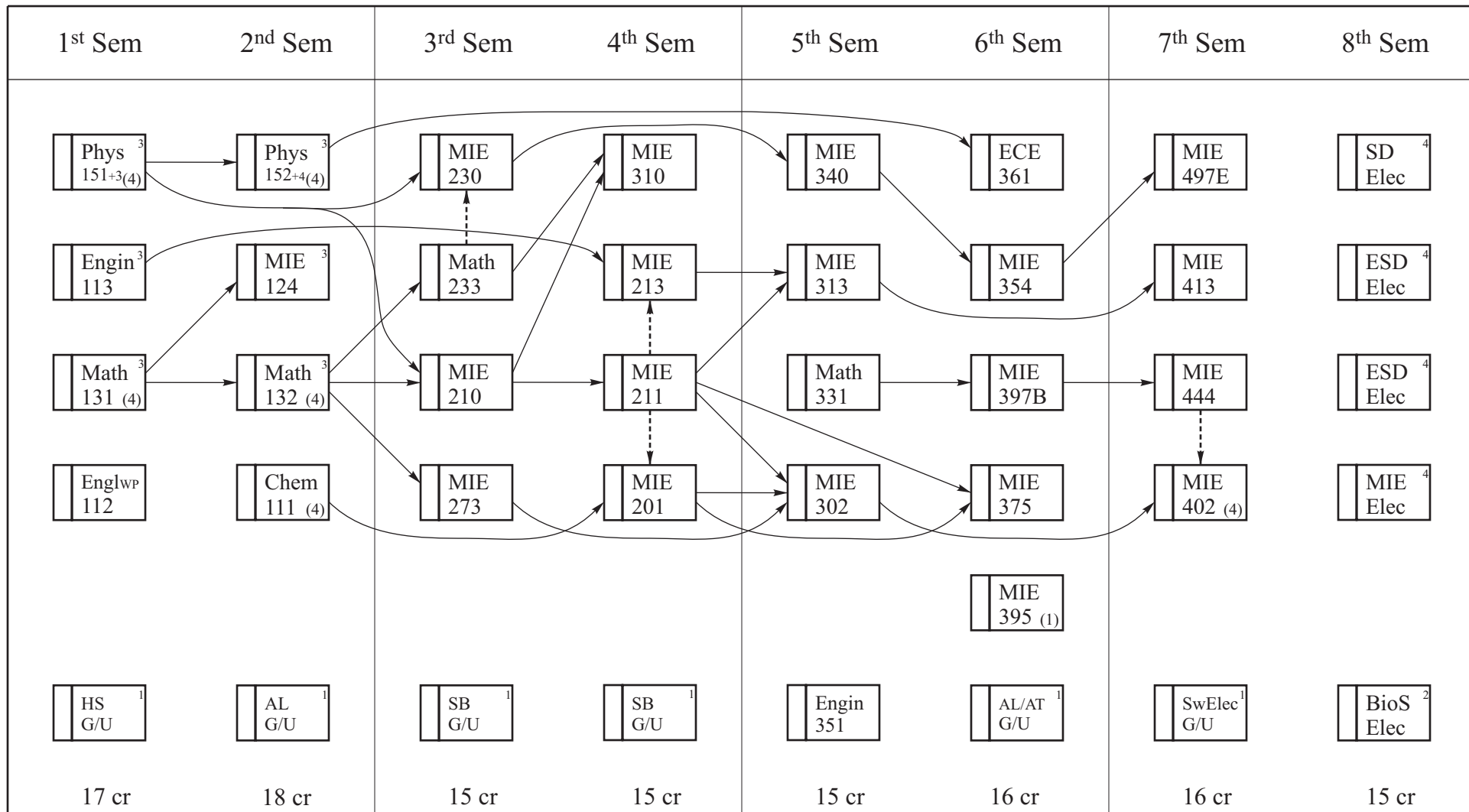


Mechanical and Industrial Engineering Department
MECHANICAL ENGINEERING CURRICULUM (ME 2003 - 2011)
 Curriculum for the Classes of 2003 - 2011, entering the ME Major after 1/2001



MIE (1)
401 (4)

 Note on reverse 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 Pre-Registration Materials and the MIE Department Pre-Registration Notes.

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

Total Credits: 127
 Revised 4/13/2007
 Catalog 2001-02
 to 2007-08

ME Degree Program, Flowchart Notes

NOTE: The flowchart is not the official student record. It should be used in conjunction with your university transcript. Consult the Guide to Undergraduate Programs for more detailed explanations of department, college, and university graduation requirements.

Notes: 1. **Social World Requirement:** 6 COURSES (one from each group)

- 1) AL 4) HS or AL or AT or SB or I or SI
- 2) SB 5) AL or AT or I
- 3) HS 6) SB or I

Social World Diversity Requirement

For students who entered the University prior to Fall 2002, two of the six Social World courses must have a Diversity designation (D, G or U)

For students who entered the University during or after Fall 2002, one of the six Social World courses must have global diversity designation (G) and one must have a United States diversity designation (U)

- 2. **Biological Science Requirement:** Any course having the Biological Science (BS) designation.
- 3. **Alternative Courses:** An approved alternative exists to the “standard” course shown in the flow chart, e.g. Math 135 can be taken in place of Math 131. Please refer to the *Guide to Undergraduate Programs*.
- 4. **Mechanical Engineering Program Electives:** Students must take 1 SD course, 2 ESD courses and 1 MIE Elective course. Approved ESD courses are listed below. Other upper level engineering courses, including courses in other engineering and related disciplines, may be acceptable as ESD courses. See Professor Rinderle for approval. All MIE courses at or above the 300 level, including SD and ESD courses, are acceptable as the MIE Elective. Typically technical electives are offered in only one semester and many are not offered every year. Check *Spire* to see which courses are offered this semester. If you are interested in using an alternative course as a technical elective, see Professor Rinderle.

SENIOR DESIGN ELECTIVES (SD Courses)

- MIE 415 Design Of Mechanical Systems
- MIE 497A Design Against Failure

ENGINEERING SCIENCE AND DESIGN ELECTIVES (ESD Courses)

- | | |
|--|--|
| MIE 373 Intro Simulation Methods | MIE 597B Mechanical Behavior Of Polymers |
| MIE 379 Deterministic Operations Research | MIE 597I Injection Molding |
| MIE 418 Design of Mechanisms | MIE 601 [†] Thermodynamics |
| MIE 422 Statistical Quality Control | MIE 605 [†] Finite Element Analysis |
| MIE 440 Aerospace Fluid Mechanics | MIE 607 [†] Advanced Fluid Mechanics |
| MIE 460 Human Factors Engineering | MIE 608 [†] Physical Metallurgy |
| MIE 477 Production Planning & Control | MIE 609 [†] Mech Properties of Materials |
| MIE 485 Vibrations | MIE 643 [†] Mechatronic Systems Design |
| MIE 548 FEA – Introduction | MIE 644 [†] Applied Data Analysis |
| MIE 570 Solar & Dir. Energy Conver. | MIE 680 [†] Advanced Metal Forming Processing |
| MIE 573 Engin. Windpower Systems | † 600 Level requires instructor approval |
| MIE 581 Machining & Machine Tools | |

MIE COURSE TITLES AND NUMBERS

- | | |
|---|---|
| MIE 201 Intro Materials Science | MIE 380 Stochastic Operations Research |
| MIE 210 Statics | MIE 395 Seminar, Engineering Professionalism |
| MIE 211 Strength of Materials | MIE 397B System Dynamics |
| MIE 213 Intro Mech and Indus Engr Design | MIE 413 Design of Mechanical Assemblies |
| MIE 230 Thermodynamics | MIE 402 ME Lab II |
| MIE 273 Probability and Statistics for Engineers | MIE 415 Design of Mechanical Systems |
| MIE 302 ME Lab I | MIE 418 Design of Mechanisms |
| MIE 310 Dynamics | MIE 422 Statistical Quality Control |
| MIE 313 Design of Mechanical Components | MIE 444 ME Automatic Controls |
| MIE 340 Fluid Mechanics I | MIE 460 Human Factors Engineering |
| MIE 353 Engr Economic Decision Making | MIE 477 Production Planning & Control |
| MIE 354 Heat Transfer | MIE 478 Capstone Design (IE) |
| MIE 373 Intro Simulation Methods | MIE 492 Seminar |
| MIE 375 Manufacturing Processes | MIE 497A Design Against Failure |
| MIE 379 Deterministic Operations Research | MIE 497E Thermo-fluid Design |