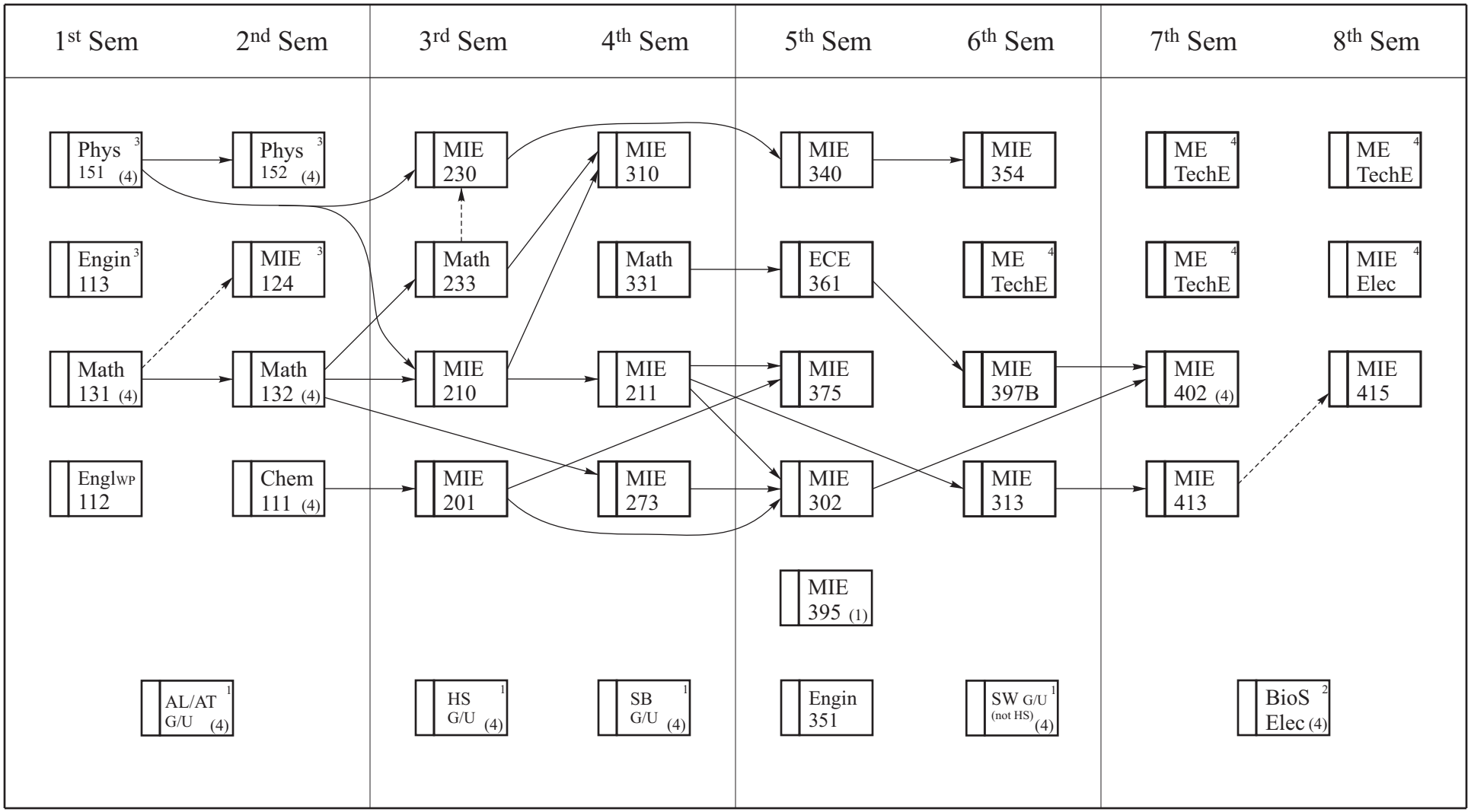
Mechanical and Industrial Engineering Department
MECHANICAL ENGINEERING CURRICULUM
Curriculum for students entering the University after 6/2010



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.

Scheduling Option: Students who do not enroll in MIE 302 in their 5th semester may choose to take MIE 313 instead and may take MIE 413 and MIE 415 in their 6th and 7th semesters, respectively.

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

Revised 5/25/2013

ME 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 of the four Social World courses must have a global diversity designation (G) and one must have a United States diversity designation (U)

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. **Mechanical Engineering Program Electives:** Students must take 4 ME Tech Elective courses and one MIE Elective course. Approved ME Tech Elective courses are listed below. Other upper level engineering courses, including courses in other engineering and related disciplines, may be acceptable as ME Tech Elective courses. See Professor Rinderle for approval.

   All MIE courses at or above the 300 level, including ME Tech Electives, are acceptable as the MIE Elective. Chem 112 and Math 235 also satisfy the MIE Elective requirement. Courses related to ME but taught in other Engineering or Science Departments, Math, or ISOM may be acceptable. Typically, electives are offered in only one semester and many are not offered every year. Check *Spire* to see which courses are offered this semester. See Professor Rinderle for approval.

ME TECHNICAL ELECTIVE Courses

MIE 373	Intro Simulation Methods
MIE 379	Deterministic Operations Research
MIE 418	Design of Mechanisms
MIE 422	Statistical Quality Control
MIE 440	Aerospace Fluid Mechanics
MIE 444	ME Automatic Controls
MIE 460	Human Factors Enginering
MIE 477	Production Planning & Control
MIE 496	Indep. Study (Approval Reqd, 3 cr only)
MIE 497E	Thermo-fluid Design
MIE 497S	Super Mileage Vehicle (3 cr only)
MIE 499Y	Honors Research
MIE 499T	Honors Thesis
MIE 551	Thermal Environment Engineering
MIE 570	Solar & Dir. Energy Conver.
MIE 573	Engin. Windpower Systems
MIE 597B	Mechanical Behavior Of Polymers
MIE 597I	Injection Molding
MIE 597G	Mechatronics
MIE 601†	Thermodynamics
MIE 605†	Finite Element Analysis
MIE 607†	Advanced Fluid Mechanics
MIE 608†	Physical Metallurgy
MIE 609†	Mech Properties of Materials
MIE 643†	Mechatronic Systems Design
MIE 644†	Applied Data Analysis
MIE 680†	Advanced Metal Forming Processing

† 600 Level requires instructor approval

MIE COURSE TITLES AND NUMBERS

MIE 201	Intro Materials Science
MIE 210	Statics
MIE 211	Strength of Materials
MIE 213	Intro Mech and Indus Engr Design
MIE 230	Thermodynamics
MIE 273	Probability and Statistics for Engineers
MIE 302	ME Lab I
MIE 310	Dynamics
MIE 313	Design of Mechanical Components
MIE 340	Fluid Mechanics I
MIE 353	Engr Economic Decision Making
MIE 354	Heat Transfer
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 397B	System Dynamics
MIE 413	Design of Mechanical Assemblies
MIE 402	ME Lab II
MIE 415	Design of Mechanical Systems
MIE 418	Design of Mechanisms
MIE 422	Statistical Quality Control
MIE 444	ME Automatic Controls
MIE 460	Human Factors Enginering
MIE 477	Production Planning & Control
MIE 478	Capstone Design (IE)
MIE 492	Seminar
MIE 497A	Design Against Failure
MIE 497E	Thermo-fluid Design

Revised 5/25/2013