

### **ISYE 4425: Facilities Planning & Material Handling**

#### **3 Credit Hours**

*Prerequisite: EDG 1210 and Engineering Standing*

This course explores fundamental concepts, theory, and procedures for the study of facilities design and location; physical layout; material flow principles; and material handling. Product design, process planning, and schedule design are integrated through the development of analytical procedures and use of Computer Aided Design (CAD) layout planning software to enhance the decision-making process in the design, rationalization and improvement of factory and office layouts. The knowledge learned in this course is integrated with knowledge from selected related courses to develop a laboratory design project by students working in teams.

### **ISYE 4490: Special Topics**

#### **1-4 Variable Credit Hours**

*Prerequisite: Approval of instructor and department chair and Engineering Standing*

Selected special topics of interest to faculty and students. This course may be taken more than once.

### **ISYE 4500: System Modeling & Simulation**

#### **3 Credit Hours**

*Prerequisite: (ISYE 2600 or STAT 2332) and Engineering Standing*

This course covers modeling and simulation of systems. Topics include basic simulation and system modeling techniques, random sampling procedures, input analysis, output analysis and system evaluation. Practical implementations using common modeling languages and simulation software are emphasized.

### **ISYE 4800: Industrial and Systems Engineering Book Study**

#### **1 Credit Hours**

*Prerequisite: Engineering Standing*

The student will obtain and read a book chosen by the instructor that covers a topic from industrial and systems engineering. The student will reflect on the topics within the book throughout the semester and complete assigned assessments.