

B.S. in Engineering Management

Four-Year Plan

Catalog Year 2013-2014

Below is the *advised sequence* of courses for this degree program.
The official degree requirements can be found in the University General Catalog.

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	4	
ENGL 101 First-Year Composition	3	
ENGR 102 Introduction to Engineering	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 MSE 110 Solid State Chemistry	4	For CHEM 152: CHEM 151. For MSE 110: CHEM 103A
ECE 175 Computer Programming for Engineering Applications or CSC 127A Introduction to Computer Science	3	Concurrent enrollment in MATH 122B or MATH 125
ENGL 102 First-Year Composition	3	ENGL 101
Tier I General Education	3	
3RD SEMESTER		
CHEE 201 Elements of Chemical Engineering I or AME 230 Thermodynamics	3	For CHEE 201: MATH 122B or 125, ECE 175, CHEM 152, ENGR 102. For AME 230: MATH 223, PHYS 241
MATH 223 Vector Calculus	4	MATH 120 or 250A with C or higher
PHYS 141 Introductory Mechanics	4	PHYS 141
SIE 265 Engineering Management I	3	ENGR 102 and MATH 122B or 125
Tier I General Education	3	
4TH SEMESTER		
CE 214 Statics	3	PHYS 141; MATH 129
PHYS 241 Introductory Electricity and Magnetism	4	PHYS 141; MATH 129
SIE 295S Systems & Industrial Engineering Sophomore Colloquium	1	
SIE 270 Mathematical Foundations of Systems and Industrial Engineering	3	MATH 129 with C or higher
Tier I General Education	3	
Tier II General Education	3	

Course Number and Title	Units	Prerequisites
Advanced Standing is required for 3xx and 4xx courses (See advisor for requirements)		
5TH SEMESTER		
SIE 305 Introduction to Engineering Probability and Statistics	3	MATH 129
SIE 340 Deterministic Operations Research	3	SIE 265, SIE 270
ECE 207 Elements of Electrical Engineering	3	PHYS 241; Prerequisite or concurrent enrollment in SIE 270
Technical Elective - See advisor for course approval	3	
Technical Elective - See advisor for course approval	3	
6TH SEMESTER		
SIE 367 Engineering Management II	3	SIE 265
SIE 457 Project Management	3	SIE 305
SIE 431 Simulation Modeling and Analysis	3	SIE 305
Technical Elective - See advisor for course approval	3	
Technical Elective - See advisor for course approval	3	
7TH SEMESTER		
SIE 415 Technical Sales and Marketing	3	
SIE 462 Production Systems Analysis	3	SIE 305; SIE 340
ENGR 498A or SIE 498A Senior Design Projects I	2	Senior Standing
COMM 312 Applied Organizational Communication or ENGL 308 Technical Writing	3	ENGL 102
Technical Elective - See advisor for course approval	3	
8TH SEMESTER		
ENGR 498B or SIE 498B Senior Design Projects II	3	ENGR498A or SIE 498A
SIE 414 Law for Engineers and Scientists	3	
SIE 464 Cost Estimation	3	
SIE 406 Quality Engineering	3	SIE 305
Tier II General Education	3	
Technical Elective - See advisor for course approval	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.