B.S. in Mechanical Engineering with a Biomechanical Option
Curriculum of Biomechanical Engineering Option, 2021-2022

Freshman: 1st semester
MAE 1001 (1, F) Intro to Mechanical and Aerospace Engineering
Pre: None

Freshman: 2nd semester
MAE 1004 (3, F&S) Engineering Drawing and Computer Graphics
Pre: MAE 1231

Sophomore: 1st semester
APSC 2057 (3, F&S) Analytical Mechanics I
Pre: APSC 2113, PHYS 1021

Sophomore: 2nd semester
APSC 2058 (3, F&S) Analytical Mechanics II
Pre: APSC 2057

Junior: 1st semester
MAE 3126 (3, F) Fluid Mechanics
Pre: APSC 2058

Junior: 2nd semester
MAE 3187 (3, S) Heat Transfer
Pre: MAE 3126, 2131

Senior: 1st semester
MAE 4149 (3, F) Thermal Systems Design
Pre: MAE 3187

Senior: 2nd semester
MAE 4152W (3, S) Capstone Design Project II
Pre: MAE 4151

MAE 1004 (3, F&S) Engineering Drawing and Computer Graphics
Pre: MAE 1231

PHYS 1022 (4, F&S) University Physics II
Pre: PHYS 1021

Color Code:
- Design Courses
- Mechanical, Materials, Processes
- Electrical, Measurements, Controls
- Thermal/Fluid Sciences
- Engineering Orientation, Computations
- Humanities/Social Sciences, Writing
- Mathematics
- Basic Science

F = fall semester, S = spring semester
Pre = Pre-requisite
Co = Co-requisite
Pre/Co = Pre-requisite or Co-requisite
H/SS = Humanities / Social Sciences - all MAE students must take one humanities course and two social science courses from University General Education requirement; PHIL 2135, and two additional humanities or social science or non-technical courses from SEAS/MAE Department’s pre-approved list of electives.

Technical Elective: Shall be selected from among the MAE 3000, 4000, or 6000 level courses, except that the following are excluded: MAE 3171, 4172, 6298, 6299, 6999. All technical electives must be approved by the undergraduate advisor. Technical courses from other departments (3000, 4000, or 6000 level) may be permitted, on a case by case basis, if approved by both the undergraduate advisor and department chair.

ASME membership recommended
FE Exam recommended in the senior year