Course No.	Course Title	Credits

EET 161/162   **DC Electricity and Instrumentation & LAB**   **3**

This course introduces the student to the theory and operation of basic DC circuits, circuit construction, operation and troubleshooting. Basic alternative energy technologies are introduced. The student will also receive instruction on soldering, digital multi-meter usage, and Ohm's Law applications for testing and troubleshooting electric circuits. Elements of proper disposal of batteries and other circuit components considered to be hazardous waste are included. *(Corequisite:* EET 162)

AMT 255/256   **Additive Manufacturing & LAB**   **3**

This course introduces the students in the design of 3D watertight meshes to create physical parts utilizing a 3D printer. Topics covered include the history of additive manufacturing, types of printing technologies, design for additive manufacturing, materials used, and corporate application of this process.

ART 105   **Blueprint / Schematic Reading**   **3**

This course conveys to the students an understanding of the procedures for reading and interpreting industrial prints. The course includes related peripheral information that will enhance the students' understanding of the diversity that is characteristic of industrial prints. Many types of industrial prints and their applications will be covered during this course.

CIT 181/182   **Computer Hardware and Operating Systems & LAB**   **4**

Provides an introduction with computer information technology concepts that include necessary procedures to conduct repairs, troubleshoot, conduct problem-solving techniques, and perform diagnostics to enhance technology maintenance. This includes repairing hardware, analyzing compatibility specifications, providing upgrades to computing devices, establishing network connections, testing device-port accessibility, troubleshooting errors and problems with malfunctioned computing devices, and maintaining the operations of computer operating systems. The course also provides students with information on safety and environmental issues pertaining to communication and professionalism in handling technology assistance in the field. The knowledge gained in this course will also prepare students to take their CompTIA A+ Essentials and Practical Application certification examinations.

CIT 183/184   **Network Architectures, Principles, and Protocols & LAB**   **3**

Introduces software and hardware requirements needed to perform technical support, diagnostics, and application of solutions so that communication can be achieved across a constructed network. Students will learn about various network architectures, topologies considered in the field, the principles of network communication and data transferring over a network, and the necessary protocols to provide understanding on how a network functions based on operations In addition, students will be learn about media access techniques, network mediums, cable assessment, and conduct mechanics toward Internet Protocol (IP) addressing. The course will help prepare students with theoretical information from texts, presentations, and test builders for the CompTIA Network+ certification examination.

PRG 101   **Programming for the Enterprise**   **3**

This introductory programming course is required for Computer Information Technology students. Topics include introductory programming concepts, procedures, functions, and object-oriented programming design with implementation. This course involves problem solving-skills to assess cases and projects. The course focuses on Python language, Visual Basic, and Hypertext Markup Language (HTML) in a lab environment.