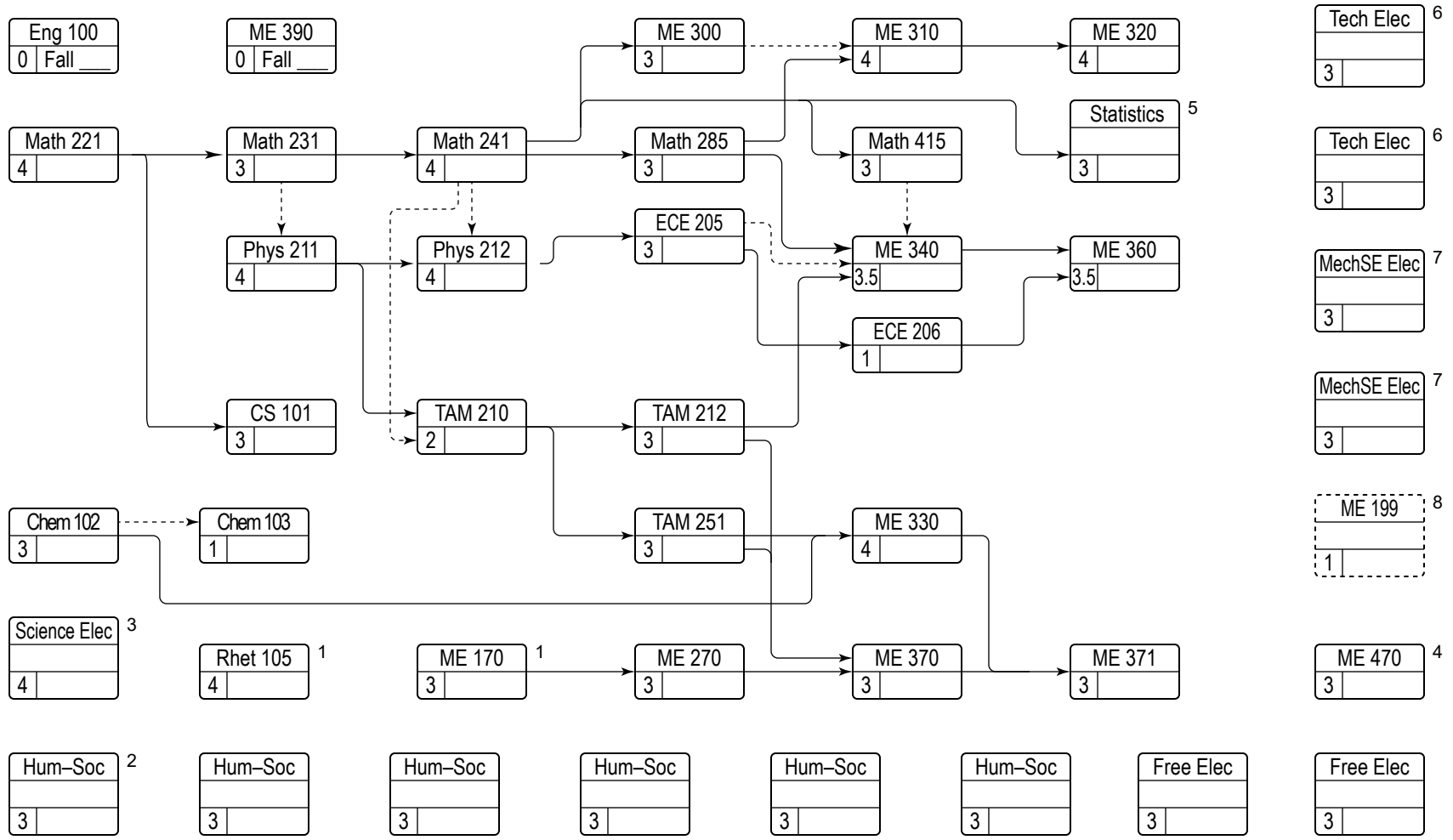


—→ Prerequisite

- - - - -→ Corequisite

# Mechanical Engineering Flowsheet



Western course     Non-Western course

Name \_\_\_\_\_ UIN \_\_\_\_\_

<sup>1</sup>Rhet 105 is taken the first or second semester of the first year, according to student's UIN. ME 170 is taken the other semester.

<sup>2</sup>A total of 6 courses in humanities and the arts and in social and behavioral sciences is required. Of these, at least 1 must be a Western cultures course and at least 1 a non-Western. See College of Engineering and University web sites for lists. Among the social-sciences courses, ECON 102 or 103 is required for Mechanical Engineering majors. At least 2 of the humanities courses and at least 2 of the social-sciences courses (including Econ 102 or 103) must be taken for grades.

<sup>3</sup>Choose from Chem 104/105, MCB 150, or Phys 213/214. If MCB 150 is taken, then MCB 151 is also recommended. Phys 213 and 214 have Phys 211 and 212, respectively, as prerequisites, in addition to Math 241. CHEM 104 has CHEM 102 as prerequisite.

<sup>4</sup>ME 470 requires credit or concurrent registration in all ME courses that are required by *number* (e.g. ME 360, ME 371). *Concurrent* registration is limited to 2 courses. ME 470 is taken in the fall by students with even UIN's and in spring by students with odd UIN's.

<sup>5</sup>Choose from IE 300 or Stat 400/Math 463.

<sup>6</sup>Technical electives are generally 400-level courses in engineering, physics, chemistry, and mathematics. Some restrictions apply to special-topics and individual-study courses. See complete list on departmental web site.

<sup>7</sup>MechSE electives are ME and TAM courses on the technical-electives list.

<sup>8</sup>[Optional] Three hours of technical elective credit can be obtained if ME 199 DES or SAE (1 hr) is taken for three consecutive semesters starting no later than the first semester of the sophomore year. A final report must be submitted to the Undergraduate Programs office at completion.

## CURRICULUM IN MECHANICAL ENGINEERING

The curriculum requires 128 hours for graduation.

Course Rubric	Course Name	Credit	TGPA <sup>9</sup>	2.25 GPA <sup>10</sup>
<b>Orientation and Professional Development</b>				
ENG 100	Engineering Orientation	0	<input type="checkbox"/>	<input type="checkbox"/>
ME 390	Seminar	0	<input type="checkbox"/>	<input type="checkbox"/>
<b>Foundational Mathematics and Science</b>				
CHEM 102	General Chemistry I	3	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CHEM 103	General Chemistry Lab I	1	<input type="checkbox"/>	<input checked="" type="checkbox"/>
MATH 221	Calculus I	4	<input type="checkbox"/>	<input checked="" type="checkbox"/>
MATH 231	Calculus II	3	<input type="checkbox"/>	<input checked="" type="checkbox"/>
MATH 241	Calculus III	4	<input type="checkbox"/>	<input checked="" type="checkbox"/>
MATH 285	Intro Differential Equations	3	<input type="checkbox"/>	<input checked="" type="checkbox"/>
MATH 415	Applied Linear Algebra	3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PHYS 211	University Physics: Mechanics	4	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PHYS 212	University Physics: Elec & Mag	4	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Mechanical Engineering Technical Core</b>				
CS 101	Intro Computing: Engrg & Sci	3	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ECE 205	Elec & Electronic Circuits	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ECE 206	Elec & Electronic Circuits Lab	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TAM 210	Introduction to Statics	2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TAM 212	Introductory Dynamics	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TAM 251	Introductory Solid Mechanics	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ME 170	Computer-Aided Design	3	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ME 270	Design for Manufacturability	3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ME 300	Thermodynamics	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ME 310	Fundamentals of Fluid Dynamics	4	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ME 320	Heat Transfer	4	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ME 330	Engineering Materials	4	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ME 340	Dynamics of Mechanical Systems	3.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ME 360	Signal Processing	3.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ME 370	Mechanical Design I	3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ME 371	Mechanical Design II	3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ME 470	Senior Design Project	3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Electives and composition</b>				
RHET 105 <sup>1</sup>	Principles of Composition	4	<input type="checkbox"/>	<input type="checkbox"/>
Statistics Elective <sup>5</sup>	IE 300, STAT 400 / MATH 463	3	<input type="checkbox"/>	<input type="checkbox"/>
Science Elective <sup>3</sup>	CHEM 104/105, PHYS 213/214, MCB 150	4	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Technical electives <sup>6</sup>	Chosen from departmentally approved list	6	<input checked="" type="checkbox"/>	<input type="checkbox"/>
MechSE electives <sup>7</sup>	TAM and ME courses from technical elective list	6	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Liberal education <sup>2</sup>		18	<input type="checkbox"/>	<input type="checkbox"/>
Free electives		6	<input type="checkbox"/>	<input type="checkbox"/>

9. To remain in good academic standing and to graduate from the ME curriculum, a student must have a GPA of at least 2.00 in the courses marked with an "X"

10. To register for third-year Mechanical Engineering (ME) courses, students are required to have a grade-point average of 2.25 or above in the courses marked with an "X"