MECHANICAL ENGINEERING - BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING

A Suggested Plan of Study for Students

This roadmap assumes student placement in MATH 1511G Calculus and Analytic Geometry I and ENGL 1110G Composition I . The contents and order of this roadmap may vary depending on initial student placement in mathematics and english. It is only a suggested plan of study for students and is not intended as a contract. Course availability may vary from fall to spring semester and may be subject to modification or change.

Freshman		
Fall		**Credits**
MATH 1511G	Calculus and Analytic Geometry I [1]	4
ENGR 190	Introduction to Engineering Mathematics	4
CHEM 1215G	General Chemistry I Lecture and Laboratory for STEM Majors	4
ENGL 1110G	Composition I	4
	Credits	**16**
Spring		
MATH 1521G	Calculus and Analytic Geometry II	4
PHYS 1310G & PHYS 1310L	Calculus -Based Physics I and Calculus -Based Physics I Lab	4
ENGR 110	Introduction to Engineering Design	3
Area I: Communications - English Composition - Level 2 Course [2]		3
Area IV: Social/Behavorial Sciences Course [2]		3
	Credits	**17**
Sophomore		
Fall		
MATH 2530G	Calculus III	3
ENGR 233	Engineering Mechanics I	3
PHYS 1320G	Calculus -Based Physics II	3
M E 210	Electronics and System Engineering	3
ENGR 217	Manufacturing Processes	3
ENGR 217 L	Manufacturing Processes Lab	1
	Credits	**16**
Spring		
M E 228	Engineering Analysis I	3
ENGR 234	Engineering Mechanics II	3
M E 261	Numerical Methods	3
M E 240	Thermodynamics	3
Area I: Communications - Oral Communications Course [2]		3
	Credits	**15**
Junior		
Fall		
M E 328	Engineering Analysis II	3
M E 338	Fluid Mechanics	3
C E 301	Mechanics of Materials	3
M E 340	Applied Thermodynamics	3
CHME 361	Engineering Materials	3
M E 349	MAE Career Seminar	1
	Credits	**16**
Spring		
M E 326	Mechanical Design	3
Choose one Mechanics Elective from the following: [4]		3
M E 331	Intermediate Strength of Materials	
M E 332	Vibrations	
M E 333	Intermediate Dynamics	
M E 345	Experimental Methods I	3
M E 341	Heat Transfer	3
Area V: Humanities Course [2]		3
	Credits	**15**
Senior		
Fall		
ENGR 401	Engineering Capstone I	3
M E 425	Design of Machine Elements	3
M E 445	Experimental Methods II	3
Area VI: Creative and Fine Arts Course [2]		3
Viewing a Wider World Course [3]		3
	Credits	**15**
Spring		
ENGR 402	Engineering Capstone II	3
Mechanical Engineering Senior Electives		6
Viewing a Wider World Course [3]		3
	Credits	**12**
	Total Credits	**122**

1. MATH 1511G Calculus and Analytic Geometry I is required for the degree but students may need to take any prerequisites needed to enter MATH 1511G first.
2. See General Education (https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/) section in the catalog for a full list of courses.
3. See Viewing a Wider World (https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/#viewingawiderworldtext) section in the catalog for a full list of courses.
4. A E 362 Orbital Mechanics, A E 363 Aerospace Structures, or A E 364 Flight Dynamics and Controls can be counted towards the Mechanics Elective course requirement for those who are pursuing dual degrees in Mechanical Engineering and Aerospace Engineering. However, these cannot be double-counted for a minor degree.