

# 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 <sup>1</sup>	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
<b>Credits</b>		<b>16</b>

### 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 <sup>2</sup>		3
Area IV: Social/Behavioral Sciences Course <sup>2</sup>		3
<b>Credits</b>		<b>17</b>

### Sophomore

Fall		Credits
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
<b>Credits</b>		<b>16</b>

### 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 <sup>2</sup>		3
<b>Credits</b>		<b>15</b>

### Junior

Fall		Credits
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
<b>Credits</b>		<b>16</b>

### Spring

M E 326	Mechanical Design	3
Choose one Mechanics Elective from the following:		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 <sup>2</sup>		3
<b>Credits</b>		<b>15</b>

### Senior

Fall		Credits
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 <sup>2</sup>		3
Viewing a Wider World Course <sup>3</sup>		3
<b>Credits</b>		<b>15</b>

### Spring

ENGR 402	Engineering Capstone II	3
Mechanical engineering senior electives		6
Viewing a Wider World Course <sup>3</sup>		3
<b>Credits</b>		<b>12</b>
<b>Total Credits</b>		<b>122</b>

<sup>1</sup> 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.

<sup>2</sup> See General Education (<https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/>) section in the catalog for a full list of courses.

<sup>3</sup> 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.