

Typical 4-year Curriculum
BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING
(ABET Accredited)

First Semester	Units	Second Semester	Units
FRESHMAN YEAR			
ENGR 102A+B Introduction to Engineering	1+2	MATH 129 Calculus II	3
MATH 125* Calculus I (see note below) {MATH 122A (1) + 122B (4) (pending placement)}	3	ECE 175 Computer Prog for Engr. Appl.	3
CHEM 151 General Chemistry I	4	AME 105 Intro. To MATLAB I	1
ENGL 101 First-Year Composition	3	ENGL 102 First-Year Composition	3
XXXX** General Education	3	PHYS 141 Introductory Mechanics	4
		XXXX** General Education	3
<i>Total</i>	16	<i>Total</i>	17
SOPHOMORE YEAR			
MATH 223 Vector Calculus	4	MATH 254 Introduction to Ordinary Differential Equations	3
PHYS 241 Introductory Electricity and Magnetism	4	ECE 207*** Elements of Electrical Engineering	3
ABE 221/CE210 Introduction to CAD/Engr. Graphics	3	AME 250 Dynamics	3
CE 214 Statics	3	AME 230 Thermodynamics	3
AME 205 Introduction to MATLAB II	1	XXXX** General Education	3
		XXXX** General Education	3
<i>Total</i>	15	<i>Total</i>	18
JUNIOR YEAR			
AME 301 Engineering Analysis	3	AME 300 Instrumentation Laboratory	3
AME 324A Mechanical Behavior Engineering Materials	3	AME 302 Numerical Methods	3
OR CE 215 Mechanics of Solids		AME 324B^S Engineering Component Design	3
AME 331 Principles & Applications of Fluid Mechanics	3	MSE 331R Fundamentals of Materials for Engineers	3
AME 352 Dynamics of Machines	3	AME324L Mechanics of Materials Laboratory	1
AME 313 ME Design Lab	1	XXXX** General Education	3
XXXX** General Education	3		
<i>Total</i>	16	<i>Total</i>	16
SENIOR YEAR			
ENGR 498A^F Cross-Disciplinary Design	3	ENGR 498B^S Cross-Disciplinary Design	3
AME 400 Senior Mechanical Laboratory	2	AME 455 Control System Design	3
AME 495S^F Colloquium	1	AME 4XX Technical Elective [§]	3
AME 432^F Heat Transfer	3	AME 4XX Technical Elective [§]	3
Tech Elective[§] Technical Elective	3	AME 4XX Technical Elective [§]	3
Tech Elective[§] Technical Elective	3		
<i>Total</i>	15	<i>Total</i>	15

Courses in **bold**, when taken at the UA, are used to calculate your Advanced Standing (AS) GPA. Minimum AS GPA of 2.500 and least 12 units of UA coursework in bold needed to be eligible for AS.

*MATH122A/B is a 5-unit version of MATH125. Enrollment in MATH 122A/B or 125 is dependent on MATH placement scores.

** General education courses must meet University general education requirements including the Diversity requirement. Consult your advisement report for more details.

***Students may also take ECE 220 (5 units)

§See list of approved Technical Elective courses on AME website. At least 9 units must be taken in AME (exclusive of independent study, which can at most total 3 units). Courses with "F" and "S" superscripts denote courses taught only in the fall- and spring- semesters respectively.