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## **Casino Gaming Machine Repair Technician Certificate Program**



### **Required Courses**

#### **First Semester**

MT 112	Survey of Mathematics	3 credit hours
CE 140	Technology Methods	2 credit hours
CE 141	Lab for CE 140	1 credit hour
CE 142	Electrical Circuits	4 credit hours
CE 143	Lab for CE 142	1 credit hour

#### **Second Semester**

CE 240	Computer Logic	3 credit hours
CE 241	Logic Lab	1 credit hour
CE 242	Computer Electronics	3 credit hours
CE 243	Electronics Lab	1 credit hour
CE 280	CGM System Maintenance	3 credit hours

**Total Credit Hours      22 credit hours**

- Courses are offered day and evening at South Campus
- The above courses earn students college credit and may be used toward an associate degree

The Casino Gaming Machine Repair Technician Certificate Program is designed to provide education and training in the repair and maintenance of Casino Gaming Machines. Its purpose is to prepare individuals for entry-level jobs as technicians who will service the sophisticated electronic equipment in the gaming industry. Students may include persons new to the industry as well as employees already in the industry who may wish to upgrade their skills. In addition, individuals already working as electronic technicians may wish to add a new skill set through this program.

The design of the program recognizes that the Casino Gaming Machine Repair Technician is essentially a Computer Repair Technician. Individuals successfully completing this program will receive a letter of completion from Erie Community College, and those wishing to further their education will find 19 of the 22 credits from this program will count directly towards an Associates Degree in Computer Repair Technology from Erie Community College.

The college will work closely with the local, regional, and national gaming representatives in an effort to enhance the programs currency and attempt to bring employment opportunities and successful students together.

The program is designed for full- or part-time study and can be completed in 9 to 12 months. The first half of the curriculum includes mathematics, recognition of components, circuit testing and safety issues. The second half deals with Advanced Electronic Skills, Computer Logic, Microprocessors.

The Casino Gaming Machine Repair certificate is designed to *provide training in the repair and maintenance of class 3 slot machines*. A graduate of the program would be able to:

- Use resistor color code and component recognition.
- Be proficient at electronic soldering and terminating wire connections using solderless connectors.
- Use a curve tracer to check all types of diodes, bi-polar transistors, and field effect transistors.
- Demonstrate proficiency in using electronic test instrumentation, dual trace scopes, frequency counters, and functional generators.
- Be proficient at troubleshooting half-wave, full-wave, bridge power supplies, and voltage doublers.
- Set up CGM equipment, determine faults, and take corrective action, insuring the integrity of components as well as student's own safety in the repair.
- Prototype multi-stage analog and digital circuits, check for normal operation, and design and construct circuit boards for them.
- Design, construct, and test digital logic circuits to meet the demands of any 4 input logic circuits.
- Understand basic theory and architecture of computer systems.
- Interact with a computer system to assess its performance.
- Disassemble and reassemble mechanical components of computer systems and adjust for proper operation.
- Isolate system malfunction by relating program execution to specific groups of circuits.
- Use system software to generate, operate, and maintain program logos to identify failed system components.
- Understand power systems.
- Isolate data communications system faults to specific sub systems.

To find out more about this program and how to register for classes, please contact David English, Department Chair of Computer Repair Technology, at 851-1757.