ENGR 3407: Lean Six Sigma

3 Credit Hours

Prerequisite: Engineering Standing or IET 2227 or ENGT 2000

An introduction to the application of the Six Sigma methodology in the area of process improvement and an introduction to Lean manufacturing concepts. This course includes a Term Project where the student will use the concepts presented in this course to create a quality control plan or a Lean production plan for an organization that includes an acceptance sampling plan, a control chart, or Lean applications, and recommendations for optimizing the overall efficiency of the organization.

Notes: Students cannot receive credit for both ENGR 3407 and IET 3407 or cannot receive credit for both ENGR 3407 and ISYE 3407.

ISYE 1000: Introduction to Industrial & Systems Engineering

3 Credit Hours

This course is an introduction to the industrial and systems engineering profession and discipline through exposure to problems, principles, and practice. Integrated systems approach to problem solving. Foundation of data manipulation and preparation for problem analysis. Development of communication skills, career opportunities, importance of professionalism, ethics, contemporary challenges, lifelong learning, and introduction to the department. How to plan for graduation and other useful items are also included.

ISYE 1001L: Introduction to Industrial and Systems Engineering Lab

1 Credit Hours

Prerequisite: ENGR 1000

Introduction to the industrial and systems engineering degree and profession through exposure to real-world scenarios, hands-on activities, and a semester-long project. Students will be exposed to common tools and methods of industrial and systems engineering and how those tools are utilized to improve processes and organizations.

Notes: This is the preferred lab in the 2-course orientation sequence for Industrial and Systems Engineering majors, along with the required lecture ENGR 1000. However, it is open to all students, and it is an allowable lab for all engineering majors' orientation lab requirement.