## COMBINED MAJOR IN MECHANICAL ENGINEERING AND PHYSICS

### BACHELOR OF SCIENCE CURRICULUM OUTLINE - CLASS OF 2022, 2023, 2024

*Sample Only – Actual Curriculum Sequence May Deviate from Sample*

### FALL | SPRING | SUMMER 1 | SUMMER 2
---|---|---|---
**Year 1**
- MATH1341 Calculus 1 for Engrs. 4  
- CHEM1531 General Chem. for Engrs. 4  
- PHYS1161 Physics 1 4  
- GE 3000 Intro to Eng’g 1  
  | MATH1342 Calculus 2 for Engrs. 4  
  | PHYS1165 Physics 2 4  
  | PHYS1166 Physics 2 Lab 1  
  | GE 1502 Cornerstone Eng. 2 4  
  | ENGW1111 College Writing 4  
- CE 1501 Cornerstone Eng. 1 4

**Year 2**
- MATH2321 Calculus 3 for Engrs. 4  
  | PHYS2301 Modern Physics 4  
  | ENCP2000 Intro to Eng’g., Coop 1  
  | PHYS2331 Material Science 4  
  | PHYS2332 Lab for ME2330 1  
  | ME2356 Lab for ME2355 1  
  | ME2380 Thermodynamics 4  
- ENCP2300 Recitation for ME 2380 0  
  | ME2381 Recitation for ME 2380 0

**Year 3**
- AA  
  | PHYS3602 Elect. & Magnetism 4  
  | ME3455 Dynamics 4  
  | ME3456 Lab for ME3455 1  
  | ME4508 ME Computation 4  
  | *ENGW1302 Adv. Writ. in the Tech. Prof. 4

**Year 4**
- AA  
  | **PHYS3601 Classical Dynamics 4**  
  | ENCP2000 Prof. Issues in Eng’g. 1  
  | ME4505 Meas. Analysis. Thermal 4  
  | ME4506 Lab for ME4505 1  
  | ME4555 Syst. Analysis & Control 4  
  | ME4570 Thermal Sys. Analysis Design 4

**Year 5**
- AA  
  | ME4502 Capstone Design 2 5  
  | PHYS3318 Principles of Exp. Physics 4  
  | PHYS xxxx  
  | ME4550 ME Design 4  
  | ME4570 ME Design 4  
  | ME4570 ME Design 4

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*ENGW1315 is an acceptable substitution for engineering majors.*

**NUpath requirements, Interpreting Culture (IC), Societies and Institutions (SI) and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses. Students are responsible for satisfying these requirements, and if these are not fulfilled in engineering courses, should use General Electives to do so. General Electives are academic, non-remedial, non-repetitive courses.***

**PHYS 3601 Classical Dynamics** is offered fall and spring semesters of even years only. Please meet with academic advisor to discuss scheduling options for Year 4 of odd years.

**Advanced physics electives: (PHYS 4606, PHYS 4621, PHYS 4623, PHYS 4651, PHYS 4652, PHYS 5111, PHYS 5113, PHYS 5114, PHYS 5116, PHYS 5260)**

Electives may be interchanged.

Please consult with your Academic Advisor, found here.

The registrar’s website provides a listing of degree requirements and the DARS system provides a degree audit utility for students.