GENERAL ENGINEERING (ENGR)

ENGR 595
Product Development for Entrepreneurs
Elements of product development (mechanical and electrical), manufacturing and production planning, supply chain, marketing, product research, and entrepreneurship concepts are taught in this class. In this course, student teams will be required to create a compelling product that has potential to be sold in today's marketplace. They will be required to create functional prototypes of their product for people to use and critique. If successful, students will be allowed to put their product on Kickstarter.com and take orders for delivery after the class is complete while potentially fostering their own business as a result of this course.

Lecture: 3 Lab: 0 Credits: 3

ENGR 596
Practical Engineering Training
This course is a mentored, immersive practical engineering training. Students learn under the direction of professional engineers and practicing engineers by working on real engineering projects. The student will perform hands-on engineering, including learning and developing/applying engineering principles and concepts to complete the project assigned to the student. The student will apply engineering ethics and safety during their practical engineering training. Students will communicate the results of their work in written and oral communications. Students will receive assignments of varying complexity consistent with their graduate standing.

Lecture: 0 Lab: 9 Credits: 3

ENGR 598
Technological Entrepreneurship in Drug Development: Pharmaceutical Entrepreneurship
This course will give students an understanding of what is involved in technology commercialization, development of a business plan, and understand/experience what it is like working for a startup company by working on a real life project. Students from various educational fields (engineering, business, biology, chemistry, industrial technology/management) are welcome to be a part of a cross functional team that will participate in the National Institute of Health (NIH) Startup Challenge Business Plan Competition. Students will understand how to translate an idea to a business and also experience what it is like to work in a startup company in the field of engineering, science, and technology. Students will also gain an understanding of what it takes to bring a drug to the market. Furthermore, students will get the opportunity to obtain guidance on the business from expert advisors from the pharmaceutical industry, entrepreneurs, and venture capitalists. Permission of the instructor is required.

Lecture: 3 Lab: 0 Credits: 3

ENGR 599
Graduate Research Immersion: Individual
This course provides a faculty-mentored immersive research experience. Research topics are determined by the faculty mentor's area of research. In addition to the mentored research, students participate in seminars, prepare a written report of their research findings, and present their research findings at a poster expo.

Lecture: 3 Lab: 0 Credits: 3