INTERNET OF THINGS (IIOT)

IIOT 120, PROGRAMMING ESSENTIALS 5 (7)
This course covers fundamental programming concepts, base knowledge, and practice in five programming languages that are essential to the development of advanced Blockchain and IIoT applications. Those languages are: C, C++, Python, Javascript, Go, and Solidity. The course includes designing, coding, and debugging computer programs. the course provides students the prerequisite knowledge necessary to enroll in future course that cover applications such as Ethereum, Hyper Ledger and Internet of Things Applications (IOTA).
General Education: IN1, IN2
Typically Offered: Fall Semester

IIOT 130, IIOT SENSORS 4 (6)
The study of sensors, devices, equipment, and systems utilized as part of Industrial Internet of Things (IIot) infrastructures. Topics will include data acquisition, distribution, and security for industrial manufacturing environments. This course includes hands-on setup, configuration, and programming of industrial controls, sensors, and other devices for use in IIoT applications. Laboratory required and a special fee will be accessed.
General Education: IN1
Course Entry Requirement(s): Concurrent: AETC 121
Typically Offered: Spring Semester

IIOT 140, IIOT PRIVACY, SECURITY, AND CLOUD SERVICES 4 (6)
This course covers security of Internet of Things and Cyber-Physical Systems. Topics presented in the course will prepare students to secure IIOT devices and Cyber-Physical systems, implement cryptographic and encryption standards, perform security assessments, implement privacy standards in IIOT systems, develop a plan to monitor and ensure IIOT privacy, implement access control methods and policies from a systems perspective. Laboratory required. (A special fee will be assessed).
General Education: IN1, IN2
Typically Offered: Spring Semester

IIOT 220, PROGRAMMING EMBEDDED SYSTEMS 4 (6)
This course focuses on providing students with a practical understanding of embedded operating systems and the knowledge to successfully program embedded systems. It also provides students with the knowledge and skills to begin developing and implementing embedded applications. Topics include embedded programming, input and output devices, communications, and development tools. Laboratory required. (A special fee will be assessed.)
General Education: IN1
Course Entry Requirement(s): Prerequisite: IIOT 120
Typically Offered: Fall Semester

IIOT 247, CAPSTONE PROJECTS AND SPECIAL TOPICS 4 (6)
This capstone course provides students with an integrative experience of concepts and skills covered in their Associate of Applied Science program. The student will research, develop, implement, and present a comprehensive project. This course provides students an opportunity to assess their level of mastery of the stated outcomes in their degree program. Faculty will guide the students in the development of a professional portfolio, and curriculum vitae. Students will participate in a mock job interview that is conducted by a committee of faculty members. Feedback will be provided to enhance the student's job interviewing skills.
General Education: IN1, IN2
Course Entry Requirement(s): Prerequisite: IIOT 220
Typically Offered: Spring Semester