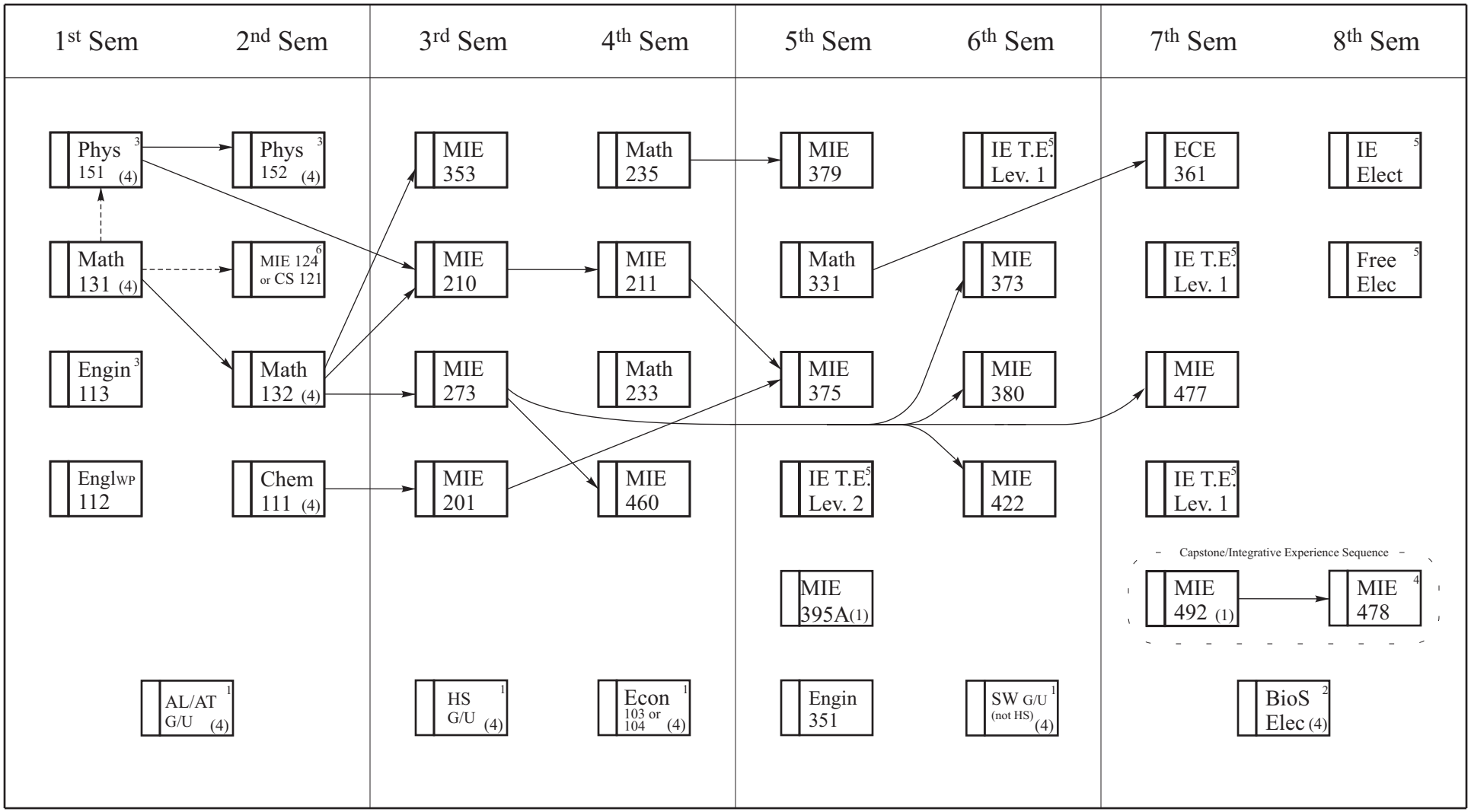
Mechanical and Industrial Engineering Department
INDUSTRIAL ENGINEERING CURRICULUM
Curriculum for students entering the University after 6/2010



MIE 401 (4) — (1) Note on reverse; (4) Credits, if other than 3

→ Prerequisite course

- - - → Prerequisite that may be taken concurrently

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 prerequistes are shown. Consult SPIRE Course Descriptions for complete listings. Students must satisfy prerequisites or obtain instructor permission, irrespective of SPIRE enrollment.

Total Credits: 123 min.

Revised 3/15/2017

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. Consult the Guide to Undergraduate Programs for more detailed explanations of department, college, and university graduation requirements.

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

1) AL or AT
2) SB
3) HS
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 in the flow chart.

4. **Capstone Prerequisites:** All required IE courses are corequisites for MIE 478, i.e. all required IE courses must be taken prior to or concurrently with MIE 478. Permission of the instructor is required in any case in which all prerequisites are not met.

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.

   A Level 1 IE Tech Elective can be any MIE course at or above the 200 level except MIE 398T or 520. One Independent study, e.g.MIE 496, or one semester of MIE 496S can be used if neither MIE 499Y or 499T are used. Other acceptable courses are: CEE 310, 370, 410, 411,418, 450, 470; ECE 242, 597C, 597D, 597SE; CS 187, 250, 311; Math 441, 455, 551, 552; Stats 525, 526; OIM 412, 413.

   Acceptable Level 2 IE Tech Elective include any Level 1 Tech Elective course; Math 300, 456; Econ 309; ResEcon 462, 471, 472; Psych 391DM, Kin 460, 560; OIM 460; EMM Capstone Courses.

   Acceptable IE Elective courses include any Level 1 or Level 2 IE Tech Elective courses; MIE 398T; ChE 290A; Chem 112; ResEcon 202, 312, 313; Psych 304, 307, 330; Kin 270, 272; OIM 322,451,452,453; Mgmt 301, Acctg 221; Fin 301; Mktg 301.

   The free elective can be any course at the university except one that is a prerequisite for a required course, e.g. Math 104, or which overlaps significantly with a required course, e.g. Math 127.

   Other courses may be acceptable. See Dr. Schliemann for approval of courses not listed above.

6. **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 should consider taking CS 121. Students interested in a math minor should consult the math department.

MIE COURSE TITLES AND NUMBERS

MIE 201	Intro Materials Science
MIE 210	Statics
MIE 211	Strength of Materials
MIE 230	Thermodynamics
MIE 273	Probability and Statistics for Engineers
MIE 353	Engr Economic Decision Making
MIE 373	Intro Simulation Methods
MIE 375	Manufacturing Processes
MIE 379	Deterministic Operations Research
MIE 380	Stochastic Operations Research
MIE 395	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

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