B.S. IN ENGINEERING MANAGEMENT

CATALOG YEAR 2017-2018

Below is the *advised sequence* of courses for this degree program and prerequisites as of 3/07/17.
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	Appropriate Math Placement
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 125
Tier I General Education	3	
2ND SEMESTER		
MATH 129 Calculus II	3	MATH 122B or 125
CHEM 152 General Chemistry II or CHEM 105B/106B or MSE 110	4	For CHEM 152: CHEM 151 or 105A/106A For MSE 110: CHEM 151
ECE 175 Computer Programming for Engineering Applications OR CSC 110 Intro to Computer Programming I	3/4	For ECE 175: Concurrent Enrollment or completion of MATH122B or 125 CSC 110: MATH 112
ENGL 102 or 108 or 109H First-Year Composition	3	ENGL 101 or 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 125; concurrent enrollment or completion of MATH 129
SIE 265 Engineering Management I	3	ENGR 102 A/B or 102 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, concurrent enrollment or completion MATH 129 and CHEM152 or 105B, 106B; For AME 230: PHYS 141
PHYS 241 Introductory Electricity and Magnetism or PHYS 261H	4	PHYS 141 or 161H; Math 129
SIE 295S Systems & Industrial Engineering Sophomore Colloquium	1	
SIE 270 Mathematical Foundations of Systems and Industrial Engineering	3	MATH 129, PHYS 141, ECE 175 or CSC 127A or CSC 110
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	
SIE 431 Simulation Modeling and Analysis	3	
SIE 462 Production Systems Analysis	3	
Engineering Minor Course	3	
Engineering Minor Course	3	
7TH SEMESTER		
SIE 415 Technical Sales and Marketing	3	
SIE 498A Senior Design Projects I or ENGR 498A Cross-Disciplinary Design (Fall Only) – Senior Status	2/3	
SIE 457 Project Management	3	
COMM 312 Applied Organizational Communication OR ENGL 308 Technical Writing OR ENGL 307 Business Writing	3	
Engineering Minor Course	3	
8TH SEMESTER		
SIE 498B Senior Design Projects II or ENGR 498B Cross-Disciplinary Design (Spring Only) – Senior Status	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.