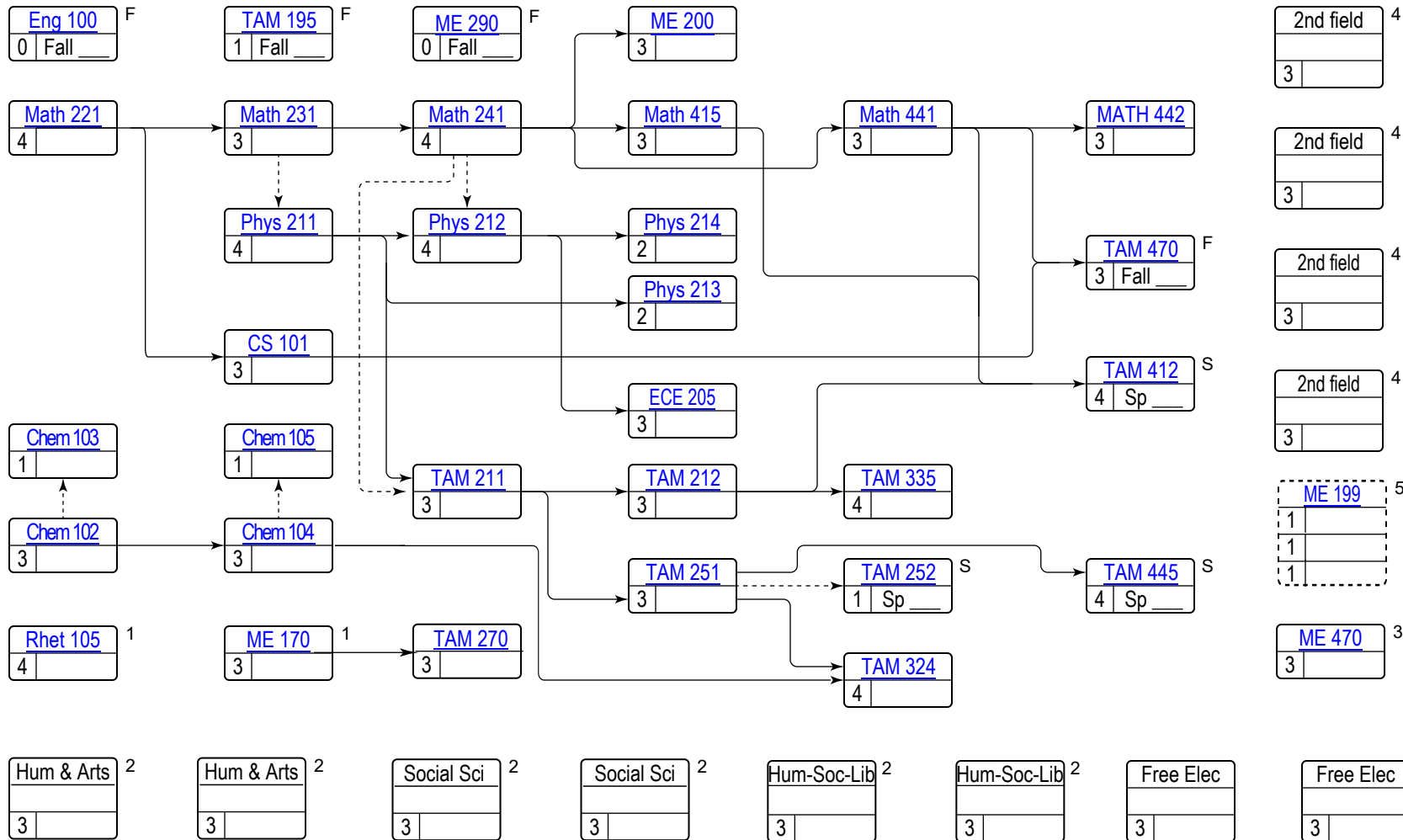


————> Prerequisite

-----> Corequisite

# Engineering Mechanics Flowsheet



04/05/2018

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

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

<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. Rhet 105 is taken in the fall by students with even UIN's and in the spring by students with odd UIN's.

<sup>2</sup>A total of 6 courses to fulfill general education requirements. Of these, at least one must be a Western, at least one a Non-Western cultures course. For students entering after SU18, at least one a U.S. Minority cultures course is also required. Among the Social Sciences courses, ECON 102 or 103 is required for Mechanical Engineering majors. At least 2 Humanities courses and at least 2 Social Sciences courses must be taken for grades. Students must also complete the Language Other Than English requirement (LOTE). 1st and 2nd level language courses can count as Liberal Education electives and be taken CR/NC. 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 MechSE courses that are required by number (e.g. TAM 445 and TAM 470). 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>4</sup>Secondary Field Elective—12 hr of coherent course work in mechanics or closely related field. See departmental list or propose an alternate set of courses.

<sup>5</sup>[Optional] Three hours of secondary field coursework 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 or second semester for transfer students and approved by advisor. Projects must be technical in nature and a final report that displays technical merit must be submitted to the Undergraduate Programs office at completion.

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

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

## 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	0	<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 415	Applied Linear Algebra	3	<input checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" type="checkbox"/>
PHYS 212	University Physics: Elec & Mag	4	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PHYS 213	University Physics: Thermal Physics	2	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PHYS 214	University Physics: Quantum Physics	2	<input 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 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 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 build upon advisor's approval	12	<input checked="" type="checkbox"/>	<input type="checkbox"/>
General education <sup>2</sup>		18	<input type="checkbox"/>	<input type="checkbox"/>
Free electives		6	<input type="checkbox"/>	<input type="checkbox"/>

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

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