ELECT. & COMPUTER ENGRG (ECE)

ECE-100 Principles of Electrical and Computer Engineering 4 Credits
Prerequisites: None
This is an introductory course that presents the basic principles of electrical and computer engineering. The topics include: basic circuit theory, electrical/electronic components, basic circuit laws and circuit analysis techniques; digital logic concepts, microcomputers, programming, and interfacing to digital & analog sensors and actuators. The course has a significant practical component that gives students the opportunity to apply tools for circuit design and simulation, printed circuit board (PCB) layout, and PCB soldering/assembly. Students will also work on mobile robots by interfacing sensors and developing programs for intelligent control of robots. At the end of the term students are expected to complete a comprehensive final project and write a report to demonstrate innovative application of the course material.
Lecture: 2, Lab 2, Other 0

ECE-101 MATLAB and C Programming 4 Credits
Prerequisites: None
The fundamentals of the MATLAB and C programming languages are covered. Special emphasis will be placed on using the tools acquired in this class to solve problems faced by electrical and computer engineers.
Lecture: 4, Lab 0, Other 0

ECE-291 ECE Special Topics 4 Credits
Prerequisites: None
Lecture: 0, Lab 0, Other 0