

**Legend:**

Taken or In Progress

Register for Next Semester

Prereqs met

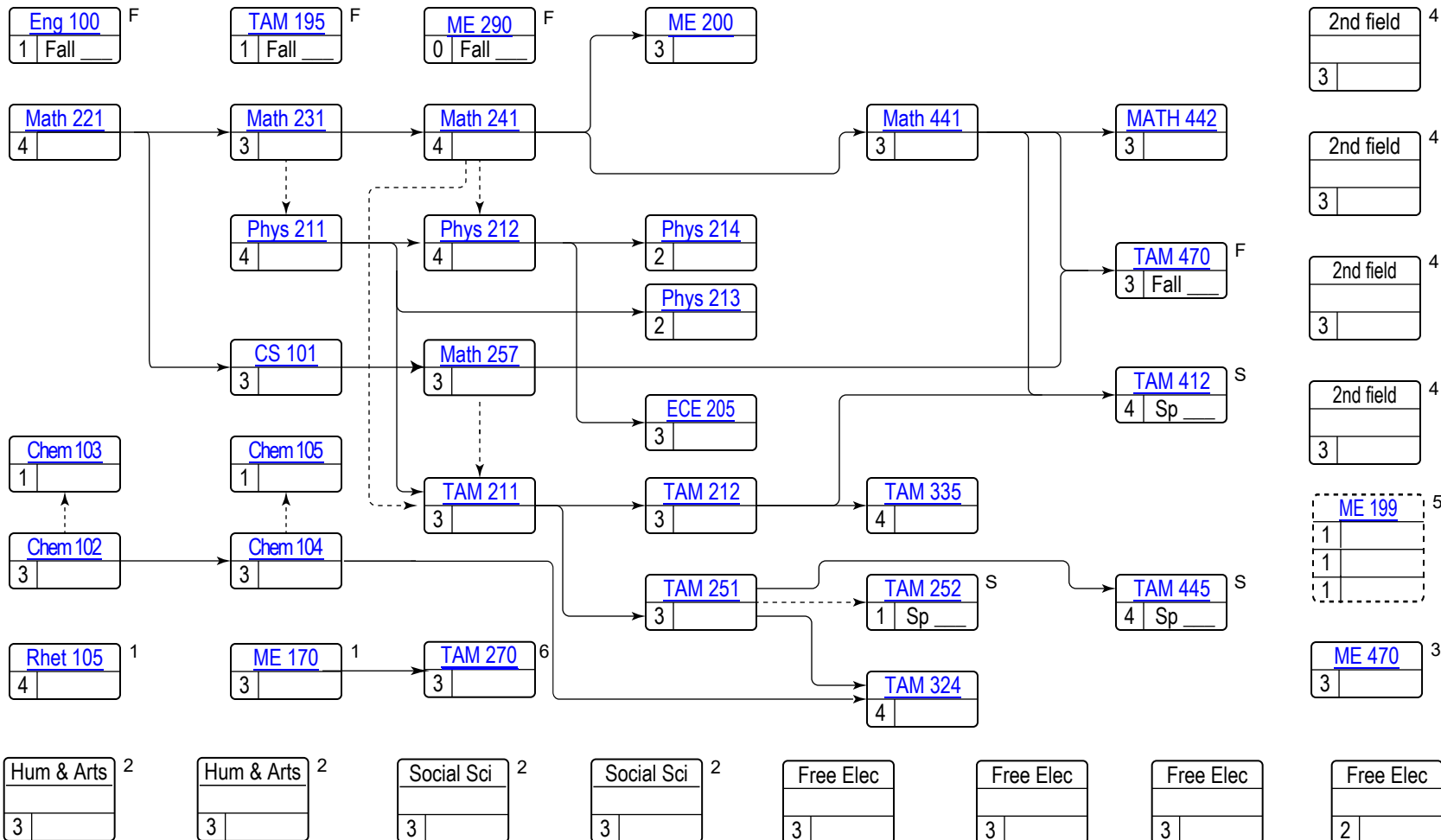
Prereqs not met

# Engineering Mechanics Flowsheet

————> Prerequisite

- - - - -> Corequisite

Fall  
 Spring



5/31/2022

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

Western course     Non-Western course     U.S. Minority course     LOTE

<sup>F</sup>Offered in fall semester only.

<sup>S</sup>Offered in spring semester only.

<sup>1</sup>Rhet 105 is taken the first or second semester of the first year, according to student's UIN. Rhet 105 is taken in the fall by students with even UINs and in the spring by students with odd UINs. ME 170 is taken the other semester (in the fall by students with odd UINs and in the spring by students with even UINs).

<sup>2</sup>A total of four courses must be taken for grades to fulfill general education requirements. At least two of these must be Humanities and the Arts courses and the other two must be Social and Behavioral Science courses. Additionally, of these four courses, at least one must be a Western, at least one must be a Non-Western, and at least one must be a U.S. Minority cultures course. Students must also complete the Language Other Than English requirement (LOTE). 1st and 2nd level language courses can count as free electives and be taken CR/NC, but 3rd level of languages courses must be taken for a grade. See College of Engineering and University web sites for more information and course lists.

<sup>3</sup>ME 470 requires credit or concurrent registration in all required TAM core courses by number (e.g. TAM 470, TAM 412, etc.). Concurrent registration is limited to 2 courses; however, may limit projects you meet the prerequisites for. ME 470 is taken in the fall by students with odd UINs and in the spring by students with even UINs.

<sup>4</sup>Secondary Field Elective—12 hr of coherent course work in mechanics or closely related field. See departmental list online at the MechSE departmental website or propose an alternate set of courses for approval from the MechSE Undergraduate Programs Office.

<sup>5</sup>[Optional] Three hours of secondary field elective credit can be obtained if ME 199 DES or SAE (1 hr) is taken for three consecutive semesters starting no later than the third semester for incoming first-year students or second semester for incoming transfer students. A final report must be submitted to the Undergraduate Programs office at completion per guidelines set by the course instructor. There is a 6 hour maximum for secondary field elective credit obtained from independent study and/or SAE type credits.

## CURRICULUM IN ENGINEERING MECHANICS

The curriculum requires 128 hours for graduation.

Course Rubric	Course Name	Credit	TGPA <sup>6</sup>	2.25 GPA <sup>7</sup>
<b>Orientation and Professional Development</b>				
ENG 100	Engineering Orientation	1	<input type="checkbox"/>	<input type="checkbox"/>
ME 290	Seminar	0	<input type="checkbox"/>	<input type="checkbox"/>
TAM 195	Mechanics in the Modern World	1	<input type="checkbox"/>	<input checked="" 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"/>
CHEM 104	General Chemistry II	3	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CHEM 105	General Chemistry Lab II	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 257	Linear Algebra w/Computational Applications	3	<input type="checkbox"/>	<input checked="" type="checkbox"/>
MATH 441	Differential Equations	3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
MATH 442	Intro Partial Differential Equations	3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PHYS 211	University Physics: Mechanics	4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PHYS 212	University Physics: Elec & Mag	4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PHYS 213	University Physics: Thermal Physics	2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PHYS 214	University Physics: Quantum Physics	2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Engineering Mechanics 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"/>
ME 170	Computer-Aided Design	3	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ME 200	Thermodynamics	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ME 470	Senior Design Project	3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
TAM 211	Statics	3	<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"/>
TAM 252	Solid Mechanics Design	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TAM 270	Design for Manufacturability	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TAM 324	Behavior of Materials	4	<input checked="" type="checkbox"/>	<input type="checkbox"/>
TAM 335	Introductory Fluid Mechanics	4	<input checked="" type="checkbox"/>	<input type="checkbox"/>
TAM 412	Intermediate Dynamics	4	<input checked="" type="checkbox"/>	<input type="checkbox"/>
TAM 445	Continuum Mechanics	4	<input checked="" type="checkbox"/>	<input type="checkbox"/>
TAM 470	Computational Mechanics	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"/>
Secondary field electives <sup>4</sup>	Chosen from departmentally approved list or custom built with advisor approval, courses often in the TGPA calculation (see MechSE TGPA list)	12	<input checked="" type="checkbox"/>	<input type="checkbox"/>
General education <sup>2</sup>		12	<input type="checkbox"/>	<input type="checkbox"/>
Free electives		11	<input type="checkbox"/>	<input type="checkbox"/>

6. To remain in good academic standing and to graduate from the Engineering Mechanics (EM) curriculum, a student must have a technical grade-point average (TGPA) of at least 2.00. Courses that contribute to TGPA are the courses marked with an "X" in the TGPA column.

7. To register for third-year or 300-level Engineering Mechanics (TAM) courses, students are required to have a grade-point average (GPA) of 2.25 or above in courses marked with an "X" taken from the 2.25 GPA column.

Please note all of these are calculated on an average basis across all courses taken from the applicable list(s).