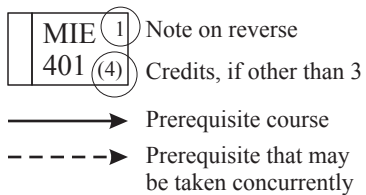
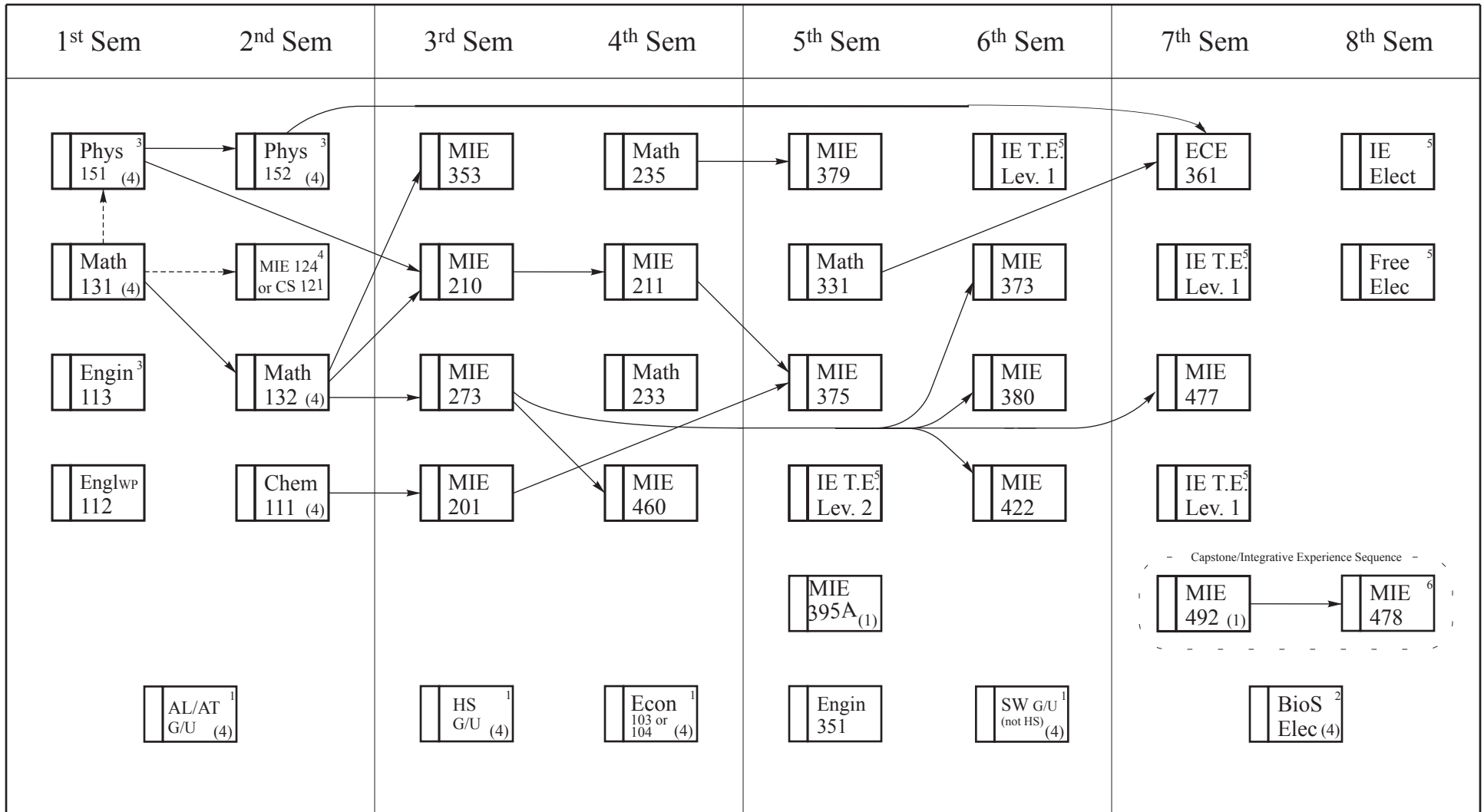


Mechanical and Industrial Engineering Department

INDUSTRIAL ENGINEERING CURRICULUM



Scheduling Note: Courses offered vary from year to year and from semester to semester. The sequence of courses shown is only a sample. Students will plan their individual programs after consulting the University Registration Materials and the MIE Department Registration Notes.

Graduation Clearance: Both University and Department Cumulative GPAs of 2.0 are required for graduation.

Prerequisites: Not all prerequisites are shown. Consult SPIRE Course Descriptions for complete listings. Students must satisfy prerequisites or obtain instructor permission, irrespective of SPIRE enrollment.

Total Credits: 123
Revised 8/15/2017

IE Degree Program, Flowchart Notes

NOTE: The flowchart is not the official student record. It should be used in conjunction with your university transcript and your academic requirements report.

Notes: 1. **Social World Requirement:** 4 COURSES, each 4 credits (one from each group)

- 1) AL or AT 3) HS
- 2) SB 4) AL, AT, SB, SI or I

Social World Diversity Requirement

One course with a United States diversity designation (U) and one with a global diversity designation (G) are required. These need not and are typically not separate from courses used to satisfy the Social World Requirement.

- 2. **Biological Science Requirement:** Any 4 cr course having the Biological Science (BS) designation.
- 3. **Alternative Courses:** An approved alternative exists to the "standard" course shown.
- 4. **MIE 124/CS 121:** Both MIE 124 and CS 121 introduce students to computer programming. MIE 124 is oriented more toward engineering problems. CS 121 is taught with Java and is a prerequisite for most computer science courses. As such, students who plan to take an upper level CS course, perhaps as an engineering elective, or plan to minor in CS or math should consider taking CS 121.
- 5. **IE Program Electives:** The IE curriculum includes 3 Level 1 IE Tech Electives, 1 Level 2 IE Tech Elective, an IE Elective and a Free Elective. Students are encouraged to use elective courses to delve deeper into one of the application areas or disciplines related to the core IE curriculum. Advisors can help students in selecting appropriate groups of courses or "tracks." Generally, electives are offered in only one semester and some are not offered every year. Scheduling of and enrollment in courses outside of the MIE Department is at the discretion of the outside department.

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- 80 **Capstone Prerequisites:** Cm"tgswktgf"KG"eqwtugu"ctg"eq/tgswkukvgu"hqt"OKG"69:."k0g0."cm"tgswktgf"KG"eqwtugu"o"wu"dg"vcmgp"rtkqt"vq"qt"eqpewttgpm{"ykvj"OKG"69:0""Rgt"okuukqp"qh"vjg"kpvtwevqt"ku"tgswktgf"kp"cp{"ecug"kp"y"jke"j"cm"rtgtgswkukvgu"ctg"pq"ogv0""

IE COURSE TITLES AND NUMBERS

- ENGIN 113 Introduction to Mechanical & Industrial Engineering
- MIE 124 Computational Approaches to Engineering Problems (using MATLAB)
- MIE 201 Introduction to Materials Science
- MIE 210 Statics
- MIE 211 Strength of Materials
- MIE 230 Thermodynamics
- MIE 273 Probability and Statistics for Engineers
- MIE 353 Engineering Economic Decision Making
- MIE 373 Introduction to Simulation Methods
- MIE 375 Manufacturing Processes
- MIE 379 Deterministic Operations Research
- MIE 380 Stochastic Operations Research
- MIE 395A Seminar, Engineering Professionalism
- MIE 422 Statistical Quality Control
- MIE 460 Human Factors Engineering
- MIE 477 Production Planning & Control
- MIE 478 Capstone Design (IE)
- MIE 492 Seminar