

# Integrated Business and Engineering

Catalog Year 2026-27

Course Number and Title	Units	Prerequisites/Notes
<b>1<sup>st</sup> Semester</b>		
MATH 122A/B or MATH 125 Calculus I with Applications	5/3	Appropriate Math Placement
CHEM 151 Chemical Thinking I* or MSE 109 Foundations of Materials Chemistry for Applications	4	MATH 112 / Appropriate Math Placement
ENGL 101 or 107 or 109H First-Year Composition	3	
IBE 101: Introduction to Integrated Business Engineering Design	1	New Course
MIS 111 Computers and Internetworked Society	3	
MIS 112 Computers & Internetworked Society - Lab	1	
Semester Total		<b>17/15</b>
<b>2<sup>nd</sup> Semester</b>		
MATH 129 Calculus II	3	MATH 122B or MATH 125
SFWE 101 Introduction to Software Engineering or ECE 101 Programming I or CSC 110 Introduction to Computer Programming I	3/4	MATH 112 / Appropriate Math Placement
IBE 102: Introduction to Integrated Business Engineering Projects	2	IBE 101 New Course
ENGL 102 or 108 First-Year Composition	3	ENGL 101 or ENGL 107
CHEM 152 Chemical Thinking II or MSE 110 Solid State Chemistry	4	CHEM 151 or MSE 109
UNIV 101	1	
Semester Total		<b>16/17</b>
<b>3<sup>rd</sup> Semester</b>		
ENTR 287 Introduction to Engineering Entrepreneurship	3	
ACCT 250 Information for Business Decisions	3	
Second Language Requirement	4	
PHYS 141 Introductory Mechanics or PHYS 161H*	4	MATH 122B or 125
ECON 200 Basic Economic Issues **	3	
Semester Total		<b>17</b>
<b>4<sup>th</sup> Semester</b>		
Second Language Requirement	4	
IBE 201 IBE Projects in the Community	3	New project course, ENTR 287
CE 214 Statics	3	PHYS 141 or 161H; MATH 129
PHYS 241 Electricity and Magnetism or PHYS 261H	4	PHYS 141 or 161H
SIE 265 Engineering Economy	3	MATH 122B or 125
Semester Total		<b>17</b>

Course Number and Title	Units	Comments
<b>5<sup>th</sup> Semester</b>		
BNAD 301 Global and Financial Economics and Strategies	3	ECON 200
CE 301 Technical Communications***	3	
IBE 300A Junior Seminar I	1	New course, IBE 201
SIE 305 Engineering Probability and Statistics	3	MATH 129; ENGR Advanced Standing
AME 230 Thermodynamics or CHEE 201 Elements of Chemical & Environmental Engineering	3	PHYS 141; MATH 129, CHEM 152 or MSE 110
General Education: Building Connections	3	
Semester Total	<b>16</b>	
<b>6<sup>th</sup> Semester</b>		
BNAD 303 Marketing Principles, Concepts and Tools	3	
SIE 457 Project Management	3	ENGR Advanced Standing
ECE 207 Elements of Electrical Engineering	3	PHYS 241 or 261H
General Education: Exploring Perspectives (Humanist)	3	
IBE 300B Junior Seminar II	2	New Course, IBE 300A
Semester Total	<b>14</b>	
<b>7<sup>th</sup> Semester</b>		
IBE 498A: Innovation and New Venture Development Capstone I	3	New Course, SIE 457
FIN 480 Finance for New Ventures	3	
MKTG 480 Marketing Research for Entrepreneurs	3	
General Education: Building Connections	3	
UNIV 301 General Education Portfolio	1	
Semester Total	<b>13</b>	
<b>8<sup>th</sup> Semester</b>		
IBE 498B: Innovation and New Venture Development Capstone II	3	New Course
General Education: Exploring Perspectives (Artist)	3	
SIE 414 Law for Engineers and Scientists	3	ENGR Advanced Standing
BNAD 302 Human Side of Organizations	3	
Semester Total	<b>12</b>	

**Current Total Units (Minimum) = 120**

\*CHEM 151 or PHYS 141 will fulfill General Education: Exploring Perspectives (Natural Scientist)

\*\*ECON 200 will fulfill General Education: Exploring Perspectives (Social Scientist)

\*\*\*CE 301 (UWGEC Approved) will fulfill GE Building Connections