

# Engineering Courses

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## Courses

### **ENGR 1302. Engineering Design Experience.**

This course will present an engineering design process. How this is formalized through requirements, assessing need, synthesis, and analysis. This process with given examples in well known engineering cases, but also in how the engineering design approach may be used to construct solutions to many problems outside of engineering. This class will be taught with an emphasis on hands-on experiences and projects. Keywords: Design, Problem solving

**Department:** Engineering

**3 Credit Hours**

**3 Total Contact Hours**

0 Lab Hours

3 Lecture Hours

0 Other Hours

### **ENGR 1303. Applied Engineering Analysis.**

This course will present an algebraic formulation of natural laws that include energy conservation and entropy accumulation. Course assignments focus on the use of these laws to reason about societal problems such as energy use, clean water, global warming. The class will explore technological limitations and potential solution spaces. Keywords: Global Thinking, Problem Definition.

**Department:** Engineering

**3 Credit Hours**

**3 Total Contact Hours**

0 Lab Hours

3 Lecture Hours

0 Other Hours

### **ENGR 4000. Engineering Service Learning.**

This class gives students the ability to apply what they have learned in class to serve the community.

**Department:** Engineering

**0 Credit Hours**

**1 Total Contact Hour**

0 Lab Hours

0 Lecture Hours

1 Other Hour

### **ENGR 4001. Engr Stud Organization Leader.**

This course will allow students to practice leadership.

**Department:** Engineering

**0 Credit Hours**

**1 Total Contact Hour**

0 Lab Hours

0 Lecture Hours

1 Other Hour

### **ENGR 4330. Innovation Technology.**

**Department:** Engineering

**3 Credit Hours**

**3 Total Contact Hours**

0 Lab Hours

3 Lecture Hours

0 Other Hours

**ENGR 4331. Intellectual Property Law.**

Intellectual Property Law This course introduces students to intellectual property law , with particular attention to topics of interest for the fields of engineering and computing. The course focuses on the constitutional provisions, laws and court decisions that create and define rights in intellectual property, with primary attention to patents and copyrights, and with secondary attention to trade secrets. Students will gain basic skills in critical thinking, reading, understanding and explaining statutes and cases relating to intellectual property.

**Department:** Engineering

**3 Credit Hours**

**3 Total Contact Hours**

0 Lab Hours

3 Lecture Hours

0 Other Hours

**Prerequisite(s):** (EL 4331 w/C or better ) AND (POLS 4325 w/C or better)

**ENGR 4332. Law and Commercialization.**

Law and Commercialization This course introduces students to the technology commercialization process, with particular attention to topics of interest for the fields of engineering, science, and business. The course focuses on the practical aspects of invention disclosure, patent protection, marketing, and licensing, and technology start-up formation and fundraising . Students will gain skills in invention triaging, patent claim amendments, drafting patent marketing materials, and negotiating commercialization-related contracts.

**Department:** Engineering

**3 Credit Hours**

**3 Total Contact Hours**

0 Lab Hours

3 Lecture Hours

0 Other Hours