

IET 4422: Facilities Design, Plant Layout, and Materials Handling

4 Credit Hours

Prerequisite: IET 2000 and IET 3322

Concurrent: IET 3433

This course introduces the students to fundamental concepts, theories, and procedures for studying facilities design, physical layout, material flow, and material handling systems. The lab portion of the course teaches students to design facility and parking lot layouts using CAD software. Students are involved in a group project to design a manufacturing or service facility.

IET 4451: Systems Simulation

3 Credit Hours

Prerequisite: (IET 2227 or STAT 1401) and IET 2000 and MATH 1113

This is an in-depth study of simulation as applied to manufacturing, inventory and distribution systems. Topics will include basic simulation and system modeling techniques, random sampling procedures, production modeling, inventory modeling and system evaluation. Emphasis will be upon hands-on simulation of various operations using ARENA, a PC-based graphical simulation program.

IET 4475: Senior Project

3 Credit Hours

Prerequisite: IET 2000 and IET 2449 and IET 3356 and IET 4422

Concurrent: IET 4135

This course focuses on the student completing a project that is a comprehensive application of the subject matter in the IET curriculum. A large-scale feasibility study is to be performed to emphasize the interrelated topics of logistical and production processes for a fictitious company. The course requires a formal written report and a defended oral presentation before industrial and academic experts.

IET 4490: Special Topics in IET

1-4 Credit Hours

Prerequisite: Department Chair Approval

This course covers special topics related to Industrial Engineering Technology such as process improvement, quality assurance, industrial systems and logistics. Students may take this course more than once for credit with approval of the department chair.