

## **ECET 4530: Industrial Motor Control**

### **4 Credit Hours**

*Prerequisite: (ECET 2111 and ECET 3500) or ECET 3000*

This introductory design course is a study of manual and automatic, starters and controllers of ac and dc motors. The course will concentrate on three-phase induction motor starters and controllers with some study of dc motor starters and controllers. The induction motor coverage will include both full-voltage and reduced voltage techniques, with the emphasis on the reduced voltage methods. Line impedance, auto-transformer, wye-delta and part-winding starters will be included. The laboratory will consist of several projects in designing, testing and demonstrating various motor starters and controllers. The designs will require using Programmable Logic Controllers in the projects. The course will conclude with variable frequency drives.

## **ECET 4900: Senior Capstone Design Project**

### **4 Credit Hours**

*Prerequisite: Senior standing, Instructor approval, Department Chair approval*

This course provides comprehensive design experience for students working in small groups. The course is a culmination of the undergraduate Electrical and Computer Engineering Technology education. Topics covered include: design specifications, evaluation of design alternatives, technical reports and oral presentations. Also covered are topics such as intellectual property, industry standards and conventions, engineering economics, reliability, safety, engineering ethics and current topics in the field of electrical and computer engineering technology.