2021-2022 ADDENDUM

New Noncredit Programs

The following Noncredit programs have been approved for the 2021-2022 catalog year:

Computer Networking Technology Fundamentals
Certificate of Completion
#41601

This program covers the fundamentals of computer networking technology. These core courses provide the necessary skills for those seeking entry-level employment as computer service technicians without areas of specialization. General topics include personal computer servicing, troubleshooting, computer operating systems, and personal computer troubleshooting. This fundamentals certificate will prepare students with the requisite knowledge for subsequent Computer and Networking Technology certificates. The courses in the fundamentals certificate approach computer repair from a hardware-first perspective, as distinct from other programs with a software or applications emphasis. This focus reflects the department's core belief that a solid understanding of electronics reinforces the necessary knowledge and skills to troubleshoot and repair computing equipment.

Program Learning Outcomes

- Students will gain employment in an introductory level position in the computer networking technology sector.
- Students will demonstrate job readiness skills.
- Students will progress through the computer networking technology career ladder by enrolling in further computer networking technology courses or programs.

  Review Student Learning Outcomes (SLOs) (http://www.mtsac.edu/instruction/outcomes/sloinfo.html)for this program.

Required Courses

Course Prefix	Course Name	Units
VOC CNT50	Personal Computer (PC) Servicing	
VOC CNT52	PC Operating Systems	
VOC CNT54	PC Troubleshooting	

Computer Networking Technology Industry Certifications
Certificate of Completion
#41622

This certificate covers the material necessary to successfully pass the CompTIA A+, Network+, Security+, and the Server+ professional certificates. These preparation courses provide the necessary information for those seeking to obtain professional industry CompTIA certificates. Topics include instruction and hands on material that supports the exam objectives as set forth by CompTIA. This Industry Certifications certificate will prepare students with the requisite knowledge for subsequent computer networking technology certificates and degrees.

Program Learning Outcomes

- Program Completers will be able to read and analyze DC, AC and/or Digital schematics for voltage, current, impedance and power quantities, and compare them to measured values.

- Demonstrate proper use of electronic test equipment and associate measurement results with circuit behaviors in the laboratory.
- Be able to build both combinational and sequential digital logic circuits based off of design and logic requirements.
- Use these results of both empirical and calculated unknown electrical parameters to assess or troubleshoot faults in circuit and system operation. 5. Communicate, both verbally and in writing, knowledge of electrical concepts and their application to the observed behaviors of circuits and systems.

  Review Student Learning Outcomes (SLOs) (http://www.mtsac.edu/instruction/outcomes/sloinfo.html)for this program.

Required Courses

Course Prefix	Course Name	Units
VOC CNT60	A+ Certification Preparation	
VOC CNT62	Network+ Certification Preparation	
VOC CNT64	Server+ Certification Preparation	
VOC CNT66	Security+ Certification Preparation	

Electronics Technology - Level 1
Certificate of Completion
#41569

This program covers the fundamentals of Electronics Technology. General topics include direct current electronics, alternating current electronics, and digital electronics. These introductory courses provide entrylevel skills for those seeking employment as electronics technicians. This Level 1 certificate will prepare students with the requisite knowledge for subsequent electronics certificates and degrees.

Program Learning Outcomes

- Program Completers will be able to read and analyze DC, AC and/or Digital schematics for voltage, current, impedance and power quantities, and compare them to measured values.
- Students will demonstrate proper use of electronic test equipment and associate measurement results with circuit behaviors in the laboratory.
- Students will be able to build both combinational and sequential digital logic circuits based off of design and logic requirements.
- Students will use these results of both empirical and calculated unknown electrical parameters to assess or troubleshoot faults in circuit and system operation.
- Students will communicate, both verbally and in writing, knowledge of electrical concepts and their application to the observed behaviors of circuits and systems

  Review Student Learning Outcomes (SLOs) (http://www.mtsac.edu/instruction/outcomes/sloinfo.html)for this program.

Required Courses

Course Prefix	Course Name	Units
VOC EL50A	Electronic Circuits - Direct Current (DC)	
VOC EL50B	Electronic Circuits (AC)	
VOC EL56	Digital Electronics	

Electronics Technology - Level 2
Certificate of Completion
#41570

This program covers the fundamentals of Electronics Technology plus additional coursework in other areas of specialty. It is composed of the same coursework from the Electronics Technology - Level 1 certificate plus additional electives chosen from other electronics courses within the Electronics Department. This certificate allows students the flexibility to combine Electronics courses to meet individual goals in a specialty of their choosing. This Level 2 certificate will prepare students with the requisite knowledge for subsequent Electronics certificates and degrees.

Program Learning Outcomes

- Students will demonstrate proper use of electronic test equipment and associate measurement results with circuit behaviors in the laboratory.
- Students will be able to demonstrate a connection between higher level coursework and that of the fundamental coursework in AC, DC and digital electronics.
- Students will communicate, both verbally and in writing, knowledge of electrical concepts and their application to the observed behaviors of circuits and systems.
- Students will apply knowledge of electronic principles to the areas of communications, industrial electronics, or microcontrollers.

   Review Student Learning Outcomes (SLOs) (http://www.mtsac.edu/instruction/outcomes/sloinfo.html)for this program.

Required Courses

Course Prefix	Course Name	Units
VOC EL50A	Electronic Circuits - Direct Current (DC)	
VOC EL50B	Electronic Circuits (AC)	
VOC EL56	Digital Electronics	

Recommended Electives

Course Prefix	Course Name	Units
Students may choose from any of the courses in List A or List B to fulfill the 4 courses of required electives		
List A:		
VOC EL11	Technical Applications in Microcomputers	
VOC EL12	Computer Simulation and Troubleshooting	
VOC EL51	Semiconductor Devices and Circuits	
VOC EL53	Communications Systems	
VOC EL54A	Industrial Electronics	
VOC EL54B	Industrial Electronic Systems	
VOC EL55	Microwave Communications	
VOC EL61	Electronic Assembly and Fabrication	
VOC EL74	Microcontroller Systems	
VOC TCH60	Customer Relations for the Technician	
List B:		
VOC EL10	Introduction to Mechatronics	
VOC EL62	Advanced Surface Mount Assembly and Rework	
VOC EL76	FCC General Radiotelephone Operator License Preparation	
VOC CNT56	Computer Networks	

New Noncredit Courses

The following noncredit courses have been approved for the 2021-2022 catalog year:

Course Prefix	Course Name	Units
ESL 72	American English Pronunciation	0
ESL PRONA	ESL - Pronunciation A	0
ESL PRONB	ESL - Pronunciation B	0
ESL PRONC	ESL - Pronunciation C	0
ESL READA	ESL - Reading A	0
ESL READB	ESL - Reading B	0
ESL READC	ESL - Reading C	0
VOC ECOM	E-Commerce Specialist	0
VOC LGAN	Logistics Analyst	0
VOC HSW	Health and Safety for Workplace	0
VOC LOS	Logistics Operations Specialist	0
VOC LTEC	Logistics Technician	0