Mechatronics Minor

(non-teaching)

The College of Engineering offers a non-teaching minor in Mechatronics. The field of Mechatronics combines the principles of mechanical engineering with the principles of electronic instrumentation and computerized control. Mechatronics exploits the synergy of mechanical and electrical engineering to design unique and innovative electromechanical products, machines, robots, tools, and manufacturing processes.

The minor requires a minimum of 29 credits in specified subject areas: computer science, engineering mechanics, mechanical engineering, and electrical and computer engineering (see tables below).

Core Subject Areas
Courses listed for each subject area must be completed to earn the Mechatronics Minor.

Mechatronics
EGEN 365 Introduction to Mechatronics 3

Logic Circuits
ELEL 261 Intro To Logic Circuits 4

Computer Programming
CSCI 127 Joy and Beauty of Data 3-4
or CSCI 112 Programming with C I

Controls
ELEL 321 Introduction To Feedback Controls 3
or EMEC 462 System Dynamics and Control
or ETME 462 Industrial Processing Automation and Controls

Electronics
ELEL 317 Electronics 4
or ELEL 250 Circuits, Devices and Motors

Mechanics
EGEN 201 Engineering Mechanics-Statics 3
or EGEN 203 Applied Mechanics
EGEN 202 Engineering Mechanics -- Dynamics 3-4
or ETME 340 Mechanisms
EGEN 205 Mechanics of Materials 3
or EGEN 208 Applied Strength of Materials

Microprocessors
ELEL 371 Microprocess HW and SW Systems 3-4
or CSCI 455 Embedded Systems: Robotics

Total credits for Mechatronics Minor 29 (minimum)

Students must receive a grade of "C-" or better in all required courses for the Mechatronics Minor.