

B.S. IN ENGINEERING MANAGEMENT

CATALOG YEAR 2016-2017

Below is the *advised sequence* of courses for this degree program and prerequisites as of 2/10/16. The official degree requirements and prerequisites can be found in the University General Catalog and the prerequisites are subject to change.

COURSE NUMBER AND TITLE	UNITS	PREREQUISITES
1ST SEMESTER		
MATH 122A/B OR MATH 125 Calculus I with Applications	5/3	Appropriate Math Placement
CHEM 151 General Chemistry I OR CHEM 105A/106A	4	
ENGL 101 OR 107 OR 109H First-Year Composition	3	
ENGR 102A/B Introduction to Engineering OR ENGR 102	3	Concurrent Enrollment or completion of MATH 122B or MATH 125
Tier I General Education	3	
2ND SEMESTER		
MATH 129 Calculus II	3	MATH 122B or MATH 125
CHEM 152 General Chemistry II OR CHEM 105B/106B OR MSE 110	4	For CHEM 152: CHEM 151. For MSE 110: CHEM 105A or CHEM 151
ECE 175 Computer Programming for Engineering Applications OR CSC 127A Introduction to Computer Science OR CSC 227 Program Design Development	3	For ECE 175: Concurrent Enrollment or completion of MATH122B or MATH 125
ENGL 102 OR 108 OR 109H First-Year Composition	3	ENGL 101, ENGL 107
Tier I General Education	3	
3RD SEMESTER		
MATH 223 Vector Calculus	4	MATH 129 with C or higher
PHYS 141 Introductory Mechanics OR PHYS 161H	4	MATH 122B or MATH 125; concurrent enrollment or completion of MATH 129
SIE 265 Engineering Management I	3	ENGR 102 or ENGR 102 A/B and MATH 122B or 125
Tier I General Education	3	
Tier II General Education	3	
4TH SEMESTER		
CE 214 Statics	3	PHYS 141; MATH 129
CHEE 201 Elements of Chemical Engineering I (Fall Only) OR AME 230 Thermodynamics	3	For CHEE 201: MATH 122B or 125, ECE 175, CHEM 152, ENGR 102 or ENGR 102 A/B. For AME 230: MATH 223
PHYS 241 Introductory Electricity and Magnetism OR PHYS 261H	4	PHYS 141 or PHYS 161H; Math 129
SIE 295S Systems & Industrial Engineering Sophomore Colloquium	1	
SIE 270 Mathematical Foundations of Systems and Industrial Engineering	3	MATH 129, ECE 175 or CSC 127A, PHYS 141
Tier I General Education	3	

COURSE NUMBER AND TITLE	UNITS
CURRENT PREREQUISITES FOR UPPER DIVISION COURSES CAN BE FOUND IN THE UA GENERAL CATALOG	
ADVANCED STANDING IS REQUIRED FOR 3XX AND 4XX COURSES (SEE ADVISOR FOR REQUIREMENTS)	
5TH SEMESTER	
SIE 305 Introduction to Engineering Probability and Statistics	3
SIE 340 Deterministic Operations Research	3
ECE 207 Elements of Electrical Engineering OR ECE 220 Basic Circuits	3/5
Engineering Minor Course	3
Engineering Minor Course	3
6TH SEMESTER	
SIE 367 Engineering Management II	3
Engineering Minor Course	3
SIE 431 Simulation Modeling and Analysis	3
SIE 462 Production Systems Analysis	3
Engineering Minor Course	3
7TH SEMESTER	
SIE 415 Technical Sales and Marketing	3
ENGR 498A OR SIE 498A Senior Design Projects I	3
SIE 457 Project Management	3
COMM 312 Applied Organizational Communication OR ENGL 308 Technical Writing OR ENGL 307 Business Writing	2/3
Engineering Minor Course	3
8TH SEMESTER	
ENGR 498B OR SIE 498B Senior Design Projects II	3
SIE 414 Law for Engineers and Scientists	3
SIE 464 Cost Estimation	3
SIE 406 Quality Engineering OR MIS 465 Managing for Quality Improvement	3
Tier II General Education	3
Engineering Minor Course	3

*Tier I and II General Education Courses must meet University general education requirements. One course must be recognized by the university as meeting the Diversity Requirement.