arizona Academic Standards.

Business Management and Administrative Services competencies include:

- 1.0 Develop an individual career plan
- 2.0 Prepare for employment
- 3.0 Participate in work-based learning experiences
- 4.0 Demonstrate oral communication skills
- 5.0 Demonstrate written communication skills
- 6.0 Evaluate the role of small business in the economy
- 7.0 Demonstrate business and financial management practices needed for entrepreneurs
- 8.0 Evaluate leadership styles appropriate for the workplace
- 9.0 Participate in leadership activities such as those supported by career and technical student organizations
- 10.0 Explain business functions within an organization
- 11.0 Explain business ethics
- 12.0 Discuss principles of economic systems
- 13.0 Discuss legal concepts that apply to business
- 14.0 Demonstrate marketing concepts
- 15.0 Determine personal responsibility and accountability activities consistent with established organizational goals
- 16.0 Demonstrate general management practices
- 17.0 Perform administrative and communication functions
- 18.0 Demonstrate human resource management functions
- 19.0 Perform general office management functions
- 20.0 Use accounting information to make business decisions
- 21.0 Perform financial analyses to make business decisions
- 22.0 Use computerized information systems and technology

## CABINETMAKING

**PROGRAM CODE:** 48.0700

**DESCRIPTION:** Level III

The Cabinetmaking program prepares individuals to work in the field of millwork and cabinetmaking, and to produce such articles as frames, molding, panels, and residential/commercial cabinetry. Instruction includes job planning, drafting, material layout, cutting, shaping, assembling, finishing of wood pieces, and installing hardware. It also contains information related to print reading, production, installation, and computer applications. In addition to the required technical skills, students will possess advanced employability skills including critical and conceptual thinking skills, applied academics, life management, and technology.

Cabinetmaking competencies include:

- 1.0 Demonstrate safe work habits
- 2.0 Operate power and hand equipment
- 3.0 Estimate materials
- 4.0 Detailing and billing
- 5.0 Produce cabinets
- 6.0 Installation of cabinets
- 7.0 Conduct a job search
- 8.0 Secure a job
- 9.0 Succeed on the job

## CARPENTRY

**PROGRAM CODE:** 46.0200

**DESCRIPTION:** Level III

This program provides practical experience and related technical information for occupations specializing in carpentry. Construction processes, materials identification, blueprint reading, use of hand and power tools, and safe work habits are key elements. In addition to the required technical skills, students will possess advanced employability skills including critical and conceptual thinking skills, applied academics, life management, and technology.

Carpentry competencies include:

- 1.0 Maintain a safe work environment
- 2.0 Use blueprints
- 3.0 Use layout tools
- 4.0 Lay out building lines
- 5.0 Form concrete
- 6.0 Frame floors
- 7.0 Frame walls
- 8.0 Frame roofs
- 9.0 Apply exterior finishes
- 10.0 Install roofing components
- 11.0 Install thermal, sound and moisture protection
- 12.0 Install doors, windows and trim
- 13.0 Conduct a job search
- 14.0 Secure a job
- 15.0 Succeed on the job

## COSMETOLOGY

**PROGRAM CODE:** 12.0400

**DESCRIPTION:** Level III

The Cosmetology program is designed to prepare students for employment in various cosmetology and beauty establishments. A student completing this program will possess the technical knowledge and skills associated with cosmetology, nail technology, hair styling, make-up, aesthetics, and wig styling. Students completing this program will also gain knowledge of business/salon management. In addition to the required technical skills, students will possess advanced employability skills including critical and conceptual thinking skills, applied academics, life management, and technology.

Cosmetology competencies include:

- 1.0 Investigate cosmetology careers and opportunities for advancement
- 2.0 Demonstrate safety precautions and basic first-aid procedures
- 3.0 Demonstrate disinfection procedures
- 4.0 Classify chemicals used in a salon
- 5.0 Demonstrate scalp and hair treatment
- 6.0 Demonstrate haircutting techniques
- 7.0 Demonstrate styling techniques
- 8.0 Demonstrate chemical reformation (permanent waving) techniques
- 9.0 Demonstrate hair-relaxing techniques
- 10.0 Demonstrate curl reformation (overcurly hair)
- 11.0 Demonstrate hair color techniques
- 12.0 Demonstrate hair lightening (bleaching) and toning techniques
- 13.0 Demonstrate nail technology
- 14.0 Demonstrate facial treatments
- 15.0 Demonstrate professionalism
- 16.0 Demonstrate management skills
- 17.0 Conduct a job search
- 18.0 Secure a job
- 19.0 Succeed on the job

## DENTAL SERVICES

**PROGRAM CODE:** 51.0600

**DESCRIPTION:** Level III

The Dental Services program is designed to prepare students for employment in the dental health profession. Entering students need to have interpersonal skills, good eye-hand coordination, and the ability to organize and sequence. Students successfully completing this program will possess technical knowledge and skills gained through the classroom, the skills laboratory, and the dental setting. In addition to the required technical skills, students will possess advanced employability competencies including thinking skills, applied academics, and life management skills.

Dental Services competencies include:

- 1.0 Function as a part of the dental health team
- 2.0 Describe OSHA's guidelines
- 3.0 Demonstrate the principles of infection control
- 4.0 Demonstrate basic emergency procedures
- 5.0 Identify dental terminology
- 6.0 Describe the components of the treatment room and equipment
- 7.0 Demonstrate human relations skills
- 8.0 Demonstrate operation procedures
- 9.0 Prepare dental instruments for operative procedures
- 10.0 Perform chair side assisting procedures
- 11.0 Prepare dental waxes, cements and restorative materials
- 12.0 Prepare oral impressions
- 13.0 Demonstrate proper radiology techniques
- 14.0 Operate and maintain laboratory equipment using OSHA standards
- 15.0 Identify morphology, histology, and embryology of the human dentition
- 16.0 Describe the function of the soft tissue and oral structure
- 17.0 Describe dental anatomy
- 18.0 Chart existing oral conditions
- 19.0 Describe preventative dentistry
- 18.0 Educate patients about home dental care techniques
- 19.0 Identify oral pathological conditions
- 20.0 Process clinical records
- 21.0 Maintain supplies for the dental office
- 22.0 Describe other areas of dentistry

## DENTAL SERVICES, CONTINUED

- 23.0 Conduct a job search
- 24.0 Secure a job
- 25.0 Succeed on the job

## DRAFTING TECHNOLOGY

**PROGRAM CODE:** 48.0100

**DESCRIPTION:** Level III

The Drafting Technology program is designed to offer students the necessary technical knowledge and skills to plan and prepare scale interpretations of engineering, design and architectural projects. The program includes instruction in the use of precision drawing instruments, computer-assisted design and drafting (CADD), sketching and illustration, and interpreting specifications. In addition to technical skills, the student completing this program will possess critical thinking, employability, applied academic, life management, business, economic, and leadership skills required for drafting occupations.

Drafting Technology competencies include:

- 1.0 Use board drafting equipment, instruments and media
- 2.0 Demonstrate sketching, lettering, and line skills
- 3.0 Demonstrate dimensioning and tolerancing skills
- 4.0 Construct orthographic projections
- 5.0 Construct pictorial drawings
- 6.0 Demonstrate geometric constructions
- 7.0 Explore descriptive geometry
- 8.0 Apply board drafting skills to computer aided design/drafting (CADD)
- 9.0 Investigate materials, processes and products
- 10.0 Apply problem-solving skills to produce a complete set of drawings
- 11.0 Demonstrate safety knowledge and safe work habits
- 12.0 Conduct a job search
- 13.0 Secure a job
- 14.0 Succeed on the job

## EARLY CHILDHOOD PROFESSIONS

**PROGRAM CODE:** 20.0200

**DESCRIPTION:** Level III

The Early Childhood Professions program is designed to prepare students for employment in early childhood educational, residential, and institutional settings. The program includes instruction in child growth and development; child health, nutrition, and safety; planning and supervision of developmentally appropriate play and learning activities; child guidance; relationships with family members; applicable legal and administrative requirements; and preparation for the development and management of effective early childhood programs and facilities.

Early Childhood Professions competencies include:

- 1.0 Demonstrate knowledge of physical growth and development
- 2.0 Demonstrate knowledge of cognitive development
- 3.0 Demonstrate knowledge of language development
- 4.0 Demonstrate knowledge of social and emotional development
- 5.0 Demonstrate effective teaching techniques
- 6.0 Promote social competence
- 7.0 Observe behavior and development of children
- 8.0 Examine legal and ethical policies and procedures
- 9.0 Demonstrate safety procedures
- 10.0 Demonstrate cleaning/sanitation skills
- 11.0 Assess physical well-being of children
- 12.0 Demonstrate personal care of children
- 13.0 Facilitate communication with families
- 14.0 Demonstrate knowledge of child nutrition
- 15.0 Analyze early childhood professions
- 16.0 Conduct a job search
- 17.0 Secure a job
- 18.0 Succeed on the job

## ELECTRONICS TECHNOLOGY

**PROGRAM CODE:** 47.0100

**DESCRIPTION:** Level III

This Electronics Technology program is designed to prepare students with key technical knowledge and skills necessary to manufacture, repair, service, maintain and install electronics equipment. Level III completers will be able to: practice workplace safety, demonstrate problem solving, use electronic tools and equipment, apply electronics fundamentals, construct and repair circuits, analyze semiconductor and logic devices, demonstrate computer use and describe industrial electronics. Students completing the Level IV Postsecondary component of the coherent sequence will be qualified as entry-level workers in computer repair and maintenance establishments, communications industries, retail/wholesale electronics appliance establishments, and electronics manufacturers. In addition to the required technical skills, students will possess advanced employability skills including critical and conceptual thinking skills, applied academics, life management, and technology.

Electronics Technology competencies include:

- 1.0 Practice workplace safety principles for electronic technology
- 2.0 Use electronic tools and testing/measuring instruments
- 3.0 Apply fundamentals of direct current (dc)
- 4.0 Apply fundamentals of alternating current (ac)
- 5.0 Solve active circuits
- 6.0 Solve logic devices
- 7.0 Analyze semiconductor devices
- 8.0 Conduct a job search
- 9.0 Secure a job
- 10.0 Succeed on the job

## FINANCIAL SERVICES

**PROGRAM CODE:** 52.0800

**DESCRIPTION:** Level III

The Financial Services program is designed to prepare students for careers in financial, investment and related services. With advanced training and/or postsecondary education, students may be able to obtain management positions in these areas. In addition to the required technical skills, students will possess advanced employability skills including critical and conceptual thinking skills, applied academics, life management, and technology.

Financial Services competencies include:

- 1.0 Analyze functions of financial institutions
- 2.0 Explain the roles of regulatory agencies
- 3.0 Differentiate among products and services offered by financial institutions
- 4.0 Examine and maintain financial documents
- 5.0 Analyze types of asset risk management
- 6.0 Demonstrate interpersonal skills
- 7.0 Describe security measures in financial institutions
- 8.0 Explore careers in financial services institutions
- 9.0 Develop a financial plan
- 10.0 Conduct a job search
- 11.0 Secure a job
- 12.0 Succeed on the job

## FIRE SCIENCE

**PROGRAM CODE:** 43.0200

**DESCRIPTION:** Level III

The Fire Science program is designed to prepare students for employment in fire prevention and firefighting careers, as well as providing orientation towards emergency medical technician, paramedic, hazardous materials, and rescue techniques. A student completing this program will possess the basic technical knowledge and skills associated with the use and maintenance of tools and equipment in firefighting and procedures in emergency medical/first aid. In addition to the required technical skills, students will possess advanced employability skills including critical and conceptual thinking skills, applied academics, life management, and technology.

Fire Science competencies include:

- 1.0 Analyze the role and organization of the firefighting industry
- 2.0 Analyze employment in the firefighting industry
- 3.0 Demonstrate technology used by firefighters
- 4.0 Demonstrate safety procedures and protective equipment
- 5.0 Explain fire behavior
- 6.0 Demonstrate use of firefighting tools and equipment
- 7.0 Describe fire control methods
- 8.0 Demonstrate rescue/extrication, and forcible entry procedures
- 9.0 Demonstrate fire prevention methods and public education
- 10.0 Describe fire service response to hazardous materials emergency
- 11.0 Analyze fire service response to medical emergencies
- 12.0 Investigate emergency vehicles and their operation
- 13.0 Demonstrate firefighting hydraulics
- 14.0 Demonstrate technical rescue techniques
- 15.0 Demonstrate wild land firefighting techniques
- 16.0 Demonstrate physical fitness
- 17.0 Conduct a job search
- 18.0 Secure a job
- 19.0 Succeed on the job

## FOOD PRODUCTION/CULINARY ARTS

**PROGRAM CODE:** 12.0500

**DESCRIPTION:** Level III

The Food Production/Culinary Arts program is designed to prepare students to apply technical knowledge and skills required for food production and service occupations in institutional and commercial food establishments. Skills developed in this program include food identification, food selection, food storage, safety and sanitation, personal hygiene, and use of commercial food equipment. Nutrition, special diets, and management of food establishments will also be addressed.

In addition to technical skills, the student completing Levels I, II, and III will explore career opportunities in the field and develop critical thinking, employability, applied academic and life management skills. These include business, economic and leadership skills. Students will develop communication, human relations and employability skills needed to be successful in acquiring and holding a job.

Food Production/Culinary Arts competencies include:

- 1.0 Apply sanitation, safety, and first aid procedures
- 2.0 Use large commercial grade equipment
- 3.0 Use small commercial wares and equipment
- 4.0 Prepare bakery and pastry products
- 5.0 Prepare hot and cold foods
- 6.0 Demonstrate marketing and merchandising of food products
- 7.0 Perform front of house duties
- 8.0 Manage food production inventory
- 9.0 Analyze careers in food production/culinary arts
- 10.0 Conduct a job search
- 11.0 Secure a job
- 12.0 Succeed on the job

## GRAPHIC COMMUNICATION

**PROGRAM CODE:** 48.0200

**DESCRIPTION:** Level III

This instructional program prepares individuals to apply technical knowledge and skills to plan, prepare, and execute visual images and produce printed products. Students will use mechanical, electronic, and digital graphic and printing equipment. This curriculum is based, in part, on the Printing Industries of America's PrintED industry standards and the National Council for Skill Standards in Graphic Communications. In addition to technical knowledge skills, the student completing Levels I, II, and III will develop skills in critical thinking, employability, applied academics, and life management.

Graphic Communication competencies include:

- 1.0 Maintain a safe work environment
- 2.0 Use electronic imaging systems
- 3.0 Layout and print a page
- 4.0 Scan line copy and artwork
- 5.0 Create and modify graphic images
- 6.0 Modify and produce a photographic reproduction using a graphic arts camera
- 7.0 Assemble film, prepare proofs and process offset plates
- 8.0 Set up and operate offset press
- 9.0 Set up and operate binding equipment
- 10.0 Perform production planning duties
- 11.0 Identify legal issues and industry trade customs
- 12.0 Conduct a job search
- 13.0 Secure a job
- 14.0 Succeed on the job

## HEATING, VENTILATION, AND AIR CONDITIONING/REFRIGERATION

**PROGRAM CODE:** 47.0200

**DESCRIPTION:** Level III

The Heating, Ventilation, and Air Conditioning/Refrigeration (HVAC/R) program prepares individuals to install, repair, and maintain heating, ventilating, and air conditioning/refrigeration systems using equipment necessary on the actual job and/or industry trainers. Information on the scientific principles of heat transfer, electrical, ventilation, hydronics, and control systems is basic to the course. In addition to the required technical skills, students will possess advanced employability skills including critical and conceptual thinking skills, applied academics, life management, and technology.

Heating, Ventilation and Air Conditioning/Refrigeration competencies include:

- 1.0 Demonstrate safe work habits
- 2.0 Explain the fundamentals of basic electricity
- 3.0 Interpret and apply codes for complying with regulations
- 4.0 Read and interpret charts, drawings and schematics needed for completing assigned job
- 5.0 Install duct work to meet job specifications requirements
- 6.0 Install equipment to meet code requirements
- 7.0 Install, start, troubleshoot and service control systems and equipment
- 8.0 Troubleshoot and service control systems and equipment
- 9.0 Conduct a job search
- 10.0 Secure a job
- 11.0 Succeed on the job

## HEAVY EQUIPMENT OPERATION

**PROGRAM CODE:** 49.0200

**DESCRIPTION:** Level III

This instructional program prepares individuals to operate and maintain a variety of construction equipment such as: crawler dozers, paving machines, trenchers, motor graders, scrapers, front end loaders, back hoes, compaction equipment, pumps and compressors. The program includes start up and operating instruction, maintenance of construction equipment and the safety relating to equipment operation. Instruction in excavating, ditching, sloping, grading, compacting, backfilling as well as information relating to current technology in construction equipment operating systems will be included. In addition to the required technical skills, students will possess advanced employability skills including critical and conceptual thinking skills, applied academics, life management, and technology.

Heavy Equipment Operation competencies include:

- 1.0 Demonstrate safe work habits
- 2.0 Demonstrate use of hand and power tools
- 3.0 Perform equipment inspections
- 4.0 Identify the operation and transmission of power
- 5.0 Perform maintenance duties
- 6.0 Operate heavy equipment
- 7.0 Conduct a job search
- 8.0 Secure a job
- 9.0 Succeed on the job

## HOSPITALITY SERVICES

**PROGRAM CODE:** 08.0900

**DESCRIPTION:** Level III

The Hospitality Services program is designed to prepare students for employment in positions that provide customer-focused services in such facilities as hotels, meeting centers, hospitals, education facilities, shopping malls, recreation parks, and office buildings. A student completing this program will possess the knowledge and skills associated with reservations and front desk operations, meeting and banquet room support services, food and beverage support services, housekeeping, laundry operations, supervisory functions, and environmental functions. In addition to these skills, students will possess advanced employability skills including critical and conceptual thinking, communications, applied academics, life management, and technology.

Hospitality Services competencies include:

- 1.0 Analyze customer services within the hospitality industry
- 2.0 Analyze entrepreneurial opportunity in the hospitality industry
- 3.0 Establish quality customer services
- 4.0 Demonstrate customer services functions
- 5.0 Demonstrate supervisory functions
- 6.0 Demonstrate environmental functions
- 7.0 Conduct a job search
- 8.0 Secure a job
- 9.0 Succeed on the job

## LAW ENFORCEMENT

**PROGRAM CODE:** 43.0100

**DESCRIPTION:** Level III

The Law Enforcement program is designed to prepare students for employment in law enforcement, public and private security, and correctional occupations. A student completing this program will develop the technical knowledge and skills associated with policing, civil/criminal investigations, and corrections professions. In addition to the required technical skills, students will develop advanced employability skills, applied academic skills, life management skills, and technology skills.

Law Enforcement competencies include:

- 1.0 Analyze the evolution of law enforcement
- 2.0 Analyze legal aspects of law enforcement
- 3.0 Demonstrate communication skills
- 4.0 Demonstrate human relations skills
- 5.0 Describe safety precautions and first-aid procedures
- 6.0 Demonstrate patrol procedures
- 7.0 Demonstrate traffic control and enforcement
- 8.0 Demonstrate investigative procedures
- 9.0 Investigate police proficiency skills
- 10.0 Examine specialized units
- 11.0 Analyze corrections industry
- 12.0 Analyze private security
- 13.0 Conduct a job search
- 14.0 Secure a job
- 15.0 Succeed on the job

## MASONRY

**PROGRAM CODE:** 46.0100

**DESCRIPTION:** Level III

The Masonry program prepares individuals to lay building materials such as: brick, concrete block, pavers, to construct or repair walls, and other structures. Students will use trowels, levels, hammers, chisels, masonry saws, mixers, and other necessary hand or power tools of the trade. Fundamentals of masonry include the information and basic skills necessary to build from blueprints: residential, commercial, and industrial structures. In addition to the required technical skills, students will possess advanced employability skills including critical and conceptual thinking skills, applied academics, life management, and technology.

Masonry competencies include:

- 1.0 Demonstrate safe work habits
- 2.0 Use hand and power masonry tools
- 3.0 Use blueprints/drawings
- 4.0 Mix mortar and concrete
- 5.0 Use scaffolding
- 6.0 Demonstrate concrete work related to footings
- 7.0 Lay brick/block to specifications
- 8.0 Conduct a job search
- 9.0 Secure a job
- 10.0 Succeed on the job

## **MEDIA COMMUNICATION**

**PROGRAM CODE:** 10.0100

**DESCRIPTION:** Level III

The Media Communication program of study is designed to prepare students for entry-level employment in various communications industries such as radio and television broadcasting, film and video production, the internet and interactive media. Completers will experience the design, development, production, promotion and distribution of media products within these industries. In addition to the required technical skills, students will possess employability skills, critical and conceptual thinking, applied academics, life management and technology management skills.

Media Communication competencies include:

- 1.0 Demonstrate media literacy
- 2.0 Demonstrate technical skills for media
- 3.0 Demonstrate pre-production skills for media
- 4.0 Demonstrate media production
- 5.0 Demonstrate editing and post production skills
- 6.0 Investigate the role of promotion and advertising in media
- 7.0 Conduct a job search
- 8.0 Secure a job
- 9.0 Succeed on the job

## NURSING SERVICES

**PROGRAM CODE:** 51.1600

**DESCRIPTION:** Level III

The Nursing Services program is designed to prepare students for a variety of health care settings. Students who complete this program will have the technical knowledge and skills to become certified as a Nursing Assistant, the competencies to be accepted in a postsecondary health care program, and the skills to seek employment in new and emerging occupations. In addition to the required technical skills, students will have advanced employability skills including thinking skills, applied academics, and life management skills.

Nursing Services competencies include:

- 1.0 Function as a member of the health team in the health care industry
- 2.0 Demonstrate communication skills
- 3.0 Practice ethical and legal behavior
- 4.0 Analyze human body systems relative to common conditions and disorders and their care
- 5.0 Maintain a safe, clean, comfortable environment for the client
- 6.0 Demonstrate general principles of cleanliness (asepsis)
- 7.0 Assist the client in meeting nutritional needs
- 8.0 Provide basic emergency care
- 9.0 Demonstrate personal care and related procedures
- 10.0 Monitor vital signs
- 11.0 Facilitate activities related to elimination
- 12.0 Apply principles of body mechanics to positioning, transporting, transferring, and ambulating the client
- 13.0 Assist client with restorative activities
- 14.0 Perform or assist with diagnostic testing and examinations
- 15.0 Care for client receiving heat and cold treatments
- 16.0 Care for client with behavior that compromises safety of self and/or others
- 17.0 Care for the perioperative client
- 18.0 Care for client with binders, bandages, dressings, and anti-embolic devices
- 19.0 Assist with admission, transfer, and discharge of client
- 20.0 Examine health-related issues of special populations
- 21.0 Care for the dying client and his/her family
- 22.0 Conduct a job search
- 23.0 Secure a job
- 24.0 Succeed on the job

## PLUMBING

**PROGRAM CODE:** 46.0500

**DESCRIPTION:** Level III

The Plumbing program prepares individuals to assemble, install, and repair: pipes, fittings, and fixtures of heating, water, and drainage systems, according to specification and plumbing codes. Fundamentals of plumbing include the information and basic skills necessary to build from blueprints: residential, commercial, and industrial structures. In addition to the required technical skills, students will possess advanced employability skills including critical and conceptual thinking skills, applied academics, life management, and technology.

Plumbing competencies include:

- 1.0 Demonstrate safe work habits
- 2.0 Operate power and hand equipment
- 3.0 Interpret drawings and specifications
- 4.0 Perform records filing and management duties
- 5.0 Demonstrate cutting, threading, and assembling pipe
- 6.0 Install soil, waste and vent systems within local code requirements
- 7.0 Install a water distribution system
- 8.0 Install plumbing fixtures and equipment
- 9.0 Maintain plumbing installations
- 10.0 Conduct a job search
- 11.0 Secure a job
- 12.0 Succeed on the job

## PRECISION METAL WORKERS

**PROGRAM CODE:** 48.0500

**DESCRIPTION:** Level III

**CIP 48.0500 in Development.** Use competencies identified for Machining Technology, Welding and Sheet Metal listed below, until new program for Precision Metal Workers is developed.

Machining Technology competencies include:

- 1.0 Maintain a safe work environment
- 2.0 Perform measurement functions
- 3.0 Perform blueprint reading and layout
- 4.0 Demonstrate quality processes and procedures
- 5.0 Perform benchwork
- 6.0 Operate a drill press
- 7.0 Operate power saws
- 8.0 Operate lathes
- 9.0 Operate milling machines
- 10.0 Operate grinders
- 11.0 Conduct a job search
- 12.0 Secure a job
- 13.0 Succeed on the job

Welding Technology competencies include:

- 1.0 Maintain a safe work environment
- 2.0 Lay out and fit up project from blueprints
- 3.0 Set up and use cutting equipment
- 4.0 Set up and use shielded metal arc welding (MAW) equipment
- 5.0 Set up and use gas metal arc welding (MAW) equipment
- 6.0 Set up and use oxyfuel equipment
- 7.0 Set up and use gas tungsten arc welding (GTAW) equipment
- 8.0 Set up and use flux cored arc welding (FCAW) equipment
- 9.0 Use auxiliary equipment and tools
- 10.0 Perform weldment testing
- 11.0 Conduct a job search
- 12.0 Secure a job
- 13.0 Succeed on the job

## PRECISION METAL WORKERS, CONTINUED

Sheet Metal competencies include:

- 1.0 Design sheet metal parts or assemblies according to instructions, drawings and handbook references
- 2.0 Cut patterns with hand tools to form sheet metal assemblies and subassemblies
- 3.0 Cut patterns with machinery for sheet metal fabrication
- 4.0 Use hand tools to form sheet metal patterns
- 5.0 Use machine tools to form sheet metal patterns
- 6.0 Use a variety of fasteners and adhesives to assemble sheet metal sections
- 7.0 Use hot metal techniques to assemble sheet metal patterns
- 8.0 Use fiberglass and plastic patterns to form an assembly
- 9.0 Conduct a job search
- 10.0 Secure a job
- 11.0 Succeed on the job

## RESIDENTIAL ELECTRICIAN

**PROGRAM CODE:** 46.0300

**DESCRIPTION:** Level III

The Residential Electrician program prepares individuals to install, operate, maintain, trouble shoot and repair residential electrical systems. Fundamentals of the electrical trade include the information and basic skills for identification and usage of materials, blueprint reading, and the use of hand and power tools associated with residential wiring. In addition to the required technical skills, students will possess advanced employability skills including critical and conceptual thinking skills, applied academics, life management, and technology.

Residential Electrician competencies include:

- 1.0 Demonstrate safe work habits
- 2.0 Identify tools and equipment needed to complete work in the electrical trades.
- 3.0 Select and identify material to meet local code
- 4.0 Read blueprint and schematics to determine location of work to be done
- 5.0 Compute service loads to meet local code
- 6.0 Rough in feeders, branch circuit cables, and circuits to meet local code
- 7.0 Install lighting circuit fixtures to meet local code
- 8.0 Install environmental control components to meet local code
- 9.0 Install and maintain service entrance to meet local code
- 10.0 Install lighting fixtures to meet local code
- 11.0 Trim out electrical devices and appliances to meet local code
- 12.0 Plan and organize work to schedule manpower and materials
- 13.0 Install and maintain basic electrical circuits to meet local code
- 14.0 Install switch boxes and outlet boxes to meet local code
- 15.0 Maintain existing wiring to maintain longevity and safety of residence
- 16.0 Conduct a job search
- 17.0 Secure a job
- 18.0 Succeed on the job

## SALES AND MARKETING

**PROGRAM CODE:** 08.0700

**DESCRIPTION:** Level III

The Sales and Marketing program is designed to prepare students for employment in various sales, customer service, and/or first-line supervisory positions in wholesale, retail, and service establishments. A student completing this program will possess the technical knowledge and skills associated with sales, marketing, and related activities for broad categories of products and services. In addition to the required technical skills, students will possess advanced employability, critical thinking, applied academics, life management, business, economic, and leadership skills required for employees in sales and marketing occupations. Students will need good grooming and attendance/punctuality skills to be successful in acquiring and maintaining a job.

Sales and Marketing competencies include:

- 1.0 Compare economic systems
- 2.0 Describe the effects of economics on marketing decisions
- 3.0 Describe economic growth and change
- 4.0 Describe international marketing activities
- 5.0 Examine the role of marketing in making business decisions
- 6.0 Demonstrate pre-selling skills
- 7.0 Apply retail selling techniques
- 8.0 Examine commercial selling techniques
- 9.0 Examine consumer credit
- 10.0 Perform promotional activities
- 11.0 Describe factors influencing distribution decisions
- 12.0 Minimize shortages and losses due to errors, waste, and theft
- 13.0 Describe factors influencing buying and pricing decisions
- 14.0 Describe product planning decisions
- 15.0 Describe characteristics of small business
- 16.0 Examine financial considerations for a business
- 17.0 Use technology to support marketing tasks
- 18.0 Describe legal and ethical issues in marketing
- 19.0 Conduct a job search
- 20.0 Secure a job
- 21.0 Succeed on the job

## UPHOLSTERING

**PROGRAM CODE:** 48.0300

**DESCRIPTION:** Level III

The Upholstering program prepares individuals to work in all fields of upholstery including: automobiles, aircraft interiors, recreational vehicles (mobile homes, boats, and motorcycles), and furniture. Students will learn about non-apparel needle trade production such as awnings, athletic equipment, and special safety restraints. In addition to the required technical skills, students will possess advanced employability skills including critical and conceptual thinking skills, applied academics, life management, and technology.

Upholstering competencies include:

- 1.0 Demonstrate safe work habits
- 2.0 Describe careers in upholstery field
- 3.0 Demonstrate use of hand tools, power tools, and equipment
- 4.0 Demonstrate sewing techniques
- 5.0 Demonstrate use of power sewing machine
- 6.0 Describe fabric and materials and their uses
- 7.0 Identify fabric and materials for job
- 8.0 Demonstrate the use of patterns
- 9.0 Layout fabric/materials for job
- 10.0 Tear down components
- 11.0 Inspect and repair frames
- 12.0 Repair and rebuild foundations
- 13.0 Install upholstery covering
- 14.0 Conduct a job search
- 15.0 Secure a job
- 16.0 Succeed on the job

## VEHICLE AND MOBILE EQUIPMENT TECHNICIANS

**PROGRAM CODE:** 47.0600

**DESCRIPTION:** Level III

**CIP 48.0600 in Development.** Use competencies identified for Aircraft Mechanics, Air Cooled Engine Repair, Automotive Collision Repair Technology, Automotive Technology and Heavy Duty Truck Maintenance listed below, until new program is developed.

Aircraft Mechanics competencies include:

- 1.0 Demonstrate safe work habits
- 2.0 Apply principles of basic electricity
- 3.0 Use aircraft drawings
- 4.0 Perform weight and balance
- 5.0 Fabricate fluid lines and fittings
- 6.0 Use materials and processes
- 7.0 Perform ground operation and servicing
- 8.0 Perform cleaning and corrosion control
- 9.0 Document maintenance forms and records
- 10.0 Apply basic aerodynamics
- 11.0 Research maintenance publications
- 12.0 Identify mechanic privileges and limitations
- 13.0 Identify wood structures
- 14.0 Identify aircraft covering
- 15.0 Apply aircraft finishes
- 16.0 Repair sheet metal and nonmetallic structures
- 17.0 Perform welding
- 18.0 Perform assembly and rigging
- 19.0 Perform airframe inspection
- 20.0 Repair aircraft landing gear systems
- 21.0 Repair hydraulic and pneumatic power systems
- 22.0 Service cabin atmosphere control systems
- 23.0 Repair aircraft instrument systems
- 24.0 Repair communication and navigation systems
- 25.0 Repair aircraft fuel systems
- 26.0 Repair aircraft electrical systems
- 27.0 Repair position and warning systems

## VEHICLE AND MOBILE EQUIPMENT TECHNICIANS, CONTINUED

- 28.0 Repair ice and rain control systems
- 29.0 Repair fire protection systems
- 30.0 Repair reciprocating engines
- 31.0 Repair turbine engines
- 32.0 Perform engine inspection
- 33.0 Repair engine instrument systems
- 34.0 Repair engine protection systems
- 35.0 Repair engine electrical systems
- 36.0 Repair lubrication systems
- 37.0 Repair ignition and starting systems
- 38.0 Repair fuel metering systems
- 39.0 Repair engine fuel systems
- 40.0 Repair induction and engine airflow systems
- 41.0 Repair engine cooling systems
- 42.0 Repair engine exhaust and reverser systems
- 43.0 Conduct a job search
- 44.0 Apply for a job
- 45.0 Secure a job
- 46.0 Succeed on the job

Air Cooled Engine Repair competencies include:

- 1.0 Demonstrate safe work habits
- 2.0 Demonstrate the use of hand and power tools
- 3.0 Service, maintain, and repair cooling and lubricating systems
- 4.0 Disassemble, inspect, and reassemble an air cooled gasoline engine
- 5.0 Service, maintain, and repair ignition system for proper operation
- 6.0 Perform alternator service
- 7.0 Perform wheel and tire service
- 8.0 Prepare and clean components for inspection and service
- 9.0 Remove and replace components
- 10.0 Service, maintain, and repair carburetors and governors
- 11.0 Perform sharpening and set up of blades
- 12.0 Demonstrate use of manufacturers microfiche, specification manuals
- 13.0 Inspect, service, replace brakes, brake components
- 14.0 Inspect, service, repair, replace transmission/transaxle

## VEHICLE AND MOBILE EQUIPMENT TECHNICIANS, CONTINUED

- 15.0 Inspect, service, repair, replace exhaust/emission equipment
- 16.0 Analyze, troubleshoot non/poor running equipment
- 17.0 Conduct a job search
- 18.0 Secure a job
- 19.0 Succeed on the job

Automotive Collision Repair Technology competencies include:

- 1.0 Maintain a safe and healthy work environment
- 2.0 Prepare damage report
- 3.0 Demonstrate welding and cutting procedures
- 4.0 Demonstrate electrical and electronic repairs
- 5.0 Demonstrate mechanical repairs
- 6.0 Demonstrate structural repairs
- 7.0 Restore corrosion protection
- 8.0 Demonstrate panel alignment and replacement
- 9.0 Demonstrate metal finishing
- 10.0 Apply plastic body fillers
- 11.0 Demonstrate plastic/fiberglass repairs
- 12.0 Demonstrate the preparation of surfaces
- 13.0 Demonstrate coloring and finishing techniques
- 14.0 Conduct a job search
- 15.0 Secure a job
- 16.0 Succeed on the job

Automotive Technology competencies include:

- 1.0 Maintain safe work environment
- 2.0 Process work orders for service and/or repair
- 3.0 Perform repairs to the brake system
- 4.0 Perform repairs to electrical/electronic systems
- 5.0 Perform engine performance repairs
- 6.0 Perform repairs to steering and suspension systems
- 7.0 Conduct a job search
- 8.0 Secure a job
- 9.0 Succeed on the job
- 10.0

## VISUAL COMMUNICATIONS

**PROGRAM CODE:** 50.0400

**DESCRIPTION:** Level III

**CIP 50.0400 in Development.** Use competencies identified for either Commercial Art or Photo Imaging listed below, until a new program for Visual Communications is developed.

Commercial Art competencies include:

- 1.0 Demonstrate basic lab skills
- 2.0 Demonstrate design skills
- 3.0 Demonstrate illustration skills
- 4.0 Demonstrate electronic imaging skills
- 5.0 Demonstrate art production skills
- 6.0 Demonstrate entrepreneurial skills for commercial artists
- 7.0 Conduct a job search
- 8.0 Secure a job
- 9.0 Succeed on the job

Photo Imaging competencies include:

- 1.0 Demonstrate communication and interpersonal skills for photo-imaging
- 2.0 Review imaging as an art form and communication tool
- 3.0 Demonstrate safety and maintenance skills
- 4.0 Operate camera equipment
- 5.0 Demonstrate light control skills
- 6.0 Demonstrate black/white photo-imaging skills
- 7.0 Demonstrate color photo-imaging skills
- 8.0 Demonstrate electronic imaging skills
- 9.0 Develop and maintain self-marketing tools
- 10.0 Demonstrate business skills for photo-imaging
- 11.0 Investigate the imaging profession
- 12.0 Conduct a job search
- 13.0 Secure a job
- 14.0 Succeed on the job

**ARIZONA DEPARTMENT OF EDUCATION  
FY 2003 CTE Program List**

<b>2002 Rank</b>	<b>Program CTP</b>	<b>Comprehensive Program</b>
1	52.0200	NEW Business Management and Administrative Services
2	52.0400	Administrative Information Services
3	43.0100	Law Enforcement
4	08.0700	Sales and Marketing
5	52.1200	NEW Business Information Technology Services
6	47.0100	Electronics Technology
7	12.0500	Food Production/Culinary Arts
8	52.0800	Financial Services
9	51.1600	Nursing Services
10	08.0900	Hospitality services
11	48.0100	Drafting Technology
12	46.0300	Residential Electrician
13	43.0200	Fire Science
14	48.0500	Precision Metal Workers
15	46.0500	Plumbing
16	47.0600	Vehicle & Mobile Equipment Technicians
17	03.0200	Renewable Natural Resources
18	47.0200	Heating, Ventilation, Air Conditioning
19	46.0400	Building Maintenance
20	20.0300	Apparel Design and Merchandising
21	51.0800	Allied Health Services
22	01.0600	Horticulture
23	46.9900	Building Trades
24	51.0600	Dental Services
25	52.0300	Accounting
26	10.0100	Media Communication
27	49.0200	Heavy Equipment Operation
28	46.0200	Carpentry
29	20.0200	Early Childhood Professions
30	46.0100	Masonry
31	48.0200	Graphic Communication
32	12.0400	Cosmetology
33	48.0700	Cabinetmaking
34	01.0300	Agriscience
35	48.0300	Upholstering
36	50.0400	Visual Communications

## Comprehensive Program

### Codes and Titles

<b>52.0300</b>	<b>Accounting</b>	
	90.0000.10	Technological Foundations
	99.0400.10	Business Management Technology
	52.0300.10	Accounting
	52.0300.20	Accounting Systems Technology
		<b>-or-</b>
	52.0300.80	Accounting-Cooperative Education
<b>52.0400</b>	<b>Administrative Information Services</b>	
	90.0000.10	Technological Foundations
	99.0400.10	Business Management Technology
	52.0400.10	Administrative Services
	52.0400.20	Administrative Support Systems
		<b>-or-</b>
	52.0400.80	Administrative Information Services- Cooperative Education
<b>01.0300</b>	<b>Agricultural Business Management-Agriscience</b>	
	90.0000.10	Technological Foundations
	99.0300.20	Applied Biological Systems-Agriculture
	01.0300.10	Agriscience
	01.0300.20	Agriscience II
		<b>-or-</b>
	01.0300.30	Agriscience Business Management
		<b>-or-</b>
	01.0300.60	Agricultural Mechanics
		<b>-or-</b>
	01.0300.80	Agriscience Cooperative Education
<b>01.0600</b>	<b>Agricultural Business Management-Horticulture</b>	
	90.0000.10	Technological Foundations
	99.0300.20	Applied Biological Systems-Agriculture
	01.0600.10	Agriscience-Horticulture
	01.0600.20	Agriscience II-Horticulture
		<b>-or-</b>
	01.0600.30	Horticulture Business Management
		<b>-or-</b>
	01.0600.60	Agricultural Mechanics
		<b>-or-</b>
	01.0600.80	Horticulture-Cooperative Education

<b>03.0200</b>	<b>Agricultural Business Management-Renewable Natural Resources</b>	
	90.0000.10	Technological Foundations
	99.0300.20	Applied Biological Systems-Agriculture
	03.0200.10	Agriscience-Renewable Natural Resources
	03.0200.20	Agriscience II-Renewable Natural Resources
		<b>-or-</b>
	03.0200.30	Renewable Natural Resources Business Management
		<b>-or-</b>
	03.0200.60	Agricultural Mechanics
		<b>-or-</b>
	03.0200.80	Renewable Natural Resources-Cooperative Education
<b>51.0800</b>	<b>Allied Health Services</b>	
	90.0000.10	Technological Foundations
	99.0300.30	Applied Biological Systems-Health
	51.0800.10	Allied Health Services Fundamentals
	51.0800.20	Allied Health Services Applications
		<b>-or-</b>
	51.0800.80	Allied Health Services – Cooperative Education
<b>20.0300</b>	<b>Apparel Design and Merchandising</b>	
	90.0000.10	Technological Foundations
	99.0500.10	Human Services Technology
	20.0300.10	Apparel Design and Merchandising Fundamentals
	20.0300.20	Apparel Design and Merchandising Applications
		<b>-or-</b>
	20.0300.80	Apparel Design and Merchandising-Cooperative Education
<b>46.0400</b>	<b>Building Maintenance</b>	
	90.0000.10	Technological Foundations
	99.0200.10	Industrial Technology
	46.0400.10	Building Maintenance Fundamentals
	46.0400.20	Building Maintenance Advanced Applications
		<b>-or-</b>
	46.0400.80	Building Maintenance-Cooperative Education

<b>46.9900</b>	<b>Building Trades</b>	
	90.0000.10	Technological Foundations
	99.0200.10	Industrial Technology
	46.9900.10	Building Trades Fundamentals
	46.9900.20	Building Trades Applications
		<b>-or-</b>
	46.9900.80	Building Trades-Cooperative Education
<b>52.1200</b>	<b>Business Information Technology Services</b>	
	90.0000.10	Technological Foundations
	99.0100.10	Information Technology
	52.1200.10	Fundamentals of Business Information Technology Services
		<b>-and-</b>
	52.1200.20	Computer Maintenance
		<b>-or-</b>
	52.1200.30	Network Technology
		<b>-or-</b>
	52.1200.40	Software Development
		<b>-or-</b>
	52.1200.50	Information Support and Services
		<b>-and program may elect to add-</b>
	52.1200.80	Business Information Technology Services—Cooperative Education
<b>52.0200</b>	<b>Business Management and Administrative Services</b>	
	90.0000.10	Technological Foundations
	99.0400.10	Business Management Technology
	52.0200.10	Business Office Management / Administration Fundamentals
		<b>-and-</b>
	52.0200.20	Business Office Operations
		<b>-or-</b>
	52.0200.30	Administrative Information Management
		<b>-or-</b>
	52.0200.80	Business Management and Administrative Services-Cooperative Education
<b>48.0700</b>	<b>Cabinetmaking</b>	
	90.0000.10	Technological Foundations
	99.0200.10	Industrial Technology
	48.0700.10	Cabinetmaking Fundamentals
	48.0700.20	Cabinetmaking Advanced Applications
		<b>-or-</b>
	48.0700.80	Cabinetmaking-Cooperative Education

<b>46.0200</b>	<b>Carpentry</b>	
	90.0000.10	Technological Foundations
	99.0200.10	Industrial Technology
	46.0200.10	Framing Carpentry
	46.0200.20	Finish Carpentry
		<b>-or-</b>
	46.0200.80	Carpentry-Cooperative Education
<b>12.0400</b>	<b>Cosmetology</b>	
	90.0000.10	Technological Foundations
	99.0500.10	Human Services Technology
	12.0400.10	Cosmetology
	12.0400.20	Cosmetology Advanced Applications
		<b>-or-</b>
	12.0400.80	Cosmetology-Cooperative Education
<b>51.0600</b>	<b>Dental Services</b>	
	90.0000.10	Technological Foundations
	99.0300.30	Applied Biological Systems-Health
	51.0600.10	Dental Related Services
	51.0600.20	Dental Services Applications
		<b>-or-</b>
	51.0600.80	Dental Services-Cooperative Education
<b>48.0100</b>	<b>Drafting Technology</b>	
	90.0000.10	Technological Foundations
	99.0100.10	Information Technology
	48.0100.10	Drafting Technology Concepts
	48.0100.20	Drafting Technology Advanced Applications
		<b>-or-</b>
	48.0100.80	Drafting-Cooperative Education
<b>20.0200</b>	<b>Early Childhood Professions</b>	
	90.0000.10	Technological Foundations
	99.0500.10	Human Services Technology
	20.0200.10	Early Childhood Professions Fundamentals
	20.0200.20	Early Childhood Professions Application
		<b>-or-</b>
	20.0200.80	Early Childhood Professions-Cooperative Education

<b>47.0100</b>	<b>Electronics Technology</b>	90.0000.10 99.0200.10 47.0100.10 47.0100.20	Technological Foundations Industrial Technology Electrical and Electronic Fundamentals Advanced Electronics Technology <b>-or-</b> 47.0100.80 Electronics Technology-Cooperative
<b>52.0800</b>	<b>Financial Services</b>	90.0000.10 99.0400.10 52.0800.10 52.0800.20  52.0800.80	Technological Foundations Business Management Technology Banking and Related Financial Services Financial Services Technology <b>-or-</b> Financial Services-Cooperative Education
<b>43.0200</b>	<b>Fire Science</b>	90.0000.10 99.0200.10 43.0200.10 43.0200.20  43.0200.80	Technological Foundations Industrial Technology Fire Science Fundamentals Fire Science Advanced Application <b>-or-</b> Fire Science-Cooperative Education
<b>12.0500</b>	<b>Food Production/Culinary Arts</b>	90.0000.10 99.0300.40 12.0500.10 12.0500.20  12.0500.80	Technological Foundations Applied Biological Systems-Food Science Food Production/Culinary Arts Principles Food Production/Culinary Arts Applications <b>-or-</b> Food Production/Culinary Arts-Cooperative Education
<b>48.0200</b>	<b>Graphic Communication</b>	90.0000.10 99.0100.10 48.0200.10 48.0200.20  48.0200.80	Technological Foundations Information Technology Graphic Communication Fundamentals Graphic Communication Advanced Applications <b>-or-</b> Graphic Communication-Cooperative Education

<b>47.0200</b>	<b>Heating, Ventilation, Air Conditioning/Refrigeration</b>	
	90.0000.10	Technological Foundations
	99.0200.10	Industrial Technology
	47.0200.10	Heating, Ventilation, Air Conditioning/Refrigeration (HVAC/R) Fundamentals
	47.0200.20	Heating, Ventilation, Air Conditioning/Refrigeration (HVAC/R) Advanced Applications
	47.0200.80	<b>-or-</b> Heating, Ventilation, Air Conditioning/Refrigeration-(HVAC/R) Cooperative Education
<b>49.0200</b>	<b>Heavy Equipment Operation</b>	
	90.0000.10	Technological Foundations
	99.0200.10	Industrial Technology
	49.0200.10	Heavy Equipment Operation Fundamentals
	49.0200.20	Construction Equipment Operation Advanced Applications
	49.0200.80	<b>-or-</b> Construction Equipment Operation-Cooperative Education
<b>08.0900</b>	<b>Hospitality Services</b>	
	90.0000.10	Technological Foundations
	99.0400.10	Business Management Technology
	08.0900.10	Principles of Hospitality Services
	08.0900.20	Hospitality Services Applications
	08.0900.80	<b>or-</b> Hospitality Services-Cooperative Education
<b>43.0100</b>	<b>Law Enforcement</b>	
	90.0000.10	Technological Foundations
	99.0500.10	Human Services Technology
	43.0100.10	Policing Principles and Practices
	43.0100.20	Law Enforcement Applications
	43.0100.80	<b>-or-</b> Law Enforcement-Cooperative Education
<b>20.0101</b>	<b>LifeSkills</b>	
	90.0000.10	Technological Foundations
	99.0500.10	Human Services Technology
	20.0101.10	LifeSkills Fundamentals
	20.0101.20	LifeSkills Integration
	20.0101.90	<b>-or-</b> Service-Learning in the Community

<b>46.0100</b>	<b>Masonry</b>	
	90.0000.10	Technological Foundations
	99.0200.10	Industrial Technology
	46.0100.10	Masonry Fundamentals
	46.0100.20	Masonry Advanced Applications
		<b>-or-</b>
	46.0100.80	Masonry-Cooperative Education
<b>10.0100</b>	<b>Media Communication</b>	
	90.0000.10	Technological Foundations
	99.0100.10	Information Technology
	10.0100.10	Media Communication Fundamentals
	10.0100.20	Media Communication Advanced Applications
		<b>-or-</b>
	10.0100.80	Media Communication-Cooperative Education
<b>51.1600</b>	<b>Nursing Services</b>	
	90.0000.10	Technological Foundations
	99.0300.30	Applied Biological Systems-Health
	51.1600.10	Nursing Related Services
	51.1600.20	Nursing Services Applications
		<b>-or-</b>
	51.1600.80	Nursing Services-Cooperative Education
<b>46.0500</b>	<b>Plumbing</b>	
	90.0000.10	Technological Foundations
	90.0200.10	Industrial Technology
	46.0500.10	Plumbing Fundamentals
	46.0500.20	Plumbing Advanced Applications
		<b>-or-</b>
	46.0500.80	Plumbing-Cooperative Education
<b>48.0500</b>	<b>Precision Metal Workers</b>	
	90.0000.10	Technological Foundations
	99.0200.10	Industrial Technology
	48.0500.10	Fundamentals of Precision Metal Workers
		<b>-and-</b>
	48.0500.20	Sheet Metal Advanced Applications
		<b>-or-</b>
	48.0500.30	Welding Advanced Applications
		<b>-or-</b>
	48.0500.40	Machining Technology Advanced Applications
		<b>-or-</b>
	48.0500.80	Precision Metal Workers-Cooperative Education

<b>46.0300</b>	<b>Residential Electrician</b>	
	90.0000.10	Technological Foundations
	99.0200.10	Industrial Technology
	46.0300.10	Electrical Installation
	46.0300.20	Residential Electrician- Advanced Applications
		<b>-or-</b>
	46.0300.80	Residential Electrician-Cooperative Education
<b>08.0700</b>	<b>Sales and Marketing</b>	
	90.0000.10	Technological Foundations
	99.0400.10	Business Management Technology
	08.0700.10	Sales and Marketing
	08.0700.20	Sales and Marketing Applications
		<b>-or-</b>
	08.0700.30	Marketing Entrepreneurship
		<b>-or-</b>
	08.0700.40	Retailing
		<b>-or-</b>
	08.0700.50	Marketing Management
		<b>-or-</b>
	08.0700.80	Sales and Marketing-Cooperative Education
<b>48.0300</b>	<b>Upholstering</b>	
	90.0000.10	Technological Foundations
	99.0200.10	Industrial Technology
	48.0300.10	Upholstering Fundamentals
	48.0300.20	Upholstering Advanced Applications
		<b>-or-</b>
	43.0300.80	Upholstering-Cooperative Education
<b>47.0600</b>	<b>Vehicle and Mobile Equipment Technicians</b>	
	90.0000.10	Technological Foundations
	99.0200.10	Industrial Technology
	47.0600.10	Fundamentals of Vehicle and Mobile Equipment Technicians
		<b>-and-</b>
	47.0600.20	Aircraft Mechanics
		<b>-or-</b>
	47.0600.30	Air Cooled Engine Repair
		<b>-or-</b>
	47.0600.40	Automotive Collision Repair
		<b>-or-</b>
	47.0600.50	Automotive Technology
		<b>-or-</b>
	47.0600.80	Vehicle and Mobile Equipment Technicians-Cooperative Education

**50.0400 Visual Communications**

- 90.0000.10 Technological Foundations
- 99.0100.10 Information Technology
- 50.0400.10 Fundamentals of Visual Communications
- and-**
- 50.0400.20 Photo Imaging Advanced Applications
- or-**
- 50.0400.30 Commercial Art Advanced Applications
- or-**
- 50.0400.80 Visual Communications Cooperative Education

## Mission Statement

CTE Programs prepare students  
for transition from school to careers

**PROGRAM:**           **Accounting**

**PROGRAM  
CIP CODE:**       **52.0300**

**DESCRIPTION:**    *The **Accounting** program is designed to prepare students for employment in accounting positions requiring basic accounting and business skills. The instruction is designed, planned and delivered as a coherent sequence utilizing a delivery system which includes formal technical instruction, experiential learning, supervised cooperative work experience, Cooperative Office Education (COE) and leadership development through the Career and Technical Student Organization, Future Business Leaders of America (FBLA). The student completing this program will also develop advanced critical thinking, career development, applied academic, life management, business, economic and leadership skills required for employees in Accounting occupations.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8**                    ***The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:***

90.0000.10    ***Technological Foundations:*** All students **should** complete Level I experience or attain these competencies.

**Level II  
Grades  
9-10**                    ***The following course is recommended as part of a Comprehensive CTE ACCOUNTING Program:***

99.0400.10    ***Business Management Technology:*** Students **should** complete this Level II cluster or attain these competencies.

99.0100.10    ***Information Technology:*** If Business Management Technology is not available, students **may** complete this Level II cluster or attain these competencies.

## Accounting (continued)

Level III  
Grades  
11-12

*The following describes a recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III ACCOUNTING competencies are addressed in this instructional sequence.*

52.0300.10 **Accounting:** Accounting at Level III is recommended for students who have an interest in developing an understanding of creating and maintaining financial records for a business. The outcomes of this course are based on a set of competencies designed to prepare individuals to compute, classify and record numerical data to keep accurate financial records and prepare basic financial statements. A computer with business applications software is used by students to perform accounting tasks and other business competencies.

*One of the following Level III courses will be included as part of the instructional sequence for this program:*

52.0300.20 **Accounting Systems Technology:** The outcomes of this course are integrated into learning experiences allowing students to demonstrate the full range of accounting competencies through projects/ simulations.

52.300.80 **Accounting - Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work based learning experiences directly related to the competencies identified for the **Accounting** program.

## CERTIFICATION ABBREVIATIONS FOR THE ACCOUNTING PROGRAM

### CERTIFICATE TYPES:

- AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)
- BVT Basic Vocational Education Teacher
- IA Industrial Arts
- PVB Provisional Vocational Business
- PVBM Provisional Vocational Business and Marketing
- PVI Provisional Vocational Industrial Technology
- PVM Provisional Vocational Marketing
- PVT Provisional Vocational Education Teacher
- SVB Standard Vocational Business
- SVBM Standard Vocational Business and Marketing
- SVI Standard Vocational Industrial Technology
- SVM Standard Vocational Marketing
- SVT Standard Vocational Education Teacher

### APPROVAL TYPES:

- VBS Vocational Business
- VDE Vocational Distributive Education
- VIT Vocational Industrial and Technical Education
- VME Vocational Marketing Education
- VOE Vocational Office Education
- VTI Vocational Trades and Industrial Education
- VTT Vocational Trade and Technical Education

BEST COPY AVAILABLE



**PROGRAM: Administrative Information Services**

**PROGRAM**

**CIP CODE: 52.0400**

**DESCRIPTION:** *The **Administrative Information Services** program is designed to prepare students for employment in a variety of office support/management, secretarial and administrative support positions requiring skill with various computer software applications, data-analysis, decision-making, communications skills, and knowledge of cost effective business operations. The instruction is designed, planned and delivered as a coherent sequence, utilizing a delivery system which includes formal technical instruction, experiential learning, supervised cooperative work experience, Cooperative Office Education (COE) and the Career and Technical Student Organization, Future Business Leaders of America (FBLA). The student completing this program will also develop advanced critical thinking, career development, applied academic, life management, business, economic and leadership skills required for employees in Administrative Information Services occupations.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8** *The following course is recommended as part of a **Comprehensive Career and Technical Education (CTE) Program:***

90.0000.10 **Technological Foundations:** All students should complete Level I experience or attain these competencies.

**Level II  
Grades  
9-10** *The following course is recommended as part of a **Comprehensive CTE ADMINISTRATIVE INFORMATION SERVICES Program:***

99.0400.10 **Business Management Technology:** Students should complete this Level II cluster or attain these competencies.

## Administrative Information Services (continued)

Level III  
Grades  
11-12

*The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III ADMINISTRATIVE INFORMATION SERVICES competencies are addressed in this instructional sequence.*

52.0400.10 **Administrative Services:** This course at Level III is recommended for students who have an interest in developing skills and acquiring knowledge of creating and maintaining business records and providing business support services. The outcomes of this course are based on a set of competencies designed to prepare students to manage records, work as a team member, perform basic bookkeeping functions, process business information and manage resources. A computer and other business technologies are tools used by students to perform administrative information processing competencies.

*One of the following Level III courses will be included as part of the instructional sequence for this program:*

52.0400.20 **Administrative Support Systems:** The outcomes of this course are integrated into learning experiences allowing students to demonstrate the full range of administrative information services competencies through projects/ simulations.

52.0400.80 **Administrative Information Services - Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work based learning experiences directly related to the competencies identified for the **Administrative Information Services** program.

**CERTIFICATION ABBREVIATIONS FOR THE ADMINISTRATIVE INFORMATION SERVICES PROGRAM**

**CERTIFICATE TYPES:**

- *AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)*
- *BVT Basic Vocational Education Teacher*
- *PVB Provisional Vocational Business*
- *PVBM Provisional Vocational Business and Marketing*
- *PVM Provisional Vocational Marketing*
- *PVT Provisional Vocational Education Teacher*
- *SVB Standard Vocational Business*
- *SVBM Standard Vocational Business and Marketing*
- *SVM Standard Vocational Marketing*
- *SVT Standard Vocational Education Teacher*

**APPROVAL TYPES:**

- *VBS Vocational Business*
- *VDE Vocational Distributive Education*
- *VME Vocational Marketing Education*
- *VOE Vocational Office Education*

## CERTIFICATE REQUIREMENTS FOR THE ADMINISTRATIVE INFORMATION SERVICES PROGRAM

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

Business Management Technology	Type AVT, BVT, SVT, PVT Approval VDE	Type AVT, BVT, SVT, PVT Approval VME	Type PVM, SVM	Type PVBM, SVBM	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, SVB

**LEVEL III:** The instructor must be vocationally certified according to the following table:

Administrative Information Services	Type PVBM, SVBM	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, SVB	Type AVT, BVT, SVT, PVT Approval VDE	Type AVT, BVT, SVT, PVT Approval VME	Type PVM, SVM

**Note:**  
 Teacher/Coordinator Cooperative Education (CEN) is required for **52.0400.80**.  
 Diversified Cooperative Education course **Administrative Information Services, 52.0400.70** may be a part of the sequence.  
 The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.

**PROGRAM: Agricultural Business Management - Agriscience**

**PROGRAM**

**CIP CODE: 01.0300**

**DESCRIPTION:** *The **Agricultural Business Management - Agriscience** program is designed to prepare students for employment in various production, sales, and supplier positions related to the agriculture industry. Students completing this program will possess the technical knowledge and skills associated with agricultural science, production and health, marketing, and sales positions. In addition to the required technical skills, students will also develop leadership, advanced employability, critical thinking, applied academic, and life management skills. The program utilizes a delivery system made up of three essential components: formal instruction, experiential education, leadership and personal development through the Career and Technical Student Organization, FFA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8** *The following course is recommended as part of a **Comprehensive Career and Technical Education (CTE) Program:***

90.0000.10 **Technological Foundations:** All students should complete Level I experience or attain these competencies.

**Level II  
Grades  
9-10** *The following courses are recommended as part of a **Comprehensive CTE AGRICULTURAL BUSINESS MANAGEMENT - AGRISCIENCE Program:***

99.0300.20 **Applied Biological Systems-Agriculture:** Students should attain these competencies in a coherent sequence of courses.

99.0400.10 **Business Management Technology:** If an Applied Biological System-Agriculture course is not available, students may also complete this Level II cluster or attain these competencies.

## Agricultural Business Management - Agriscience (continued)

Level III  
Grades  
11-12

*The following describes a recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III AGRICULTURAL BUSINESS MANAGEMENT – AGRISCIENCE competencies, are addressed in this instructional sequence.*

01.0300.10 **Agriscience:** This course is designed to deliver the competencies associated with the science of plant and animal life and health.

*One of the following Level III courses will be included as part of the instructional sequences for this program:*

01.0300.20 **Agriscience II:** This course is designed to deliver the competencies associated with the production and processing of products derived from plants and animals.

01.0300.30 **Agriscience Business Management:** This course is designed to deliver the competencies associated with the management of a plant or animal production enterprise.

01.0300.80 **Agriscience - Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work based learning experiences directly related to the competencies identified for the **Agricultural Business Management -Agriscience** program.

*The following Level III course may be included as a part of the instructional sequence for this program:*

01.0300.60 **Agricultural Mechanics:** This specialized course is an extension of the agricultural mechanics skills that are an integral part of the **Agricultural Business Management - Agriscience** Program. This course includes instruction in agricultural power units; the planning and selection of materials for the construction of agricultural facilities equipment; and the mechanical practices associated with the management of livestock and animals.

**CERTIFICATION ABBREVIATIONS FOR THE AGRICULTURAL BUSINESS MANAGEMENT - AGRISCIENCE PROGRAM**

**CERTIFICATE TYPES:**

- AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)
- BVT Basic Vocational Education Teacher
- PVA Provisional Vocational Agriculture
- PVB Provisional Vocational Business
- PVBM Provisional Vocational Business and Marketing
- PVF Provisional Vocational Family Consumer Sciences
- PVH Provisional Vocational Health Occupations
- PVT Provisional Vocational Education Teacher
- SVA Standard Vocational Agriculture
- SVB Standard Vocational Business
- SVBM Standard Vocational Business and Marketing
- SVF Standard Vocational Family Consumer Sciences
- SVH Standard Vocational Health Occupations
- SVT Standard Vocational Education Teacher

**APPROVAL TYPES:**

- VAG Vocational Agriculture
- VBS Vocational Business
- VDE Vocational Distributive Education
- VFC Vocational Family & Consumer Sciences
- VHE Vocational Home Economics
- VHO Vocational Health Occupations
- VME Vocational Marketing Education
- VOE Vocational Office Education
- VRO Vocational Related Occupations

## CERTIFICATE REQUIREMENTS FOR THE AGRICULTURAL BUSINESS MANAGEMENT - AGRISCIENCE PROGRAM

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

	Type	Type						
<b>Applied Biological Systems</b>	AVT, BVT, PVT, SVT Approval VAG	PVA, SVA	AVT, BVT, PVT, SVT Approval VHE	AVT, BVT, PVT, SVT Approval VRO	AVT, BVT, PVT, SVT Approval VFC	PVF, SVF	AVT, BVT, PVT, SVT Approval VHO	PVH, SVH
<b>Business Management Technology</b>	AVT, BVT, SVT, PVT Approval VDE	AVT, BVT, SVT, PVT Approval VME	PVM, SVM	PVBM, SVBM	AVT, BVT, PVT, SVT Approval VOE	AVT, BVT, PVT, SVT Approval VBS	PVB, SVB	

**LEVEL III:** The instructor must be vocationally certified according to the following table:

	Type	Type
<b>Agricultural Business Management-Agriscience</b>	AVT, BVT, PVT, SVT Approval VAG	PVA, SVA

**Note:**

Teacher/Coordinator Cooperative Education (CEN) is required for **01.0300.80**.  
 Diversified Cooperative Education course **Agricultural Business Management-Agriscience, 01.0300.70** may be a part of the sequence.  
 The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.



**PROGRAM:** Agricultural Business Management - Horticulture

**PROGRAM**

**CIP CODE:** 01.0600

**DESCRIPTION:** *The **Agricultural Business Management - Horticulture** program is designed to prepare students for employment in various production, sales, and supplier positions related to the horticulture industry. Students completing this program will possess the technical knowledge and skills associated with nursery production, marketing and sales; landscape design, installation and maintenance positions. In addition to the required technical skills, students will also develop leadership, advanced employability, critical thinking, applied academic, and life management skills. The program utilizes a delivery system made up of three essential components: formal instruction; experiential education; leadership and personal development through the Career and Technical Student Organization, FFA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8** *The following course is recommended as part of a **Comprehensive Career and Technical Education (CTE) Program:***

90.0000.10 **Technological Foundations:** All students should complete Level I experience or attain these competencies.

**Level II  
Grades  
9-10** *The following courses are recommended as part of a **Comprehensive CTE AGRICULTURAL BUSINESS MANAGEMENT - HORTICULTURE Program:***

99.0300.20 **Applied Biological Systems-Agriculture:** Students should attain these competencies in a coherent sequence of courses.

99.0400.10 **Business Management Technology:** If an Applied Biological Systems-Agriculture course is not available students may also complete this Level II cluster or attain these competencies.

## Agricultural Business Management - Horticulture (continued)

Level III  
Grades  
11-12

*The following describes a recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III AGRICULTURAL BUSINESS MANAGEMENT - HORTICULTURE competencies are addressed in this instructional sequence.*

01.0600.10 **Agriscience - Horticulture:** This course is designed to deliver the competencies associated with the science of the horticulture industry.

*One of the following Level III courses will be included as part of the instructional sequence for this program:*

01.0600.20 **Agriscience II - Horticulture:** This course is designed to deliver the competencies associated with the design, installation, and maintenance of a nursery and/or landscaping enterprise.

01.0600.30 **Horticulture Business Management:** This course is designed to deliver the competencies associated with the management of a nursery and/or landscaping enterprise.

01.0600.80 **Horticulture - Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work based learning experiences directly related to the competencies identified for the **Agricultural Business Management - Horticulture** program.

*The following Level III course may be included as a part of the instructional sequence for this program:*

01.0600.60 **Agricultural Mechanics:** This specialized course is an extension of the agricultural mechanics skills that are an integral part of the **Agricultural Business Management - Horticulture** Program. This course includes instruction in agricultural power units, the planning and selection of materials for the construction of agricultural facilities and equipment, and the mechanical practices associated with irrigation, drainage, water conservation, and erosion control.

## CERTIFICATION ABBREVIATIONS FOR AGRICULTURAL BUSINESS MANAGEMENT – HORTICULTURE PROGRAM

**CERTIFICATE TYPES:**

- AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)
- BVT Basic Vocational Education Teacher
- PVA Provisional Vocational Agriculture
- PVB Provisional Vocational Business
- PVBM Provisional Vocational Business and Marketing
- PVF Provisional Vocational Family Consumer Sciences
- PVH Provisional Vocational Health Occupations
- PVM Provisional Vocational Marketing
- PVT Provisional Vocational Education Teacher
- SVA Standard Vocational Agriculture
- SVB Standard Vocational Business
- SVBM Standard Vocational Business and Marketing
- SVF Standard Vocational Family Consumer Sciences
- SVH Standard Vocational Health Occupations
- SVM Standard Vocational Marketing
- SVT Standard Vocational Education Teacher

**APPROVAL TYPES:**

- VAG Vocational Agriculture
- VBS Vocational Business
- VDE Vocational Distributive Education
- VFC Vocational Family & Consumer Sciences
- VHE Vocational Home Economics
- VHO Vocational Health Occupations
- VME Vocational Marketing Education
- VOE Vocational Office Education
- VRO Vocational Related Occupations

**CERTIFICATE REQUIREMENTS FOR THE AGRICULTURAL BUSINESS MANAGEMENT – HORTICULTURE PROGRAM**

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

<b>Applied Biological Systems</b>	Type AVT, BVT, PVT, SVT Approval VAG	Type PVA, SVA	Type AVT, BVT, PVT, SVT Approval VHE	Type AVT, BVT, PVT, SVT Approval VRO	Type AVT, BVT, PVT, SVT Approval VFC	Type PVF, SVF	Type AVT, BVT, PVT, SVT Approval VHO	Type PVH, SVH
<b>Business Management Technology</b>	Type AVT, BVT, SVT, PVT Approval VDE	Type AVT, BVT, SVT, PVT Approval VME	Type PVM, SVM	Type PVBM, SVBM	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, SVB	

**LEVEL III:** The instructor must be vocationally certified according to the following table:

<b>Agricultural Business Management-Horticulture</b>	Type AVT, BVT, PVT, SVT Approval VAG	Type PVA, SVA						
--	--	---------------------	--	--	--	--	--	--

**Note:**  
Teacher/Coordinator Cooperative Education (CEN) is required for **01.0600.80**.  
Diversified Cooperative Education course **Agricultural Business Management - Horticulture, 01.0600.70** may be a part of the sequence.  
The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.



**PROGRAM: Agricultural Business Management- Renewable Natural Resources**

**PROGRAM**

**CIP CODE: 03.0200**

**DESCRIPTION:** *The Agricultural Business Management - Renewable Natural Resources program is designed to prepare students for employment in various production, supplier, and service positions related to the renewable natural resources industry. Students completing this program will possess the technical knowledge and skills associated with fisheries/wildlife and forest/range production and management positions. In addition to the required technical skills, students will also develop leadership, advanced employability, critical thinking, applied academic, and life management skills. The program utilizes a delivery system made up of three essential components: formal instruction, experiential education, leadership and personal development through the Career and Technical Student Organization, FFA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8** *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete Level I experience or attain these competencies.

**Level II  
Grades  
9-10** *The following courses are recommended as part of a Comprehensive CTE AGRICULTURAL BUSINESS MANAGEMENT - RENEWABLE NATURAL RESOURCES Program:*

99.0300.20 **Applied Biological Systems-Agriculture:** Students should attain these competencies in a coherent sequence of courses.

99.0400.10 **Business Management Technology:** If an Applied Biological Systems-Agriculture course is not available students may also complete this Level II cluster or attain these competencies.

## Agricultural Business Management - Renewable Natural Resources (continued)

Level III  
Grades  
11-12

*The following describes a recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III AGRICULTURAL BUSINESS MANAGEMENT - RENEWABLE NATURAL RESOURCES competencies, are addressed in this instructional sequence:*

03.0200.10 **Agriscience - Renewable Natural Resources:** This course is designed to deliver the competencies associated with the science of fish and wildlife resources.

*One of the following Level III courses will be included as part of the instructional sequence for this program:*

03.0200.20 **Agriscience II - Renewable Natural Resources:** This course is designed to deliver the competencies associated with the management of natural forest and range resources

03.0200.30 **Renewable Natural Resources Business Management:** This course is designed to deliver the competencies associated with the utilization and management of fish, wildlife, forest and range resources.

03.0200.80 **Renewable Natural Resources - Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work based learning experiences directly related to the competencies identified for the **Agricultural Business Management - Renewable Natural Resources** program.

*The following Level III course may be included as a part of the instructional sequence for this program:*

03.0200.60 **Agricultural Mechanics:** This specialized course is an extension of the agricultural mechanics skills that are an integral part of the **Agricultural Business Management - Renewable Natural Resources** Program. This course includes instruction in agricultural power units, the planning and selection of materials for the construction of agricultural facilities and equipment, and the mechanical practices associated with drainage, water conservation and erosion control.

**CERTIFICATION ABBREVIATIONS FOR THE AGRICULTURAL BUSINESS MANAGEMENT – RENEWABLE NATURAL RESOURCES PROGRAM**

**CERTIFICATE TYPES:**

- AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)
- BVT Basic Vocational Education Teacher
- PVA Provisional Vocational Agriculture
- PVB Provisional Vocational Business
- PVBM Provisional Vocational Business and Marketing
- PVF Provisional Vocational Family Consumer Sciences
- PVM Provisional Vocational Marketing
- PVT Provisional Vocational Education Teacher
- SVA Standard Vocational Agriculture
- SVB Standard Vocational Business
- SVBM Standard Vocational Business and Marketing
- SVF Standard Vocational Family Consumer Sciences
- SVM Standard Vocational Marketing
- SVT Standard Vocational Education Teacher

**APPROVAL TYPES:**

- VAG Vocational Agriculture
- VBS Vocational Business
- VFC Vocational Family & Consumer Sciences
- VHE Vocational Home Economics
- VHO Vocational Health Occupations
- VOE Vocational Office Education
- VRO Vocational Related Occupations

**CERTIFICATE REQUIREMENTS FOR THE AGRICULTURAL BUSINESS MANAGEMENT – RENEWABLE NATURAL RESOURCES PROGRAM**

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

<b>Applied Biological Systems</b>	Type AVT, BVT, PVT, SVT Approval VAG	Type PVA, SVA	Type AVT, BVT, PVT, SVT Approval VHE	Type AVT, BVT, PVT, SVT Approval VRO	Type AVT, BVT, PVT, SVT Approval VFC	Type PVF, SVF	Type AVT, BVT, PVT, SVT Approval VHO	Type PVH, SVH
<b>Business Management Technology</b>	Type AVT, BVT, SVT, PVT Approval VDE	Type AVT, BVT, SVT, PVT Approval VME	Type PVM, SVM	Type PVBM, SVBM	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, SVB	

**LEVEL III:** The instructor must be vocationally certified according to the following table:

<b>Agricultural Business Management-Renewable Natural Resources</b>	Type AVT, BVT, PVT, SVT Approval VAG	Type PVA, SVA						
---	--	---------------------	--	--	--	--	--	--

**Note:**

Teacher/Coordinator Cooperative Education (CEN) is required for **03.0200.80**.  
 Diversified Cooperative Education course **Agricultural Business Management - Renewable Natural Resources, 03.0200.70** may be a part of the sequence.  
 The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.



**PROGRAM:** Allied Health Services

**PROGRAM  
CIP CODE:** 51.0800

**DESCRIPTION:** *The **Allied Health Services** program is designed to prepare students for employment in Allied Health professions. Students completing this program will possess knowledge and skills associated with a therapeutically oriented Allied Health program. In addition to technical skills, students completing this program will also develop advanced critical thinking, applied academic, career development, life management, business, economic, and leadership skills required for employment in therapeutically oriented Allied Health professions. The program utilizes a delivery system made up of four integral parts: formal technical instruction, experiential learning, supervised occupational experience, and the career and technical student organization, SkillsUSA-VICA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8** *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

99.0000.10 **Technological Foundations:** All students should complete Level I experience or attain these competencies.

**Level II  
Grades  
9-10** *The following courses are recommended as part of a Comprehensive ALLIED HEALTH SERVICES Program:*

99.0300.30 **Applied Biological Systems-Health:** Students should complete this Level II cluster or attain these competencies.

99.0500.10 **Human Services Technology:** If Applied Biological Systems – Health is not available students may complete this Level II cluster or attain these competencies.

## Allied Health Services (continued)

Level III  
Grades  
11–12

*The following describes the recommended sequence of courses developed from industry-validated skills necessary for employment or continued related education. All the Level III ALLIED HEALTH SERVICES competencies are addressed in this instructional sequence.*

51.0800.10 Allied Health Services Fundamentals: This course provides knowledge of common industry standards and practices related to the delivery of therapeutically oriented Allied Health Services.

*One of the following Level III courses will be included as part of the instructional sequence for this program:*

51.0800.20 **Allied Health Services Applications:** This course prepares students for advanced technical knowledge and skills in a therapeutically related Allied Health Services area.

51.0800.80 **Allied Health Services – Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and work based learning experiences directly related to the competencies identified for the **Allied Health Services** program.

## CERTIFICATION ABBREVIATIONS FOR THE ALLIED HEALTH SERVICES PROGRAM

### CERTIFICATE TYPES:

- AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)
- BVT Basic Vocational Education Teacher
- PVA Provisional Vocational Agriculture
- PVF Provisional Vocational Family Consumer Sciences
- PVH Provisional Vocational Health Occupations
- PVI Provisional Vocational Industrial Technology
- PVT Provisional Vocational Education Teacher
- SVA Standard Vocational Agriculture
- SVF Standard Vocational Family Consumer Sciences
- SVH Standard Vocational Health Occupations
- SVI Standard Vocational Industrial Technology
- SVT Standard Vocational Education Teacher

### APPROVAL TYPES:

- VAG Vocational Agriculture
- VFC Vocational Family & Consumer Sciences
- VHE Vocational Home Economics
- VHO Vocational Health Occupations
- VRO Vocational Related Occupations

## CERTIFICATE REQUIREMENTS FOR THE ALLIED HEALTH SERVICES PROGRAM

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

<b>Applied Biological Systems</b>	Type AVT, BVT, PVT, SVT Approval VAG	Type PVA, SVA	Type AVT, BVT, PVT, SVT Approval VHE	Type AVT, BVT, PVT, SVT Approval VRO	Type AVT, BVT, PVT, SVT Approval VFC	Type PVF, SVF	Type AVT, BVT, PVT, SVT Approval VHO	Type PVH, SVH
<b>Human Services Technology</b>	Type AVT, BVT, PVT, SVT Approval VHE	Type AVT, BVT, PVT, SVT Approval VRO	Type AVT, BVT, PVT, SVT Approval VFC	Type PVF, SVF	Type AVT, BVT, PVT, SVT Approval VHO	Type PVH, SVH		

**LEVEL III:** The instructor must be vocationally certified according to the following table:

<b>Allied Health Services</b>	Type AVT, BVT, PVT, SVT Approval VHO	Type PVH, SVH						
-------------------------------	--	---------------------	--	--	--	--	--	--

**Note:**  
Teacher/Coordinator Cooperative Education (CEN) is required for **51.0800.80**.  
Diversified Cooperative Education course **Allied Health Services, 51.0800.70** may be a part of the sequence.  
The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.

**PROGRAM:** Apparel Design and Merchandising

**PROGRAM**

**CIP CODE:** 20.0300

**DESCRIPTION:** *The **Apparel Design and Merchandising** program is designed to prepare students for employment in various apparel design, production, apparel sales, customer service, and/or first-line supervisory positions in apparel wholesale and retail establishments. A student completing this program will possess the technical knowledge and skills associated with apparel design/production and apparel selection, purchase, sales, and promotion. In addition to technical skills, students completing this program will also develop advanced critical thinking, career development, applied academic, life management, business economic, and leadership skills required for entry into Apparel Design and Merchandising occupations. The program utilizes a delivery system made up of four integral parts: formal/technical instruction, experiential learning, supervised occupational experience, and the Career and Technical Student Organization, FCCLA or DECA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8** *The following course is recommended as part of a **Comprehensive Career and Technical Education (CTE) Program:***

90.0000.10 **Technological Foundations:** All students should complete Level I experience or attain these competencies.

**Level II  
Grades  
9-10** *The following courses are recommended as part of a **Comprehensive CTE APPAREL DESIGN AND MERCHANDISING Program:***

99.0500.10 **Human Services Technology:** Students should complete this Level II cluster or attain these competencies.

99.0100.10 **Information Technology:** Students may complete this Level II cluster or attain these competencies. This is recommended for students who want to develop skills in manual and computer-assisted design and communications.

## Apparel Design and Merchandising (continued)

99.0400.10 **Business Management Technology:** Students may complete this Level II cluster or attain these competencies. This is recommended for students who are interested in business operations, management, and finance.

Level III  
Grades  
11-12

***The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III APPAREL DESIGN AND MERCHANDISING competencies are addressed in this instructional sequence.***

20.0300.10 **Apparel Design and Merchandising Fundamentals:** This course introduces students to the technical knowledge and skills associated with apparel design, production, selection, marketing principles, display, purchase, sales and promotion.

***One of the following Level III courses will be included as part of the instructional sequence for this program:***

20.0300.20 **Apparel Design and Merchandising Applications:** This course is designed for students to apply advanced occupational skills in apparel design, production, selection marketing principles, display, purchase, sales and promotion.

20.0300.80 **Apparel Design and Merchandising – Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work based learning experiences, directly related to the competencies identified for the **Apparel Design and Merchandising** program.

## CERTIFICATION ABBREVIATIONS FOR THE APPAREL DESIGN AND MERCHANDISING PROGRAM

CERTIFICATE TYPES:	APPROVAL TYPES:
<ul style="list-style-type: none"> <li>• AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)</li> <li>• BVT Basic Vocational Education Teacher</li> <li>• IA Industrial Arts</li> <li>• PVB Provisional Vocational Business</li> <li>• PVBM Provisional Vocational Business and Marketing</li> <li>• PVF Provisional Vocational Family Consumer Sciences</li> <li>• PVH Provisional Vocational Health Occupations</li> <li>• PVI Provisional Vocational Industrial Technology</li> <li>• PVM Provisional Vocational Marketing</li> <li>• PVT Provisional Vocational Education Teacher</li> <li>• SVB Standard Vocational Business</li> <li>• SVBM Standard Vocational Business and Marketing</li> <li>• SVF Standard Vocational Family Consumer Sciences</li> <li>• SVH Standard Vocational Health Occupations</li> <li>• SVI Standard Vocational Industrial Technology</li> <li>• SVM Standard Vocational Marketing</li> <li>• SVT Standard Vocational Education Teacher</li> </ul>	<ul style="list-style-type: none"> <li>• VBS Vocational Business</li> <li>• VDE Vocational Distributive Education</li> <li>• VFC Vocational Family &amp; Consumer Sciences</li> <li>• VHE Vocational Home Economics</li> <li>• VHO Vocational Health Occupations</li> <li>• VIT Vocational Industrial and Technical Education</li> <li>• VME Vocational Marketing Education</li> <li>• VOE Vocational Office Education</li> <li>• VRO Vocational Related Occupations</li> <li>• VTI Vocational Trades and Industrial Education</li> <li>• VTT Vocational Trade and Technical Education</li> </ul>



**CERTIFICATE REQUIREMENTS FOR THE APPAREL DESIGN AND MERCHANDISING PROGRAM**

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

<b>Human Services Technology</b>	Type AVT, BVT, PVT, SVT Approval VHE	Type AVT, BVT, PVT, SVT Approval VRO	Type AVT, BVT, PVT, SVT Approval VFC	Type PVF, SVF	Type AVT, BVT, PVT, SVT Approval VHO	Type PVH, SVH		
	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, SVB, PVM, SVM	Type PVB, SVB, SVBM	Type IA	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VVI
	Type AVT, BVT, SVT, PVT Approval VDE	Type AVT, BVT, SVT, PVT Approval VME	Type PVM, SVM	Type PVB, SVB, SVBM	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, SVB	

**LEVEL III:** The instructor must be vocationally certified according to the following table:

<b>Apparel Design and Merchandising</b>	Type AVT, BVT, PVT, SVT Approval VHE	Type AVT, BVT, PVT, SVT Approval VRO	Type AVT, BVT, PVT, SVT Approval VFC	Type PVF, SVF	Type AVT, BVT, SVT, PVT Approval VDE	Type AVT, BVT, SVT, PVT Approval VME	Type PVM, SVM	Type PVB, SVB, SVBM	Type AVT, BVT, SVT, PVT Approval VOE	Type AVT, BVT, SVT, PVT Approval VBS	Type PVB, SVB
---	--	--	--	---------------------	--	--	---------------------	---------------------------	--	--	---------------------

**Note:**  
Teacher/Coordinator Cooperative Education (CEN) is required for **20.0300.80**.  
Diversified Cooperative Education course **Apparel Design and Merchandising, 20.0300.70** may be a part of the sequence.  
The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.



**PROGRAM:** Building Maintenance

**PROGRAM**

**CIP CODE:** 46.0400

**DESCRIPTION:** *The **Building Maintenance** program is designed to prepare students to maintain the physical plant and operating systems of commercial and residential buildings. It includes instruction in construction, installation, and repair skills related to carpentry, air conditioning, heating, plumbing, electrical, custodial equipment, and other mechanical systems. In addition to technical skills, students completing this program will also develop advanced critical thinking, career development, applied academic, life management, business, economic, and leadership skills required for Building Maintenance occupations. The program uses a delivery system made up of four integral parts: formal/technical instruction, experiential learning, supervised occupational experience, and the Career and Technical Student Organization, SkillsUSA-VICA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8** *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete Level I experience or attain these competencies.

**Level II  
Grades  
9-10** *The following courses are recommended as part of a Comprehensive CTE BUILDING MAINTENANCE Program:*

99.0200.10 **Industrial Technology:** Students should complete this Level II cluster or attain these competencies.

99.0100.10 **Information Technology:** Students may complete this Level II or attain these competencies.

## Building Maintenance (continued)

99.0400.10 **Business Management Technology:** Students may complete this Level II cluster or attain these competencies. This is recommended for students who wish to specialize in the entrepreneurial aspects of this industry.

Level III  
Grades  
11-12

*The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III BUILDING MAINTENANCE competencies are addressed in this instructional sequence.*

46.0400.10 **Building Maintenance Fundamentals:** This course prepares students to apply technical knowledge and skills in order to keep a building functioning, and to service a variety of types of structures including commercial and industrial buildings and mobile homes. Includes instruction in the basic maintenance and repair skills required to service building air conditioning, heating, plumbing, electrical, major appliances and other mechanical systems.

*One of the following Level III courses will be included as part of the instructional sequence for this program:*

46.0400.20 **Building Maintenance Advanced Applications:** This course prepares students for advanced technical knowledge and skills using a variety of building maintenance techniques and equipment

46.0400.80 **Building Maintenance – Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work based learning experiences, directly related to the competencies identified for the **Building Maintenance** program.

## CERTIFICATION ABBREVIATIONS FOR THE BUILDING MAINTENANCE PROGRAM

**CERTIFICATE TYPES:**

- AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)
- BVT Basic Vocational Education Teacher
- IA Industrial Arts
- PVB Provisional Vocational Business
- PVBM Provisional Vocational Business and Marketing
- PVI Provisional Vocational Industrial Technology
- PVM Provisional Vocational Marketing
- PVT Provisional Vocational Education Teacher
- SVB Standard Vocational Business
- SVBM Standard Vocational Business and Marketing
- SVI Standard Vocational Industrial Technology
- SVM Standard Vocational Marketing
- SVT Standard Vocational Education Teacher

**APPROVAL TYPES:**

- VBS Vocational Business
- VDE Vocational Distributive Education
- VIT Vocational Industrial and Technical Education
- VME Vocational Marketing Education
- VOE Vocational Office Education
- VTI Vocational Trades and Industrial Education
- VTT Vocational Trade and Technical Education

**CERTIFICATE REQUIREMENTS FOR THE BUILDING MAINTENANCE PROGRAM**

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

<b>Industrial Technology</b>	Type IA	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VTI	Type PVI, SVI			
<b>Business Management Technology</b>	Type AVT, BVT, SVT, PVT Approval VDE	Type AVT, BVT, SVT, PVT Approval VME	Type PVM, SVM	Type PVB, PVM, SVB, SVM	Type PVB, PVM, SVB, SVM	Type PVB, PVM, SVB, SVM	Type PVB, PVB, SVB, SVB	Type AVT, BVT, PVT, SVT Approval VBS
<b>Information Technology</b>	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, PVM, SVB, SVM	Type PVB, PVM, SVB, SVM	Type PVB, PVM, SVB, SVM	Type PVB, PVM, SVB, SVM	Type PVB, PVB, SVB, SVB	Type AVT, BVT, PVT, SVT Approval VTT
					Type IA	Type AVT, BVT, PVT, SVT Approval VOE	Type PVB, PVB, SVB, SVB	Type AVT, BVT, PVT, SVT Approval VTI
								Type PVI, SVI
								Type AVT, BVT, PVT, SVT Approval VTI
								Type PVI, SVI

**LEVEL III:** The instructor must be vocationally certified according to the following table:

<b>Building Maintenance</b>	Type IA	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VTI	Type PVI, SVI			
-----------------------------	------------	--	--	--	---------------------	--	--	--

**Note:**

Teacher/Coordinator Cooperative Education (CEN) is required for **46.0400.80**.  
 Diversified Cooperative Education course **Building Maintenance, 46.0400.70** may be a part of the sequence.  
 The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.



**PROGRAM:** Building Trades

**PROGRAM**

**CIP CODE:** 46.9900

**DESCRIPTION:** *The **Building Trades** program is designed to prepare students for employment in jobs related to the residential construction industry. Instruction provides an integrated approach for teaching skills in carpentry, dry wall installation, roofing, masonry, plumbing, and wiring needed for residential construction. In addition to technical skills, students completing this program will also develop advanced critical thinking, career development, applied academic, life management, business, economic and leadership skills required for employees in Building Trades occupations. The program uses a delivery system made up of four integral parts: formal technical instruction, experiential learning, supervised occupational experience and the Career and Technical Student Organization, SkillsUSA-VICA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8** *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete Level I experience or attain these competencies.

**Level II  
Grades  
9-10** *The following courses are recommended as part of a Comprehensive CTE BUILDING TRADES Program:*

99.0200.10 **Industrial Technology:** Students should complete this Level II cluster or attain these competencies.

99.0400.10 **Business Management:** Students may complete this Level II cluster or attain these competencies. This is recommended for students who wish to emphasize the entrepreneurial aspects of this industry.

## Building Trades (continued)

Level III  
Grades  
11-12

*The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III BUILDING TRADES competencies are addressed in this instructional sequence.*

46.9900.10 **Building Trades Fundamentals:** This course prepares students to apply technical knowledge and skills to construct a residential building. Foundation skills such as the use of tools, building layout, and construction will be covered in this course. Students will have the opportunity to apply techniques while building a structure.

*One of the following Level III courses will be included as part of the instructional sequence for this program:*

46.9900.20 **Building Trades Applications:** This course prepares students to refine their technical knowledge and increase the skills learned in Building Trades Fundamentals. Students will be able to focus on areas of interest in the areas of plumbing, construction, wiring, dry wall or roofing.

46.9900.80 **Building Trades – Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work based learning experiences, directly related to the competencies identified for the **Building Trades** program.

## CERTIFICATION ABBREVIATIONS FOR THE BUILDING TRADES PROGRAM

**CERTIFICATE TYPES:**

- AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)
- BVT Basic Vocational Education Teacher
- IA Industrial Arts
- PVB Provisional Vocational Business
- PVBM Provisional Vocational Business and Marketing
- PVI Provisional Vocational Industrial Technology
- PVM Provisional Vocational Marketing
- PVT Provisional Vocational Education Teacher
- SVB Standard Vocational Business
- SVBM Standard Vocational Business and Marketing
- SVI Standard Vocational Industrial Technology
- SVM Standard Vocational Marketing
- SVT Standard Vocational Education Teacher

**APPROVAL TYPES:**

- VBS Vocational Business
- VDE Vocational Distributive Education
- VIT Vocational Industrial and Technical Education
- VME Vocational Marketing Education
- VOE Vocational Office Education
- VTI Vocational Trades and Industrial Education
- VTT Vocational Trade and Technical Education

## CERTIFICATE REQUIREMENTS FOR THE BUILDING TRADES PROGRAM

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

<b>Industrial Technology</b>	Type IA	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VTI	Type PVI, SVI		
<b>Business Management Technology</b>	Type AVT, BVT, SVT, PVT Approval VDE	Type AVT, BVT, SVT, PVT Approval VME	Type PVM, SVM	Type PVB, SVBM, SVBM	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, SVB

**LEVEL III:** The instructor must be vocationally certified according to the following table:

<b>Building Trades</b>	Type IA	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VTI	Type PVI, SVI		
------------------------	------------	--	--	--	---------------------	--	--

**Note:**  
Teacher/Coordinator Cooperative Education (CEN) is required for **46.9900.80**.  
Diversified Cooperative Education course **Building Trades, 46.9900.70** may be a part of the sequence.  
The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.

**PROGRAM:** Business Information Technology Services

**PROGRAM**

**CIP CODE:** 52.1200

**DESCRIPTION:** *The **Business Information Technology Services** program is designed to prepare students for employment related to the information technology industry. Instruction provides an integrated approach for teaching skills in information technology. The program options are: a) Computer Maintenance, b) Network Technologies, c) Software Development, d) Information Support and Services. An integrated approach to teaching and learning is recommended as students develop interpersonal relations, career development skills and technical knowledge and skills associated with functions essential for employees in Business Information Technology Services occupations. The program uses a delivery system made up of four integral parts: formal technical instruction, experiential learning, supervised occupational experience and the Career and Technical Student Organization, FBLA or SkillsUSA-VICA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8** *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete Level I experience or attain these competencies.

**Level II  
Grades  
9-10** *The following courses are recommended as part of a Comprehensive CTE BUSINESS INFORMATION TECHNOLOGY SERVICES Program:*

99.0100.10 **Information Technology:** Students should complete this Level II cluster or attain these competencies.

99.0400.10 **Business Management Technology:** Students may complete this Level II cluster or attain these competencies. This is recommended for students who have an interest in sole proprietorships, management and supervisory occupations.

## Business Information Technology Services (continued)

Level III  
Grades  
11-12

*The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III BUSINESS INFORMATION TECHNOLOGY SERVICES PROGRAM competencies are addressed in this instructional sequence.*

52.1200.10 **Fundamentals of Business Information Technology Services:** This course prepares the student to apply technical knowledge and skills in the safety, adjustment, maintenance, part replacement, and repair of tools, equipment and machines.

*One of the four Level III options (.20 or .30 or .40 or .50) will be included as part of the instructional sequence for this program:*

52.1200.20 **Computer Maintenance:** This course prepares students to apply basic electronic theory and principles in diagnosing and repairing personal computers and input/output devices.

52.1200.30 **Network Technology:** This course prepares students to install terminals, routers and switches in setting up local area and wide area networks to support business operations.

52.1200.40 **Software Development:** This course prepares students to apply software theory and programming methods to the solution of business data problems.

52.1200.50 **Information Support and Services:** This course prepares students to assist users of personal computers by diagnosing problems they have in using application software packages.

*And program may elect to add:*

52.1200.80 **Business Information Technology Services-Cooperative Education:** This course utilizes cooperative education methodology to combine school based and supervised work based learning experiences directly related to the competencies identified for the **Business Information Technology Services** program.

**CERTIFICATION ABBREVIATIONS FOR THE BUSINESS INFORMATION TECHNOLOGY SERVICES PROGRAM**

**CERTIFICATE TYPES:**

- AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)
- BVT Basic Vocational Education Teacher
- IA Industrial Arts
- PVB Provisional Vocational Business
- PVBM Provisional Vocational Business and Marketing
- PVI Provisional Vocational Industrial Technology
- PVM Provisional Vocational Marketing
- PVT Provisional Vocational Education Teacher
- SVB Standard Vocational Business
- SVBM Standard Vocational Business and Marketing
- SVI Standard Vocational Industrial Technology
- SVM Standard Vocational Marketing
- SVT Standard Vocational Education Teacher

**APPROVAL TYPES:**

- VBS Vocational Business
- VDE Vocational Distributive Education
- VIT Vocational Industrial and Technical Education
- VME Vocational Marketing Education
- VOE Vocational Office Education
- VTI Vocational Trades and Industrial Education
- VTT Vocational Trade and Technical Education

**CERTIFICATE REQUIREMENTS FOR THE BUSINESS INFORMATION TECHNOLOGY SERVICES PROGRAM**

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

<b>Information Technology</b>	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, SVB, PVM, SVM	Type PVBM, SVBM	Type IA	Type AVT, BVT, PVT, SVT Approval VTI	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VIT	Type PVI, SVI
<b>Business Management Technology</b>	Type AVT, BVT, SVT, PVT Approval VDE	Type AVT, BVT, SVT, PVT Approval VME	Type PVB, SVB, PVM, SVM	Type PVBM, SVBM SVBM	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS			

**LEVEL III:** The instructor must be vocationally certified according to the following table:

<b>Business Information Technology Services</b>	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, SVB, PVM, SVM	Type PVBM, SVBM	Type IA	Type AVT, BVT, PVT, SVT Approval VTI	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VIT	Type PVI, SVI
---	--	--	-------------------------------	-----------------------	------------	--	--	--	---------------------

**Note:**

Teacher/Coordinator Cooperative Education (CEN) is required for 52.1200.80.  
 Diversified Cooperative Education course **Business Information Technology Services 52.1200.70** may be a part of the sequence.  
 The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.



**PROGRAM:** Business Management and Administrative Services

**PROGRAM**

**CIP CODE:** 52.0200

**DESCRIPTION:** *The **Business Management and Administrative Services** instructional program generally prepares students to perform technical support services involved with planning, organizing, researching, directing and controlling functions and processes related to the production, buying and selling of good and services. An integrated approach to teaching and learning is recommended as students develop interpersonal relations, career development skills and technical knowledge and skills associated with functions essential for a business operation. Students completing this program will be prepared to participate in teams to solve problems and think critically about business related issues and implement effective solutions. The program is designed and delivered as a coherent sequence of experiences using technical instruction, experiential learning, supervised occupational experience (COE), leadership and personal development through the career and technical student organization, Future Business Leaders of America.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8** *The following course is recommended as part of a **Comprehensive Career and Technical Education (CTE) Program**:*

90.0000.10 **Technological Foundations:** All students should complete Level I experience or attain these competencies.

**Level II  
Grades  
9-10** *The following course is recommended as part of a **Comprehensive CTE BUSINESS MANAGEMENT AND ADMINISTRATIVE SERVICES Program**:*

99.0400.10 **Business Management Technology:** Students should complete this Level II cluster to attain these competencies. This is recommended for students who have an interest in business operations, management and supervisory occupations.

99.0100.10 **Information Technology:** Students may complete this Level II cluster to attain these competencies.

## Business Management and Administrative Services (continued)

Level III  
Grades  
11-12

*The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All of the Level III BUSINESS MANAGEMENT AND ADMINISTRATIVE SERVICES competencies are addressed in this instructional sequence.*

52.0200.10 **Business Office Management/Administration Fundamentals:** This course prepares students with technical skills and knowledge related to the economics, management and administrative support functions of business, which cut across industries.

*One of the following Level III courses will be included as part of the instructional sequence for this program:*

52.0200.20 **Business Office Operations:** This course includes instruction in applied research, business communications, principles of business law, public relations, information management, meeting planning and office supervisory skills.

52.0200.30 **Administrative Information Management:** This course includes instruction in integrated computer software applications as they apply to the technical support functions related to the operation of enterprises and buying and selling of goods and services.

52.0200.80 **Business Management and Administrative Services- Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work-based learning experiences directly related to the competencies identified for the **Business Management and Administrative Services** program.

**CERTIFICATION ABBREVIATIONS FOR THE BUSINESS MANAGEMENT AND ADMINISTRATIVE SERVICES PROGRAM**

CERTIFICATE TYPES:	APPROVAL TYPES:
• AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)	• VBS Vocational Business
• BVT Basic Vocational Education Teacher	• VDE Vocational Distributive Education
• IA Industrial Arts	• VIT Vocational Industrial and Technical Education
• PVB Provisional Vocational Business	• VME Vocational Marketing Education
• PVBM Provisional Vocational Business and Marketing	• VOE Vocational Office Education
• PVI Provisional Vocational Industrial Technology	• VTI Vocational Trades and Industrial Education
• PVM Provisional Vocational Marketing	• VTT Vocational Trade and Technical Education
• PVT Provisional Vocational Education Teacher	
• SVB Standard Vocational Business	
• SVBM Standard Vocational Business and Marketing	
• SVI Standard Vocational Industrial Technology	
• SVM Standard Vocational Marketing	
• SVT Standard Vocational Education Teacher	

**CERTIFICATE REQUIREMENTS FOR THE BUSINESS MANAGEMENT AND ADMINISTRATIVE SERVICES PROGRAM**

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

	Type AVT, BVT, SVT, PVT Approval VDE	Type AVT, BVT, SVT, PVT Approval VME	Type PVM, SVM	Type PVBM, SVBM	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, SVB, PVM, SVM	Type PVBM, SVBM	Type IA	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VBS	Type PV/B, SVB	Type AVT, BVT, PVT, SVT Approval VTI	Type PVI, SVI
<b>Business Management Technology</b>														
<b>Information Technology</b>														

**LEVEL III:** The instructor must be vocationally certified according to the following table:

	Type PVBM, SVBM	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB SVB	Type AVT, BVT, PVT, SVT Approval VDE	Type AVT, BVT, PVT, SVT Approval VME	Type PVM, SVM
<b>Business Management and Administrative Services</b>							

**Note:**

Teacher/Coordinator Cooperative Education (CEN) is required for **52.0200.80** Diversified Cooperative Education course **Business Management and Administrative Services 52.0200.70** may be a part of the sequence. The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.



**PROGRAM:** Cabinetmaking

**CIP CODE:** 48.0700

**DESCRIPTION:** *The **Cabinetmaking** program is designed to prepare students for employment in the field of millwork and cabinetmaking. Instruction includes job planning, drafting, material layout, cutting, shaping, assembling, finishing of wood pieces, and installing hardware. It also contains information related to drafting, production, and installation. In addition to technical skills, students completing this program will also develop advanced critical thinking, applied academic, career development, life management, business, economic, and leadership skills required for Cabinetmaking occupations. The program utilizes a delivery system made up of four integral parts: formal technical instruction, experiential learning, supervised occupational experience, and the Career and Technical Student Organization, SkillsUSA-VICA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8** *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students **should** complete Level I experience or attain these competencies.

**Level II  
Grades  
9-10** *The following courses are recommended as part of a Comprehensive CTE CABINETMAKING Program:*

99.0200.10 **Industrial Technology:** Students **should** complete this Level II cluster or attain these competencies.

99.0400.10 **Business Management:** Students **may** complete this Level II cluster or attain these competencies.

## Cabinetmaking (continued)

Level III  
Grades  
11-12

*The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III CABINETMAKING competencies are addressed in this instructional sequence.*

48.0700.10 **Cabinetmaking Fundamentals:** This course prepares students to apply technical knowledge and skills to set up, operate and repair industrial woodworking machinery, and to use such machinery to design and fabricate wooden components and complete articles.

*One of the following Level III courses will be included as part of the instructional sequence for this program:*

48.0700.20 **Cabinetmaking Advanced Applications:** This course prepares students for advanced technical knowledge and skills using a variety of cabinetmaking techniques and equipment.

48.0700.80 **Cabinetmaking – Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work based learning experiences directly related to the competencies identified for the **Cabinetmaking** program.

## CERTIFICATION ABBREVIATIONS FOR THE CABINETMAKING PROGRAM

**CERTIFICATE TYPES:**

- AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)
- BVT Basic Vocational Education Teacher
- IA Industrial Arts
- PVB Provisional Vocational Business
- PVBM Provisional Vocational Business and Marketing
- PVI Provisional Vocational Industrial Technology
- PVM Provisional Vocational Marketing
- PVT Provisional Vocational Education Teacher
- SVB Standard Vocational Business
- SVBM Standard Vocational Business and Marketing
- SVI Standard Vocational Industrial Technology
- SVM Standard Vocational Marketing
- SVT Standard Vocational Education Teacher

**APPROVAL TYPES:**

- VBS Vocational Business
- VDE Vocational Distributive Education
- VIT Vocational Industrial and Technical Education
- VME Vocational Marketing Education
- VOE Vocational Office Education
- VTI Vocational Trades and Industrial Education
- VTT Vocational Trade and Technical Education

## CERTIFICATE REQUIREMENTS FOR THE CABINETMAKING PROGRAM

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

	Type	Type	Type	Type	Type	Type
<b>Industrial Technology</b>	IA	AVT, BVT, PVT, SVT Approval VIT	AVT, BVT, PVT, SVT Approval VIT	AVT, BVT, PVT, SVT Approval VTI	PVI, SVI	
<b>Business Management Technology</b>	AVT, BVT, SVT, PVT Approval VDE	AVT, BVT, SVT, PVT Approval VME	PVM, SVM	PVBM, SVBM	AVT, BVT, PVT, SVT Approval VOE	AVT, BVT, PVT, SVT Approval VBS Type PVB, SVB

**LEVEL III:** The instructor must be vocationally certified according to the following table:

	Type	Type	Type	Type	Type	Type
<b>Cabinetmaking</b>	IA	AVT, BVT, PVT, SVT Approval VIT	AVT, BVT, PVT, SVT Approval VIT	AVT, BVT, PVT, SVT Approval VTI	PVI, SVI	

**Note:**

Teacher/Coordinator Cooperative Education (CEN) is required for **48.0700.80**.

Diversified Cooperative Education course **Cabinetmaking, 48.0700.70** may be a part of the sequence.

The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.

**PROGRAM:**            **Carpentry**

**PROGRAM**

**CIP CODE:**        **46.0200**

**DESCRIPTION:**    *The **Carpentry** program prepares students for employment in jobs specializing in rough and finish carpentry, construction materials, estimating, and blueprint reading. In addition to technical skills, students completing this program will also develop advanced critical thinking, applied academic, career development, life management, business, economic, and leadership skills required for Carpentry occupations. This program utilizes a delivery system made up of four integral parts: formal technical instruction, experiential learning, supervised occupational experience, and the Career and Technical Student Organization, SkillsUSA-VICA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I**  
**Grades**  
**7-8**                    *The following course is recommended as part of a **Comprehensive Career and Technical Education (CTE) Program**:*

90.0000.10 **Technological Foundations:** All students should complete Level I experience or attain these competencies.

**Level II**  
**Grades**  
**9-10**                    *The following courses are recommended as part of a **Comprehensive CTE CARPENTRY Program**:*

99.0200.10 **Industrial Technology:** Students should complete this Level II cluster or attain these competencies.

99.0400.10 **Business Management:** Students may complete this Level II cluster or attain these competencies. This is recommended for students interested in proprietorships, management, and supervisory positions.

## Carpentry (continued)

Level III  
Grades  
11-12

*The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III CARPENTRY competencies are addressed in this instructional sequence.*

46.0200.10 **Framing Carpentry:** This course is designed to deliver the competencies and indicators associated with the Framing portion of the Carpentry competencies.

***One of the following Level III courses will be included as part of the instructional sequence for this program:***

46.0200.20 **Finish Carpentry:** This course is designed to deliver the competencies and indicators associated with Finish Carpentry.

46.0200.80 **Carpentry – Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work based learning experiences directly related to the competencies identified for the **Carpentry** program.

## CERTIFICATION ABBREVIATIONS FOR THE CARPENTRY PROGRAM

CERTIFICATE TYPES:	APPROVAL TYPES:
<ul style="list-style-type: none"> <li>• AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)</li> <li>• BVT Basic Vocational Education Teacher</li> <li>• IA Industrial Arts</li> <li>• PVB Provisional Vocational Business</li> <li>• PVBM Provisional Vocational Business and Marketing</li> <li>• PVI Provisional Vocational Industrial Technology</li> <li>• PVM Provisional Vocational Marketing</li> <li>• PVT Provisional Vocational Education Teacher</li> <li>• SVB Standard Vocational Business</li> <li>• SVBM Standard Vocational Business and Marketing</li> <li>• SVI Standard Vocational Industrial Technology</li> <li>• SVM Standard Vocational Marketing</li> <li>• SVT Standard Vocational Education Teacher</li> </ul>	<ul style="list-style-type: none"> <li>• VBS Vocational Business</li> <li>• VDE Vocational Distributive Education</li> <li>• VIT Vocational Industrial and Technical Education</li> <li>• VME Vocational Marketing Education</li> <li>• VOE Vocational Office Education</li> <li>• VTI Vocational Trades and Industrial Education</li> <li>• VTT Vocational Trade and Technical Education</li> </ul>

**CERTIFICATE REQUIREMENTS FOR THE CARPENTRY PROGRAM**

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

<b>Industrial Technology</b>	Type IA	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VIT	Type PVI, SVI			
<b>Business Management Technology</b>	Type AVT, BVT, SVT, PVT Approval VDE	Type AVT, BVT, SVT, PVT Approval VME	Type PVM, SVM	Type PVBM, SVBM	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, SVB		

**LEVEL III:** The instructor must be vocationally certified according to the following table:

<b>Carpentry</b>	Type IA	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VIT	Type PVI, SVI			
------------------	------------	--	--	--	--	---------------------	--	--	--

**Note:**

Teacher/Coordinator Cooperative Education (CEN) is required for **46.0200.80**.  
 Diversified Cooperative Education course **Carpentry, 46.0200.70** may be a part of the sequence.  
 The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.

**PROGRAM:** Cosmetology

**PROGRAM  
CIP CODE:** 12.0400

**DESCRIPTION:** *The **Cosmetology** program is designed to prepare students for employment in various cosmetology and beauty establishments. Students completing this program will develop the technical knowledge and skills associated with cosmetologists, barbers, nail technicians, hair stylists, make-up artists, aestheticians, and wig stylists. Students completing this program will also gain knowledge of business/salon management. In addition to the required technical skills, students will also develop advanced critical thinking, employability, applied academic, life management, business, economic, and leadership skills required for employment in Cosmetology occupations. The program utilizes a delivery system made up of four integral parts: formal/technical instruction, experiential learning, supervised occupational experience, and the Career and Technical Student Organization, SkillsUSA-VICA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8** ***Career and Technical education (CTE) The following course is recommended as part of a Comprehensive Program:***

90.0000.10 ***Technological Foundations:** All students should complete Level I experience or attain these competencies.*

**Level II  
Grades  
9-10** ***The following courses are recommended as part of a Comprehensive CTE COSMETOLOGY Program:***

99.0500.10 ***Human Services Technology:** Students should complete this Level II cluster or attain these competencies.*

99.0400.10 ***Business Management Technology:** Students may complete this Level II cluster or attain these competencies.*

99.0300.30 ***Applied Biological Systems-Health:** Students may complete this Level II cluster or attain these competencies.*

## Cosmetology (continued)

Level III  
Grades  
11-12

*The following describes a recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III COSMETOLOGY competencies are addressed in this instructional sequence.*

12.0400.10 **Cosmetology:** This course prepares students to care for and beautify hair, care for complexions, perform manicures, and sell cosmetics in commercial establishments or independently. It includes instructions in hygiene, sanitation, customer relations, and salon management.

*One of the following Level III courses will be included as part of the instructional sequence for this program:*

12.0400.20 **Cosmetology Advanced Applications:** This course prepares students for advanced technical knowledge and skills using a variety of cosmetology techniques and equipment.

12.0400.80 **Cosmetology – Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work based learning experiences directly related to the competencies identified for the **Cosmetology** program.

## CERTIFICATION ABBREVIATIONS FOR THE COSMETOLOGY PROGRAM

### CERTIFICATE TYPES:

- AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)
- BVT Basic Vocational Education Teacher
- PVA Provisional Vocational Agriculture
- PVB Provisional Vocational Business
- PVBM Provisional Vocational Business and Marketing
- PVF Provisional Vocational Family Consumer Sciences
- PVH Provisional Vocational Health Occupations
- PVI Provisional Vocational Industrial Technology
- PVM Provisional Vocational Marketing
- PVT Provisional Vocational Education Teacher
- SVA Standard Vocational Agriculture
- SVB Standard Vocational Business
- SVBM Standard Vocational Business and Marketing
- SVF Standard Vocational Family Consumer Sciences
- SVH Standard Vocational Health Occupations
- SVI Standard Vocational Industrial Technology
- SVM Standard Vocational Marketing
- SVT Standard Vocational Education Teacher

### APPROVAL TYPES:

- VAG Vocational Agriculture
- VBS Vocational Business
- VDE Vocational Distributive Education
- VFC Vocational Family & Consumer Sciences
- VHE Vocational Home Economics
- VHO Vocational Health Occupations
- VIT Vocational Industrial and Technical Education
- VME Vocational Marketing Education
- VOE Vocational Office Education
- VRO Vocational Related Occupations
- VTI Vocational Trades and Industrial Education
- VTT Vocational Trade and Technical Education

## CERTIFICATE REQUIREMENTS FOR THE COSMETOLOGY PROGRAM

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

<b>Human Services Technology</b>	Type AVT, BVT, PVT, SVT Approval VHE	Type AVT, BVT, PVT, SVT Approval VRO	Type AVT, BVT, PVT, SVT Approval VFC	Type PVF, SVF	Type AVT, BVT, PVT, SVT Approval VHO	Type PVH, SVH		
<b>Business Management Technology</b>	Type AVT, BVT, SVT, PVT Approval VDE	Type AVT, BVT, SVT, PVT Approval VME	Type PVM, SVM	Type PVB, SVBM	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, SVB	
<b>Applied Biological Systems</b>	Type AVT, BVT, PVT, SVT Approval VAG	Type PVA, SVA	Type AVT, BVT, PVT, SVT Approval VHE	Type AVT, BVT, PVT, SVT Approval VRO	Type AVT, BVT, PVT, SVT Approval VFC	Type PVF, SVF	Type AVT, BVT, PVT, SVT Approval VHO	Type PVH, SVH

**LEVEL III:** The instructor must be vocationally certified according to the following table:

<b>Cosmetology</b>	Type AVT, BVT, PVT, SVT Approval VTI	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VIT	Type PVI, SVI				
--------------------	--	--	--	---------------------	--	--	--	--

**Note:**

Teacher/Coordinator Cooperative Education (CEN) is required for **12.0400.80**.  
 Diversified Cooperative Education course **Cosmetology, 12.0400.70** may be a part of the sequence.  
 The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.

**PROGRAM:** Dental Services

**PROGRAM**

**CIP CODE:** 51.0600

**DESCRIPTION:** *The **Dental Services** program is designed to prepare students for employment in the dental health profession. Students completing this program will possess technical knowledge and skills associated with dental assisting. In addition to technical skills, students completing this program will also develop advanced critical thinking, applied academic, career development, life management, business, economic, and leadership skills required for employment in Dental Services occupations. The program utilizes a delivery system made up of four integral parts: formal technical instruction, experiential learning, supervised occupational experience, and the Career and Technical Student Organization, SkillsUSA-VICA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8** *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete Level I experience or attain these competencies.

**Level II  
Grades  
9-10** *The following courses are recommended as part of a Comprehensive CTE DENTAL SERVICES Program:*

99.0300.30 **Applied Biological Systems-Health:** Students should complete this Level II cluster or attain these competencies.

99.0500.10 **Human Services Technology:** If Applied Biological Systems-Health is not available, students may complete this Level II cluster or attain these competencies.

## Dental Services (continued)

Level III  
Grades  
11-12

*The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III DENTAL SERVICES competencies are addressed in this instructional sequence.*

51.0600.10 **Dental Related Services:** This course prepares students to assist a dentist or dental hygienist in performing the functions of a dental practice. It includes instruction in chair side assistance, patient preparation, dental office functions and selected dental office laboratory procedures.

**One of the following Level III courses will be included as part of the instructional sequence for this program:**

51.0600.20 **Dental Services Applications:** This course prepares students for advanced technical skills and knowledge using a variety of dental assisting techniques and equipment.

51.0600.80 **Dental Services – Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work based learning experiences directly related to the competencies identified for the **Dental Services** program.

**CERTIFICATION ABBREVIATIONS FOR THE DENTAL SERVICES PROGRAM**

<p><b>CERTIFICATE TYPES:</b></p>	<p><b>APPROVAL TYPES:</b></p>
<ul style="list-style-type: none"> <li>• AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)</li> <li>• BVT Basic Vocational Education Teacher</li> <li>• PVA Provisional Vocational Agriculture</li> <li>• PVF Provisional Vocational Family Consumer Sciences</li> <li>• PVH Provisional Vocational Health Occupations</li> <li>• PVT Provisional Vocational Education Teacher</li> <li>• SVA Standard Vocational Agriculture</li> <li>• SVF Standard Vocational Family Consumer Sciences</li> <li>• SVH Standard Vocational Health Occupations</li> <li>• SVT Standard Vocational Education Teacher</li> </ul>	<ul style="list-style-type: none"> <li>• VAG Vocational Agriculture</li> <li>• VFC Vocational Family &amp; Consumer Sciences</li> <li>• VHE Vocational Home Economics</li> <li>• VHO Vocational Health Occupations</li> <li>• VRO Vocational Related Occupations</li> </ul>



**PROGRAM:** Drafting Technology

**PROGRAM**

**CIP CODE:** 48.0100

**DESCRIPTION:** *The **Drafting Technology** program is designed to prepare students to plan scale interpretations of engineering, design and architectural drafting applications in industry. Instruction includes the use of precision drawing instruments, computer assisted design and drafting (CADD), sketching and illustration, and specification interpretation. In addition to technical skills, the student completing this program will possess advanced critical thinking, employability, applied academic, life management, business economic, and leadership skills required for drafting occupations. The program utilizes a delivery system made up of four integral parts: formal technical instruction, experiential learning, supervised occupational experience, and the Career and Technical Student Organization, SkillsUSA-VICA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8** *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete Level I experience or attain these competencies.

**Level II  
Grades  
9-10** *The following courses are recommended as part of a Comprehensive CTE DRAFTING TECHNOLOGY Program:*

99.0100.10 **Information Technology:** Students should complete this Level II cluster or attain these competencies.

99.0200.10 **Industrial Technology:** Students may complete this Level II cluster or attain these competencies. This is recommended to enhance students' knowledge of construction practices and materials.

## Drafting Technology (continued)

Level III  
Grades  
11-12

*The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III DRAFTING TECHNOLOGY competencies are addressed in this instructional sequence.*

48.0100.10 **Drafting Technology Concepts:** This instructional course prepares students to apply technical knowledge and skills to plan and prepare scale interpretations of engineering, design and architectural projects. It includes instruction in creating layouts and designs, blueprints and renderings, and in the use of computer-assisted design programs. In addition to knowledge of drafting technologies, students will have the opportunity to place special emphasis on more specific services and/or industries in which they have an interest.

*One of the following Level III courses will be included as part of the instructional sequence for this program.*

48.0100.20 **Drafting Technology Advanced Applications:** This course prepares students for advanced technical knowledge and skills using a variety of drafting technology techniques and equipment.

48.0100.80 **Drafting – Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work based learning experiences directly related to the competencies identified for the **Drafting Technology** program.

## CERTIFICATION ABBREVIATIONS FOR THE DRAFTING TECHNOLOGY PROGRAM

**CERTIFICATE TYPES:**

- AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)
- BVT Basic Vocational Education Teacher
- IA Industrial Arts
- PVB Provisional Vocational Business
- PVBM Provisional Vocational Business and Marketing
- PVI Provisional Vocational Industrial Technology
- PVM Provisional Vocational Marketing
- PVT Provisional Vocational Education Teacher
- SVB Standard Vocational Business
- SVBM Standard Vocational Business and Marketing
- SVI Standard Vocational Industrial Technology
- SVM Standard Vocational Marketing
- SVT Standard Vocational Education Teacher

**APPROVAL TYPES:**

- VBS Vocational Business
- VDE Vocational Distributive Education
- VIT Vocational Industrial and Technical Education
- VME Vocational Marketing Education
- VOE Vocational Office Education
- VTI Vocational Trades and Industrial Education
- VTT Vocational Trade and Technical Education

**CERTIFICATE REQUIREMENTS FOR THE DRAFTING TECHNOLOGY PROGRAM**

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

Information Technology	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, PVM, SVB, SVM	Type PVBM, SVBM	Type IA	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VTI
Industrial Technology	Type IA	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VTI	Type PVI, SVI			

**LEVEL III:** The instructor must be vocationally certified according to the following table:

Drafting Technology	Type IA	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VTI	Type PVI, SVI

**Note:**  
 Teacher/Coordinator Cooperative Education (CEN) is required for **48.0100.80**.  
 Diversified Cooperative Education course **Drafting Technology, 48.0100.70** may be a part of the sequence.  
 The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.



**PROGRAM:** Early Childhood Professions

**PROGRAM  
CIP CODE:** 20.0200

**DESCRIPTION:** *The **Early Childhood Professions** program is designed to prepare students for employment in residential, institutional and early childhood settings. The program includes instruction in child growth and development, child health, nutrition safety, planning and supervision of developmentally appropriate play and learning activities, child guidance, family relationships, applicable legal and administrative requirements, and is designed to articulate with community college for CDA certification. It may include preparation for the development and management of effective child care programs and facilities. In addition to technical skills, students completing this program will also develop advanced critical thinking, applied academic, career development, life management, business, economic, and leadership skills required for entry into Early Childhood Professions occupations. The program utilizes a delivery system made up of four integral parts: formal technical instruction, experiential learning, supervised occupational experience, and the Career and Technical Student Organization, FCCLA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8** *The following course is recommended as part of a Comprehensive Career and Technical Technological Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete Level I experience or attain these competencies.

**Level II  
Grades  
9-10** *The following courses are recommended as part of a Comprehensive CTE EARLY CHILDHOOD PROFESSIONS Program:*

99.0500.10 **Human Services Technology:** Students should complete this Level II cluster or attain these competencies.

## Early Childhood Professions (continued)

99.0300.40 **Applied Biological Systems-Food Science:** Students may complete this Level II cluster or attain these competencies.

99.0400.10 **Business Management Technology:** Students may complete this Level II cluster or attain these competencies. This is recommended for students who have an interest in owning or managing a day care center.

### Level III Grades 11-12

***The following describes a recommended sequence of courses organized on the basis of industry-recognized skills necessary for initial employment or continued related education. All the Level III EARLY CHILDHOOD PROFESSIONS competencies are addressed in this instructional sequence.***

20.0200.10 **Early Childhood Professions Fundamentals:** This course prepares occupational students to understand the physical, mental, emotional, and social growth and development of children. It is recommended that two-thirds of the classroom time be spent interacting with children.

***One of the following Level III courses will be included as part of the instructional sequence for this program:***

20.0200.20 **Early Childhood Professions Application:** This course prepares students for occupations in child care and guidance in both the public and private sector. It includes opportunities to complete CDA modules.

20.0200.80 **Early Childhood Professions – Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work based learning experiences, directly related to the competencies for the **Early Childhood Professions** program.

**CERTIFICATION ABBREVIATIONS FOR THE EARLY CHILDHOOD PROFESSIONS PROGRAM**

**CERTIFICATE TYPES:**

- AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)
- BVT Basic Vocational Education Teacher
- PVA Provisional Vocational Agriculture
- PVB Provisional Vocational Business
- PVBM Provisional Vocational Business and Marketing
- PVF Provisional Vocational Family Consumer Sciences
- PVH Provisional Vocational Health Occupations
- PVM Provisional Vocational Marketing
- PVT Provisional Vocational Education Teacher
- SVA Standard Vocational Agriculture
- SVB Standard Vocational Business
- SVBM Standard Vocational Business and Marketing
- SVF Standard Vocational Family Consumer Sciences
- SVH Standard Vocational Health Occupations
- SVM Standard Vocational Marketing
- SVT Standard Vocational Education Teacher

**APPROVAL TYPES:**

- VAG Vocational Agriculture
- VBS Vocational Business
- VDE Vocational Distributive Education
- VFC Vocational Family & Consumer Sciences
- VHE Vocational Home Economics
- VHO Vocational Health Occupations
- VME Vocational Marketing Education
- VOE Vocational Office Education
- VRO Vocational Related Occupations

## CERTIFICATE REQUIREMENTS FOR THE EARLY CHILDHOOD PROFESSIONS PROGRAM

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

<b>Human Services Technology</b>	Type AVT, BVT, PVT, SVT Approval VHE	Type AVT, BVT, PVT, SVT Approval VRO	Type AVT, BVT, PVT, SVT Approval VFC	Type PVF, SVF	Type AVT, BVT, PVT, SVT Approval VHO	Type PVH, SVH	
<b>Applied Biological Systems</b>	Type AVT, BVT, PVT, SVT Approval VAG	Type PVA, SVA	Type AVT, BVT, PVT, SVT Approval VHE	Type AVT, BVT, PVT, SVT Approval VRO	Type AVT, BVT, PVT, SVT Approval VFC	Type PVF, SVF	Type PVH, SVH
<b>Business Management Technology</b>	Type AVT, BVT, SVT, PVT Approval VDE	Type AVT, BVT, SVT, PVT Approval VME	Type PVM, SVM	Type PVBM, SVBM	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVH, SVH

**LEVEL III:** The instructor must be vocationally certified according to the following table:

<b>Early Childhood Professions</b>	Type AVT, BVT, PVT, SVT Approval VHE	Type AVT, BVT, PVT, SVT Approval VRO	Type AVT, BVT, PVT, SVT Approval VFC	Type PVF, SVF			
------------------------------------	--	--	--	---------------------	--	--	--

**Note:**

Teacher/Coordinator Cooperative Education (CEN) is required for **20.0200.80**.  
 Diversified Cooperative Education course **Early Childhood Professions, 20.0200.70** may be a part of the sequence.  
 The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.

**PROGRAM:**           **Electronics Technology**

**PROGRAM**

**CIP CODE:**       **47.0100**

**DESCRIPTION:**   *The **Electronics Technology** program is designed to prepare students to repair, service, maintain and install electronic and electrical equipment following safety regulations and applying quality workmanship as required by service industries, repair and maintenance establishments, communications industries, and retail/wholesale appliance establishments. In addition to technical skills, students completing this program will also develop advanced critical thinking, applied academic, career development, life management, business, economic, and leadership skills required for Electronics Technology occupations. The program utilizes a delivery system made up of four integral parts: formal technical instruction, experiential learning, supervised occupational experience, and the Career and Technical Student Organization, SkillsUSA-VICA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I**  
**Grades**  
**7-8**                   *The following course is recommended as part of a **Comprehensive Career and Technical Education (CTE) Program:***

90.0000.10 **Technological Foundations:** All students **should** complete Level I experience or attain these competencies.

**Level II**  
**Grades**  
**9-10**                   *The following courses are recommended as part of a **Comprehensive CTE ELECTRONICS TECHNOLOGY Program:***

99.0200.10 **Industrial Technology:** Students **should** complete this Level II cluster or attain these competencies.

99.0400.10 **Business Management Technology:** Students **may** complete with Level II cluster or attain these competencies. This is recommended for students who have a special interest in proprietorships, management, and supervisory occupations in the electronics industry.

## Electronics Technology (continued)

99.0100.10 **Information Technology:** Students may complete this Level II cluster or attain these competencies. This is recommended for students who have an interest in desktop publishing, information processing and technology.

Level III  
Grades  
11-12

***The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III ELECTRONICS TECHNOLOGY competencies are addressed in this instructional sequence.***

47.0100.10 **Electrical and Electronic Fundamentals:** This course prepares students to apply technical knowledge and skills to operate, maintain, and repair electrical and electronic equipment.

***One of the following Level III courses will be included as part of the instructional sequence for this program:***

47.0100.20 **Advanced Electronics Technology:** This course prepares students for advanced technical knowledge and skills using a variety of electronics technology techniques and equipment.

47.0100.80 **Electronics Technology – Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work based learning experiences directly related to the competencies identified for the **Electronics Technology** program.

## CERTIFICATION ABBREVIATIONS FOR THE ELECTRONICS TECHNOLOGY PROGRAM

### CERTIFICATE TYPES:

- AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)
- BVT Basic Vocational Education Teacher
- IA Industrial Arts
- PVB Provisional Vocational Business
- PVBM Provisional Vocational Business and Marketing
- PVI Provisional Vocational Industrial Technology
- PVM Provisional Vocational Marketing
- PVT Provisional Vocational Education Teacher
- SVB Standard Vocational Business
- SVBM Standard Vocational Business and Marketing
- SVI Standard Vocational Industrial Technology
- SVM Standard Vocational Marketing
- SVT Standard Vocational Education Teacher

### APPROVAL TYPES:

- VBS Vocational Business
- VDE Vocational Distributive Education
- VIT Vocational Industrial and Technical Education
- VME Vocational Marketing Education
- VOE Vocational Office Education
- VTI Vocational Trades and Industrial Education
- VTT Vocational Trade and Technical Education

**CERTIFICATE REQUIREMENTS FOR THE ELECTRONICS TECHNOLOGY PROGRAM**

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

<b>Industrial Technology</b>	Type IA	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VTI	Type PVI, SVI			
<b>Business Management Technology</b>	Type AVT, BVT, SVT, PVT Approval VDE	Type AVT, BVT, SVT, PVT Approval VME	Type PVM, SVM	Type PVBM, SVBM	Type AVT, BVT, PVT, SVT Approval VOE	Type PVB, SVB		Type Type AVT, BVT, PVT, SVT Approval VBS
<b>Information Technology</b>	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, PVM SVB, SVM	Type PVBM, SVBM	Type IA	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VTI	Type PVI, SVI

**LEVEL III:** The instructor must be vocationally certified according to the following table:

<b>Electronics Technology</b>	Type IA	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VTI	Type PVI, SVI			
-------------------------------	------------	--	--	--	---------------------	--	--	--

**Note:**

Teacher/Coordinator Cooperative Education (CEN) is required for 47.0100.80.  
 Diversified Cooperative Education course **Electronics Technology, 47.0100.70** may be a part of the sequence.  
 The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.

**PROGRAM:** Financial Services

**PROGRAM:**

**CIP CODE:** 52.0800

**DESCRIPTION:** *The **Financial Services** program is designed to prepare students for employment in general banking and financial services support positions requiring customer service skills, basic business skills and technical skills applicable to the methods and operations of financial service institutions. The instruction is designed, planned and delivered as a coherent sequence utilizing a delivery system which includes formal technical instruction, experiential learning, supervised cooperative work experience and the Career and Technical Student Organizations, Future Business Leaders of America (FBLA) or Distributive Education Clubs of America (DECA). Students completing this program will possess advanced critical thinking, career development, applied academic, life management, business, economic and leadership skills required for employees in Financial Service occupations.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8** *The following course is recommended as part of a **Comprehensive Career and Technical Technological Education (CTE) Program:***

90.0000.10 **Technological Foundations:** All students should complete Level I experience or attain these competencies.

**Level II  
Grades  
9-10** *The following course is recommended as part of a **Comprehensive CTE FINANCIAL SERVICES Program:***

99.0400.10 **Business Management Technology:** Students should complete this Level II cluster or attain these competencies.

99.0500.10 **Human Services Technology:** If Business Management Technology is not available, students may complete this Level II cluster or attain these competencies.

## Financial Services (continued)

Level III  
Grades  
11 –12

*The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III FINANCIAL SERVICES competencies are addressed in this instructional sequence.*

52.0800.10 **Banking and Related Financial Services:** This course prepares students to perform financial or banking services, including: processing insurance claims, receiving and paying out money, credit collection and processing loans. Instruction in business technologies, customer service and public relations are part of this course.

*One of the following Level III courses will be included as part of the instructional sequence for this program:*

52.0800.20 **Financial Services Technology:** The outcomes of this course are integrated into learning experiences allowing students to demonstrate the full range of Financial Services competencies through projects/simulations.

52.0800.80 **Financial Services – Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work based learning experiences directly related to the competencies identified for the **Financial Services** program.

## CERTIFICATION ABBREVIATIONS FOR THE FINANCIAL SERVICES PROGRAM

**CERTIFICATE TYPES:**

- AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)
- BVT Basic Vocational Education Teacher
- PVB Provisional Vocational Business
- PVBM Provisional Vocational Business and Marketing
- PVF Provisional Vocational Family Consumer Sciences
- PVH Provisional Vocational Health Occupations
- PVM Provisional Vocational Marketing
- PVT Provisional Vocational Education Teacher
- SVB Standard Vocational Business
- SVBM Standard Vocational Business and Marketing
- SVF Standard Vocational Family Consumer Sciences
- SVH Standard Vocational Health Occupations
- SVM Standard Vocational Marketing
- SVT Standard Vocational Education Teacher

**APPROVAL TYPES:**

- VBS Vocational Business
- VDE Vocational Distributive Education
- VFC Vocational Family & Consumer Sciences
- VHE Vocational Home Economics
- VHO Vocational Health Occupations
- VME Vocational Marketing Education
- VOE Vocational Office Education
- VRO Vocational Related Occupations

**CERTIFICATE REQUIREMENTS FOR THE FINANCIAL SERVICES PROGRAM**

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

<b>Business Management Technology</b>	Type AVT, BVT, SVT, PVT Approval VDE	Type AVT, BVT, SVT, PVT Approval VME	Type PVM, SVM	Type PVB, SVBM	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, SVB
<b>Human Services Technology</b>	Type AVT, BVT, PVT, SVT Approval VHE	Type AVT, BVT, PVT, SVT Approval VRO	Type AVT, BVT, PVT, SVT Approval VFC	Type PVF, SVF	Type AVT, BVT, PVT, SVT Approval VHO	Type PVH, SVH	

**LEVEL III:** The instructor must be vocationally certified according to the following table:

<b>Financial Services</b>	Type PVB, SVBM	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, SVB	Type AVT, BVT, SVT, PVT Approval VDE	Type AVT, BVT, SVT, PVT Approval VME	Type PVM, SVM
---------------------------	-------------------	--	--	---------------------	--	--	---------------------

**Note:**

Teacher/Coordinator Cooperative Education (CEN) is required for **52.0800.80**.

Diversified Cooperative Education course **Financial Services, 52.0800.70** may be a part of the sequence.

The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.

**PROGRAM:** Fire Science

**PROGRAM  
CIP CODE:** 43.0200

**DESCRIPTION:** *The **Fire Science** program is designed to prepare students for employment in various occupations related to fire prevention and fire fighting. In addition to technical skills, students completing this program will also develop advanced critical thinking, applied academic, career development, life management, business, economic, and leadership skills required for employment in Fire Science occupations. The program utilizes a delivery system made up of four integral parts: formal technical instruction, experiential learning, supervised occupational experience, and the Career and Technical Student Organization, SkillsUSA-VICA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8** *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students **should** complete Level I experience or attain these competencies.

**Level II  
Grades  
9-10** *The following courses are recommended as part of a Comprehensive CTE FIRE SCIENCE Program:*

90.0200.10 **Industrial Technology:** Students **should** complete this Level II cluster or attain these competencies.

99.0500.10 **Human Services Technology:** Students **may** complete this Level II cluster or attain these competencies. This is recommended for students who wish to obtain skills in communications, human relations, and resource management.

## Fire Science (continued)

- 99.0300.20 **Applied Biological Systems-Agriculture:** Students may complete this Level II cluster or attain these competencies.

### Level III Grades 11-12

***The following describes the recommended sequence of courses developed from industry-validated skills necessary for entry-level employment or continued related education. All the Level III FIRE SCIENCE competencies are addressed in this instructional sequence.***

- 43.0200.10 **Fire Science Fundamentals:** This course is designed to develop technical skills and knowledge associated with the use and maintenance of tools and equipment in fire fighting. Students will also develop an awareness of emergency medical first aid procedures and hazardous materials handling.

***One of the following Level III courses will be included as part of the instructional sequence for this program:***

- 43.0200.20 **Fire Science Advanced Applications:** This course prepares students for advanced technical skills and knowledge using a variety of firefighting technology techniques and equipment. Students will also develop an awareness of emergency medical handling.
- 43.0200.80 **Fire Science – Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work based learning experiences directly related to the competencies identified for the **Fire Science** program.

## CERTIFICATION ABBREVIATIONS FOR THE FIRE SCIENCE PROGRAM

CERTIFICATE TYPES:	APPROVAL TYPES:
<ul style="list-style-type: none"> <li>• AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)</li> <li>• BVT Basic Vocational Education Teacher</li> <li>• IA Industrial Arts</li> <li>• PVA Provisional Vocational Agriculture</li> <li>• PVF Provisional Vocational Family Consumer Sciences</li> <li>• PVH Provisional Vocational Health Occupations</li> <li>• PVI Provisional Vocational Industrial Technology</li> <li>• PVT Provisional Vocational Education Teacher</li> <li>• SVA Standard Vocational Agriculture</li> <li>• SVF Standard Vocational Family Consumer Sciences</li> <li>• SVH Standard Vocational Health Occupations</li> <li>• SVI Standard Vocational Industrial Technology</li> <li>• SVT Standard Vocational Education Teacher</li> </ul>	<ul style="list-style-type: none"> <li>• VAG Vocational Agriculture</li> <li>• VFC Vocational Family &amp; Consumer Sciences</li> <li>• VHE Vocational Home Economics</li> <li>• VHO Vocational Health Occupations</li> <li>• VIT Vocational Industrial and Technical Education</li> <li>• VRO Vocational Related Occupations</li> <li>• VTI Vocational Trades and Industrial Education</li> <li>• VTT Vocational Trade and Technical Education</li> </ul>

## CERTIFICATE REQUIREMENTS FOR THE FIRE SCIENCE PROGRAM

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

<b>Industrial Technology</b>	Type IA	Type AVT, BVT, PVT, SVT Approval VTI	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VIT	Type PVI, SVI			
<b>Applied Biological Systems</b>	Type AVT, BVT, PVT, SVT Approval VAG	Type PVA, SVA	Type AVT, BVT, PVT, SVT Approval VHE	Type AVT, BVT, PVT, SVT Approval VRO	Type AVT, BVT, PVT, SVT Approval VFC	Type PVF, SVF	Type AVT, BVT, PVT, SVT Approval VHO	Type PVH, SVH
<b>Human Services Technology</b>	Type AVT, BVT, PVT, SVT Approval VHE	Type AVT, BVT, PVT, SVT Approval VRO	Type AVT, BVT, PVT, SVT Approval VFC	Type PVE, SVF	Type AVT, BVT, PVT, SVT Approval VHO	Type PVH, SVH		

**LEVEL III:** The instructor must be vocationally certified according to the following table:

<b>Fire Science</b>	Type IA	Type AVT, BVT, PVT, SVT Approval VTI	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VIT	Type PVI, SVI		
---------------------	------------	--	--	--	---------------------	--	--

**Note:**

Teacher/Coordinator Cooperative Education (CEN) is required for **43.0200.80**.  
 Diversified Cooperative Education course **Fire Science, 43.0200.70** may be a part of the sequence.  
 The teacher must hold a **Teacher/Coordinator Cooperative Education (CEN)** endorsement.

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.

**PROGRAM:** Food Production/Culinary Arts

**PROGRAM**

**CIP CODE:** 12.0500

**DESCRIPTION:** *The Food Production/Culinary Arts Program is designed to prepare students to apply technical knowledge and skills required for food production and service occupations in institutional and commercial food establishments. Students completing this program will possess the technical knowledge and skills required for planning, selecting, storing, purchasing, preparing and serving quality food products. Nutritive values, safety/sanitation precautions, use of commercial equipment, serving techniques, special diets and management of food establishments will also be studied. In addition to technical skills, students completing this program will also develop advanced critical thinking, applied academic, career development, life management, business, economic, and leadership skills required for entry into Food Production/Culinary Arts occupations. The program utilizes a delivery system made up of four integral parts: formal technical instruction, experiential learning, supervised occupational experience, and the Career and Technical Student Organization FCCLA or SkillsUSA-VICA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8** *The following course is recommended as part of a Comprehensive Career and Technological Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete Level I experience or attain these competencies.

**Level II  
Grades  
9-10** *The following courses are recommended as part of a Comprehensive CTE FOOD PRODUCTION/CULINARY ARTS Program:*

99.0300.40 **Applied Biological Systems – Food Science:** Students should complete this Level II cluster or attain these competencies.

## Food Production/Culinary Arts (continued)

99.0500.10 **Human Services Technology:** Students may complete this Level II cluster or attain these competencies. This is recommended for students who have a special interest in improving human interaction skills.

99.0400.10 **Business Management Technology:** Students may complete this Level II cluster or attain these competencies. This is recommended for students who have an interest in proprietorships, management, and supervisory occupations.

Level III  
Grades  
11-12

*The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III FOOD PRODUCTION/CULINARY ARTS competencies are addressed in this instructional sequence.*

12.0500.10 **Food Production/Culinary Arts Principles:** This course prepares students to serve under the supervision of food service professionals as kitchen support staff and commercial food preparation workers. It includes instruction in kitchen equipment, organization and operations, sanitation and quality control, quantity food preparation and cooking skills. It provides an opportunity to begin the two year ProStart skills certification.

**One of the following Level III courses will be included as part of the instructional sequence for this program:**

12.0500.20 **Food Production/Culinary Arts Applications:** This course prepares students with advanced applications in kitchen equipment, organization and operations, sanitation and quality control, quantity food preparation and cooking skills. It provides an opportunity to complete a ProStart skills certificate.

12.0500.80 **Food Production/Culinary Arts – Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work based learning experiences directly related to the competencies identified for the **Food Production/Culinary Arts** program.

**CERTIFICATION ABBREVIATIONS FOR THE FOOD PRODUCTION / CULINARY ARTS PROGRAM**

**CERTIFICATE TYPES:**

- AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)
- BVT Basic Vocational Education Teacher
- PVA Provisional Vocational Agriculture
- PVB Provisional Vocational Business
- PVBM Provisional Vocational Business and Marketing
- PVF Provisional Vocational Family Consumer Sciences
- PVH Provisional Vocational Health Occupations
- PVI Provisional Vocational Industrial Technology
- PVM Provisional Vocational Marketing
- PVT Provisional Vocational Education Teacher
- SVA Standard Vocational Agriculture
- SVB Standard Vocational Business
- SVBM Standard Vocational Business and Marketing
- SVF Standard Vocational Family Consumer Sciences
- SVH Standard Vocational Health Occupations
- SVI Standard Vocational Industrial Technology
- SVM Standard Vocational Marketing
- SVT Standard Vocational Education Teacher

**APPROVAL TYPES:**

- VAG Vocational Agriculture
- VBS Vocational Business
- VDE Vocational Distributive Education
- VFC Vocational Family & Consumer Sciences
- VHE Vocational Home Economics
- VHO Vocational Health Occupations
- VIT Vocational Industrial and Technical Education
- VME Vocational Marketing Education
- VOE Vocational Office Education
- VRO Vocational Related Occupations
- VTT Vocational Trade and Technical Education

## CERTIFICATE REQUIREMENTS FOR THE FOOD PRODUCTION / CULINARY ARTS PROGRAM

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

<b>Applied Biological Systems</b>	Type AVT, BVT, PVT, SVT Approval VAG	Type PVA, SVA	Type AVT, BVT, PVT, SVT Approval VHE	Type AVT, BVT, PVT, SVT Approval VRO	Type AVT, BVT, PVT, SVT Approval VFC	Type PVF, SVF	Type AVT, BVT, PVT, SVT Approval VHO	Type AVT, BVT, PVT, SVT Approval VHO	Type PVH, SVH
	Type AVT, BVT, PVT, SVT Approval VHE	Type AVT, BVT, PVT, SVT Approval VRO	Type AVT, BVT, PVT, SVT Approval VFC	Type PVF, SVF	Type AVT, BVT, PVT, SVT Approval VHO	Type PVH, SVH	Type AVT, BVT, PVT, SVT Approval VBS	Type PVH, SVH	
	Type AVT, BVT, SVT, PVT Approval VDE	Type AVT, BVT, SVT, PVT Approval VME	Type PVM, SVM		Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, SVB		

**LEVEL III:** The instructor must be vocationally certified according to the following table:

<b>Food Production Culinary Arts</b>	Type AVT, BVT, PVT, SVT Approval VHE	Type AVT, BVT, PVT, SVT Approval VRO	Type AVT, BVT, PVT, SVT Approval VFC	Type PVF, SVF	Type PVI, SVI Approval VTT, VIT, VTI

**Note:**

Teacher/Coordinator Cooperative Education (CEN) is required for **12.0500.80**.  
 Diversified Cooperative Education course **Food Production Culinary Arts, 12.0500.70** may be a part of the sequence.  
 The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.

**PROGRAM:**           **Graphic Communication**

**PROGRAM  
CIP CODE:**           **48.0200**

**DESCRIPTION:**    *The **Graphic Communication** program is designed to prepare students to apply technical knowledge and skills to plan, prepare, and execute commercial and industrial visual image and print products. Students will learn to use mechanical, electronic, and digital graphic and printing equipment as identified through Printing Industry Association of America PrintEd standards. In addition to technical skills, students completing this program will also develop advanced critical thinking, career development, applied academic, life management, business, economic and leadership skills required for Graphic Communication occupations. The program utilizes a delivery system made up of four integral parts: formal technical instruction, experiential learning, supervised occupational experience, and the Career and Technical Student Organization, SkillsUSA-VICA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7- 8**                    *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10    **Technological Foundations:** All students should complete Level I experience or attain these competencies.

**Level II  
Grades  
9-10**                    *The following courses are recommended as part of a Comprehensive CTE GRAPHIC COMMUNICATION Program:*

99.0100.10    **Information Technology:** Students should complete this Level II cluster or attain these competencies. This is recommended for students who wish to emphasize computer systems in such areas as desktop publishing, printing and graphics occupations.

99.0200.10    **Industrial Technology:** Students may complete this Level II cluster or attain these competencies.

## Graphic Communication (continued)

Level III  
Grades  
11-12

*The following describes a recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III GRAPHIC COMMUNICATION competencies are addressed in this instructional sequence.*

48.0200.10 **Graphic Communication Fundamentals:** This course prepares students 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.

*One of the following Level III courses will be included as part of the instructional sequence for this program:*

48.0200.20 **Graphic Communication Advanced Applications:** This course prepares students for advanced technical knowledge and skills using a variety of graphic communications techniques and equipment.

48.0200.80 **Graphic Communication – Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work based learning experiences directly related to the competencies identified for the **Graphic Communication** program.

## CERTIFICATION ABBREVIATIONS FOR THE GRAPHIC COMMUNICATION PROGRAM

**CERTIFICATE TYPES:**

- AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)
- BVT Basic Vocational Education Teacher
- IA Industrial Arts
- PVB Provisional Vocational Business
- PVBM Provisional Vocational Business and Marketing
- PVI Provisional Vocational Industrial Technology
- PVM Provisional Vocational Marketing
- PVT Provisional Vocational Education Teacher
- SVB Standard Vocational Business
- SVBM Standard Vocational Business and Marketing
- SVI Standard Vocational Industrial Technology
- SVM Standard Vocational Marketing
- SVT Standard Vocational Education Teacher

**APPROVAL TYPES:**

- VBS Vocational Business
- VDE Vocational Distributive Education
- VIT Vocational Industrial and Technical Education
- VME Vocational Marketing Education
- VOE Vocational Office Education
- VTI Vocational Trades and Industrial Education
- VTT Vocational Trade and Technical Education



**PROGRAM:** Heating, Ventilation, Air Conditioning/Refrigeration (HVAC/R)

**PROGRAM**

**CIP CODE:** 47.0200

**DESCRIPTION:** *The **Heating, Ventilation, Air Conditioning/Refrigeration (HVAC/R)** program is designed to prepare students for employment installing, repairing, and maintaining the operating condition of heating, air conditioning, and refrigeration systems in residential and light commercial applications. It includes instruction in the scientific principles of heat transfer, pneumatics, hydraulics, control systems, installation from blueprints, and environmental regulations regarding coolants. In addition to technical skills, students completing this program will also develop advanced critical thinking, applied academic, career development, life management, business, economic, and leadership skills required for Heating, Ventilation, Air Conditioning/Refrigeration (HVAC/R) occupations. The program utilizes a delivery system made up of four integral parts: formal technical instruction, experiential learning, supervised occupational experience, and the Career and Technical Student Organization, SkillsUSA-VICA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8** *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete Level I experience or attain these competencies.

**Level II  
Grades  
9-10** *The following courses are recommended as part of a Comprehensive CTE HEATING, VENTILATION, AIR CONDITIONING/REFRIGERATION (HVAC/R) Program:*

99.0200.10 **Industrial Technology:** Students should complete this Level II cluster or attain these competencies.

99.0400.10 **Business Management Technology:** Students may complete this Level II cluster or attain these competencies.

99.0100.10 **Information Technology:** Students may complete this Level II cluster or attain these competencies.

## Heating, Ventilation, Air Conditioning/Refrigeration (continued)

Level III  
Grades  
11-12

*The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III HEATING, VENTILATION, AIR CONDITIONING/REFRIGERATION (HVACIR) competencies are addressed in this instructional sequence.*

47.0200.10 **Heating, Ventilation, Air Conditioning/Refrigeration (HVACIR) Fundamentals:** This course prepares students to apply basic technical knowledge and skills to repair, install, service and maintain the operating condition of heating, air conditioning, and refrigeration systems. Instruction includes diagnostic techniques, the use of testing equipment, the principles of mechanics, electricity, and electronics as they relate to the repair of heating, air conditioning and refrigeration systems.

**One of the following Level III courses will be included as part of the instructional sequence for this program:**

47.0200.20 **Heating, Ventilation, Air Conditioning/Refrigeration (HVACIR) Advanced Applications:** This course prepares students for advanced technical knowledge and skills pertaining to the application of the principles of: mechanics; electricity/electronics; fuels as they relate to HVAC/R.

47.0200.80 **Heating, Ventilation, Air Conditioning/Refrigeration (HVACIR) – Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work based learning experiences directly related to the competencies identified for the Heating, **Ventilation, Air Conditioning/Refrigeration (HVACIR)** program.

**CERTIFICATION ABBREVIATIONS FOR THE HEATING, VENTILATION, AIR CONDITIONING REFRIGERATION PROGRAM**

**CERTIFICATE TYPES:**

- AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)
- BVT Basic Vocational Education Teacher
- IA Industrial Arts
- PVB Provisional Vocational Business
- PVBM Provisional Vocational Business and Marketing
- PVI Provisional Vocational Industrial Technology
- PVM Provisional Vocational Marketing
- PVT Provisional Vocational Education Teacher
- SVB Standard Vocational Business
- SVBM Standard Vocational Business and Marketing
- SVI Standard Vocational Industrial Technology
- SVM Standard Vocational Marketing
- SVT Standard Vocational Education Teacher

**APPROVAL TYPES:**

- VBS Vocational Business
- VDE Vocational Distributive Education
- VIT Vocational Industrial and Technical Education
- VME Vocational Marketing Education
- VOE Vocational Office Education
- VTI Vocational Trades and Industrial Education
- VTT Vocational Trade and Technical Education

## CERTIFICATE REQUIREMENTS FOR THE HEATING, VENTILATION, AIR CONDITIONING REFRIGERATION PROGRAM

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

<b>Industrial Technology</b>	Type IA	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VVI	Type PVI, SVI			
<b>Business Management Technology</b>	Type AVT, BVT, SVT, PVT Approval VDE	Type AVT, BVT, SVT, PVT Approval VME	Type PVM, SVM	Type PVB, BVT, SVB Approval VBS	Type AVT, BVT, PVT, SVT Approval VOE	Type PVB, SVB		
<b>Information Technology</b>	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, PVM, SVB, SVM	Type PVB, PVM, SVB, SVM	Type IA	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VVI	Type PVI, SVI

**LEVEL III:** The instructor must be vocationally certified according to the following table:

<b>Heating, Ventilation, Air Conditioning, Refrigeration</b>	Type IA	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VVI	Type PVI, SVI			
--	------------	--	--	--	---------------------	--	--	--

**Note:**

Teacher/Coordinator Cooperative Education (CEN) is required for 47.0200.80.  
 Diversified Cooperative Education course **Heating, Ventilation, Air Conditioning Refrigeration, 47.0200.80** may be a part of the sequence.  
 The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.

**PROGRAM:** Heavy Equipment Operation

**PROGRAM**

**CIP CODE:** 49.0200

**DESCRIPTION:** *The **Heavy Equipment Operation** program is designed to prepare students for employment operating a variety of heavy equipment, such as a crawler tractor, paving machine, trench digging machine, conveyor, bulldozer, dredge, pump, compressor, pneumatic tool, motor grader, scraper, power shovel, dragline and crane. It also contains information relating to current technology in construction equipment operating systems. In addition to technical skills, students completing this program will also develop advanced critical thinking, applied academic, career development, life management, business, economic, and leadership skills required for entry into Construction Equipment Operation occupations. The program utilizes a delivery system made up of four integral parts: formal technical instruction, experiential learning, supervised occupational experience, and the Career and Technical Student Organization, SkillsUSA-VICA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8**                      *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete Level I experience or attain these competencies.

**Level II  
Grades  
9-10**                      *The following courses are recommended as part of a Comprehensive CTE HEAVY EQUIPMENT OPERATION Program:*

99.0200.10 **Industrial Technology:** Students should complete this Level II cluster or attain these competencies.

99.0400.10 **Business Management Technology:** Students may complete this Level II cluster or attain these competencies.

## Heavy Equipment Operation (continued)

Level III  
Grades  
11-12

*The following describes a recommended sequence of courses Grades developed from industry-validated skills necessary for entry-level employment or continued related education. All the Level III HEAVY EQUIPMENT OPERATION competencies, including the Employability Skills, are addressed in this instructional sequence.*

49.0200.10 **Heavy Equipment Operation Fundamentals:** This course prepares students to apply technical knowledge and skills to operate a variety of heavy equipment, such as a crawler tractors, motor graders and scrapers, and shovels, including dragline, hoe, and cranes. It includes instruction in digging, ditching, sloping, stripping, grading, backfilling, clearing and excavating.

***One of the following Level III courses will be included as part of the instructional sequence for this program:***

49.0200.20 **Heavy Equipment Operation Advanced Applications:** This course prepares students for advanced technical knowledge and skills using a variety of construction equipment operation techniques and equipment.

49.0200.80 **Heavy Equipment Operation–Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work based learning experiences directly related to the competencies identified for the **Heavy Equipment Operation** program.

## CERTIFICATION ABBREVIATIONS FOR THE HEAVY EQUIPMENT OPERATION PROGRAM

**CERTIFICATE TYPES:**

- AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)
- BVT Basic Vocational Education Teacher
- IA Industrial Arts
- PVB Provisional Vocational Business
- PVBM Provisional Vocational Business and Marketing
- PVI Provisional Vocational Industrial Technology
- PVM Provisional Vocational Marketing
- PVT Provisional Vocational Education Teacher
- SVB Standard Vocational Business
- SVBM Standard Vocational Business and Marketing
- SVI Standard Vocational Industrial Technology
- SVM Standard Vocational Marketing
- SVT Standard Vocational Education Teacher

**APPROVAL TYPES:**

- VBS Vocational Business
- VDE Vocational Distributive Education
- VIT Vocational Industrial and Technical Education
- VME Vocational Marketing Education
- VOE Vocational Office Education
- VTI Vocational Trades and Industrial Education
- VTT Vocational Trade and Technical Education

**CERTIFICATE REQUIREMENTS FOR THE HEAVY EQUIPMENT OPERATION PROGRAM**

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

<b>Industrial Technology</b>	Type IA	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VTI	Type PVI, SVI		
<b>Business Management Technology</b>	Type AVT, BVT, SVT, PVT Approval VDE	Type AVT, BVT, SVT, PVT Approval VME	Type PVM, SVM	Type PVB, SVBM	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, SVB

**LEVEL III:** The instructor must be vocationally certified according to the following table:

<b>Heavy Equipment Operation</b>	Type IA	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VTI	Type PVI, SVI		
----------------------------------	------------	--	--	--	---------------------	--	--

**Note:**  
 Teacher/Coordinator Cooperative Education (CEN) is required for **49.0200.80**.  
 Diversified Cooperative Education course **Heavy Equipment Operation, 49.0200.70** may be a part of the sequence.  
 The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.



**PROGRAM:** Hospitality Services

**PROGRAM  
CIP CODE:** 08.0900

**DESCRIPTION:** *The **Hospitality Services** program is designed to prepare students for employment in positions that provide customer-focused services in such facilities as hotels, meeting centers, hospitals, education facilities, shopping malls, recreation parks, and office buildings. A student completing this program will possess the knowledge and skills associated with reservations and front desk operations, meeting and banquet room support services, food beverage support services, housekeeping, laundry operations, supervisory functions, and environmental functions. In addition to these skills, students will possess advanced employability skills including critical and conceptual thinking, communications, applied academics, life management, and technology. This program utilizes a delivery system made up of four integral parts: formal/technical instruction, experiential learning, supervised occupational experience, and the Career and Technical Student Organizations, FCCLA or DECA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8** *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete Level I experience or attain these competencies.

**Level II  
Grades  
9-10** *The following courses are recommended as part of a Comprehensive CTE HOSPITALITY SERVICES Program:*

99.0400.10 **Business Management Technology:** Students should complete this Level II cluster or attain these competencies.

99.0500.10 **Human Services Technology:** Students may complete this Level II cluster or attain these competencies.

99.0300.40 **Applied Biological Systems – Food Science:** Is recommended for students who are interested in furthering their understanding of scientific principles related to foods.

## Hospitality Services (continued)

Level III  
Grades  
11-12

*The following describes a recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III HOSPITALITY SERVICES competencies are addressed in this instructional sequence.*

08.0900.10 ***Principles of Hospitality Services:*** This course prepares students for occupations in a variety of hospitality services and facilities including hotels, resorts, meeting centers, hospitals, education facilities, shopping malls, recreation parks, and office buildings.

***One of the following Level III courses will be included as a part of the instructional sequence for this program:***

08.0900.20 ***Hospitality Services Applications:*** The outcomes of this course are integrated into learning projects and simulations to demonstrate the full range of Hospitality services competencies.

08.0900.80 ***Hospitality Services - Cooperative Education:*** This course utilizes a cooperative education methodology to combine school based or supervised work based learning experiences directly related to the competencies identified for the ***Hospitality Services*** program.

**CERTIFICATION ABBREVIATIONS FOR THE HOSPITALITY SERVICES PROGRAM**

**CERTIFICATE TYPES:**

- AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)
- BVT Basic Vocational Education Teacher
- PVB Provisional Vocational Business
- PVBM Provisional Vocational Business and Marketing
- PVF Provisional Vocational Family Consumer Sciences
- PVM Provisional Vocational Marketing
- PVT Provisional Vocational Education Teacher
- SVB Standard Vocational Business
- SVBM Standard Vocational Business and Marketing
- SVF Standard Vocational Family Consumer Sciences
- SVM Standard Vocational Marketing
- SVT Standard Vocational Education Teacher

**APPROVAL TYPES:**

- VAG Vocational Agriculture
- VBS Vocational Business
- VDE Vocational Distributive Education
- VFC Vocational Family & Consumer Sciences
- VHE Vocational Home Economics
- VHO Vocational Health Occupations
- VME Vocational Marketing Education
- VOE Vocational Office Education
- VRO Vocational Related Occupations

## CERTIFICATE REQUIREMENTS FOR THE HOSPITALITY SERVICES PROGRAM

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

<b>Business Management Technology</b>	Type AVT, BVT, SVT, PVT Approval VDE	Type AVT, BVT, SVT, PVT Approval VME	Type PVM, SVM	Type PVBM, SVBM	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, SVB	
<b>Human Services Technology</b>	Type AVT, BVT, PVT, SVT Approval VHE	Type AVT, BVT, PVT, SVT Approval VRO	Type AVT, BVT, PVT, SVT Approval VFC	Type PVF, SVF	Type AVT, BVT, PVT, SVT Approval VHO	Type PVH, SVH			
<b>Applied Biological Systems</b>	Type AVT, BVT, PVT, SVT Approval VAG	Type PVA, SVA	Type AVT, BVT, PVT, SVT Approval VHE	Type AVT, BVT, PVT, SVT Approval VRO	Type AVT, BVT, PVT, SVT Approval VFC	Type PVF, SVF	Type AVT, BVT, PVT, SVT Approval VHO	Type AVT, BVT, PVT, SVT Approval VHO	Type PVH, SVH

**LEVEL III:** The instructor must be vocationally certified according to the following table:

<b>Hospitality Services</b>	Type AVT, BVT, SVT, PVT Approval VDE	Type AVT, BVT, SVT, PVT Approval VME	Type PVM, SVM	Type PVBM SVBM	Type AVT, BVT, PVT, SVT Approval VHE	Type AVT, BVT, PVT, SVT Approval VRO	Type AVT, BVT, PVT, SVT Approval VFC	Type PVF, SVF	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, SVB
-----------------------------	--	--	---------------------	----------------------	--	--	--	---------------------	--	--	------------------

**Note:**

Teacher/Coordinator Cooperative Education (CEN) is required for **08.0900.80**.  
 Diversified Cooperative Education course **Hospitality Services, 08.0900.70** may be a part of the sequence.  
 The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.

**PROGRAM:** Law Enforcement

**PROGRAM  
CIP CODE:** 43.0100

**DESCRIPTION:** *The Law Enforcement program is designed to prepare students for employment in various public and private security and patrol occupations. Students completing this program will develop the technical knowledge and skills associated with policing, civil/criminal investigations, and corrections professions. In addition to the required technical skills, students completing this program will also develop advanced critical thinking, applied academic, career development, life management, business, economic, and leadership skills required for employment in Law Enforcement occupations. The program utilizes a delivery system made up of four integral parts: formal/technical instruction, experiential learning, supervised occupational experience, and the Career and Technical Student Organization, SkillsUSA-VICA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8** *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete Level I experience or attain these competencies.

**Level II  
Grades  
9-10** *The following courses are recommended as part of a Comprehensive CTE LAW ENFORCEMENT Program:*

99.0500.10 **Human Services Technology:** Students should complete this Level II cluster or attain these competencies.

99.0100.10 **Information Technology:** If Human Services Technology is not available, students may also complete this Level II cluster or attain these competencies.

## Law Enforcement (continued)

- 99.0400.10 **Business Management Technology:** If Human Services Technology is not available, students **may** also complete this Level II cluster or attain these competencies.

### Level III Grades 11-12

***The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III LAW ENFORCEMENT competencies are addressed in this instructional sequence.***

- 43.0100.10 **Policing Principles and Practices:** This course provides knowledge of policing principles and practices, with special emphasis on public relations, communications technology, investigation specialties, patrol and security procedures, crisis procedures, legal issues, theory of crime, probation, and delinquency, and physical survival skills.

***One of the following Level III courses will be included as part of the instructional sequence for this program:***

- 43.0100.20 **Law Enforcement Advanced Applications:** This course prepares students for advanced knowledge and skills using a variety of techniques and methods.
- 43.0100.80 **Law Enforcement - Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work based learning experiences directly related to the competencies identified for the **Law Enforcement** program.

## CERTIFICATION ABBREVIATIONS FOR THE LAW ENFORCEMENT PROGRAM

### CERTIFICATE TYPES:

- AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)
- BVT Basic Vocational Education Teacher
- IA Industrial Arts
- PVB Provisional Vocational Business
- PVBM Provisional Vocational Business and Marketing
- PVF Provisional Vocational Family Consumer Sciences
- PVH Provisional Vocational Health Occupations
- PVI Provisional Vocational Industrial Technology
- PVM Provisional Vocational Marketing
- PVT Provisional Vocational Education Teacher
- SVB Standard Vocational Business
- SVBM Standard Vocational Business and Marketing
- SVF Standard Vocational Family Consumer Sciences
- SVH Standard Vocational Health Occupations
- SVI Standard Vocational Industrial Technology
- SVM Standard Vocational Marketing
- SVT Standard Vocational Education Teacher

### APPROVAL TYPES:

- VBS Vocational Business
- VDE Vocational Distributive Education
- VFC Vocational Family & Consumer Sciences
- VHE Vocational Home Economics
- VHO Vocational Health Occupations
- VIT Vocational Industrial and Technical Education
- VME Vocational Marketing Education
- VOE Vocational Office Education
- VRO Vocational Related Occupations
- VTI Vocational Trades and Industrial Education
- VTT Vocational Trade and Technical Education

## CERTIFICATE REQUIREMENTS FOR THE LAW ENFORCEMENT PROGRAM

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

<b>Human Services Technology</b>	Type AVT, BVT, PVT, SVT Approval VHE	Type AVT, BVT, PVT, SVT Approval VRO	Type AVT, BVT, PVT, SVT Approval VFC	Type PVF, SVF	Type AVT, BVT, PVT, SVT Approval VHO	Type PVH, SVH	Type Type AVT, BVT, PVT, SVT Approval VBS	Type Type AVT, BVT, PVT, SVT Approval VTT	Type Type AVT, BVT, PVT, SVT Approval VTI	Type Type PVI, SVI
<b>Business Management Technology</b>	Type AVT, BVT, SVT, PVT Approval VDE	Type AVT, BVT, SVT, PVT Approval VME	Type PVM, SVM	Type PVB, SVB	Type PVB, SVB	Type PVB, SVB	Type AVT, BVT, PVT, SVT Approval VBS	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VTI	Type PVI, SVI
<b>Information Technology</b>	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, SVB	Type PVB, SVB	Type PVB, SVB	Type PVB, SVB	Type AVT, BVT, PVT, SVT Approval VBS	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VTI	Type PVI, SVI

**LEVEL III:** The instructor must be vocationally certified according to the following table:

<b>Law Enforcement</b>	Type IA	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VTT	Type PVI, SVI
------------------------	------------	--	--	--	---------------------

Note:

Teacher/Coordinator Cooperative Education (CEN) is required for **43.0100.80**.

Diversified Cooperative Education course **Law Enforcement, 43.0100.70** may be a part of the sequence.

The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.

**PROGRAM: Masonry**

**PROGRAM**

**CIP CODE: 46.0100**

**DESCRIPTION:** *The **Masonry** program is designed to prepare students to lay building materials such as brick, concrete block, pavers, and to construction or repair walls, and other structures. Fundamentals of masonry include the information and basic skills necessary to build from blueprints residential, commercial, and industrial structures. In addition to technical skills, students completing this program will also develop advanced critical thinking, applied academic, career development, life management, business, economic, and leadership skills required for Masonry occupations. The program utilizes a delivery system made up of four integral parts: formal technical instruction, experiential learning, supervised occupational experience, and the Career and Technical Student Organization, SkillsUSA-VICA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8**      *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete Level I experience or attain these competencies.

**Level II  
Grades  
9-10**      *The following course are recommended as part of a Comprehensive CTE MASONRY Program:*

99.0200.10 **Industrial Technology:** Students should complete this Level II cluster or attain these competencies.

99.0400.10 **Business Management Technology:** Students may complete this Level II cluster or attain these competencies. This is recommended for students who wish to emphasize the entrepreneurial aspects of this industry.

## Masonry (continued)

Level III  
Grades  
11-12

*The following describes the recommended sequence of courses developed from industry-validated skills necessary for entry-level employment or continued related education. All the Level III MASONRY competencies are addressed in this instructional sequence.*

46.0100.10 **Masonry Fundamentals:** This course prepares students to apply technical knowledge and skills in the laying and/or setting of brick, concrete block, and related materials, using trowels, levels, hammers, chisels, masonry saws, and other power and hand tools.

*One of the following Level III courses will be included as part of the instructional sequence for this program:*

46.0100.20 **Masonry Advanced Applications:** This course prepares students for advanced technical knowledge and skills using a variety of masonry techniques and equipment.

46.0100.80 **Masonry - Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work based learning experiences directly related to the competencies identified for the **Masonry** program.

## CERTIFICATION ABBREVIATIONS FOR THE MASONRY PROGRAM

**CERTIFICATE TYPES:**

- AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)
- BVT Basic Vocational Education Teacher
- IA Industrial Arts
- PVB Provisional Vocational Business
- PVBM Provisional Vocational Business and Marketing
- PVI Provisional Vocational Industrial Technology
- PVM Provisional Vocational Marketing
- PVT Provisional Vocational Education Teacher
- SVB Standard Vocational Business
- SVBM Standard Vocational Business and Marketing
- SVI Standard Vocational Industrial Technology
- SVM Standard Vocational Marketing
- SVT Standard Vocational Education Teacher

**APPROVAL TYPES:**

- VBS Vocational Business
- VDE Vocational Distributive Education
- VIT Vocational Industrial and Technical Education
- VME Vocational Marketing Education
- VOE Vocational Office Education
- VTI Vocational Trades and Industrial Education
- VTT Vocational Trade and Technical Education

## CERTIFICATE REQUIREMENTS FOR THE MASONRY PROGRAM

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

	Type	Type	Type	Type	Type	Type	Type
<b>Industrial Technology</b>	IA	AVT, BVT, PVT, SVT Approval VIT	AVT, BVT, PVT, SVT Approval VTT	AVT, BVT, PVT, SVT Approval VTI	AVT, BVT, PVT, SVT Approval VVI	AVT, BVT, PVT, SVT Approval VVE	
<b>Business Management Technology</b>	AVT, BVT, SVT, PVT Approval VDE	AVT, BVT, SVT, PVT Approval VME	PVM, SVM	PVBM, SVBM	AVT, BVT, PVT, SVT Approval VOE	AVT, BVT, PVT, SVT Approval VBS	Type PVB, SVB

**LEVEL III:** The instructor must be vocationally certified according to the following table:

	Type	Type	Type	Type	Type	Type
<b>Masonry</b>	IA	AVT, BVT, PVT, SVT Approval VIT	AVT, BVT, PVT, SVT Approval VTT	AVT, BVT, PVT, SVT Approval VTI	AVT, BVT, PVT, SVT Approval VVI	AVT, BVT, PVT, SVT Approval VVE

**Note:**  
 Teacher/Coordinator Cooperative Education (CEN) is required for **46.010080**.  
 Diversified Cooperative Education course **Masonry, 46.0100.70** may be a part of the sequence.  
 The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.

**PROGRAM: Media Communication**

**PROGRAM**

**CIP CODE: 10.0100**

**DESCRIPTION:** *The **Media Communication** program is designed to prepare students for employment in various audio development, production, installation, and delivery occupations. In addition to technical skills, students completing this program will also develop advanced critical thinking, applied academic, career development, life management, business, economic, and leadership skills required for Media Communication occupations. The program utilizes a delivery system made up of four integral parts: formal technical instruction, experiential learning, supervised occupational experience, and the Career and Technical Student Organization, SkillsUSA-VICA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8** *The following course is recommended as part of a **Comprehensive Career and Technical Technological Education (CTE) Program:***

90.0000.10 **Technological Foundations:** All students should complete Level I experience or attain these competencies.

**Level II  
Grades  
9-10** *The following courses are recommended as part of a **Comprehensive CTE MEDIA COMMUNICATION Program:***

99.0100.10 **Information Technology:** Students should complete this Level II cluster or attain these competencies.

99.0200.10 **Industrial Technology:** Students may complete this Level II cluster or attain these competencies. This is recommended for students who have a special interest in equipment maintenance and installation.

99.0400.10 **Business Management Technology:** Students may complete this Level II cluster or attain these competencies. This is recommended for students who have a special interest in business ownership, sales, promotion, and advertising.

## Media Communication (continued)

Level III  
Grades  
11-12

*The following describes the recommended sequence of courses developed from industry-validated skills necessary for entry level employment or continued related education. All the Level III MEDIA COMMUNICATION competencies are addressed in this instructional sequence.*

10.0100.10 **Media Communication Fundamentals:** Students will gain experience in the development, production, and delivery of information, with an emphasis on integrated systems. Competencies will include aesthetics, the principles and elements of design, as well as basic installation, operation, and maintenance of audio and video equipment.

*One of the following Level III courses will be included as part of the instructional sequence for this program:*

10.0100.20 **Media Communication Advanced Applications:** This course prepares students for advanced technical knowledge and skills using a variety of media communications techniques and equipment.

10.0100.80 **Media Communication - Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work based learning experiences directly related to the competencies identified for the **Media Communication** program.

## CERTIFICATION ABBREVIATIONS FOR THE MEDIA COMMUNICATION PROGRAM

**CERTIFICATE TYPES:**

- AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)
- BVT Basic Vocational Education Teacher
- IA Industrial Arts
- PVB Provisional Vocational Business
- PVBM Provisional Vocational Business and Marketing
- PVI Provisional Vocational Industrial Technology
- PVM Provisional Vocational Marketing
- PVT Provisional Vocational Education Teacher
- SVB Standard Vocational Business
- SVBM Standard Vocational Business and Marketing
- SVI Standard Vocational Industrial Technology
- SVM Standard Vocational Marketing
- SVT Standard Vocational Education Teacher

**APPROVAL TYPES:**

- VBS Vocational Business
- VDE Vocational Distributive Education
- VIT Vocational Industrial and Technical Education
- VME Vocational Marketing Education
- VOE Vocational Office Education
- VTI Vocational Trades and Industrial Education
- VTT Vocational Trade and Technical Education

**CERTIFICATE REQUIREMENTS FOR THE MEDIA COMMUNICATION PROGRAM**

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

<b>Information Technology</b>	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, PVM, SVB, SVM	Type PVB, PVM, SVB, SVM	Type PVBM, SVBM	Type IA	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VTI	Type PVI, SVI
<b>Business Management Technology</b>	Type AVT, BVT, SVT, PVT Approval VDE	Type AVT, BVT, SVT, PVT Approval VME	Type PVM, SVM	Type PVM, SVM	Type PVBM, SVBM	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type AVT, BVT, PVT, SVT Approval VBS	Type AVT, BVT, PVT, SVT Approval VBS	Type PVI, SVI
<b>Industrial Technology</b>	Type IA	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VTI	Type PVI, SVI				

**LEVEL III:** The instructor must be vocationally certified according to the following table:

<b>Media Communication</b>	Type IA	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VTI	Type PVI, SVI
----------------------------	------------	--	--	--	---------------------

**Note:**

*Teacher/Coordinator Cooperative Education (CEN) is required for 10.0100.80  
Diversified Cooperative Education course Media Communication, 10.0100.70 may be a part of the sequence.  
The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.*

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.



**PROGRAM:**            **Nursing Services**

**PROGRAM**

**CIP CODE:**            **51.1600**

**DESCRIPTION:**    *The **Nursing Services** program is designed to prepare students for employment as nursing assistants and home health aides, or acceptance into an articulated nursing program at the postsecondary level. It also provides exposure to patient care for students interested in other health care careers. The Arizona State Board of Nursing must approve Nursing Assistant programs. Students who pass both a written test and a technical skill evaluation are then qualified to become certified as Nursing Assistants. In addition to technical skills, students completing this program will also develop advanced critical thinking, applied academic, career development, life management, business, economic, and leadership skills required for employment in Nursing Services occupations. The program utilizes a delivery system made up of four integral parts: formal technical instruction, experiential learning, supervised clinical occupational experience, and the Career and Technical Student Organization, SkillsUSA-VICA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I**                    *The following course is recommended as part of a*  
**Grades**                    *Comprehensive Career and Technical Education (CTE) Program:*  
**7-8**

90.0000.10    **Technological Foundations:** All students **should** complete Level I experience or attain these competencies.

**Level II**                    *The following courses are recommended as part of a*  
**Grades**                    *Comprehensive CTE NURSING SERVICES Program:*  
**9-10**

99.0300.30    **Applied Biological Systems-Health:** Students **should** complete this Level II cluster or attain these competencies.

99.0500.10    **Human Services and Technology:** If Applied Biological Systems-Health is not available, students **may** complete this Level II cluster or attain these competencies.

## Nursing Services (continued)

Level III  
Grades  
11-12

*The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III NURSING SERVICES competencies are addressed in this instructional sequence.*

51.1600.10 **Nursing Related Services:** This course prepares students to perform routine nursing-related services to clients in hospitals or long-term care facilities under the training and supervision of a registered nurse.

***One of the following Level III courses will be included as part of the instructional sequence for this program:***

51.1600.20 **Nursing Services Applications:** This course prepares students for advanced technical skills and knowledge using a variety of Nursing Assisting techniques and equipment.

51.1600.80 **Nursing Services - Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work based learning experiences directly related to the competencies identified for the **Nursing Services** program.

### CERTIFICATION ABBREVIATIONS FOR THE NURSING SERVICES PROGRAM

**CERTIFICATE TYPES:**

- AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)
- BVT Basic Vocational Education Teacher
- PVA Provisional Vocational Agriculture
- PVF Provisional Vocational Family Consumer Sciences
- PVH Provisional Vocational Health Occupations
- PVT Provisional Vocational Education Teacher
- SVA Standard Vocational Agriculture
- SVF Standard Vocational Family Consumer Sciences
- SVH Standard Vocational Health Occupations
- SVT Standard Vocational Education Teacher

**APPROVAL TYPES:**

- VAG Vocational Agriculture
- VFC Vocational Family & Consumer Sciences
- VHE Vocational Home Economics
- VHO Vocational Health Occupations
- VRO Vocational Related Occupations

**CERTIFICATE REQUIREMENTS FOR THE NURSING SERVICES PROGRAM**

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

<b>Applied Biological Systems</b>	Type AVT, BVT, PVT, SVT Approval VAG	Type PVA, SVA	Type AVT, BVT, PVT, SVT Approval VHE	Type AVT, BVT, PVT, SVT Approval VRO	Type AVT, BVT, PVT, SVT Approval VFC	Type AVT, BVT, PVT, SVT Approval VHO	Type PVF, SVF	Type AVT, BVT, PVT, SVT Approval VHO	Type PVH, SVH
<b>Human Services Technology</b>	Type AVT, BVT, PVT, SVT Approval VHE	Type AVT, BVT, PVT, SVT Approval VRO	Type AVT, BVT, PVT, SVT Approval VFC	Type PVF, SVF	Type AVT, BVT, PVT, SVT Approval VHO	Type PVH, SVH			

**LEVEL III:** The instructor must be vocationally certified according to the following table:

<b>Nursing Services</b>	Type AVT, BVT, PVT, SVT Approval VHO	Type PVH, SVH							
-------------------------	--	---------------------	--	--	--	--	--	--	--

**Note:**

*Teacher/Coordinator Cooperative Education (CEN) is required for 51.1600.80. Diversified Cooperative Education course Nursing Services, 51.1600.70 may be a part of the sequence. The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.*

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.

**PROGRAM:** Plumbing

**PROGRAM**

**CIP CODE:** 46.0500

**DESCRIPTION:** *The **Plumbing** program is designed to prepare students to assemble, install, and repair pipes, fittings, and fixtures of heating, water, and drainage systems according to specifications and plumbing codes. Fundamentals of plumbing include the information and basic skills necessary to build from blueprints, residential, commercial, and industrial structures. In addition to technical skills, students completing this program will also develop advanced critical thinking, career development, applied academic, life management, business, economic, and leadership skills required for Plumbing occupations. The program uses a delivery system made up of four integral parts: formal technical instruction, experiential learning, supervised occupation experience and the Career and Technical Student Organization, SkillsUSA-VICA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8** *The following course is recommended as part of a Comprehensive Career and Technical Technological Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete Level I experience or attain these competencies.

**Level II  
Grades  
9-10** *The following courses are recommended as part of a Comprehensive CTE PLUMBING Program:*

99.0200.10 **Industrial Technology:** Students should complete this Level II cluster.

99.0400.10 **Business Management Technology:** Students may complete this Level II cluster or attain these competencies. This is recommended for students who wish to emphasize the entrepreneurial aspects of this industry.

## Plumbing (continued)

Level III  
Grades  
11-12

*The following describes the recommended sequence of courses developed from industry-validated skills necessary for entry level employment or continued related education. All the Level III PLUMBING competencies are addressed in this instructional sequence.*

46.0500.10 **Plumbing Fundamentals:** This course prepares students 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. Instruction includes material selection and the use of tools to cut, bend, join and weld pipes.

**One of the following Level III courses will be included as part of the instructional sequence for this program:**

46.0500.20 **Plumbing Advanced Applications:** This course prepares students for advanced technical knowledge and skills using a variety of plumbing techniques and equipment.

46.0500.80 **Plumbing - Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work based learning experiences directly related to the competencies identified for the **Plumbing** Program.

## CERTIFICATION ABBREVIATIONS FOR THE PLUMBING PROGRAM

**CERTIFICATE TYPES:**

- AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)
- BVT Basic Vocational Education Teacher
- IA Industrial Arts
- PVB Provisional Vocational Business
- PVBM Provisional Vocational Business and Marketing
- PVI Provisional Vocational Industrial Technology
- PVM Provisional Vocational Marketing
- PVT Provisional Vocational Education Teacher
- SVB Standard Vocational Business
- SVBM Standard Vocational Business and Marketing
- SVI Standard Vocational Industrial Technology
- SVM Standard Vocational Marketing
- SVT Standard Vocational Education Teacher

**APPROVAL TYPES:**

- VBS Vocational Business
- VDE Vocational Distributive Education
- VIT Vocational Industrial and Technical Education
- VME Vocational Marketing Education
- VOE Vocational Office Education
- VTI Vocational Trades and Industrial Education
- VTT Vocational Trade and Technical Education

**CERTIFICATE REQUIREMENTS FOR THE PLUMBING PROGRAM**

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

<b>Industrial Technology</b>	Type IA	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VIT	Type PVI, SVI		
<b>Business Management Technology</b>	Type AVT, BVT, SVT, PVT Approval VDE	Type AVT, BVT, SVT, PVT Approval VME	Type PVM, SVM	Type PVB, SVBM	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, SVB	

**LEVEL III:** The instructor must be vocationally certified according to the following table:

<b>Plumbing</b>	Type IA	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VIT	Type PVI, SVI		
-----------------	------------	--	--	--	---------------------	--	--

**Note:**  
 Teacher/Coordinator Cooperative Education (CEN) is required for **46.0500.80**.  
 Diversified Cooperative Education course **Plumbing, 46.0500.70** may be a part of the sequence.  
 The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.



**PROGRAM:** Precision Metal Workers

**PROGRAM**

**CIP CODE:** 48.0500

**DESCRIPTION:** *The **Precision Metal Workers** program is designed to prepare students for employment in jobs related to the fabrication, joining and machining of metals. Instruction provides an integrated approach for teaching skills in sheet metal, welding and machining technology. In addition to technical skills, students completing this program will also develop advanced critical thinking, applied academic, career development, life management, business, economic, and leadership skills required for Precision Metal Workers occupations. The program utilizes a delivery system made up of four integral parts: formal technical instruction, experiential learning, supervised occupational experience, and the career and technical student organization, SkillsUSA-VICA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8** *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete Level I experience or attain these competencies.

**Level II  
Grades  
9-10** *The following courses are recommended as part of a Comprehensive CTE PRECISION METAL WORKERS Program:*

99.0200.10 **Industrial Technology:** Students should complete this Level II cluster or attain these competencies.

99.0400.10 **Business Management:** Students may complete this Level II cluster or attain these competencies. This is recommended for students who have an interest in sole proprietorships, management and supervisory occupations.

## Precision Metal Workers (continued)

Level III  
Grades  
11-12

*The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III PRECISION METAL WORKERS competencies are addressed in this instructional sequence.*

48.0500.10 ***Fundamentals of Precision Metal Workers*** program consists of an instructional sequence that prepares the individual to apply knowledge and skills in creating products using safety, precision crafting and technical illustration.

***One of the following Level III courses will be included as part of the instruction sequence for this program:***

48.0500.20 **Sheet Metal Advanced Applications:** This course prepares students for application of advanced technical knowledge and skills using a variety of sheet metal techniques and equipment.

48.0500.30 ***Welding Advanced Applications:*** This course prepares students for application of advanced technical knowledge and skills using a variety of welding techniques and equipment.

48.0500.40 ***Machining Technology Advanced Applications:*** This course prepares students for application of advanced technical knowledge and skills using a variety of machining technology techniques and equipment.

47.0500.80 ***Precision Metal Workers - Cooperative Education:*** This course utilizes cooperative education methodology to combine school based and supervised work based learning experiences directly related to the competencies identified for the ***Precision Metal Workers*** program.

## CERTIFICATION ABBREVIATIONS FOR THE PRECISION METAL WORKERS PROGRAM

**CERTIFICATE TYPES:**

- AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)
- BVT Basic Vocational Education Teacher
- IA Industrial Arts
- PVB Provisional Vocational Business
- PVBM Provisional Vocational Business and Marketing
- PVI Provisional Vocational Industrial Technology
- PVM Provisional Vocational Marketing
- PVT Provisional Vocational Education Teacher
- SVB Standard Vocational Business
- SVBM Standard Vocational Business and Marketing
- SVI Standard Vocational Industrial Technology
- SVM Standard Vocational Marketing
- SVT Standard Vocational Education Teacher

**APPROVAL TYPES:**

- VBS Vocational Business
- VDE Vocational Distributive Education
- VIT Vocational Industrial and Technical Education
- VME Vocational Marketing Education
- VOE Vocational Office Education
- VTI Vocational Trades and Industrial Education
- VTT Vocational Trade and Technical Education

## CERTIFICATE REQUIREMENTS FOR THE PRECISION METAL WORKERS PROGRAM

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

<b>Industrial Technology</b>	Type IA	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VTI	Type PVI, SVI		
<b>Business Management Technology</b>	Type AVT, BVT, SVT, PVT Approval VDE	Type AVT, BVT, SVT, PVT Approval VME	Type PVM, SVM	Type PVB, SVBM	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, SVB

**LEVEL III:** The instructor must be vocationally certified according to the following table:

<b>Precision Metal Workers</b>	Type IA	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VTI	Type PVI, SVI		
--------------------------------	------------	--	--	--	---------------------	--	--

**Note:**

*Teacher/Coordinator Cooperative Education (CEN) is required for 48.0500.80.*

*Diversified Cooperative Education course Precision Metal Workers, 48.0500.70 may be a part of the sequence.*

*The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.*

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.

**PROGRAM:** Residential Electrician

**PROGRAM**

**CIP CODE:** 46.0300

**DESCRIPTION:** *The **Residential Electrician** program is designed to prepare students to install, operate, maintain, troubleshoot, and repair residential, commercial, and industrial electrical systems. Fundamentals of the electrical trade include the information and basic skills necessary to install residential, commercial, and industrial electrical systems from blueprints. This program also contains information relating to current technology used in electrical systems. In addition to technical skills, students completing this program will also develop skills in advanced critical thinking, career development, applied academic, life management, business economic, and leadership skills required for Electrical Trades occupations. The program uses a delivery system made up of four integral parts: formal/technical instruction, experiential learning, supervised occupational experience, and the Career and Technical organization, SkillsUSA-VICA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8** *The following course is recommended as part of a **Comprehensive Career and Technical Education (CTE) Program:***

90.0000.10 **Technological Foundations:** All students should complete Level I experience or attain these competencies.

**Level II  
Grades  
9-10** *The following courses are recommended as part of a **Comprehensive CTE RESIDENTIAL ELECTRICIAN Program:***

99.0200.10 **Industrial Technology:** Students should complete this Level II cluster or attain these competencies.

99.0100.10 **Information Technology:** Students may complete this Level II cluster or attain these competencies. This is recommended to enhance the students' knowledge of electronics in communication industries.

## Residential Electrician (continued)

99.0400.10 **Business Management:** Students may complete this Level II cluster or attain these competencies. This is recommended for students who wish to emphasize the entrepreneurial aspects of this industry.

Level III  
Grades  
11-12

***The following describes a recommended sequence of courses developed from industry-validated skills necessary for initial level employment or continued related education. All the Level III RESIDENTIAL ELECTRICIAN competencies are addressed in this instructional program.***

46.0300.10 **Electrical Installation:** This course prepares students 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.

***One of the following Level III courses will be included as part of the instructional sequence for this program:***

46.0300.20 **Residential Electrician Advanced Applications:** This course prepares students for application of advanced technical knowledge and skills using a variety of residential electrician techniques and equipment.

46.0300.80 **Residential Electrician - Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work based learning experiences directly related to the competencies identified for the **Residential Electrician** program.

## CERTIFICATION ABBREVIATIONS FOR THE RESIDENTIAL ELECTRICIAN PROGRAM

CERTIFICATE TYPES:	APPROVAL TYPES:
• AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)	• VBS Vocational Business
• BVT Basic Vocational Education Teacher	• VDE Vocational Distributive Education
• IA Industrial Arts	• VIT Vocational Industrial and Technical Education
• PVB Provisional Vocational Business	• VME Vocational Marketing Education
• PVBM Provisional Vocational Business and Marketing	• VOE Vocational Office Education
• PVI Provisional Vocational Industrial Technology	• VTI Vocational Trades and Industrial Education
• PVM Provisional Vocational Marketing	• VTT Vocational Trade and Technical Education
• PVT Provisional Vocational Education Teacher	
• SVB Standard Vocational Business	
• SVBM Standard Vocational Business and Marketing	
• SVI Standard Vocational Industrial Technology	
• SVM Standard Vocational Marketing	
• SVT Standard Vocational Education Teacher	

## CERTIFICATE REQUIREMENTS FOR THE RESIDENTIAL ELECTRICIAN PROGRAM

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

<b>Industrial Technology</b>	Type IA	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VTI	Type PVI, SVI		
<b>Business Management Technology</b>	Type AVT, BVT, SVT, PVT Approval VDE	Type AVT, BVT, SVT, PVT Approval VME	Type PVM, SVM	Type PVBM, SVBM	Type AVT, BVT, PVT, SVT Approval VOE	Type PVB, SVB	
<b>Information Technology</b>	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, PVM, SVB, SVM	Type PVBM, SVBM	Type IA	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VTI
							Type PVI, SVI

**LEVEL III:** The instructor must be vocationally certified according to the following table:

<b>Residential Electrician</b>	Type IA	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VTI	Type PVI, SVI	Type PVB, SVB	
							Type AVT, BVT, PVT, SVT Approval VBS

**Note:**

Teacher/Coordinator Cooperative Education (CEN) is required for **46.0300.80**.

Diversified Cooperative Education course **Residential Electrician, 46.0300.70** may be a part of the sequence.

The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.

**PROGRAM:** Sales and Marketing

**PROGRAM**

**CIP CODE:** 08.0700

**DESCRIPTION:** *The **Sales and Marketing** program is designed to prepare students for employment in various sales, customer service, and/or first-line supervisory positions in wholesale, retail, and service establishments. A student completing this program will possess the technical knowledge and skills associated with sales, marketing, and related activities for broad categories or products and services. In addition to technical skills, students completing this program will also develop advanced critical thinking, applied academic, career development, life management, business, economic, and leadership skills required for entry into Sales and Marketing occupations. The program utilizes a delivery system made up of four integral parts: formal technical instruction, experiential learning, supervised occupational experience, and the Career and Technical Student Organization, DECA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8** *The following course is recommended as part of a **Comprehensive Career and Technical Education (CTE) Program**:*  
90.0000.10 **Technological Foundations:** All students should complete Level I experience or attain these competencies.

**Level II  
Grades  
9-10** *The following courses are recommended as part of a **Comprehensive CTE SALES AND MARKETING Program**:*  
99.0400.10 **Business Management Technology:** Students should complete this Level II cluster or attain these competencies.  
99.0100.10 **Information Technology:** If Business Management Technology is not available, students may complete this Level II cluster or attain these competencies.  
99.0500.10 **Human Services and Technology:** If Business Management and Technology is not available, students may complete this Level II cluster or attain these competencies.

## Sales and Marketing (continued)

Level III  
Grades  
11-12

*The following describes the recommended sequence of courses organized on the basis of industry recognized skills necessary for initial employment or continued related education. All the Level III SALES AND MARKETING competencies are addressed in this instructional sequence:*

08.0700.10 **Sales and Marketing:** This course is designed to prepare students for employment in various sales, customer service, and supervisory positions in wholesale, retail, and service areas.

*One of the following Level III courses will be included as part of the instructional sequence for this program:*

08.0700.20 **Sales and Marketing Applications:** This course is a school laboratory experience focused on project-oriented activities to build and expand knowledge and behaviors associated with all aspects of sales and services.

08.0700.30 **Marketing Entrepreneurship:** This course prepares students to perform marketing and management functions and tasks associated with creating a new business enterprise.

08.0700.40 **Retailing:** This course prepares students to sell and merchandise hard- and soft-line general merchandise in a retail setting. (This code is for courses utilizing a student-operated store.)

08.0700.50 **Marketing Management:** This course prepares students to apply marketing skills in a management position in any industry, generally at the mid-management level.

08.0700.80 **Sales and Marketing - Cooperative Education:** This course utilizes a cooperative education methodology to combine school based and supervised work based learning experiences directly related to the competencies identified for the **Sales and Marketing** Program.

## CERTIFICATION ABBREVIATIONS FOR THE SALES AND MARKETING PROGRAM

**CERTIFICATE TYPES:**

- AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)
- BVT Basic Vocational Education Teacher
- IA Industrial Arts
- PVB Provisional Vocational Business
- PVBM Provisional Vocational Business and Marketing
- PVF Provisional Vocational Family Consumer Sciences
- PVH Provisional Vocational Health Occupations
- PVI Provisional Vocational Industrial Technology
- PVM Provisional Vocational Marketing
- PVT Provisional Vocational Education Teacher
- SVB Standard Vocational Business
- SVBM Standard Vocational Business and Marketing
- SVF Standard Vocational Family Consumer Sciences
- SVH Standard Vocational Health Occupations
- SVI Standard Vocational Industrial Technology
- SVM Standard Vocational Marketing
- SVT Standard Vocational Education Teacher

**APPROVAL TYPES:**

- VBS Vocational Business
- VDE Vocational Distributive Education
- VFC Vocational Family & Consumer Sciences
- VHE Vocational Home Economics
- VHO Vocational Health Occupations
- VIT Vocational Industrial and Technical Education
- VME Vocational Marketing Education
- VOE Vocational Office Education
- VRO Vocational Related Occupations
- VTI Vocational Trades and Industrial Education
- VTT Vocational Trade and Technical Education

## CERTIFICATE REQUIREMENTS FOR THE SALES AND MARKETING PROGRAM

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

<b>Business Management Technology</b>	Type AVT, BVT, SVT, PVT Approval VDE	Type AVT, BVT, SVT, PVT Approval VME	Type PVM, SVM	Type PVBM, SVBM	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, SVB	Type PVI, SVI
<b>Human Services Technology</b>	Type AVT, BVT, PVT, SVT Approval VHE	Type AVT, BVT, PVT, SVT Approval VRO	Type AVT, BVT, PVT, SVT Approval VFC	Type PVF, SVF	Type AVT, BVT, PVT, SVT Approval VHO	Type PVH, SVH		
<b>Information Technology</b>	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, SVB	Type PVBM, SVBM	Type IA	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VTI

**LEVEL III:** The instructor must be vocationally certified according to the following table:

<b>Sales and Marketing</b>	Type AVT, BVT, SVT, PVT Approval VDE	Type AVT, BVT, SVT, PVT Approval VME	Type PVM, SVM	Type PVBM, SVBM	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, SVB
----------------------------	--	--	---------------------	-----------------------	--	--	---------------------

**Note:**

Teacher/Coordinator Cooperative Education (CEN) is required for **08.0700.80**.  
 Diversified Cooperative Education course **Sales and Marketing, 08.0700.70** may be a part of the sequence.  
 The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.

**PROGRAM:** Upholstering

**PROGRAM  
CIP CODE:** 48.0300

**DESCRIPTION:** *The Upholstering program prepares students to engage in all aspects of upholstery in automobiles, aircraft interiors, recreational vehicles, and furniture. Students will also learn about non-apparel needle trade production such as awnings, athletic equipment, special safety restraints, pattern making, pattern layout, and reading plans. In addition to technical skills, students completing this program will also develop advanced critical thinking, applied academic, career development, life management, business, economic, and leadership skills required for Upholstering occupations. The program utilizes a delivery system made up of four integral parts: formal technical instruction, experiential learning, supervised occupational experience, and the Career and Technical Student Organization, SkillsUSA-VICA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8** *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete Level I experience or attain these competencies.

**Level II  
Grades  
9-10** *The following courses are recommended as part of a Comprehensive CTE UPHOLSTERING Program:*

99.0200.10 **Industrial Technology:** Students should complete this Level II cluster or attain these competencies.

99.0400.10 **Business Management Technology:** Students may complete this Level II cluster or attain these competencies. This is recommended for students who wish to emphasize the entrepreneurial aspects of this industry.

## Upholstering (continued)

Level III  
Grades  
11-12

*The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III UPHOLSTERING competencies are addressed in this instructional sequence.*

48.0300.10 ***Upholstering Fundamentals:*** This course prepares students 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.

***One of the following Level III courses will be included as part of the instructional sequence for this program:***

48.0300.20 ***Upholstering Advanced Applications:*** This course prepares students for application of advanced technical knowledge and skills using a variety of upholstery techniques and equipment.

48.0300.80 ***Upholstering - Cooperative Education:*** This course utilizes a cooperative education methodology to combine school based and supervised work based learning experiences, directly related to the competencies identified for the ***Upholstering*** program.

## CERTIFICATION ABBREVIATIONS FOR THE UPHOLSTERING PROGRAM

CERTIFICATE TYPES:	APPROVAL TYPES:
<ul style="list-style-type: none"> <li>• AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)</li> <li>• BVT Basic Vocational Education Teacher</li> <li>• IA Industrial Arts</li> <li>• PVB Provisional Vocational Business</li> <li>• PVBM Provisional Vocational Business and Marketing</li> <li>• PVI Provisional Vocational Industrial Technology</li> <li>• PVM Provisional Vocational Marketing</li> <li>• PVT Provisional Vocational Education Teacher</li> <li>• SVB Standard Vocational Business</li> <li>• SVBM Standard Vocational Business and Marketing</li> <li>• SVI Standard Vocational Industrial Technology</li> <li>• SVM Standard Vocational Marketing</li> <li>• SVT Standard Vocational Education Teacher</li> </ul>	<ul style="list-style-type: none"> <li>• VBS Vocational Business</li> <li>• VDE Vocational Distributive Education</li> <li>• VIT Vocational Industrial and Technical Education</li> <li>• VME Vocational Marketing Education</li> <li>• VOE Vocational Office Education</li> <li>• VTI Vocational Trades and Industrial Education</li> <li>• VTT Vocational Trade and Technical Education</li> </ul>

## CERTIFICATE REQUIREMENTS FOR THE UPHOLSTERING PROGRAM

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

<b>Industrial Technology</b>	Type IA	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VTI	Type PVI, SVI		
<b>Business Management Technology</b>	Type AVT, BVT, SVT, PVT Approval VDE	Type AVT, BVT, SVT, PVT Approval VME	Type PVM, SVM	Type PVBM, SVBM	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, SVB

**LEVEL III:** The instructor must be vocationally certified according to the following table:

<b>Upholstering</b>	Type IA	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VTI	Type PVI, SVI		
---------------------	------------	--	--	--	---------------------	--	--

**Note:**

Teacher/Coordinator Cooperative Education (CEN) is required for **48.0300.80**.  
 Diversified Cooperative Education course **Upholstering, 48.0300.70** may be a part of the sequence.  
 The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.

**PROGRAM:** Vehicle And Mobile Equipment Technicians

**PROGRAM**

**CIP CODE:** 47.0600

**DESCRIPTION:** *The **Vehicle & Mobile Equipment Technicians** program is designed to prepare students for jobs in mechanical and collision repair of various vehicles and mobile equipment. The program can include instruction in: aviation maintenance and the service of aviation systems; technical skills to repair and service lawn and garden and light construction small engines; automotive painting; body, and collision repair; maintenance and repair of automotive electrical and electronic systems; suspension, steering, and braking systems; and the diagnosis and repair of engine performance problems; repairs of heavy duty truck systems in vehicles such as buses, ships, trucks, railroad locomotives, and construction equipment; and to make repairs of stationary diesel engines in electrical generators and related equipment. Students will use a variety of tools and testing and diagnostic equipment. In addition to technical skills, students completing this program will also develop advanced critical thinking, career development, applied academic, life management, business, economic, and leadership skills required for Vehicle & Mobile Equipment Technicians occupations. The program uses a delivery system made up of four integral parts: formal technical instruction, experiential learning, supervised occupational experience, and the career & technical student organization, SkillsUSA-VICA*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8**      *The following course is recommended as part of a **Comprehensive Career and Technical Education (CTE) Program:***

90.0000.10 **Technological Foundations:** All students should complete Level I experience or attain these competencies.

## Vehicle and Mobile Equipment Technicians (continued)

Level II  
Grades  
9-10

*The following courses are recommended as part of a Comprehensive CTE VEHICLE AND MOBILE EQUIPMENT TECHNICIANS Program:*

99.0200.10 **Industrial Technology:** Students should complete this Level II cluster or attain these competencies.

99.0400.10 **Business Management:** Students may complete this Level II cluster or attain these competencies. This is recommended for students who have an interest in sole proprietorships, management and supervisory occupations.

Level III  
Grades  
11-12

*The following describes the recommended courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III VEHICLE AND MOBILE EQUIPMENT TECHNICIANS competencies are addressed in this instructional sequence.*

47.0600.10 **Fundamentals of Vehicle and Mobile Equipment Technicians:** This program prepares the student to apply technical knowledge and skills in the safety, adjustment, maintenance, part replacement, and repair of tools, equipment and machines

*One of the following Level III courses will be included as part of the instructional sequence for this program:*

47.0600.20 **Aircraft Mechanics:** This course prepares students for application of advanced technical knowledge and skills to repair, service and maintain aircraft components.

47.0600.30 **Air Cooled Engine Repair:** This course prepares students for application of advanced technical knowledge and skills using a variety of Air Cooled Engine Repair techniques and equipment.

47.0600.40 **Automotive Collision Repair:** This course prepares students for application of advanced technical knowledge and skills using a variety of collision and damage repair techniques and equipment and is designed to meet initial Automotive Service Excellence (ASE) technician certification requirements.

## Vehicle and Mobile Equipment Technicians (continued)

- 47.0600.50 **Automotive Technology:** This course prepares students for application of advanced technical knowledge and skills using General Automotive Mechanics, Automotive Electrical/Electronic Systems, Automotive Engine Performance, Automotive Braking Systems and Automotive Suspension and Steering Systems techniques and equipment and is designed to meet initial Automotive Service Excellence (ASE) technician certification requirements.
- 47.0600.80 **Vehicle and Mobile Equipment Mechanics - Cooperative Education:** This course utilizes cooperative education methodology to combine school based and supervised work based learning experiences directly related to the competencies identified for the **Vehicle and Mobile Equipment** program.

## CERTIFICATION ABBREVIATIONS FOR THE VEHICLE AND MOBILE EQUIPMENT TECHNICIANS

### CERTIFICATE TYPES:

- AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)
- BVT Basic Vocational Education Teacher
- IA Industrial Arts
- PVB Provisional Vocational Business
- PVBM Provisional Vocational Business and Marketing
- PVI Provisional Vocational Industrial Technology
- PVM Provisional Vocational Marketing
- PVT Provisional Vocational Education Teacher
- SVB Standard Vocational Business
- SVBM Standard Vocational Business and Marketing
- SVI Standard Vocational Industrial Technology
- SVM Standard Vocational Marketing
- SVT Standard Vocational Education Teacher

### APPROVAL TYPES:

- VBS Vocational Business
- VDE Vocational Distributive Education
- VIT Vocational Industrial and Technical Education
- VME Vocational Marketing Education
- VOE Vocational Office Education
- VTI Vocational Trades and Industrial Education
- VTT Vocational Trade and Technical Education

## CERTIFICATE REQUIREMENTS FOR THE VEHICLE AND MOBILE EQUIPMENT TECHNICIANS PROGRAM

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

<b>Industrial Technology</b>	Type IA	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VTI	Type PVI, SVI		
<b>Business Management Technology</b>	Type AVT, BVT, SVT, PVT Approval VDE	Type AVT, BVT, SVT, PVT Approval VME	Type PVM, SVM	Type PVB, SVBM, SVBM	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, SVB

**LEVEL III:** The instructor must be vocationally certified according to the following table:

<b>Vehicle and Mobile Equipment Technicians</b>	Type IA	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VTT	Type AVT, BVT, PVT, SVT Approval VTI	Type PVI, SVI		
---	------------	--	--	--	---------------------	--	--

**Note:**  
Teacher/Coordinator Cooperative Education (CEN) is required for **47.0600.80**.  
Diversified Cooperative Education course **Vehicle and Mobile Equipment Technicians, 47.0600.70** may be a part of the sequence.  
The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.

**PROGRAM:** Visual Communications

**PROGRAM:**

**CIP CODE:** 50.0400

**DESCRIPTION:** *The **Visual Communications** program is designed to prepare students for employment in various graphic design, advertising, typesetting, illustration, layout and various imaging occupations. It includes instruction in developing layout, design, production art and business skills in such areas as design and illustration, art tools and media, lettering and typography, graphic design, computer-generated imaging, communication, marketing, and safety as well as technical knowledge and skills associated with electronic imaging systems, photographic composition, photographic equipment use/maintenance, and photographic processing. In addition to technical skills, students completing this program will also develop advanced critical thinking, applied academic, career development, life management, business, economic, and leadership skills required for Visual Communications occupations. The program utilizes a delivery system made up of four integral parts: formal technical instruction, experiential learning, supervised occupational experience, and the career and technical student organization, SkillsUSA-VICA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8** *The following course is recommended as part of a Comprehensive Career and Technical Technological Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete Level I experience or attain these competencies.

**LEVEL II  
Grades  
9-10** *The Following Courses Are Recommended as part of a Comprehensive CTE VISUAL COMMUNICATIONS Program:*

99.0100.10 **Information Technology:** Students should complete this Level II cluster or attain these competencies.

99.0200.10 **Industrial Technology:** Students may complete this Level II cluster or attain these competencies.

## Visual Communications (continued)

Level III  
Grades  
11-12

*The following describes the recommended sequence of courses developed from industry-validated skills necessary for initial employment or continued related education. All the Level III VISUAL COMMUNICATIONS competencies are addressed in this instructional sequence.*

50.0400.10 **Fundamentals of Visual Communications:** This course prepares students for the creation and interpretation of works and performances that use auditory, kinesthetic and visual phenomena to express ideas and emotions in various forms subject to aesthetic criteria.

*One of the following Level III courses will be included as part of the instructional sequence for this program:*

50.0400.20 **Photo Imaging Advanced Applications:** This course prepares students for application of advanced technical knowledge and skills using a variety of photo imaging techniques and equipment.

50.0400.30 **Commercial Art Advanced Applications:** This course prepares students for application of advanced technical knowledge and skills using a variety of commercial art techniques and equipment.

50.0400.80 **Visual Communications - Cooperative Education:** This course utilizes cooperative education methodology to combine school based and supervised work based learning experiences directly related to the competencies identified for the **Visual Communications** program.

## CERTIFICATION ABBREVIATIONS FOR THE VISUAL COMMUNICATIONS PROGRAM

**CERTIFICATE TYPES:**

- AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)
- BVT Basic Vocational Education Teacher
- IA Industrial Arts
- PVB Provisional Vocational Business
- PVBM Provisional Vocational Business and Marketing
- PVI Provisional Vocational Industrial Technology
- PVM Provisional Vocational Marketing
- PVT Provisional Vocational Education Teacher
- SVB Standard Vocational Business
- SVBM Standard Vocational Business and Marketing
- SVI Standard Vocational Industrial Technology
- SVM Standard Vocational Marketing
- SVT Standard Vocational Education Teacher

**APPROVAL TYPES:**

- VBS Vocational Business
- VDE Vocational Distributive Education
- VIT Vocational Industrial and Technical Education
- VME Vocational Marketing Education
- VOE Vocational Office Education
- VTI Vocational Trades and Industrial Education
- VTT Vocational Trade and Technical Education

## CERTIFICATE REQUIREMENTS FOR THE VISUAL COMMUNICATIONS PROGRAM

**LEVEL I:** The instructor, or one member of the teaching team\*, must be vocationally certified. (Allows for any Vocational certification.)

**LEVEL II:** The instructor, or one member of the teaching team\*, must be vocationally certified according to the following table:

<b>Industrial Technology</b>	Type IA	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VIT	Type PVI, SVI			Type AVT, BVT, PVT, SVT Approval VIT	Type PVI, SVI
<b>Information Technology</b>	Type AVT, BVT, PVT, SVT Approval VOE	Type AVT, BVT, PVT, SVT Approval VBS	Type PVB, PVM, SVB, SVM	Type PVB, SVBM	Type IA			Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VIT

**LEVEL III:** The instructor must be vocationally certified according to the following table:

<b>Visual Communications</b>	Type IA	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VIT	Type AVT, BVT, PVT, SVT Approval VIT	Type PVI, SVI				
------------------------------	------------	--	--	--	---------------------	--	--	--	--

**Note:**

Teacher/Coordinator Cooperative Education (CEN) is required for **50.0400.80**.  
 Diversified Cooperative Education course **Visual Communications, 50.0400.70** may be a part of the sequence.  
 The teacher must hold a Teacher/Coordinator Cooperative Education (CEN) endorsement.

\* A team is more than one teacher. All the team members are involved in instruction and coordinate delivery of the competencies.

## Mission Statement

LifeSkills education empowers individuals to take action for the well being of self and others

## LIFESKILLS

**PROGRAM CODE:** 20.0101

**DESCRIPTION:** Level III

LifeSkills is designed to empower individuals to take action for the well being of self and others in the home, workplace, community and the world. While only a small percentage of students complete college, they will all face the challenges of life after high school. With rising numbers of single parent and dual worker families, students need training in life management and workplace skills. The most chronic and critical social and economic issues that challenge the nation's youth, families, schools and workforce are addressed in the LifeSkills program. Problems such as substance abuse, school dropout, poor nutrition, domestic violence, teen pregnancy, and child abuse have reached epidemic proportions. These problems weigh heavily on families, schools and public budgets. The LifeSkills curriculum prepares individuals to assume responsibility for these issues and to balance home, family and work. Students completing the LifeSkills program will be better able to use these abilities to become productive citizens. The LifeSkills program delivers competencies to strengthen the well-being of individuals and families across the life span, to promote optimal health and wellness, to manage resources to meet the needs of individuals and families and to develop human relations skills.

LifeSkills programs do not generate state funds. Support of Family and Consumer Sciences LifeSkills programs is a permissible local expenditure under the Carl Perkins Act of 1998 [Sec.135(c)(11)]. Measurable goals and objectives are to be submitted on the Basic Grant Application.

**Enrollment will be submitted for LifeSkills programs. However, Performance Measures will not be submitted to ADE.** LifeSkills programs will be evaluated by the goals and objectives submitted under permissible expenditures on your Basic Grant Application.

LifeSkills competencies include:

- 1.0 Apply process skills to LifeSkills content
- 2.0 Formulate career choices
- 3.0 Demonstrate strategies for obtaining employment
- 4.0 Evaluate factors that contribute to success in work
- 5.0 Develop skills for career advancement
- 6.0 Increase self-acceptance and respect for others
- 7.0 Apply communication skills to family, work and community situations
- 8.0 Examine the dimensions of love and commitment
- 9.0 Analyze families based on social, cultural, economic and psychological factors
- 10.0 Analyze factors associated with the decision to parent
- 11.0 Examine growth and development in infancy and childhood
- 12.0 Examine growth and development in adolescence
- 13.0 Examine development in the stages of adulthood
- 14.0 Examine the relationship of physical, emotional and mental health to wellness
- 15.0 Examine the role of responsibility for personal wellness
- 16.0 Examine the relationship of nutrition, food and fitness to wellness
- 17.0 Develop personal and family financial management skills

**PROGRAM:** LifeSkills

**PROGRAM**

**CIP CODE:** 20.0101

**DESCRIPTION:** *The LifeSkills program is designed to empower individuals to take action for the well being of self and others in the home, workplace, community, and the world. LifeSkills prepares individuals to assume responsibility to balance home, family and work. The LifeSkills program delivers competencies to strengthen the well-being of individuals and families, and to develop human relations skills. The core competencies are transferable into related paid occupations. The program utilizes a delivery system made up of three integral parts: formal technical instruction, experiential learning through community service-learning and the Career and Technical Student Organization, FCCLA.*

**RECOMMENDED PROGRAM SEQUENCE OF COURSES:**

**Level I  
Grades  
7-8** *The following course is recommended as part of a Comprehensive Career and Technical Education (CTE) Program:*

90.0000.10 **Technological Foundations:** All students should complete Level I experience or attain these competencies.

**Level II  
Grades  
9-10** *The following courses are recommended as part of a Comprehensive CTE LIFESKILLS Program:*

99.0500.10 **Human Services Technology:** Students should complete this Level II cluster or attain these competencies.

99.0300.40 **Applied Biological Systems – Food Science:** Students may complete this Level II cluster or attain these competencies.

99.0400.10 **Business Management Technology:** Students may complete this Level II cluster or attain these competencies.

## Lifeskills (continued)

Level III  
Grades  
11-12

*The following describes the recommended sequence of courses for the Level III LIFESKILLS competencies. All of the competencies are addressed in the instructional sequence.*

20.0101.10 **LifeSkills Fundamentals:** This course prepares students to understand the nature, function, and significance of human relationships. It includes developmental needs of individuals throughout the life span, personal responsibility for actions, diversity, communication, the establishment and maintenance of relationships, parenthood, family life, nutrition and wellness, employability, resource management and community service.

*One of the following Level III courses will be included as part of the instructional sequence for this program:*

20.0101.20 **LifeSkills Integration:** This advanced course prepares students to integrate and apply employability skills, human relationship strategies, parenting competencies and wellness responsibilities.

20.0101.90 **Service-Learning in the Community:** This course utilizes community-based experiences to provide service-learning opportunities, directly related to the community service competencies identified in the **LifeSkills** program.

## CERTIFICATION ABBREVIATIONS FOR THE LIFESKILLS PROGRAM

**CERTIFICATE TYPES:**

- AVT Adult Vocational Education Teacher (Not eligible for Co-Op Endorsement)
- BVT Basic Vocational Education Teacher
- PVA Provisional Vocational Agriculture
- PVB Provisional Vocational Business
- PVBM Provisional Vocational Business and Marketing
- PVM Provisional Vocational Marketing
- PVF Provisional Vocational Family Consumer Sciences
- PVH Provisional Vocational Health Occupations
- PVT Provisional Vocational Education Teacher
- SVA Standard Vocational Agriculture
- SVB Standard Vocational Business
- SVBM Standard Vocational Business and Marketing
- SVF Standard Vocational Family Consumer Sciences
- SVH Standard Vocational Health Occupations
- SVM Standard Vocational Marketing
- SVT Standard Vocational Education Teacher

**APPROVAL TYPES:**

- VAG Vocational Agriculture
- VBS Vocational Business
- VDE Vocational Distributive Education
- VFC Vocational Family & Consumer Sciences
- VHE Vocational Home Economics
- VHO Vocational Health Occupations
- VME Vocational Marketing Education
- VOE Vocational Office Education
- VRO Vocational Related Occupations



## OCCUPATIONAL CLUSTERS

All of Arizona's Comprehensive Career and Technical Education Programs fall within one of these six occupational clusters:

- Agricultural Education
- Business Education
- Family and Consumer Sciences Education
- Health Careers Education
- Industrial Technological Education
- Marketing Education

Each of these occupational clusters represents a group of related occupations and their necessary preparatory subject matter. These occupational clusters also identify the subject matter expertise required for both teacher certification and student career and technical education organizations.

A description of each of these six occupational clusters begins on the next page.

## AGRICULTURAL EDUCATION

The mission of Agricultural Education in Arizona is to provide a total educational system with educational programs *in* and *about* agriculture. In conducting these programs, agricultural educators aspire to excellence in recruiting, preparing and supporting individuals in and for careers in agriculture and other related professions.

Agricultural Education's philosophy and goals are that it is an integral segment of public education which prepares students for: employment in agricultural occupations; continuing education and training offered by private and public postsecondary institutions; business and industry; and agricultural business ownership and/or managerial responsibilities. A coherent sequence of instruction, Agricultural Education provides for curriculum articulation enabling students to progress from basic through specialized competencies. The essential components of education in agriculture are formal instruction, experiential education, leadership and personal development.

The design of the Agricultural Education program includes a coherent sequence of instruction and learning. The curriculum framework for the Comprehensive Program includes Level I, Technological Foundations; Level II, Applied Biological Systems-Agriculture; and a Level III competency program, Agriscience, Horticulture or Renewable Natural Resources. A Tech Prep articulated sequence of academic and career and technical instruction between Levels III and IV (community colleges) builds and reinforces strong, systemic, comprehensive linkages between secondary and postsecondary institutions.

Comprehensive Agricultural Education curricula are delivered through competency-based experiences, which allow students to refine academic skills while developing and applying specific occupational skills. These experiences are supported through intra-curricular leadership development programs offered by FFA Chapters affiliated with the Arizona Association FFA and the National FFA.

CONTACT PERSONS: State Supervisor, Agricultural Education  
**602-542-5356**

FFA Executive Secretary  
**602-542-5564**

Arizona Department of Education  
1535 West Jefferson Street  
Phoenix, AZ 85007  
**Fax: 602-542-1849**  
**1-800-352-4558 (ADE Receptionist)**

## **BUSINESS EDUCATION**

The mission of Business Education is to work cooperatively with the business community to continuously improve the contents and delivery of Business Education programs. Success of this program will result in the preparation of all individuals to live and work as productive citizens in our global society by providing essential business experiences, education and training.

The goals of Business Education are to: provide all students opportunities to acquire business knowledge and technical skills needed to function effectively in their careers; provide a continuous program of planned learning experiences designed to help students effectively make intelligent economic decisions; produce and distribute goods and services as competent workers; and use results of production as wise consumers.

The design of the Comprehensive Business Education program includes a coherent sequence of instruction and learning. The curriculum framework for the Comprehensive Program includes: Technological Foundations (Level I) competencies and Business Management Technology (Level II) competencies. Business experts have identified occupationally specific (Level III) competencies in five occupational areas: Accounting, Administrative Information Services, Financial Services, Business Management and Administrative Services, and Business Information Technology Services. A Tech Prep articulated sequence of academic and career and technical instruction between Levels III and IV builds and reinforces strong, systematic, comprehensive linkages between secondary and postsecondary institutions.

Comprehensive Business Education curricula are delivered through competency-based instruction including school based and work based experiences, which allow students to refine academic skills while developing and applying specific occupational business skills. These experiences are supported through Cooperative Office Education work experience and the co-curricular leadership development programs of Future Business Leaders of America (FBLA).

**CONTACT PERSONS:** State Supervisor, Business Education  
FBLA/PBL State Chairperson  
**602-542-5046**

FBLA State Adviser  
**602-542-5350**

Arizona Department of Education  
1535 West Jefferson Street  
Phoenix, AZ 85007  
**Fax: 602-542-1849**  
**1-800-352-4558 (ADE Receptionist)**

## FAMILY AND CONSUMER SCIENCES EDUCATION

The mission of Family and Consumer Sciences Education is to prepare students for family life, work life and careers in family and consumer sciences by providing opportunities to develop the knowledge, skills, attitudes and behaviors needed for them to live and work as productive citizens in a global society.

The goal of Family and Consumer Sciences Education is to strengthen the well being of individuals and families across the life span, become responsible citizens and leaders in families, community and work settings and promote optimal nutrition and wellness. Family and Consumer Sciences Education promotes management of resources to meet the material needs of individuals and families as they function as producers and consumers of goods and services. Critical thinking skills are developed to address problems in diverse family, community and work environments while appreciating human worth and accepting responsibility for one's actions.

The design of the Comprehensive Family and Consumer Sciences Education program includes a coherent sequence of instruction and learning. The curriculum framework for the Comprehensive Program includes Level I, Technological Foundations; Level II, Applied Biological Systems-Food Science and Human Services Technology; and a Level III competency program including Food Production/Culinary Arts, Early Childhood Professions, Hospitality Services, Apparel Design and Merchandising and LifeSkills. Cooperative Education may be included as part of the instructional sequence at Level III. A Tech Prep articulated sequence of academic and career and technical instruction between Level III and Level IV (Community College) builds and reinforces strong, systemic, comprehensive linkages between secondary and postsecondary institutions.

Comprehensive Family and Consumer Sciences Education curricula are delivered through competency-based experiences, which allow students to refine academic skills while developing and applying specific occupational skills. These experiences are supported through co-curricular leadership development programs offered by FCCLA (Family, Career and Community Leaders of America).

CONTACT PERSONS: State Supervisor, Family and Consumer Sciences Education  
Education  
**602-542-5487**

FCCLA Advisor  
**602-542-3040**

Arizona Department of Education  
1535 West Jefferson Street  
Phoenix, AZ 85007  
**Fax: 602-542-1849**  
**1-800-352-4558 (ADE Receptionist)**

## HEALTH CAREERS EDUCATION

The mission of Health Careers Education is to work in cooperation with businesses, professionals and educators to continuously improve opportunities for young people to explore and experience careers in health care. Our goal is to prepare all individuals to live and work as productive citizens in our global society by providing essential work, education, and training experiences.

The goal of Health Careers Education is to provide competency-based programs that prepare students for employment in the health care sectors of the economy or into articulation with advanced training at the postsecondary level. Health Careers Education may take place through school based and work based activities including classroom instruction, hands-on laboratory experiences, industry based clinical experiences, and cooperative education programs with industry.

The design of the Comprehensive Health Careers Education program includes a coherent sequence of instruction and learning. The curriculum framework for the Comprehensive Program includes Level I, Technological Foundations; Level II, Applied Biological Systems-Health or the optional Human Services Technology; and a Level III competency program in an approved health career area. A Tech Prep articulated sequence of academic and career and technical instruction between Levels III and IV (Community Colleges) builds and reinforces strong, systemic, comprehensive linkages between secondary and postsecondary institutions.

Comprehensive Health Careers Education curricula are delivered through competency-based experiences, which allow students to refine academic skills while developing and applying specific occupational skills. These experiences are supported through co-curricular leadership development programs offered by SkillsUSA-VICA.

CONTACT PERSONS: State Supervisor, Health Careers Education  
**602-542-3374**

SkillsUSA-VICA State Advisor  
**602-542-5565**

Arizona Department of Education  
1535 West Jefferson Street  
Phoenix, AZ 85007  
Fax: **602-542-1849**  
**1-800-352-4558 (ADE Receptionist)**

## INDUSTRIAL TECHNOLOGICAL EDUCATION

The mission of Industrial Technological Education is to work in cooperation with businesses, professionals, apprenticeships, trades, and industries to continuously improve the contents of all Industrial Technological Education programs. Our goal is to prepare all individuals to live and work as productive citizens in our global society by providing essential work, education, and training experiences.

The goal of Industrial Technological Education is to provide competency-based programs that prepare students for employment in the Industrial/Technological sectors of the economy, or into articulation with advanced training at the postsecondary level. This will be done in agreement with the State Approved Plan. Learning for Industrial/Technological Education may take place through school based and work based activities including classroom instruction, hands-on laboratory experiences, cooperative programs with industry, or apprenticeship/internship experiences.

The design of the Comprehensive Industrial Technological Education program includes a coherent sequence of instruction and learning. The curriculum framework for the Comprehensive Program includes: Level I, Technological Foundations; a Level II, that might be Informational Technology or Industrial Technology or another approved Level II, and a Level III competency program in an approved occupational area. A Tech Prep articulated sequence of academic and career and technical instruction between Levels III and IV builds and reinforces strong, systemic, comprehensive linkages between secondary and postsecondary institutions.

Comprehensive Industrial/Technological Education curricula are delivered through competency-based experiences, which allow students to refine academic skills while developing and applying specific occupational skills. These experiences are supported through co-curricular leadership development programs offered by SkillsUSA-VICA

CONTACT PERSONS: State Supervisor, Industrial Technological Education  
**602-542-5423**

SkillsUSA-VICA State Advisor  
**602-542-5565**

Arizona Department of Education  
1535 West Jefferson Street  
Phoenix, AZ 85007  
Fax: **602-542-1849**  
**1-800-352-4558 (ADE Receptionist)**

## MARKETING EDUCATION

The mission of Marketing Education is to work cooperatively with the business community to continuously improve the contents of marketing education programs to prepare all individuals to live and work as productive citizens in our global society by providing essential marketing and business experiences, education, and training.

The goals of Marketing Education are to: provide employment in marketing and management occupations, continuing education and training offered by postsecondary institutions, business, and industry, and business ownership and/or managerial responsibilities.

The design of the Comprehensive Marketing Education program includes a coherent sequence of instruction and learning. The curriculum framework for the Comprehensive Program includes: Technological Foundations (Level I) competencies and Business Management Technology (Level II) competencies. However, a student may also choose from Information Technology (Level II) competencies or from Human Services (Level II) competencies. There are three occupational areas with specific Level III competencies from which a student may choose: Sales and Marketing, Hospitality Services and Financial Services. A Tech Prep articulated sequence of academic and career and technical instruction between Levels III and IV builds and reinforces strong, systemic, comprehensive linkages between secondary and postsecondary institutions.

Comprehensive Marketing Education curricula are delivered through competency-based instruction including school based and work based experiences, which allow students to refine academic skills while developing and applying specific occupational Marketing skills. These experiences are supported through cooperative education work experience and co-curricular leadership development programs offered by DECA.

CONTACT PERSONS: State Supervisor, Marketing Education

**602-542-5049**

DECA State Advisor

**602-542-5354**

Arizona Department of Education

1535 West Jefferson Street

Phoenix, AZ 85007

**Fax: 602-542-1849**

**1-800-352-4558 (ADE Receptionist)**

## DATA REPORTING OVERVIEW

**The Handbook** is the primary resource document needed to complete all data reporting. The Career and Technical Education Division will provide/mail districts the following additional documents each year:

- Calendar of specific due dates
- 40th and 100th Day Course Enrollment Report Forms, and/or reminder letter of due date for submission of reports
- Program Enrollment Report Form
- Placement Student Survey Report
- Concentrator Reports

The data submitted to the Arizona Department of Education on these reports **are used to generate the Career and Technical Education State Block Grant Funding.** The Management Information Services Unit staff will review and process the completed forms as they are submitted. Verification reports will be returned to districts for signature and return to ADE verifying submission of data. In some cases, verification reports returned to districts may need corrections and resubmission.

**Districts may select one of the following options for submission of Course Enrollment data:**

- Paper (forms are generated for those districts who have submitted by paper in the past)
- Disk (file must be in ASCII text format)
- Web-site address for ASCII format:  
<http://www.ade.state.az.us/services/mis/filelayout/voced.asp>
- Email to [STWDataCollection@ade.az.gov](mailto:STWDataCollection@ade.az.gov) (file attachment must be in ASCII text format)

Data reporting activities are important. **They require accuracy and time to complete.** The information in the section of this Handbook will be of assistance in completing the required reporting documents.

**The information in this section has been organized to reflect the order reports are due to the Arizona Department of Education and includes:**

### Course Enrollment Reports

- 40th Day Enrollment Report (original and verification)
- 100th Day Enrollment Report (original and verification)

### End of the Year Reports

- Comprehensive Program Enrollment Report
- Placement Student Survey Report
- Concentrator Reports

If you have questions please contact the Management Information Systems Unit for assistance. Phone: 602-542-5711 or 602-542-5486

## 40th DAY COURSE ENROLLMENT

VOCI 01

**NOTE: A.R.S. 15-902.G requires that districts report vocational education student enrollment data to the Department of Education within 12 days after the district's 40th day in session and the district's 100th day in session. These dates vary from district to district so each district will need to determine the district's due date.**

The 40th Day Course Enrollment data is to be reported on all Career and Technical Education (CTE) classes and **represents one-half of the data used to determine State Board formula funding** for CTE programs (total enrollment is the average enrollment for 40th and 100th days). This enrollment collection system emulates the state Average Daily Membership (ADM) reporting system used for general education funding. The difference between the two is that ADM requires students be counted every day during the school year. The resulting number is then averaged for the year. The CTE enrollment system captures actual enrollment on the 40<sup>th</sup> day and 100<sup>th</sup> day of school. The 40<sup>th</sup> and 100<sup>th</sup> day count data are averaged and the resulting number is the enrollment figure for each course for the year. Since all students enrolled in CTE courses are counted, this is called duplicated enrollment as one student may be enrolled in more than one course. The 40<sup>th</sup> and 100<sup>th</sup> day forms collect information on every CTE course your district offers and includes the district, school, course number, semester, period, teacher number, grade level, and special population information. Some fields are used to report unusual course information: students attending another district, or a course taught by a college instructor.

**Districts report on Level I, II, and III courses. But only Level III courses that are part of an approved program and taught by appropriately certified teachers will generate state funding. Special population students must be receiving services under the provisions of an IVEP to be reported as a special population category. These students are to be reported only in their most prominent category (unduplicated). Please contact your assigned Federal Programs Specialist regarding questions on this topic.**

Enrollment, reported by course, is related to programs on the CTE Program List. The CTE Program List, along with the average student counts, is the basis of the state CTE enrollment funding formula.



## 40TH DAY VERIFICATION REPORTS

VOCI 11-1

VOCI 11-2

The data, which has been submitted for district 40th Day Enrollment Reports will be keyed and exported onto the Course Enrollment Master, the VOCI 21 Report. A printout will be mailed titled **40<sup>th</sup> Day Verification Report**. This report provides the opportunity to verify the data and to make corrections, if needed. The Verification Report will be mailed in one or two sections:

**A. Records Added to the Vocational Education Course Enrollment file, VOCI 11-1.**

The enrollment data from a school/district which has been added to the Voc Ed Course Enrollment Master - VOCI 21 files. Since this data is used to determine funding, it should be reviewed for accuracy. If all the data is correct as submitted, the district will receive only this Verification Report, the VOCI 11-1.

**B. Records Not Added to the Vocational Education Course Enrollment file, VOCI 11-2.**

The district will receive this report if the enrollment data from a school/district cannot be added to the Voc Ed Course Enrollment Master - VOCI 21 files because of errors. Since this data is used to determine funding, it is critical that the problems/solutions be identified and corrected prior to the deadline. A calendar with specific dates will be mailed annually to you. Error messages are listed under each line of data on this report, identifying data corrections that need to be made. A "Common Errors" booklet is also included with the reports to assist with the identifying and resolving of data errors. Some of the common errors are:

- Invalid district or school number
- Invalid course number
- Certification issues
- Total does not agree with the sum of the individual grade counts
- Course has minutes outside of the normal range
- Course meets for over 1200 minutes per week



ARIZONA DEPARTMENT OF EDUCATION  
 STW VOCATIONAL EDUCATION  
 MANAGEMENT INFORMATION SERVICES UNIT, BOX 36  
 1535 WEST JEFFERSON STREET  
 PHOENIX, AZ 85007  
 542-5486

I CERTIFY THAT THE INFORMATION SUBMITTED IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE, AND THAT DOCUMENTATION WILL BE MAINTAINED FOR AUDITING AND MONITORING PURPOSES.

-----  
 DATE ----- SIGNATURE OF SUPERINTENDENT OR AUTHORIZED OFFICIAL -----  
 CONTACT PERSON ----- PHONE -----  
 MIN NO SPECIAL NEEDS  
 PER OF ECON ACAD ENROLLMENT COUNTS  
 TERM PER WEEK WKS ROOM PREP TEACHER'S NAME HND CP LEP ADV SP M F 09 10 11 12 TOTAL COUNT CTDS  
 TRAN COURSE CODE 08.0700.80 1 2 0275 18 2319 Y 599774444 000 000 000 000 0003 0006 000 000 000 0009 0000 0000000000  
 CODE COURSE TITLE Sales & Mkt COOP \*\*\*\*\* JONES CF  
 \*\*\*\*\* MINUTES LESS THAN 1100 FOR COOPERATIVE EDUCATION

\*\*\*\*  
 \*\*\*\*\*  
 \*\*\*\*\* THE SUM OF GRADES 9-12 DOES NOT EQUAL THE TOTAL ENROLLMENT  
 \*\*\*\*\* THE SUM OF (GRADES 9-12) AND THE SUM OF (MALE + FEMALE ENROLLMENT) ARE NOT EQUAL



**100th DAY COURSE ENROLLMENT**  
VOCI 01

The 100th Day Course Enrollment data is to be reported on all Career and Technical Education (CTE) classes and represents one-half of the data used to determine State Board formula funding for CTE programs. The total enrollment is the average enrollment for 40th and 100th days.

**See 40<sup>th</sup> Day Course Enrollment for complete description.**

Sample

CTD: \_\_\_\_\_ SCH: \_\_\_\_\_  
STW VOCATIONAL/ADULT EDUCATION  
COUNTY: \_\_\_\_\_

RETURN TO: ARIZONA DEPARTMENT OF EDUCATION  
REPORT DATE: 11/15/00  
MANAGEMENT INFORMATION SERVICES UNIT

VOC101-1  
PAGE \_\_\_\_\_ OF \_\_\_\_\_

DISTRICT: \_\_\_\_\_ MAIL BOX NO. 36  
PHOENIX, AZ 85007  
SCHOOL: \_\_\_\_\_ 542 - 5486

SECONDARY STW VOCATIONAL EDUCATION COURSE ENROLLMENT REPORT  
SCHOOL YEAR 2000-2001  
\*\*\*\*\*  
IMPORTANT: THIS FORM SHOULD BE USED \* 100TH DAY REPORT \*  
TO REPORT COURSE ENROLLMENT ONLY. \*\*\*\*\*  
\*\*\*\*\*  
ONLY STUDENTS WHO YOU HAVE CLASSIFIED AS RESIDENT STUDENTS SHOULD BE REPORTED ON THIS FORM.

I CERTIFY THAT THE INFORMATION SUBMITTED IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE, AND THAT DOCUMENTATION WILL BE MAINTAINED FOR AUDITING AND MONITORING PURPOSES.

DATE \_\_\_\_\_ SIGNATURE OF SUPERINTENDENT OR AUTHORIZED OFFICIAL \_\_\_\_\_  
CONTACT PERSON \_\_\_\_\_ PHONE \_\_\_\_\_  
STUDENTS \_\_\_\_\_ NUMBER OF  
TAKING VOC. \_\_\_\_\_  
COURSES IN \_\_\_\_\_

COURSE CODE	P MIN NO.	E PER OF	R WEEK	WKS ROOM	PRP	TEACHER'S NAME	CAPD	LEP	ADV	ADV	PRNT	M	ENROLLMENT COUNTS			AND SCHOOL NO.	
													F	09	10		11
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****



## 100TH DAY VERIFICATION REPORTS

VOCI 11-1

VOCI 11-2

The data, which has been submitted for district 100<sup>th</sup> Day Enrollment Reports, will be keyed and exported onto the Course Enrollment Master Report, VOCI 21. A printout will be mailed titled **100<sup>th</sup> Day Verification Report**. This report provides the opportunity to verify the data and to make corrections, if needed. The Verification Report will be mailed in one or two sections:

- A) **Records Added to the Vocational Education Course Enrollment file, VOCI 11-1**
- B) **Records Not Added to the Vocational Education Course Enrollment file, VOCI 11-2**

**See 40<sup>th</sup> Day Verification Reports for complete description.**

REPORT NAME: VOC111-1

CTD:  
 COUNTY:  
 DISTRICT:  
 SCHOOL:

SCH:

ARIZONA DEPARTMENT OF EDUCATION  
 100TH DAY STW VOCATIONAL ENROLLMENT VERIFICATION REPORT  
 SCHOOL YEAR 2000-2001

REPORT DATE: 03/08/01  
 PAGE 1

\*RECORDS ADDED TO THE VOC. ED. ENROLLMENT FILE\*

THE FOLLOWING INFORMATION REFLECTS THE ENROLLMENT DATA SUBMITTED BY YOUR DISTRICT.  
 PLEASE REVIEW IT FOR CORRECTNESS.

PLEASE MAKE ANY CHANGES IF REQUIRED, SIGN THE REPORT, AND RETURN IT TO THE:

ARIZONA DEPARTMENT OF EDUCATION  
 STW VOCATIONAL EDUCATION  
 MANAGEMENT INFORMATION SERVICES UNIT, BOX 36  
 1535 WEST JEFFERSON STREET  
 PHOENIX, AZ 85007  
 542-5486

I CERTIFY THAT THE INFORMATION SUBMITTED IS TRUE AND CORRECT TO THE BEST OF MY  
 KNOWLEDGE, AND THAT DOCUMENTATION WILL BE MAINTAINED FOR AUDITING AND MONITORING PURPOSES.

----- DATE ----- SIGNATURE OF SUPERINTENDENT OR AUTHORIZED OFFICIAL -----  
 CONTACT PERSON ----- PHONE -----

NUMBER OF  
 STUDENTS  
 TAKING VOC.  
 COURSES IN  
 ANOTHER SCH.  
 AND SCH. NO.

TRAN COURSE CODE	MIN NO PER OF	TECH CERTIFICATE NO.	ENROLLMENT COUNTS	SPECIAL NEEDS	12 TOTAL COUNT	CTDS
CODE COURSE TITLE	TERM PER WEEK WKS	ROOM PREP	TEACHER'S NAME	HNDCP LEP ADV SP	M F 09 10 11 12	
A 12.0503.10 Food Production Pri	2 4 0500 18	h310 N	599774444 JONES	M	001 000 000 000 000 0001 0004 001 001 002 001	0005 0000 0000000000
A 12.0503.10 Food Production Pri	2 5 0500 18	h310 N	599774444 JONES	M	000 000 000 000 000 0002 0001 001 001 001 001	0000 0000 0000000000



Sample

REPORT NAME: VOC111-2

ERROR REPORT ARIZONA DEPARTMENT OF EDUCATION  
100TH DAY STW VOCATIONAL ENROLLMENT VERIFICATION REPORT

REPORT DATE: 03/13/01

PAGE 1

DISTRICT: \*RECORDS NOT ADDED TO THE VOC. ED. ENROLLMENT FILE\*  
SCHOOL: -----

THE FOLLOWING INFORMATION REFLECTS THE ENROLLMENT DATA SUBMITTED BY YOUR DISTRICT.  
PLEASE REVIEW IT FOR CORRECTNESS. BASIC ERRORS HAVE BEEN UNDERLINED, AND ERROR MESSAGES INCLUDED.  
RECORDS WITH ERRORS WILL NOT BE ADDED TO THE ENROLLMENT FILE AND THE STUDENTS WILL NOT BE COUNTED FOR FUNDING.  
PLEASE MAKE ANY CHANGES IF REQUIRED, SIGN THE REPORT, AND RETURN IT TO THE:

ARIZONA DEPARTMENT OF EDUCATION  
STW VOCATIONAL EDUCATION  
MANAGEMENT INFORMATION SERVICES UNIT, BOX 36  
1535 WEST JEFFERSON STREET  
PHOENIX, AZ 85007  
542-5486

I CERTIFY THAT THE INFORMATION SUBMITTED IS TRUE AND CORRECT TO THE BEST OF MY  
KNOWLEDGE, AND THAT DOCUMENTATION WILL BE MAINTAINED FOR AUDITING AND MONITORING PURPOSES.

DATE ----- SIGNATURE OF SUPERINTENDENT OR AUTHORIZED OFFICIAL -----

CONTACT PERSON ----- PHONE -----

NUMBER OF  
STUDENTS  
TAKING VOC.  
COURSES IN  
ANOTHER SCH.  
AND SCH. NO.

TRAN COURSE CODE	MIN NO PER OF	TECH CERTIFICATE NO.	ECON ACAD	SPECIAL NEEDS	ENROLLMENT COUNTS	NUMBER OF STUDENTS TAKING VOC. COURSES IN ANOTHER SCH. AND SCH. NO.
CODE COURSE TITLE	TERM PER WEEK	WKS ROOM	PREP	TEACHER'S NAME	HNDPC LEP ADV SP M F	09 10 11 12 TOTAL COUNT CTDS
A 99.0400.11 Business Mgmt Tech	2 5 0268 18	108 N	599774444	LA JONES	000 001 002 000 000 0011 0013 017 003 001 002 0024 0000 0000000000	*** **
**** THE SUM OF GRADES 9-12 DOES NOT EQUAL THE TOTAL ENROLLMENT						
**** THE SUM OF (GRADES 9-12) AND THE SUM OF (MALE + FEMALE ENROLLMENT) ARE NOT EQUAL						



## IMPROPER TEACHER CERTIFICATION REPORT VOCI 17

The purpose of this report is to alert each district to the non-certification status of the teacher for a Career and Technical Education (CTE) program. **This report is disseminated to districts along with the 40th and 100th day Verification reports so that all certifications are in place for program areas before the end of February each school year.**

Errors on the **Improper Teacher Certification Report** include:

- Invalid teacher certification number
- Teacher's certification is invalid for the CTE program
- Certification types, approvals and endorsements not met for the CTE program

The report will also indicate the required certification types, approvals and endorsements.

# Sample

COUNTY: ARIZONA DEPARTMENT OF EDUCATION  
TYPE: VOCATIONAL EDUCATION  
DISTRICT: 01/22/01  
SCHOOL: 191  
1

REPORT DATE: 01/22/01  
REPORT PAGE: 191  
SCHOOL PAGE: 1

ARIZONA DEPARTMENT OF EDUCATION  
VOCATIONAL EDUCATION  
INDIVIDUAL STUDENT ACCOUNTING SYSTEM  
IMPROPER TEACHER CERTIFICATION  
SECONDARY 40TH DAY -- 2000-2001

TEACHER NUMBER 123707777  
TEACHER NAME J. Smith  
P T E R C R S E  
R M CODE  
CRSE CODE TITLE CERTIFICATION ENDORSEMENT MAJOR APPROVAL

1 1 48010110 Draft Tech Concepts SVT VAG

\*\*\* TEACHER LACKS REQUIREMENTS \*\*\* CRSE CODE REQUIREMENTS-BVT OR SVT OR PVT OR AVT  
AND VTT OR VTI OR VIT  
OR ITT PVI OR SVI

## COURSE ENROLLMENT MASTER REPORT VOCI 21

The purpose of the **Course Enrollment Master Report VOCI 21** is to record district student enrollment data that generates funding by:

- Providing an informational report of data submitted by the district
- Verifying that all the data submitted in the original district 40/100 day course enrollment reports are on VOCI 21
- Assisting in the identification of missing data from original district 40/100 day course enrollment reports that was not accepted on the VOCI 21. The district may make data corrections on the appropriate 40/100 day course enrollment verification reports, **Records Added to the Voc Ed Enrollment File - VOCI 11-1**. Corrections must be made to the lines of data that have been identified with the error messages on the **Records Not Added to the Voc Ed Enrollment File - VOCI 11-2**, in order for that data to be accepted and added on to the Course Enrollment Master report, VOCI 21.



## COMPREHENSIVE PROGRAM ENROLLMENT

VOCI 03

***NOTE: The current Carl D. Perkins legislation requires the reporting of program enrollment information. ARS 15-781.01 contains similar requirements under Arizona law. Failure to submit the end-of-year report (Program Enrollment) of career and technical students may result in the withholding or discontinuation of state and federal career and technical education funds. In addition, the Concentrator information and Placement follow-up information must be submitted as a part of your Performance Measures documentation that will be submitted by July 1<sup>st</sup>.***

**Comprehensive Program Enrollment** data reflect demographic data such as enrollment by grade, sex, ethnic group and special populations, and Tech Prep. For special population categories and counts, the district/school must identify the primary need of the student and select it as the student's category. A student is to be reported in no more than one special population category.

Comprehensive Program Enrollment data is collected using unduplicated student counts. Unduplicated enrollment means that each student is counted only once, even if that student is enrolled in more than one program. It is the district's responsibility to use the student's occupational goal when identifying the program for reporting purposes.

The Comprehensive Program Enrollment blank forms are distributed in mid-April each year. Districts are required to submit the end-of-the year reports at the end of the school year. Therefore, it is critical to maintain a system for determining and documenting each student's program area (courses taken are to support the student's program of study). It is also important to remember that each student should be assigned only one Comprehensive Program CIP Code (six digits).

The only codes to be used on the program enrollment form are those listed as CTE Program CIP Codes (six digit) found as a separate tab in this handbook. Use of an invalid code will cause the entire line of data to be rejected. **Do not use Course Codes on this form (eight digits).** Districts are reminded that they will still need to maintain an individual student record system, which will allow identification of each student's program, gender, ethnicity and special needs classifications and completer status.



## FINAL NON-FUNDING REPORT VOCI 55

This report is intended as a tool to examine current practices related to accountability. It lists occupational courses (11<sup>th</sup> and 12<sup>th</sup> grades) that will not generate Career and Technical Education (CTE) funding. Any of these messages may be listed:

**“Teacher Uncertified”** message means the teacher is uncertified to teach the course listed for that period for any of the following reasons:

- Certification for the teacher may have expired and not been renewed
- Certification process for the teacher was not completed by the February 28<sup>th</sup> deadline
- Certification application process has not been activated by the teacher

**“Not Met Performance Measures”** message means the CTE Program is unapproved for any of the following reasons:

- ADE did not receive acceptable Concentrator reports by the July 1<sup>st</sup> deadline
- ADE did not receive acceptable Placement reports by the July 1<sup>st</sup> deadline
- After receiving a designation of “program in review”, the program does not participate in the ADE directed external assessment and accountability planning process
- Program did not receive provisional approval from ADE

**“Insufficient Size”** message indicates the average program enrollment submitted on the verified 40<sup>th</sup> and 100<sup>th</sup> day VOCI 21 Reports does not meet the Arizona definition of sufficient program size. The sufficient size requirement is based on the high school's ADM:

- High school sites with an ADM of less than 300 must have an average program enrollment of 5 students per semester
- High school sites with an ADM of 300 or more will need an average program enrollment of 10 students per semester

Programs below these average enrollments are of insufficient size and are automatically unapproved programs. Funds are not generated for unapproved programs

**“No NOI Filed in April 2001”** message indicates the district did not file a Notification of Intent (NOI) for this program for the 2002-2003 school year by April 2001 as required. A new CTE program is defined as any Level III program CIP code not reporting course enrollment and performance measures the previous year. Funds are not generated if an NOI was not filed to ADE by the April 2001 deadline.

For all of the above messages, the result is the same. **Funding potential is lost for the district.** This report will assist district personnel to be aware of funding impact in the hiring of properly certified teachers and the importance of meeting performance measures requirements.

VOC155-1

CTY 01 TYPE 02 DIST 01 SCH 205

RATE FOR FULL, WEIGHTED AVERAGE STUDENT COUNT: \$194.70

COUNTY: APACHE  
 DISTRICT: ST JOHNS UNIFIED DISTRICT  
 SCHOOL: ST JOHNS HIGH SCHOOL

ARIZONA DEPARTMENT OF EDUCATION  
 STW VOCATIONAL EDUCATION  
 STATE FUNDING LOST DUE TO STANDARDS OR CERTIFICATION PROBLEMS  
 FY00 ENROLLMENT - FOR FY01 FUNDING

DATE 11/08/00  
 PAGE 1

COURSE CODE	COURSE TITLE	P E R WEEK	MIN. OF WKS	TEACHER'S NAME	TEACHER'S CERT NO.	11-12 AVG CNT	ELIGIBLE WEIGHTED COUNT	TOTAL FUNDING LOST	TP ER CE HP	REASON FOR FUNDING LOST		
NON-ARTICULATED COURSES												
4. CHILD CARE AND GUID (WEIGHT - 0.9302325581)												
20.020110	Prin of Child Devel	5	0250 18	JOHANSON	5556663333	3.00	3.10	\$603.72	N	NOT MET PERF. MEASURES		
20.020110	Prin of Child Devel	5	0250 18	JOHANSON	5556663333	2.50	2.58	\$503.10	N	NOT MET PERF. MEASURES		
20.020111	Prin of Child Devel	6	0250 18	JOHANSON	5556663333	2.50	2.58	\$503.10	N	NOT MET PERF. MEASURES		
20.020111	Prin of Child Devel	2	0259 18	JOHANSON	5556663333	4.50	4.81	\$938.18	N	NOT MET PERF. MEASURES		
20.020111	Prin of Child Devel	7	0250 18	JOHANSON	5556663333	4.50	4.65	\$905.58	N	NOT MET PERF. MEASURES		
TOTAL CHILD CARE AND GUID												
									17.00	\$3,453.68		
8. BUILDING TRADES (WEIGHT - 0.8372093023)												
46.999911	Bldg Trades Fund	5	0250 18	JOHANSON	5556663333	2.50	2.32	\$452.79	N	NOT MET PERF. MEASURES		
46.999911	Bldg Trades Fund	5	0250 18	JOHANSON	5556663333	2.50	2.32	\$452.79	N	NOT MET PERF. MEASURES		
46.999920	Bldg Trades Applic	6	0250 18	JOHANSON	5556663333	6.50	6.04	\$1,177.26	N	NOT MET PERF. MEASURES		
TOTAL BUILDING TRADES												
									15.00	\$2,689.58		

Sample

**SUMMARY NOTIFICATION OF  
VOCATIONAL EDUCATION ALLOCATIONS  
VOCI 62**

**Eligible Recipient:** District name should appear here

**County, Type, District:** County, type and district number should appear here

**Funding Category Titles:** Career and Technical Education Block Grant Formula  
Funding Placement Formula Funding

**Allocation:** Dollar figure, determined by district student count on the 40th and 100th day reports, appears here

**Grand Total Allocations:** The total amount of state funding for district generated by your Course Enrollment reporting

(A) **Block Grant Formula Funding:** Formula amounts by course, title and school site. This is the Block Grant dollar figure for the next fiscal year, which was generated by 11<sup>th</sup> and 12<sup>th</sup> grade student count from the 40<sup>th</sup> and 100<sup>th</sup> Day Course Enrollment Reports.

(B) **Placement Formula Funding:** The placement formula funding figure is generated by the completed surveys returned to Arizona Department of Education (ADE), by the districts on the Website.

**APPLICATION FOR BLOCK GRANT FUNDS**

Available district enrollment formula funding and the placement formula funding dollar amounts are listed. **Application using the forms on the Website must be made to ADE within sixty (60) days after Final Funding notification.**

If a district selects not to submit an application for the funds, those dollars will be re-divided among the districts that did submit an application for their Block Grant Enrollment and Placement dollars.

11/15/00  
ARIZONA DEPARTMENT OF EDUCATION  
SUMMARY NOTIFICATION OF  
STW VOCATIONAL EDUCATION ALLOCATIONS  
FINAL FUNDING REPORT FISCAL YEAR 2001

ELIGIBLE RECIPIENT NORTHEAST UNIFIED DISTRICT  
-----

C.T.D. NUMBER 123456  
-----

FUNDING CATEGORY TITLES		ALLOCATION
-----		-----
BLOCK GRANT FORMULA FUNDING	(A) *	\$12,624.83
PLACEMENT FORMULA FUNDING	(B) *	\$1,268.30
GRAND TOTAL ALLOCATION	*	\$13,893.13
		-----
		-----

(A) FORMULA AMOUNTS BY COURSE, TITLE AND  
SCHOOL SITE ARE DETAILED IN YOUR FY 2001  
STW VOCATIONAL EDUCATION FUNDING REPORT.  
(VOCI51)  
-----

(B) PLACEMENT RESULTS ARE DETAILED IN YOUR DISTRICTS  
FY 2001 VOCATIONAL EDUCATION PLACEMENT FUNDING  
REPORT. THE RESULTS ARE LISTED BY SCHOOL AND PROGRAM.

Sample

**PROGRAM ENROLLMENT VERIFICATION REPORT**  
VOCI 25  
**and**  
**PROGRAM ENROLLMENT MASTER REPORT**  
VOCI 26

The data submitted from the district for course enrollment will be processed and districts will receive printouts titled **Program Enrollment Verification and Program Enrollment Master Reports**. These reports are sent for verification of data submitted and may also contain errors that need to be corrected. The Verification Report must be corrected, signed and returned to ADE. The Master Report is provided for district record keeping.

**NOTE:** The data for the annual report to the Arizona Legislature is drawn from the statewide student count of career and technical programs.

The **Program Enrollment Verification Report - VOCI 25** provides the opportunity to update the information in the master database. Please make corrections on the verification report.

The **Program Enrollment Master Report - VOCI 26** contains records that are loaded on the ADE database and will be the basis of the Final Program Enrollment Report. This data is used for federal and state reporting purposes.

Sample

REPORT NAME: VOCI25-1  
REPORT DATE: 06/05/00  
PAGE: 1

ARIZONA DEPARTMENT OF EDUCATION  
SECONDARY STW VOCATIONAL EDUCATION  
PROGRAM ENROLLMENT VERIFICATION REPORT  
SCHOOL YEAR 99-00

CTY TYPE DIST SCH  
COUNTY:  
DISTRICT:  
SCHOOL:

THE FOLLOWING INFORMATION REFLECTS THE PROGRAM ENROLLMENT SUBMITTED BY YOUR DISTRICT.  
PLEASE REVIEW IT FOR CORRECTNESS. BASIC ERRORS HAVE BEEN UNDERLINED, AND ERROR  
MESSAGES INCLUDED.

PLEASE MAKE ANY CHANGES IF REQUIRED, SIGN THE REPORT, AND RETURN IT TO THE:

ARIZONA DEPARTMENT OF EDUCATION  
STW VOCATIONAL EDUCATION  
MANAGEMENT INFORMATION UNIT, BOX 36  
1535 WEST JEFFERSON STREET  
PHOENIX, ARIZONA 85007  
(602) 542 - 5486

I CERTIFY THAT THE INFORMATION SUBMITTED IS TRUE AND CORRECT TO THE BEST OF MY  
KNOWLEDGE, AND THAT DOCUMENTATION WILL BE MAINTAINED FOR AUDITING AND MONITORING PURPOSES.

DATE \_\_\_\_\_ SIGNATURE OF SUPERINTENDENT OR AUTHORIZED OFFICIAL \_\_\_\_\_

CONTACT PERSON \_\_\_\_\_ PHONE \_\_\_\_\_

\* TP\* ENROLLMENT \* ENROLLMENT BY \* ENROLLMENT BY SPECIAL \* TOTAL  
\* PROGRAM \*ER\* BY GRADE \* ENROLLMENT \* ETHNIC GROUP AND SEX \* NEEDS GROUP AND SEX \* PROGRAM  
TRAN \* CIP CODE \*CE\* 10 11 12 \* BY SEX \* WHITE BLACK HISPANIC INDIAN ASIAN \* HAND LEP ECON ACAD SP \* COUNT  
CODE \* TITLE \*HP\* 09

A 120503 N 10 20 16 12 \* MALE: 24 14 0 7 3 0 0 9 2 0 15 0 \* 58  
Food Prod/Culinary \* FEMALE: 34 27 0 6 1 0 0 7 1 0 13 0 \*



# Sample

ARIZONA DEPARTMENT OF EDUCATION  
 VOCATIONAL EDUCATION  
 MASTER PRINT - PROGRAM ENROLLMENT

REPORT NAME: VOCI26-1  
 REPORT DATE: 08/03/00

SCHOOL YEAR 99-00

CTDS:  
 COUNTY:  
 DISTRICT:  
 SCHOOL:

PROG CODE	PROGRAM TITLE	*TP *ER*	*CE*	*HP*	ENROLLMENT BY GRADE		12	ENROLLMENT BY ETHNIC GROUP AND SEX				ENROLLMENT BY SPECIAL NEEDS GROUP AND SEX				* TOTAL * PROG * COUNT				
					10	11		* BY SEX	* WHIT	* BLAK	* HISP	* INDIAN	* ASIAN	* HAND	* LEPS		* ECON	* ACAD	* SP	
120503	Food Prod/Culinary	N	10	20	16	12	*M: 24	14	0	7	3	0	0	0	9	2	15	15	0	58
							*F: 34	27	0	6	1	0	0	0	7	1	13	13	0	
200201	Child Care and Guid	N	11	4	6	7	*M: 15	11	0	3	1	0	0	6	4	0	9	9	0	28
							*F: 13	9	0	3	1	0	0	0	4	0	6	6	0	
469999	Building Trades	N	5	9	6	6	*M: 24	15	0	6	3	0	0	2	2	2	10	10	0	26
							*F: 2	0	0	2	0	0	0	0	0	0	0	0	0	
470100	Electronics Tech	N	0	0	0	2	*M: 1	1	0	0	0	0	0	0	0	0	0	0	0	2
							*F: 1	0	0	1	0	0	0	0	0	0	1	1	0	
470604	Auto Technology	N	0	10	6	10	*M: 22	18	0	4	0	0	0	3	1	8	8	0	0	26
							*F: 4	3	0	1	0	0	0	0	0	0	3	3	0	
480101	Drafting Technology	N	0	2	0	1	*M: 2	2	0	0	0	0	0	1	0	0	0	0	0	3
							*F: 1	0	0	1	0	0	0	0	0	0	0	0	0	
520302	Accounting	N	1	0	0	0	*M: 1	0	0	1	0	0	0	0	0	0	0	0	0	1
							*F: 0	0	0	0	0	0	0	0	0	0	0	0	0	
520401	Admin Info Services	N	67	18	10	18	*M: 62	46	0	10	6	0	0	11	1	21	21	0	0	113
							*F: 51	44	0	5	2	0	0	0	0	18	18	0	0	
***** ENROLLMENT TOTALS *****																				
				94	63	44	56	107	0	31	13	0	0	32	6	63	63	0	0	257
								83	0	19	4	0	0	11	1	41	41	0	0	

## PRELIMINARY AND FINAL FUNDING REPORTS

BY SCHOOL - VOCI 51-1

BY DISTRICT - VOCI 51-2

Career and Technical Education State Block Grant funding will be allocated for FY 2002 based on each district's CTE enrollment and placement reporting. Seventy five percent of CTE State Block Grant funds will be allocated to CTE enrollment. Twenty five percent of the funds will be allocated to placement. District performance measures data must be submitted in order to be eligible for State Block Grant and Federal Basic Grant funding. Programs must meet, exceed, or make substantial improvement towards the state adjusted levels of performance to ensure continued eligibility for funding. Depending on changes in state legislation, future criteria for distribution of CTE State Block Grant funding will include (in addition to enrollment and placement) academic attainment, work based participation and vocational proficiency.

The information submitted and verified for the 40<sup>th</sup> and 100<sup>th</sup> Day Reports is summarized in the Course Enrollment Master Report - VOCI 21. Data from the VOCI 21 report is combined with a formula and then used for generation of the **Preliminary and Final Funding Reports - VOCI 51-1 and VOCI 51-2**. **VOCI 51-1** reflects funding generated by Courses on the CTE Program List by **school**. **VOCI 51-2** reflects funding generated by Courses on the CTE Program List by **district**. The Preliminary Funding Report allows districts to identify problems that impact state allocations. Some of the problems may include the following:

- The teacher is not certified for a course
- No performance measures were submitted for a program
- No placement counts were submitted for a specific program
- Unapproved programs
- Course code does not match program content
- Course not reported (low student counts)

### There are Three Funding Reports:

- (A) **Preliminary Funding Report - VOCI 51-1 and VOCI 51-2:** This report provides (*Preliminary*) notification of the funding dollars a district may generate from Block Grant monies. This report also provides the opportunity to verify the enrollment data and to make corrections, if inadvertently, ADE did not record data the district submitted. Previously unrecorded data will be reflected on the Final Funding Reports. All changes to the Preliminary Funding Report must be made through changes to your 40<sup>th</sup> or 100<sup>th</sup> day data. Questions regarding teacher certification should be directed to the Grants and Management Information Services Unit at 602-542-5711. Errors related to a course not receiving funds due to Performance Measures issues should be referred to the Program Improvement Unit at 602-542-5358. The Preliminary Funding Report amounts are not final. Do not submit the CTE Block Grant application based on the data. Districts statewide are correcting errors that will affect the final allocations. The CTE Block Grant pool of funds is based on a fixed appropriation.

- (B) **Final Enrollment Funding Report - VOCl 51-1 and VOCl 51-2:** This report provides the notification of the Final funding dollars available to the district from Block Grant monies. An application must be completed by the district to generate these monies. For questions related to the state funding formula, please contact Grants and Management Information Services at 602-542-5349.
- (C) **Final Placement Funding Report:** Placement funding paid in FY 2002 is for CTE program samplers, concentrators, and completers who graduated in FY 2000 and are in a related placement nine months after graduation. Placements may be in postsecondary education or advanced training, military services, or employment. Funding is earned only if the placement is related to the graduate's secondary CTE program of study. A related placement is one that obviously uses or builds on the occupational competencies acquired in the graduate's secondary CTE program.

ARIZONA DEPARTMENT OF EDUCATION  
STW VOCATIONAL EDUCATION  
PRELIMINARY FUNDING REPORT  
FY00 ENROLLMENT - FOR FY01 FUNDING  
\$238.71

VOC151-1  
CTY 01 TYPE 02 DIST 01 SCH 205  
RATE FOR FULL, WEIGHTED AVERAGE STUDENT COUNT:

COUNTY: APACHE  
DISTRICT: ST JOHNS UNIFIED DISTRICT  
SCHOOL: ST JOHNS HIGH SCHOOL

IMPORTANT: THIS REPORT IS NOT A NOTIFICATION OF FUNDING FOR YOUR DISTRICT. IT'S DESIGNED TO BE USED AS A PLANNING TOOL. THE FINAL FUNDING CALCULATIONS WILL BE BASED ON AN AVERAGE OF YOUR 40TH DAY AND 100TH DAY ENROLLMENT COUNTS.

COURSE CODE	COURSE TITLE	P MIN. NO. E PER OF ROOM	TP ER CE	R WEEK WKS NO. HP	TEACHER'S NAME	TEACHER'S CERT NO.	9-12 AVG CNT	11-12 AVG CNT	ELIGIBLE WEIGHTED COUNT	TOTAL ENROLLMENT FUNDING
NON-ARTICULATED COURSES										
1. ADMIN INFO SERVICES (WEIGHT - 1.0000000000)										
52.040111	Admin Services	5 0250 18	7 N	ROCKFORD	535984444	3.50	2.50	2.77	\$663.08	
52.040111	Admin Services	5 0250 18	7 N	ROCKFORD	535984444	5.00	3.50	3.88	\$928.32	
52.040112	Admin Services	2 0250 18	8 N	ROCKFORD	535984444	7.50	1.00	1.11	\$265.23	
52.040112	Admin Services	3 0250 18	8 N	ROCKFORD	535984444	4.50	2.00	2.22	\$530.47	
52.040112	Admin Services	2 0250 18	14 N	ROCKFORD	535984444	6.00	1.00	1.11	\$265.23	
52.040112	Admin Services	3 0250 18	17 N	ROCKFORD	535984444	4.00	1.00	1.11	\$265.23	
52.040112	Admin Services	7 0250 18	14 N	ROCKFORD	535984444	8.50	0.50	0.55	\$132.62	
52.040112	Admin Services	1 0250 18	7 N	ROCKFORD	535984444	10.50	1.50	1.66	\$397.85	
52.040112	Admin Services	3 0250 18	7 N	ROCKFORD	535984444	7.00	0.50	0.55	\$132.62	
52.040112	Admin Services	4 0250 18	7 N	ROCKFORD	535984444	9.00	0.50	0.55	\$132.62	

(ELIGIBLE WEIGHTED COUNT \* RATE FOR FULL WEIGHTED AVG STUDENT COUNT = TOTAL FUNDING)  
THIS IS NOT A NOTIFICATION OF FUNDING FOR YOUR DISTRICT

Sample

ARIZONA DEPARTMENT OF EDUCATION  
STW VOCATIONAL EDUCATION  
FINAL FUNDING REPORT  
FY00 ENROLLMENT - FOR FY01 FUNDING

VOC151-2

CTY TYPE DIST

RATE FOR FULL, WEIGHTED AVERAGE STUDENT COUNT: \$214.77

COUNTY: APACHE DISTRICT: IMPORTANT: THIS REPORT IS BASED UPON AN AVERAGE OF YOUR 40TH AND 100TH DAY ENROLLMENT COUNTS.

COURSE CODE	COURSE TITLE	9-12 AVERAGE COUNT	11-12 AVERAGE COUNT	ELIGIBLE WEIGHTED COUNT	TOTAL ENROLLMENT FUNDING	TP ER CE HP
-------------	--------------	--------------------	---------------------	-------------------------	--------------------------	----------------------

NON-ARTICULATED COURSES  
-----

1. ADMIN INFO SERVICES (WEIGHT - 1.0000000000)

52.040111	Admin Services	8.50	6.00	6.65	\$1,431.80	N
52.040112	Admin Services	105.50	10.00	11.06	\$2,386.35	N
52.040113	Admin Services	1.00	1.00	1.11	\$238.63	N
52.040120	Admin Support Sys	4.50	2.50	2.77	\$596.58	N
52.040122	Admin Support Sys	7.50	6.00	6.66	\$1,431.80	N
52.040170	Admin Support COOP	11.00	11.00	11.00	\$2,362.48	N
TOTAL	ADMIN INFO SERVICES	138.00	36.50	39.25	\$8,447.64	

4. CHILD CARE AND GUID (WEIGHT - 0.9302325581)

20.020110	Prin of Child Devel	11.50	5.50	5.68	\$0.00	N
20.020111	Prin of Child Devel	26.50	11.50	12.04	\$0.00	N
TOTAL	CHILD CARE AND GUID	38.00	17.00	17.72	\$0.00	

(ELIGIBLE WEIGHTED COUNT \* RATE FOR FULL WEIGHTED AVG STUDENT COUNT = TOTAL FUNDING)

# FY2001 Final Placement Funding (FY99 Student Names)

FINAL FINAL FINAL FINAL FINAL

**CTD 030202 HENRY JONES UNIFIED DISTRICT**

**CTDS 030202201 HENRY JONES HIGH SCHOOL**

## ProgramArea BUSINESS

Fiscal Yr	ProgramCI	ProgramTitle	StudentName	Funding
1998	520302	Accounting	SUSAN SMITH	\$97.56
1998	520302	Accounting	MIKE SMITH	\$97.56
1998	520302	Accounting	DANIEL WARREN	\$97.56
1998	520401	Admin Info Services	DARREN SMITH	\$97.56
1999	520401	Admin Info Services	ANNABELL LEE	\$97.56
1999	520401	Admin Info Services	ANNE MONROE	\$97.56
1999	520401	Admin Info Services	JULIE CLARK	\$97.56
SUM for 'ProgramArea' = BUSINESS			Count 7	\$682.93

## ProgramArea FAMILY & CONSUMER SC

Fiscal Yr	ProgramCI	ProgramTitle	StudentName	Funding
1998	120503	Food Prod/Culinary	JAMES MARBELL	\$97.56
1998	120503	Food Prod/Culinary	DEBBIE ROSSI	\$97.56
1998	120503	Food Prod/Culinary	CLARK KENT	\$97.56
1998	120503	Food Prod/Culinary	JENNIFER JONES	\$97.56
1999	120503	Food Prod/Culinary	ROBERT SMITH	\$97.56
1999	120503	Food Prod/Culinary	JOANNE LASH	\$97.56
1999	120503	Food Prod/Culinary	KELLY LITTLEBIT	\$97.56
1999	120503	Food Prod/Culinary	RUSSEL CROWN	\$97.56
1999	120503	Food Prod/Culinary	JOSEPH CHRISTOPHER	\$97.56
SUM for 'ProgramArea' = FAMILY &			Count 9	\$878.06

## ProgramArea TRADE & INDUSTRY

Fiscal Yr	ProgramCI	ProgramTitle	StudentName	Funding
1998	470604	Auto Technology	VINCENT HERNADEZ	\$97.56
1998	470604	Auto Technology	SIMON SMITH	\$97.56
1998	470604	Auto Technology	JOSEPH BUDMAN	\$97.56
1998	470604	Auto Technology	EDWARD DAVALOS	\$97.56
1999	470604	Auto Technology	ERIN WIRTH	\$97.56
1999	470604	Auto Technology	TIMOTHY PORPECK	\$97.56
1999	470604	Auto Technology	SALLY HOWARD	\$97.56
SUM for 'ProgramArea' = TRADE & INDUSTRY			Count 7	\$682.93

SUM for School = HENRY JONES HIGH SCHOOL \$2,243.92

Sample

## CONCENTRATOR AND PLACEMENTY SURVEY REPORTS

The **Concentrator Report** is a report completed at the end of the school year and submitted by districts to count students, by program area, who have left the district. The students whose names appear on the Concentrator Report as graduates are the students who will be followed up for the Placement Student Survey, nine months later. Students who completed a program as a junior in high school, should be counted as Concentrators in the correct program area **the year they graduate**. The Concentrator Report is due each year on July 1<sup>st</sup>.

The **Placement Survey Report** provides *placement* data for students that have left the district. This information is used in both state and federal reports. It records student demographic and placement information. This information includes the student's name, address, school, program, student type, contact type and completer type. Information about postsecondary education, the military, or enrollment in a related field, is also recorded for each student. The Placement Survey Report is due each year on July 1<sup>st</sup>.

Districts and schools must submit their Concentrator and Placement Survey Reports electronically. **Paper reports will no longer be accepted.** There are three options for electronic submissions:

- Use the on-line web-based Concentrator and Placement Reports
- Send electronic files on diskettes
- Send file attachments with e-mail

Submitting data on a diskette or e-mail attachment requires the correct format so that information loads into the Performance Measures Database correctly. If you need assistance with electronic reporting and correct record formats contact Grants and Management Information Services at 602-542-7881.

## CALENDAR

NOTE: Specific calendar dates will be mailed each year under separate cover.

- September            Program Enrollment Verification Reports due to ADE.  
Performance Measures/Placement Student Survey Verification  
Reports due to districts from ADE.
- October                40th day Course Enrollment blank forms/reminder letters mailed to  
districts.  
  
Final Program Enrollment reports mailed to districts.
- November             Districts submit 40th day Course Enrollment reports to ADE, using  
Course Codes (8 digit). Superintendent or authorized official verifies  
by signature that information submitted is true and correct.
- December             2-3 weeks after the 40th day Course Enrollment Report is due at  
ADE, the 40th day Course Enrollment verification reports are sent to  
the districts.
- January                The 40th day Course Enrollment verification reports from districts due  
to ADE. **Changes, corrections, or additions to 40th day Course  
Enrollment should be final at this date.**
- February              Preprinted 100th day Course Enrollment forms/reminder letters  
mailed to districts.  
  
Improperly certified vocational teachers should have correct  
certification in place by the end of February each year.
- March                  Districts submit 100th day Course Enrollment reports to ADE, using  
Course Codes (8 digit). Superintendent or authorized official verifies  
by signature that information submitted is true and correct.  
  
2-3 weeks after the 100th day Course Enrollment Report is due at  
ADE, the 100th day Course Enrollment verification reports are sent to  
the districts.
- April                    100th day Course Enrollment verification reports due from districts to  
ADE. **Changes, corrections, or additions to 100th day Course  
Enrollment should be final at this date.**  
  
Blank Program Enrollment forms/reminder letters mailed to districts  
(These reports should contain only unduplicated head count, by  
program areas only).
- May

June Program Enrollment and Reports due to ADE from districts.

August Program Enrollment Verification Reports are sent to districts.

September Performance Measures Placement Student Survey Verification Reports to be mailed to districts.

Performance Measures Placement Student Survey Verification Reports to be returned by districts to ADE.

Preliminary funding reports, VOCl 51 and VOCl 55, sent to districts.

Preliminary funding reports response due from districts.

Program Enrollment Verification reports due to ADE from districts.

October Final Program Enrollment Reports are sent to districts from ADE.

## **DEFINITIONS**

**(In alphabetical order)**

**Articulated Student** – A student who attends another school in another district, or a community college or skill center. Monies from the Career and Technical Education State Block Grant Funding for articulated students are generated to the home district.

**Career and Technical Education (CTE)** — Organized educational activities in a sequence of courses. The courses provide individuals with academic and technical knowledge and skills. The goal is to prepare individuals for further education and/or for careers in current or emerging employment sectors (other than careers requiring a baccalaureate, masters or doctoral degree). All programs include applied competency-based academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills and occupational-specific skills. Formerly called *Vocational Technical Education (VTE)*.

**Career and Technical Education Program** — A coherent sequence of instruction designed to deliver all state-designated program competencies for any program on the CTE Program List. A program is directly related to preparing individuals for employment in an occupation. Approved and provisionally approved programs qualify to apply for state and federal funding.

**Carnegie Unit** — One unit of credit awarded in grades 7-12 for a minimum of 120 clock hours of instruction during the regular school year, or 120 clock hours of instruction during summer school.

**CIP** — (Classification of Instructional Programs). The U.S. Department of Education's standard educational program classification system and includes a uniform numbering system and description of educational programs.

**Competency** — An educational “construct/concept” or abstraction derived from workplace task, knowledge, skill or ability requirements. State-designated Level I, II and III competencies are those published in CTE curriculum frameworks. The occupational Level III program competencies for each CTE program are used to document and calculate student proficiency for Performance Measure 1.3 (Vocational Attainment).

**Competency Attainment** — Successful, demonstrated and documented achievement of a competency. Acceptable documentation includes the student's name, each state-designated program competency mastered, date of mastery, method of assessment *and written criteria for judging successful mastery*. Acceptable documentation can include multiple information sources or be a single record per student. Documentation is required for Level III competencies until a state-adopted proficiency assessment is in place.

**Completer** — A concentrator who passes the state-adopted proficiency assessment Or in the absence of a state proficiency assessment, a concentrator who passes at least 80% of the total program competencies and is documented as attaining at least 80% of the occupational Level III program competencies in an approved CTE program. Such a student may also be referred to as a *Program Completer*. The percentage of competencies attained is always calculated as:

Student's documented number of occupational Level III program competencies attained  
Total number of occupational Level III program competencies

**Concentrator** — A student who achieves two Carnegie units/credits in a single CTE program. One unit/credit must be in a Level III course. Such a student may also be called a *Program Concentrator*. Examples include earning:

- 1 credit in Level I and 1 credit in Level III; or
- 1 credit in Level II and 1 credit in Level III; or
- 2 credits in Level III

*Note: Although a student can achieve concentrator status in any grade 9-12, concentrators are only included on the Concentrator Report when they leave secondary education in the reporting year.*

**Contact Phone** — The phone number of an individual in the CTE Division who, if needed, can answer questions concerning the information submitted.

**Course Code** — The 8 digit CIP number associated with CTE courses. The numbers may be found in the CIP Codes and Titles list. The 8<sup>th</sup> digit may be used by the district to designate course sequencing, using 0-9 as the 8<sup>th</sup> digit.

**Course Title** — The title for courses (8 digit number). The titles may be found in the CIP Codes and Titles list.

**County Type District School (CTDS)** — County/Type/District/School code. The school number must be accurate to ensure data is correctly credited to your school. Contact the Management Information Services Unit, 602-542-5486 or 602- 542-5711, for school CTDS information.

**District's Planned Sequence of Courses** — The comprehensive coherent sequence of instruction designed to deliver the Levels I, II and III state-designated program competencies for a CTE program. Local sequences are outlined in the district's local application for Carl Perkins Basic Grant funds. The Carnegie units/credits earned in these courses determine the students who achieve concentrator status.

**Duplicated Count** — One student may be enrolled and counted for data collection purposes in more than one course. Duplicated student count is used when completing Course Enrollment 40<sup>th</sup> and 100<sup>th</sup> Day Reports.

**Individualized Vocational Education Plan (IVEP)** — Required for each vocational student who is a member of a special population category and who is receiving special services in order to succeed in his/her CTE program. An acceptable IVEP is a written plan that specifies all of the following:

- Eligible category in which services are provided to this student
- Student's goals, strengths and weaknesses
- Services required to reach those goals
- Person or agency assigned provide the service
- Student's performance level after receiving the services

Some examples of services, modifications or accommodations include: smaller classes, modification to classroom or equipment, alternative assessment instruments or strategies and/or additional time for completion or tutoring services.

**Level III Career and Technical Education Course** — A course within a district's planned CTE sequence that delivers occupational Level III program competencies. Course CIP codes 90.0000 and above are not considered Level III.

**Minutes Per Week** — Funding is based on a minimum of 225 minutes per week per course.

**Performance Measures** — Set of measures developed and approved by the state Board for Career and Technical Education to measure student outcomes. The process will include a Local Evaluation for the purposes of Program Improvement.

**Placement Funding** — Funding to districts generated by Career and Technical Education students who have graduated. Their status will be verified by an appropriate survey response to Arizona Department of Education (ADE). Any of following count for placement:

- Employment in a program related position
- Enrollment in postsecondary education or advanced training
- Serving in active military duty

**Program** — Coherent sequence of instruction, which delivers a set of prescribed State competencies attributed to a specified instructional program.

**Program CIP Code** — Six-digit code, which identifies the CTE program. Program CIP codes are used on the Comprehensive Program Enrollment Reports, Concentrator Reports and Placement Reports.

**Program Title** — Title of the CTE Program listed as provided in the Handbook.

**Racial and Ethnic Codes** — Required information that identifies racial or ethnic groups for reporting purposes. Such information is required on Enrollment, Concentrator and Placement reporting. There are five codes.

- **White:** A person having origins in any of the original peoples of Europe, North Africa or the Middle East. Excludes persons of Hispanic origin.
- **Black:** A person having origins in any of the black racial groups in Africa. Excludes persons of Hispanic origin.
- **Hispanic:** A person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.
- **American Indian or Alaskan Native:** A person having origins in any of the original people of North America and maintaining culture identification through tribal affiliation or community recognition.
- **Asian or Pacific Islander:** A person having origins in any of the original people of the Far East, Southeast Asia, the Indian subcontinent or the Pacific Islands. This area includes, for example, China, India, Japan, Korea, the Philippine Islands and Samoa.

**Shared District Instruction (SDI)** — Students that articulate from one school to another *in the same district*.

**Signature of Superintendent or Authorized Official** — All completed enrollment forms submitted to ADE must be signed and dated by the appropriate district superintendent or authorized official whose name is on file at ADE as authorized. An "authorized official" may be the district or school vocational director or another designee of the superintendent.

**Special Populations** — Eligible categories of students who may receive services in order to succeed in Career and Technical Education courses and programs. Services provided must be documented on the student's IVEP. A student may only be reported in one special population category. Report using the **primary/most significant category applicable** to the student from this list of eligible groups:

**Handicap/Disabled** — Student with any disability as defined in Section 3 of the Americans with Disabilities Act of 1990 (42 U.S.C. 12102) as follows: a physical or mental impairment that substantially limits one or more of the major life activities of that individual; a record of such an impairment; or being regarded as having such an impairment; and **who requires assistance to succeed in his/her CTE program**. Includes those students evaluated under IDEA and determined to be in need of special education and related services, and any individual considered disabled under Section 504 of the Rehabilitation Act of 1973.

**LEP** — Student with Limited English Proficiency **who requires assistance to succeed** in his/her CTE program: a secondary school student, an adult, or an out-of-school youth, who has limited ability in speaking, writing, or understanding the English language, and-

- Whose native language is not English; or-
- Who lives in a family or community environment in which a language other than English is the dominant language

**Economically Disadvantaged** — Family or individual including foster children, which the Local Educational Agency identifies as low income (on the basis of uniform methods described in the State plan) **and who requires financial assistance to succeed in Career and Technical Education**. Examples of eligibility definitions include:

- Annual income at or below the official poverty line
- Eligibility for free school lunch
- Eligibility for Aid to Families with Dependent Children or other public assistance programs;
- Eligibility for participation in programs assisted under Title I of the WIA

**Academically Disadvantaged** — Student at or below the 25th percentile on a standardized achievement or aptitude test, whose secondary school grades are below 2.0 on a 4.0 scale, or who fails to attain minimum academic competencies, and **who requires assistance to succeed in his/her CTE program**.

**Single Parent** — Any individual who requires assistance to succeed in his/her CTE program and who:

- Has custody and-
- Responsibility for the support and care of one or more dependent children under the age of eighteen in the same residence

***(Note: For eligibility purposes, a person who provides child support but no custodial care is not considered a single parent. Single pregnant women are eligible for services.)***

**State Designated Program Competencies** —The Level I, II and III competencies published in CTE curriculum frameworks available from the Career and Technical Education Division of the Arizona Department of Education. The occupational Level III program competencies for each CTE program are used to document and calculate student vocational proficiency for Performance Measure 1.3 (Vocational Attainment).

**Tech Prep** —An education program of study that combines at least two (2) years of a secondary Approved Career Technical Education Program, two years of postsecondary career education, and contextual academic education at each level in a non-duplicative sequential course of study. An approved Tech Prep program of study will include documentation of articulation between secondary and postsecondary education agencies supervised by the Director of the approved local Consortium.

**Total Grade Enrollment** — The total number of students enrolled for the Course Code listed.

**Unduplicated Enrollment** — Means that a student is counted only once, even if that student is enrolled in more than one program. Unduplicated student count is used on the Program Enrollment and Concentrator Reports.

**Unduplicated Reporting** — Reporting is required on the Year End Enrollment Report, the Concentrator Report and the Placement Report. Suggested guidelines for determining where to report a student who is enrolled in more than one program include any of the following:

- Reporting the student based on a declared career goal
- Reporting a student based upon the highest number of credits achieved in a CTE program
- Reporting a student based upon their latest CTE program credits achieved

# County Type District School (CTDS) 2002

<u>District</u>	<u>School Name</u>	<u>CTDS Number</u>
<b>Agua Fria Union High SD</b>	Agua Fria Union High School	070516201
	Millennium High School	070516202
<b>Ajo Unified District</b>	Ajo School	100215001
<b>Amphitheater Unified District</b>	Amphitheater High School	100210281
	Canyon Del Oro High School	100210282
	Ironwood Ridge High School	100210280
<b>Antelope Union High School District</b>	Antelope Union High School	140550201
<b>Apache Junction Unified District</b>	Apache Junction High School	110243201
<b>Arizona Agribusiness &amp; Equine</b>	Arizona Agribusiness & Equine	078707201
<b>Arizona Career Academy</b>	Pinnacle High School - Mesa	078932002
	Pinnacle High School - Tempe	078932001
<b>Ash Fork Unified District</b>	Ash Fork High School	130231202
<b>Bagdad Unified District</b>	Bagdad High School	130220202
<b>Benson Unified District</b>	Benson Unified High School	020209201
<b>Bicentennial Union High District</b>	Salome High School	150576201
<b>Bisbee Unified District</b>	Bisbee High School	020202201
<b>Blue Ridge Unified District</b>	Blue Ridge High School	090232204
<b>Bowie Unified District</b>	Bowie High School	020214200
<b>Buckeye Union High School Dist</b>	Buckeye Union High School	070501201
	Estrella Foothills High School	070501202
<b>Camp Verde Unified District</b>	Camp Verde High School	130228203
<b>Casa Grande Union High District</b>	Casa Grande Alternative School	110502003
	Casa Grande Union High School	110502001
<b>Catalina Foothills Unified District</b>	Catalina Foothills High School	100216206
<b>Cave Creek Unified District</b>	Cactus Shadows High School	070293204
<b>Chandler Unified District</b>	Chandler High School	070280202
	Hamilton High School	070280223
<b>Chinle Unified District</b>	Chinle High School	010224240
<b>Chino Valley Unified District</b>	Chino Valley High School	130251203

<b>District</b>	<b>School Name</b>	<b>CTDS Number</b>
<b>Colorado City Unified District</b>	Colorado City High School	080214202
<b>Colorado River Union High District</b>	Mohave High School	080502001
	River Valley High School	080502002
<b>Coolidge Unified District</b>	Coolidge High School	110221007
<b>Deer Valley Unified District</b>	Barry Goldwater High School	070297224
	Deer Valley High School	070297219
	Mountain Ridge High School	070297233
	Northwest Education Center	070297026
<b>Douglas Unified District</b>	Douglas High School	020227210
<b>Duncan Unified District</b>	Duncan High School	060202203
<b>Dysart Unified District</b>	Dysart High School	070289205
<b>Eagle's Aerie Schools</b>	Eagle's Aerie School	078725001
<b>East Valley Institute of Technology</b>	EVIT - Apache Junction	070801005
	EVIT - Chandler Air	070801003
	EVIT - Fountain Hills Voc CTR	070801007
	EVIT - Gilbert	070801006
	EVIT - Main	070801001
	EVIT - Scottsdale	070801004
	EVIT - Tempe Auto	070801002
<b>Excel Education Center</b>	Excel Education Ctr - Prescott	138737001
<b>Flagstaff Unified District</b>	Coconino High School	030201282
	Flagstaff High School	030201281
	Sinagua High School	030201283
<b>Florence Unified School District</b>	Florence High School	110201201
<b>Flowing Wells Unified District</b>	Flowing Wells High School	100208210
<b>Fountain Hills Unified Dist.</b>	Fountain Hills Sr High School	070298205
<b>Fredonia Moccasin UD</b>	Fredonia High School	030206203
<b>Ft. Thomas Unified District</b>	Ft. Thomas High School	050207202
<b>Ganado Unified District</b>	Ganado High School	010220204
<b>Gila Bend Unified District</b>	Gila Bend High School	070224002
<b>Gilbert Unified District</b>	Gilbert High School	070241210
	Highland High School	070241211
	Mesquite High School	070241212

<b>District</b>	<b>School Name</b>	<b>CTDS Number</b>
<b>Glendale Union High SD</b>		
	Apollo High School	070505206
	Christown Academy	070505210
	Cortez High School	070505204
	Glendale High School	070505201
	Greenway High School	070505208
	Independence High School	070505209
	Moon Valley High School	070505205
	Sunnyslope High School	070505202
	Thunderbird High School	070505207
	Washington High School	070505203
<b>Globe Unified School District</b>		
	Globe High School	040201004
<b>Grand Canyon Unified District</b>		
	Grand Canyon High School	030204002
<b>Greyhills Academy</b>		
	Greyhills Academy High School	033903001
<b>Hayden-Winkleman Unified Dist.</b>		
	Hayden High School	040241004
<b>Heber-Overgaard Unified District</b>		
	Mogollon High School	090206201
<b>Higley Unified District</b>		
	Higley High School	070260201
<b>Holbrook Unified District</b>		
	Holbrook High School	090203207
<b>Hopi Jr-Sr High</b>		
	Hopi Jr-Sr High	098650001
<b>Humboldt Unified District</b>		
	Bradshaw Mountain High School	130222230
<b>Indian Oasis-Babo Unified District</b>		
	Baboquivari Alternative High School	100240206
	Baboquivari High School	100240204
<b>Joseph City Unified District</b>		
	Joseph City High School	090202002
<b>Kayenta Unified District</b>		
	Monument Valley High School	090227201
<b>Kingman Unified HSD</b>		
	Kingman High School - North	080220202
<b>Lake Havasu Unified District</b>		
	Lake Havasu High School	080201207
<b>Mammoth-San Manuel UD</b>		
	San Manuel High School	110208281
<b>Many Farms District</b>		
	Many Farms High School	014002201
<b>Marana Unified District</b>		
	Marana High School	100206240
	Mountain View High School	100206241
<b>Maricopa Unified School District</b>		
	Maricopa High School	110220202
<b>Mayer Unified District</b>		
	Mayer Jr / Sr High School	130243002

<b>District</b>	<b>School Name</b>	<b>CTDS Number</b>
<b>Mesa Unified School District</b>		
	Boulder Canyon Learning Center	070204280
	Brimhall Jr High School	070204261
	Carson Jr High School	070204252
	Dobson High School	070204274
	Fremont Jr High School	070204254
	George Smith Jr. High School	070204263
	Hendrix Jr High School	070204259
	Kino Jr High School	070204253
	Mesa High School	070204271
	Mesa Jr High School	070204251
	Mountain View High School	070204273
	Poston Jr High School	070204256
	Powell Jr High School	070204255
	Power Learning Center	070204181
	Red Mountain High School	070204275
	Rhodes Jr High School	070204257
	Shepherd Jr High School	070204260
	Skyline High School	070204276
	Stapley Jr High School	070204262
	Sundown High School	070204277
	Tapp	070204182
	Taylor Jr High School	070204258
	Westwood High School	070204272
<b>Miami Unified District</b>		
	Miami High School	040240206
<b>Mingus Union High School District</b>		
	Mingus union High School	130504201
<b>Nogales Unified District</b>		
	Nogales High School	120201210
<b>Page Unified District</b>		
	Page High School	030208209
<b>Paradise Valley UD</b>		
	Horizon High School	070269293
	North Canyon High School	070269294
	Paradise Valley High School	070269290
	Pinnacle High School	070269292
	Polaris High School	070269296
	Shadow Mountain High School	070269295
<b>Parker Unified School District</b>		
	Parker High School	150227204
<b>Patagonia Union High District</b>		
	Patagonia Union High School	120520201
<b>Payson Unified District</b>		
	Payson High School	040210201
<b>Peach Springs Unified District</b>		
	Peach Springs School	080208001
<b>Peoria Unified District</b>		
	Cactus High School	070211261
	Centennial High School	070211263
	Ironwood High School	070211262
	Peoria High School	070211260
	Sunrise Mountain High School	070211264

<b>District</b>	<b>School Name</b>	<b>CTDS Number</b>
<b>Phoenix Union High School Dist</b>	Alhambra High School	070510210
	Bostrom Alternative Center	070510214
	Camelback High School	070510225
	Carl Hayden High School	070510245
	Central High School	070510230
	Cesar Chavez High School	070510270
	Desiderata School	070510238
	Homebound	070510206
	Maryvale High School	070510250
	Metro Tech Voc Inst of Phx	070510212
	North High School	070510255
	South Mountain High School	070510260
	Trevor Browne High School	070510220
<b>Pima Unified School District</b>	Pima High School	050206202
<b>Pimeria Alta High School</b>	Pimeria Alta High School - Green Valley	128724202
<b>Pinon Unified District</b>	Pinon High School	090204203
<b>Prescott Unified District</b>	Prescott High School	130201070
<b>Queen Creek Unified District</b>	Queen Creek High School	070295201
<b>Ray Unified District</b>	Ray High School	110203202
<b>Red Mesa Unified District</b>	Red Mesa High School	010227204
<b>Rough Rock District</b>	Rough Rock Community School	014001201
<b>Round Valley Unified District</b>	Round Valley HS	010210210
<b>Safford Unified District</b>	Mt. Graham High School	050201201
	Safford High School	050201200
<b>Sahuarita Unified District</b>	Sahuarita High School	100230204
<b>San Carlos Unified District</b>	San Carlos High School	040220202
<b>San Simon Unified District</b>	San Simon School	020218001
<b>Sanders Unified District</b>	Valley High School	010218003
<b>Santa Cruz Valley Unified District</b>	Rio Rico High School	120235200
<b>Santa Cruz Valley Union High District</b>	Santa Cruz Valley Union High School	110540001
<b>Scottsdale Unified District</b>	Arcadia High School	070248292
	Chaparral High School	070248295
	Coronado High School	070248293
	Desert Mountain High School	070248296
	Saguaro High School	070248294

<b>District</b>	<b>School Name</b>	<b>CTDS Number</b>
<b>Sedona Oak Creek Unified District</b>	Sedona Red Rock High School	130209210
<b>Seligman Unified District</b>	Seligman High School	130240202
<b>Show Low Unified District</b>	Show Low High School	090210225
<b>Sierra Vista Unified District</b>	Buena High School	020268260
<b>Snowflake Unified District</b>	Snowflake High School	090205005
<b>St David Unified District</b>	St David High School	020221202
<b>St Johns Unified District</b>	St Johns High School	010201205
<b>Sunnyside Unified District</b>	Desert View High School	100212211
	Sunnyside High School	100212230
<b>Superior Unified District</b>	Superior High School	110215205
<b>Tempe Union High School Dist</b>	Compadre High School	070513097
	Corona Del Sol High School	070513094
	Desert Vista High School	070513096
	Marcos De Niza High School	070513093
	McClintock High School	070513092
	Mountain Pointe High School	070513095
	Tempe High School	070513091
<b>Thatcher Unified School Dist.</b>	Thatcher High School	050204200
<b>The Leona Group</b>	Desert Hills High School	078718214
	Summit High School	078718208
	Tempe Accelerated High School	078718205
<b>Tolleson Union High School</b>	Tolleson Union High School	070514201
	Westview High School	070514202
<b>Tombstone Unified District</b>	Tombstone High School	020201207
<b>Tuba City Unified District</b>	Tuba City High School	030215240

<b>District</b>	<b>School Name</b>	<b>CTDS Number</b>
<b>Tucson Unified District</b>		
	Catalina Magnet High School	100201610
	Cholla Magnet High School	100201615
	Howenstine High School	100201680
	PACE Alternative	100201672
	Palo Verde Magnet High School	100201620
	Project M.O.R.E.	100201674
	Project PASS	100201671
	Pueblo Magnet High School	100201630
	Rincon High School	100201640
	Sabino High School	100201645
	Sahuaro High School	100201650
	Santa Rita High School	100201655
	Tucson Magnet High School	100201660
	University High School	100201675
<b>Vail Unified District</b>		
	Cienega High School	100220201
<b>Valley Academy for Career and Tech Ed</b>		
	Valley Academy - Camp Verde USD	130801002
	Valley Academy - Clarkdale Jerome	130801005
	Valley Academy - Cottonwood Oakcreek	130801004
	Valley Academy - Mingus USH	130801001
	Valley Academy - Sedona	130801003
<b>Valley Union High School Dist</b>		
	Valley Union High School	020522201
<b>Whiteriver Unified District</b>		
	Alchesay High School	090220204
<b>Wickenburg Unified District</b>		
	Wickenburg High School	070209201
<b>Willcox Unified District</b>		
	Willcox High School	020213201
<b>Williams Unified District</b>		
	Williams High School	030202201
<b>Window Rock Unified District</b>		
	Window Rock High School	010208201
<b>Winslow Unified District</b>		
	Winslow High School	090201206
<b>Young Elementary District</b>		
	Young Teaching High School	040305002
<b>Yuma Union High School District</b>		
	Cibola High School	140570203
	Kofa High School	140570202
	Vista Alternative School	140570204
	Yuma High School	140570201



**U.S. Department of Education**  
 Office of Educational Research and Improvement (OERI)  
 National Library of Education (NLE)  
 Educational Resources Information Center (ERIC)



# REPRODUCTION RELEASE

(Specific Document)

## I. DOCUMENT IDENTIFICATION:

Title: The Handbook	
Author(s):	
Corporate Source: Arizona Department of Education	Publication Date: April 2001

## II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, *Resources in Education* (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic media, and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following three options and sign at the bottom of the page.

The sample sticker shown below will be affixed to all Level 1 documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

\_\_\_\_\_

\_\_\_\_\_

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

Level 1

↑

The sample sticker shown below will be affixed to all Level 2A documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE, AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY, HAS BEEN GRANTED BY

\_\_\_\_\_

\_\_\_\_\_

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2A

Level 2A

↑

The sample sticker shown below will be affixed to all Level 2B documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

\_\_\_\_\_

\_\_\_\_\_

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2B

Level 2B

↑

Check here for Level 1 release, permitting reproduction and dissemination in microfiche or other ERIC archival media (e.g., electronic) and paper copy.

Check here for Level 2A release, permitting reproduction and dissemination in microfiche and in electronic media for ERIC archival collection subscribers only

Check here for Level 2B release, permitting reproduction and dissemination in microfiche only

Documents will be processed as indicated provided reproduction quality permits.  
 If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.

*I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries.*

Signature:	Printed Name/Position/Title: Linda A Edgington/Librarian I
Organization/Address: Arizona Dept of Education 1535 W Jefferson/Bin #48 Phoenix, AZ 85007	Telephone: (602) 542-5416 FAX: (602) 542-0520 E-Mail Address: ledging@mail1.ade.state.az.us Date: 5/29/02

