

Mechanical Engineering and Physics

Department Information

- **Department Location:**
Dolve Hall 111
- **Department Phone:**
701-231-8671
- **Department Web Site:**
www.ndsu.edu/me/ (<http://www.ndsu.edu/me/>)
- **Credential Offered:**
B.S.M.E.
- **Official Program Curriculum:**
catalog.ndsu.edu/undergraduate/program-curriculum/mechanical-engineering-physics/ (<http://catalog.ndsu.edu/undergraduate/program-curriculum/mechanical-engineering-physics/>)

Engineering and physics have always been closely related disciplines. Mechanical engineering combines engineering physics and applied mathematics with materials science to design mechanical systems. It requires knowledge of core areas of physics, such as mechanics, thermodynamics, theory of elasticity, electricity and magnetism; modern materials science requires understanding of quantum physics. Therefore, the demand is growing for engineers with multidisciplinary training that includes both fundamental knowledge of physics and practical problem-solving skills. The Mechanical Engineering and Physics double major program is designed to allow students to complete the core requirements of both majors in a four-year degree. Graduates of the program will have a unique background qualifying them to pursue careers in industry, government, and higher education, or to pursue graduate studies in engineering, physics or other technical fields. Student will earn a Bachelor of Science in Mechanical Engineering (B.S.M.E.) with a second major in physics.

Sample Program Guide

Please note this is a sample program guide and not an official curriculum. Actual student schedules for each semester will vary depending on start year, education goals, applicable transfer credit, and course availability. Once admitted, students are encouraged to work with their assigned academic advisor on a regular basis to review degree progress.

Freshman			
Fall	Credits	Spring	Credits
MATH 165		4 MATH 166	4
ENGL 110 (or placement)		3 ENGL 120	3
CHEM 121		3 CHEM 122	3
ME 111		2 ME 212	3
PHYS 171		1 ME 221	3
Humanities & Fine Arts Gen Ed		3 Wellness General Education	2
		16	18
Sophomore			
Fall	Credits	Spring	Credits
MATH 129		3 MATH 266	3
MATH 265		4 COMM 110	3
IME 330		3 PHYS 252	4
ME 222		3 PHYS 252L	1
ME 223		3 ME 213	3
		ME 351	3
		16	17
Junior			
Fall	Credits	Spring	Credits
ENGL 321		3 ECE 301	3
ENGR 402		1 ME 361	3

ME 331		4 ME 442	3
ME 352		3 ME 454	3
PHYS 355 (ME Tech Elective)		3 PHYS 350 (ME Tech Elective)	3
PHYS 411		3 PHYS 361 (ME Tech Elective)	3
PHYS 411L		1	
		18	18
Senior			
Fall	Credits	Spring	Credits
ECE 306		1 ME 412	3
ME 443		3 ME 462	3
ME 457		3 ME 421	3
ME 461		3 Physics Elective	3
PHYS 485		3 Social & Behavioral Science Gen Ed	3
Social & Behavioral Science Gen Ed		3 Humanities and Fine Arts Gen Ed	3
		16	18
Total Credits: 137			