

ENGR 3902: Design Thinking for Engineers

3 Credit Hours

Prerequisite: ENTR 3001

This course is an entrepreneurial, hands-on, entrepreneurial, team-based, and project-centric class. Each team will solve a real-world problem using traditional engineering and the "Design Thinking" process. The final problem solution will be based on stakeholder interviews, business viability studies, and excellent engineering—thus a true value-added solution.

ENGR 4402: Engineering Ethics

1 Credit Hours

Prerequisite: Engineering Standing

This course looks at the practice of engineering in the context of ethics and ethical theory. Issues of safety, liability, professional responsibility, legal obligations are considered in the context of case studies. Particular emphasis is given to the application of the Professional Engineering Code of Ethics published by the National Society of Professional Engineers. Students will consider the resolution of ethical dilemmas through the development and evaluation of various courses of action related to specific case studies.

ENGR 4412: Air Conditioning

3 Credit Hours

Prerequisite: ME 3410 and ENGR 3343

The basic principles of residential and commercial air conditioning systems are introduced including the calculation of cooling and heating loads, and psychrometric processes. The student is exposed to relevant topics in heating, ventilating and air conditioning (HVAC) such as equipment selection, duct design, piping design, indoor air quality, energy code, HVAC systems, energy conservation options, automatic controls, and testing, adjusting and balancing (TAB) of air conditioning systems.

ENGR 4490: Special Topics in Engineering

2-4 Credit Hours

Prerequisite: Varies by topic

This course covers advanced topics of special interest to faculty and students that are not in the regular course offerings. Offered on a demand basis. This course may be taken more than once.