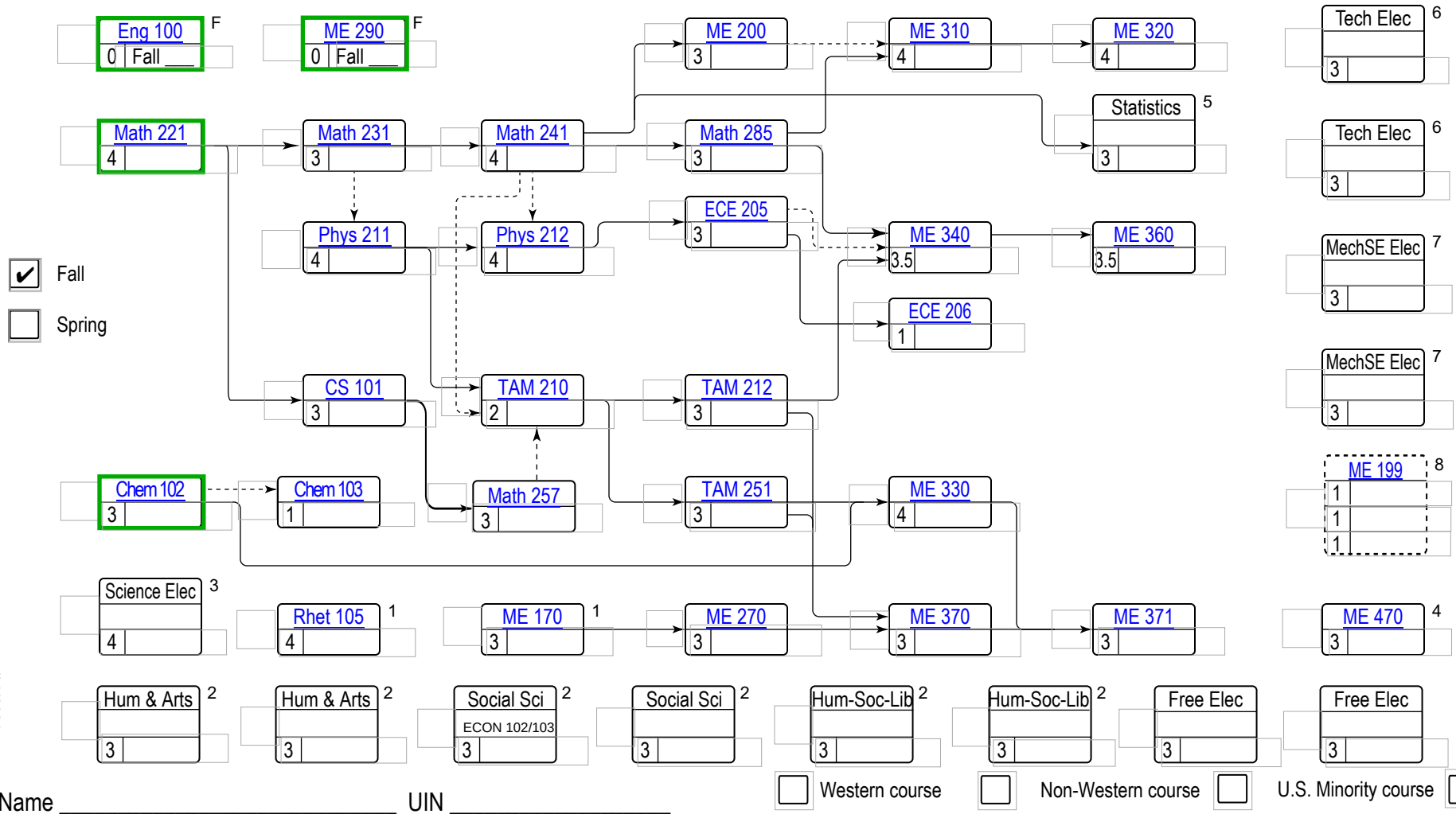
Mechanical Engineering Flowsheet

Legend: ✔ Taken or In Progress ★ Register for Next Semester Prereqs met Prereqs not met

Prerequisite

Corequisite

Instructions



5/31/2021

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

Name _____ UIN _____

[F]Offered in the fall semester only.

[1]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).

[2]A total of six courses must be taken for grades to fulfill general education requirements. At least two of these must be must be Humanities and the Arts courses and at least two must be Social and Behavioral Science courses. Among the Social and Behavioral Science courses, ECON 102 or 103 is required for Mechanical Engineering majors. Additionally, of these six 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.

[3]Choose from Chem 104 & 105, MCB 150, or Phys 213 & 214. If MCB 150 is taken, then MCB 151 is also recommended.

[4]ME 470 requires credit or concurrent registration in all required ME core courses by number (e.g. ME 371, ME 360, 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 even UINs and in the spring by students with odd UINs.

[5]Choose from IE 300 or Stat 400/Math 463.

[6]Technical electives are generally 400-level courses in engineering, physics, chemistry, and mathematics. Some restrictions apply to special-topics and individual-study courses. One Professional elective of no more than 3 hours can replace one Technical elective. See the complete list of Technical, Professional, and MechSE electives online at the MechSE departmental website.

[7]MechSE electives are ME and TAM courses on the MechSE departmental approved list (see above).

[8][Optional] Three hours of MechSE or 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 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 advanced elective credit obtained from independent study and/or SAE type credits.

CURRICULUM IN MECHANICAL ENGINEERING

The curriculum requires 128 hours for graduation.

Course Rubric	Course Name	Credit	TGPA[9]	2.25 GPA[10]
Orientation and Professional Development				
ENG 100	Engineering Orientation	0	☐	☐
ME 290	Seminar	0	☐	☐
Foundational Mathematics and Science				
CHEM 102	General Chemistry I	3	☐	☒
CHEM 103	General Chemistry Lab I	1	☐	☒
MATH 221	Calculus I	4	☐	☒
MATH 231	Calculus II	3	☐	☒
MATH 241	Calculus III	4	☐	☒
MATH 257	Linear Algebra w/Computational Applications	3	☐	☒
MATH 285	Intro Differential Equations	3	☐	☒
PHYS 211	University Physics: Mechanics	4	☒	☒
PHYS 212	University Physics: Elec & Mag	4	☒	☒
Mechanical Engineering Technical Core				
CS 101	Intro Computing: Engrg & Sci	3	☐	☒
ECE 205	Elec & Electronic Circuits	3	☒	☒
ECE 206	Elec & Electronic Circuits Lab	1	☒	☒
TAM 210	Introduction to Statics	2	☒	☒
TAM 212	Introductory Dynamics	3	☒	☒
TAM 251	Introductory Solid Mechanics	3	☒	☒
ME 170[1]	Computer-Aided Design	3	☐	☒
ME 200	Thermodynamics	3	☒	☒
ME 270	Design for Manufacturability	3	☒	☐
ME 310	Fundamentals of Fluid Dynamics	4	☒	☐
ME 320	Heat Transfer	4	☒	☐
ME 330	Engineering Materials	4	☒	☐
ME 340	Dynamics of Mechanical Systems	3.5	☒	☐
ME 360	Signal Processing	3.5	☒	☐
ME 370	Mechanical Design I	3	☒	☐
ME 371	Mechanical Design II	3	☒	☐
ME 470	Senior Design Project	3	☒	☐
Electives and composition				
RHET 105[1]	Principles of Composition	4	☐	☐
Statistics Elective[5]	IE 300, STAT 400 / MATH 463	3	☒	☐
Science Elective[3]	CHEM 104 & 105, MCB 150, PHYS 213 & 214	4	☐ ☒	☒ ☒
Technical electives[6]	Chosen from departmental list, often in TGPA	6	☒	☐
MechSE electives[7]	TAM and ME courses from technical elective list	6	☒	☐
General education[2]		18	☐	☐
Free electives		6	☐	☐

9. To remain in good academic standing and to graduate from the Mechanical Engineering (ME) 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.
10. To register for third-year or 300-level ME courses, students are required to have a grade-point average (GPA) of 2.25 or above for 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).