

**COMBINED MAJOR IN MECHANICAL ENGINEERING AND PHYSICS**  
**BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING**  
**CURRICULUM OUTLINE - Class of 2024**

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

	FALL			SPRING			SUMMER 1			SUMMER 2		
Year 1	<a href="#">CHEM1151</a>	General Chem. for Engrs.	4	<a href="#">ENGW1111</a>	First-Year Writing	4	Vacation		Vacation			
	<a href="#">CHEM1153</a>	Recitation for CHEM1151	0	<a href="#">GE 1502</a>	Cornerstone Eng. 2	4						
	<a href="#">GE 1000</a>	Intro to Eng'g	1	<a href="#">MATH2321</a>	Calculus 3 for Engrs.	4						
	<a href="#">GE 1501</a>	Cornerstone Eng. 1	4	<a href="#">PHYS1165</a>	Physics 2	4						
	<a href="#">MATH1342</a>	Calculus 2 for Engrs.	4	<a href="#">PHYS1166</a>	Physics 2 Lab	1						
	<a href="#">PHYS1161</a>	Physics 1	4	<a href="#">PHYS1157</a>	ILS for PHYS1155	1						
	<a href="#">PHYS1162</a>	Physics 1 Lab	1									
Year 2 AA	<a href="#">MATH2341</a>	Diff. Eq./Lin. Alg.	4	<a href="#">ME2340</a>	Material Science	4	<a href="#">ME3475</a>	Fluid Mech.	4	Vacation		
	<a href="#">ME2350</a>	Statics	4	<a href="#">ME2341</a>	Lab for ME2340	1	<a href="#">PHYS3600</a>	Adv. Physics Lab	4			
	<a href="#">ME2380</a>	Thermodynamics	4	<a href="#">ME2355</a>	Mech. of Materials	4						
	<a href="#">ME2381</a>	Recitation for ME 2380	0	<a href="#">ME2356</a>	Lab for ME2355	1						
	<a href="#">PHYS2303</a>	Modern Physics	4	<a href="#">**PHYS3601</a>	Classical Dynamics	4						
				Elective	General Elective	4						
Year 3 AA	<a href="#">*ENGW3302</a>	Adv. Writ. in the Tech. Prof.	4	<a href="#">ENCP2000</a>	Intro to Eng'g., Coop	1	<a href="#">ME4550</a>	ME Design	4	Co-op		
	<a href="#">ME4505</a>	Meas. Analysis. Thermal	4	<a href="#">ME3455</a>	Dynamics	4	<a href="#">MEIE4701</a>	Capstone Design	1			
	<a href="#">ME4506</a>	Lab for ME4505	1	<a href="#">ME3456</a>	Lab for ME3455	1						
	<a href="#">PHYS2371</a>	Electronics	4	<a href="#">ME4508</a>	ME Computation	4						
	<a href="#">PHYS2372</a>	Electronics Lab	0	<a href="#">ME4570</a>	Thermal Sys. Analysis Design	4						
	Elective	General Elective	4	<a href="#">PHYS3602</a>	Elect. & Magnetism 1	4						
Year 4 AA		Co-op		<a href="#">ENCP3000</a>	Prof. Issues in Eng'g.	1						
				<a href="#">ME4555</a>	Syst. Analysis & Control	4						
				<a href="#">MEIE4702</a>	Capstone Design 2	5						
				<a href="#">PHYS5318</a>	Principles of Exp. Physics	4						
				Elective	Adv. Physics Elective	4						

Revised 5/13/20

Students will need to have Advanced Standing Credit (such as AP, IB or college credit) for Math 1341 Calculus 1 - see advisor

\*ENGW3315 is an acceptable substitution.

\*\*PHYS3601 Classical Dynamics is offered fall and spring semesters of even years only. Please meet with an academic advisor to discuss scheduling options for Year 4 of odd years.

**NUPath Requirements:** Interpreting Culture (IC), Societies and Institutions (SI), Differences and Diversity (DD) and Integration Experience (EX) are not explicitly satisfied by required engineering courses. Students are responsible for satisfying these requirements and should use General Electives to do so.

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

- [PHYS 2303](#) offered every fall, spring, and summer 2
- [PHYS 2371/2372](#) offered every fall
- [PHYS 3600](#) offered every summer 1 and summer 2
- [PHYS 3601](#) offered spring and fall (even years)
- [PHYS 3602](#) offered every fall and spring
- [PHYS 4115](#) offered every fall and spring
- [PHYS 4305](#) offered every spring and summer 2 (even years)
- [PHYS 4651](#) offered spring and fall (odd years)
- [PHYS 4652](#) offered every spring
- [PHYS 5318](#) offered every spring

[Please consult with your Academic Advisor. found here.](#)

Degree requirements can be found in the academic catalog and DARS provides a degree audit for students.