

Bachelor of Science Industrial Engineering

ELECTIVES

Standard Industrial Engineering Option:

Students must complete two IE Electives, one Technical Elective, and one Math Elective.

- **IE Electives:** 4000 level IE courses not required in the curriculum and any course beginning with IE and numbered 5000 level and above. This includes the following:

4113	Decision Support Systems for Industrial Engineers	5643	Engineering Optimization
4990	Special Studies	5653	Engineering Network Flow Analysis
5263	Introduction to Expert Systems	5663	Simulation I
5303	Computer-Aided Manufacturing	5673	Simulation II
5313	Advanced Metal Cutting	5683	Applied Operations Research
5323	Advanced Production Systems and Operations	5713	Engineering Project Management
5343	Reliability in Engineering Design	5743	Management of the Engineering Function
5353	Design of Quality Assurance Systems	5753	Organization Systems
5423	Advanced Engineering Economics	5813	Information Ergonomics
5513	Engineering Decision Analysis	5823	Exercise Physiology
5523	Applied Probabilistic Models in Industrial Engineering	5833	Ergonomics in Safety Research and Practice
5573	Statistical Analysis of Simulation Models	5843	Biomechanics
5613	Multicriteria Optimization	5970	Seminar in Industrial Engineering
5623	Linear Programming	5990	Special Studies

- **Technical Electives:** Any course in the College of Engineering that is numbered 3000 or above may be used as a Technical Elective.

Additional courses that may be used as a Technical elective are:

ACCT 3313	Cost Accounting	MKT 4223	Logistics Management
FIN 4303	Advanced Business Finance	CS 2413	Data Structures
MGT 4363	Organizational Behavior	ENGL 153	Technical Writing
MGT 4513	Problems in Administration		

Note: For the College of Business courses the student should be informed that non-business majors cannot enroll in business courses until one week before class starts.

- **Math Electives:**

MATH 3113	Introduction to Ordinary Differential Equations	MATH 3613	Modern Geometry
MATH 3333	Linear Algebra I	MATH 4433	Introduction to Analysis I
MATH 3413	Physical Mathematics I	CS 1813	Discrete Mathematics
MATH 3513	Foundations of Analysis		

- Other courses can be considered for elective credit by obtaining permission from the School of Industrial Engineering's Undergraduate Committee.

Industrial Engineering Information Technology Option:

- Students do not take IE Electives, Technical Electives, or Math Electives. Instead, they select three (3) CS Electives (courses beginning with CS and numbered 3000 or above).
- All students must complete an application to take CS upper division Electives. The list of CS electives is limited due to the CS course prerequisites.
- Students are encouraged to take CS 3053 (Graphical User Interfaces) as an elective since the course helps bridge the gap between IE and CS.