Fall 2010- Spring 2012 IE Degree Plan Advising Flowchart

**Lower Division**

- MATH 1411 + Calculus I (MATH 1508 +)
- MATH 1312 + Calculus II (MATH 1411 +)
- MATH 2313 + Calculus III (MATH 1312 +)
- MATH 2326 + Differential Equations (MATH 1312 +)
- IE 2315 + Statics (MATH 1411+)
- IE 2326 + Engineering Economy (MATH 1411+)
- IE 2126 + Manufacturing Engineering Lab
- IE 2377+ Electro-Mech Systems (PHYS 2421 +)
- CHEM 1305 +& CHEM 1105 + General Chemistry (MATH 1508 +)
- ENGL 1311 + English Composition
- ENGL 1312 + Research and Critical Writing (ENGL 1311 +)
- IE 1205 + Graphics Fundamentals
- PHYS 2421 + Fields and Waves (MATH 1312 +, or concurrent with MATH 1312)
- UNIV 1301 + History of U. S. to 1865
- HIST 1302 + History of the U. S. since 1865
- Social or Behavioral Science (#) +
- COMM 1302 + Business and Professional C.

**Upper Division**

- IE 3331 Systems Engineering (IE 3373 +)
- IE 3373 + Engineering Probability (MATH 2313 +)
- MATH 3323 + Matrix Algebra (MATH 1312)
- Technical Elective* Sp & Fa
- IE 3332 Safety Engineering (IE 3373 +)
- IE 3352 Design of Experiments (IE 3373 +)
- IE 3477 Methods and Ind. Ergonomics (IE 3373 +)
- Technical Elective* Sp & Fa
- IE 4353 Industrial Syst. Simulation (IE 3373 +)
- IE 4391 Production and Inv. Control (IE 3373 +)
- IE 4384 Industrial Layout (IE 3373 +)
- IE 3390 Operations Research I (MATH 3323 +)
- Math 4329 Numerical Analysis (MATH 3323 +)
- Technical Elective* Sp & Fa
- IE 4385 Stat. Quality Control and Reliability (IE 3373 +)
- IE 4466 Senior Design (Final semester, 2.0 GPA overall and in major - IE)
- IE 4390 Operations Research II (IE 3373 +)
- IE 4490 Operations Research II (IE 3373 +)
- IE 4352 Operations Research I (MATH 3323 +)
- IE 4466 Senior Design (Final semester, 2.0 GPA overall and in major - IE)
- IE 4390 Operations Research II (IE 3373 +)
- IE 4490 Operations Research II (IE 3373 +)
- Math 4329 Numerical Analysis (MATH 3323 +)
- Technical Elective* Sp & Fa

**University Core**

- UNIV 1301 + or 2350 +
- HIST 1301 + History of U. S. to 1865
- HIST 1302 + History of the U. S. since 1865
- Social or Behavioral Science (#) +
- COMM 1302 + Business and Professional C.

**Total Semester Credit Hours 120**

**Notes:**
Prerequisites listed in parentheses
Fa: Course offered only on Fall term; Sp: Course offered only on Spring term; Sp & Fa: Course offered only on Spring & Fall terms.
All the other courses are offered Fall, Spring and Summer terms
+ : Grade of "C" or better required.
# : Selected from the list of University Core Approved Classes
* : Selected from the following list of approved Technical Electives: IE 4312, IE 4333, IE 4371, IE 4395, IE 4396, IE 4397, ENGL 3359, OSCM 3333, OSCM 4375, OSCM 3337, OSCM 3331, any upper course from the College of Engineering and any upper division course from the College of Science.