CTE - CIP Course Details Catalog

Cluster: Manufacturing

CIP: 47.0104 - Computer Installation and Repair Technology/Technician.   (Non Traditional - Female)

Status: Open   **Start Year:** 2011   **End Year:**

Minimum Carnegie Units: 2.00

Group 1

Minimum Course Selection: School: 1   ACC: 0   Regional: 0

State Course ID	State Course Title	Max Carnegie Units	Start SY	End SY
13052A001	Production Technology	1.00	2011	
11002A001	Communication Technology	1.00	2011	
20101A001	Energy Utilization Technology	1.00	2011	
21052A002	Introduction to Technology and Engineering (Industrial)	1.00	2011	
21052A001	Foundations of Technology	1.00	2014	
20001A001	Transportation Technology	1.00	2018	

Group 2

Minimum Course Selection: School: 0   ACC: 1   Regional: 1

State Course ID	State Course Title	Max Carnegie Units	Start SY	End SY
10252A001	Computer Maintenance I	3.00	2011	
10252A002	Computer Maintenance II	3.00	2011	

Group 3

Minimum Course Selection: School: 0   ACC: 0   Regional: 0

State Course ID	State Course Title	Max Carnegie Units	Start SY	End SY
22153A001	Cooperative Education	3.00	2011	

Cluster: Manufacturing

Course Descriptions

CIP: 47.0104 - Computer Installation and Repair Technology/Technician.

State Course ID: 13052A001   **Course Title:** Production Technology

Production Technology is a course designed to foster an awareness and understanding of manufacturing and construction technology. Through a variety of learning activities, students are exposed to many career opportunities in the production field. Experiences in manufacturing include product design, materials and processes, tools and equipment including computers, safety procedures, corporate structure, management, research and development, production planning, mass production, marketing and servicing. In construction, students are exposed to site preparation, foundations, building structures, installing utilities, and finishing and servicing structures.

State Course ID: 11002A001   **Course Title:** Communication Technology

Communication Technology is a course designed to foster an awareness and understanding of the technologies used to communicate in our modern society. Students gain experience in the areas of design and drafting, radio and television broadcasting, computers in communication, photography, graphic arts, and telecommunications.

State Course ID: 20101A001   **Course Title:** Energy Utilization Technology

Energy Utilization Technology is a course designed to foster an awareness and understanding of how we use energy in our industrial technological society. Areas of study include conversion of energy, electrical fundamentals, solar energy resources, alternate energy resources such as wind, water, and geothermal; fossil fuels, nuclear power, energy conservation, and computer uses in energy technology. Students use laboratory experiences to become familiar with current energy technologies.

State Course ID: 21052A002   **Course Title:** Introduction to Technology and Engineering (Industrial)

Introduction to Technology & Engineering is comprised of the following areas: Production, Transportation, Communication, Energy Utilization and Engineering Design but is not limited to these areas only. This course will cover the resources, technical processes, industrial applications, material sciences, technological impact and occupations encompassed by that system.

State Course ID: 21052A001   **Course Title:** Foundations of Technology

The course employs teaching/learning strategies that enable students to build their own understanding of new ideas. It is designed to engage students in exploring and deepening their understanding of "big ideas" regarding technology and apply technological processes to solve real problems and develop knowledge and skills to design, modify, use and apply technology in the following areas: engineering design, manufacturing technologies, construction technologies, energy & power, information & communication technologies and emerging technologies.

State Course ID: 20001A001   **Course Title:** Transportation Technology

Transportation Technology is a course designed to foster an awareness and understanding of the various transportation customs that make up our mobile society. Through laboratory activities, students are exposed to the technologies of and career opportunities involved in material handling, atmospheric and space transportation, marine transportation, terrestrial transportation, and computer uses in transportation technology.

Cluster: Manufacturing

Course Descriptions

CIP: 47.0104 - Computer Installation and Repair Technology/Technician.

State Course ID: 10252A001 **Course Title:** Computer Maintenance I

This course is designed to provide students with the skills needed to install, setup, configure, test, troubleshoot, and maintain, personal computers and peripherals . Instruction includes assembling, maintaining, and upgrading personal computers. Students learn how to install, upgrade, and troubleshoot various hardware components such as motherboards, hard drives, CD- ROMS, memory, power supplies, video cards, sound cards, and network cards. Students install and configure various desktop operating systems such as Windows, Apple, and Linux. The course includes adding and removing software programs, installing and updating system drivers, creating startup and recovery disk, and updating the BIOS and CMOS. Students learn to conduct preventive maintenance and perform system backups, data transfer, and recovery routines as well as use diagnostic utilities to troubleshoot hardware and software problems. Students also learn how to disassemble, clean, troubleshoot, and reassemble peripherals such as printers.

State Course ID: 10252A002 **Course Title:** Computer Maintenance II

This course builds on the skills introduced in Computer Maintenance I. Students learn how to connect and install multiple computers and peripherals together to create a computer network. Students build, configure, and maintain network servers along with installing and configuring various network operating systems such as Novell, Windows, and Linux. Students learn to use troubleshooting services, system monitoring utilities, and data backup and recovery systems. Other topics include learning how to connect various network components such as servers, computers, and printers together using data cabling, hubs, and switches. Students learn to run, terminate, and troubleshoot data cabling. In addition, students learn how to install and upgrade software across the network, as well as map drives and share resources such as printers, software, and files. The course includes setting up and configuring various network services such as TCP /IP, DHCP, DNS, VPN, terminal services, e-mail, and web services. Students learn how to secure and protect network servers and data as well as setting up and configuring a firewall, intrusion detection system, and encryption software for identifying and preventing potential network attacks.

State Course ID: 22153A001 **Course Title:** Cooperative Education

Cooperative Education is a capstone   course designed to assist students in the development of effective skills and attitudes through practical, advanced instruction in school and on the job through cooperative education. Students are released from school for their paid cooperative education work experience and participate in 200 minutes per week of related classroom instruction. Classroom instruction focuses on providing students with job survival skills and career exploration skills related to the job and improving students' abilities to interact positively with others. For skills related to the job, refer to the skill development course sequences, the task list or related occupational skill standards of the desired occupational program. The course content includes the following broad areas of emphasis: further career education opportunities, planning for the future, job-seeking skills, personal   development, human relationships, legal protection and responsibilities, economics and the job, organizations, and job termination. A qualified career and technical education coordinator is responsible for supervision. Written   training agreements and individual student training plans are developed and agreed upon by the employer, student and coordinator.   The coordinator, student, and employer assume compliance with federal, state, and local laws and regulations.