B.S. IN ENGINEERING SCIENCE

Curriculum Requirements

Electrical Circuit Theory 3	Code	Title	Credit Hours
AGE 210 Mechanics of Solids	Engineering Courses		
Electrical Circuits Laboratory 1 1 1 1 1 1 1 1 1	CAE 210	Mechanics of Solids I	3
Electrical Circuits Laboratory 1 1 1 1 1 1 1 1 1	ECE 201	Electrical Circuit Theory	3
Electronics Electronics 3 3 3 3 3 3 3 3 3	ECE 204	Electrical Circuits Laboratory	1
MAE 111 Introduction to Engineering I 3 MAE 112 Introduction to Engineering I 2 MAE 112 Introduction to Engineering I 2 MAE 207 Mechanics of Solids II 3 MAE 207 Mechanics of Solids II 3 MAE 201 Engineering Materials Science 3 MAE 301 Engineering Materials Science 3 MAE 302 Mechanical Behavior of Materials 3 MAE 303 Thermodynamics 3 MAE 309 Fluid Mechanics 3 MAE 412 System Dynamics 3 MAE 412 System Dynamics 3 MAE 410 System Dynamics 3 MAE 410 System Dynamics 3 MAE 411 Calculus I for Engineers 5 MITH 161 Calculus I for Engineers 5 MITH 162 Calculus II for Engineers 5 MITH 161 Introduction to Linear Algebra 3 MITH 311 Introduction to Cerlianary Differential Equations 3 MITH 311 Introduction to Cerlianary Differential Equations 3 MITH 311 Introduction to Structure and Dynamics 4 MITH 210 Chemistry Laboratory I 1 CHM 121 Chemistry Laboratory I 1 CHM 121 Chemistry Laboratory I 1 CHM 121 Chemistry Laboratory I 1 CHM 201 Organic Chemistry I (Lecture) 3 CHM 201 Organic Chemistry I (Lecture) 3 CHM 205 Chemical Dynamics Laboratory 1 MITH 30 Organic Chemistry I (Lecture) 3 PHY 222 University Physics II I 1 PHY 223 University Physics II I 1 PHY 224 University Physics II I 1 PHY 225 University Physics II I 1 PHY 226 University Physics II I 1 PHY 350 Intermediate Electricity and Magnetism II or CHM 200 Organic Chemistry II (Lecture) 3 PHY 351 Intermediate Electricity and Magnetism II or CHM 200 Organic Chemistry II (Lecture) 3 General Education Requirements Writing I I I STEM 3 WRS 107 First-Year Writing II: STEM 3 WRS 108 First-Year Writing II: STEM 3 Quantitative Skills:	ECE 305		3
MAE 112 Introduction to Engineering II 2 MAE 202 Dynamics 3 MAE 207 Mechanics of Solids II 3 MAE 241 Measurements Laboratory 3 MAE 241 Measurements Laboratory 3 MAE 301 Engineering Materials Science 3 MAE 302 Mechanical Behavior of Materials 3 MAE 303 Thermodynamics 3 MAE 303 Thermodynamics 3 MAE 309 Fluid Mechanics 3 MAE 309 Fluid Mechanics 3 MAE 412 System Dynamics 3 Applied Elective 3 MAE 412 System Dynamics 3 Applied Elective 3 MAE 111 Calculus I for Engineers 5 MTH 151 Calculus I for Engineers 5 MTH 162 Calculus II 4 Multivariable Calculus II 5 Multivariable Calculus II 6 Multiv	ISE 311	Applied Probability and Statistics	3
MAE 202 Dynamics 3 MAE 207 Mechanics of Solids II 3 MAE 207 Mechanics of Solids II 3 MAE 201 Engineering Materials Science 3 MAE 301 Engineering Materials Science 3 MAE 302 Mechanical Behavior of Materials 3 MAE 303 Thermodynamics 3 MAE 309 Fluid Mechanics 3 MAE 309 Fluid Mechanics 3 MAE 412 System Dynamics 3 Applied Elective 4 3 Applied Elective 4 3 Applied Elective 5 MITH 151 Calculus I for Engineers 5 MITH 162 Calculus II 1 MITH 210 Introduction to Linear Algebra 3 MITH 310 Multivariable Calculus II 3 MITH 311 Introduction to Crimary Differential Equations 3 MITH 311 Introduction to Trinciples of Chemistry 1 MITH 311 Chemistry Laboratory 1 1 MITH 311 Chemistry Laboratory II 1 MITH 311 Chemistry Laboratory II 1 MITH 310 Organic Chemistry (Lecture) 3 MITH 311 Organic Chemistry (Lecture) 3 MITH 310 Organic Chemistry (Lecture) 3 MITH 310 Organic Chemistry (Lecture) 3 MITH 311 Organic Chemistry (Lecture) 3 MITH 312 Organic Chemistry (Lecture) 3 MITH 313 Organic Chemistry (Lecture) 3 MITH 314 Organic Chemistry (Lecture) 3 MITH 315 Organic Chemistry (Lecture) 3 MITH 316 Organic Chemistry (Lecture) 3 MITH 317 Organic Chemistry (Lecture) 3 MITH 318 Organic Chemistry (Lecture) 3 MITH 319 Organic Chemistry (Lecture) 3 MITH 310 Organic Chemistry (Lecture) 3 MITH 311 Organic Chemistry (Mithus III Lab 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	MAE 111	Introduction to Engineering I	3
MAE 207 Mechanics of Solids II 3 MAE 241 Measurements Laboratory 3 MAE 302 Mechanical Behavior of Materials 3 MAE 303 Thermodynamics 3 MAE 309 Fluid Mechanics 3 MAE 412 System Dynamics 3 Applied Elective 3 Technical Elective 3 Technical Elective 3 MTH 151 Calculus II on the street of the stre	MAE 112	Introduction to Engineering II	2
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MAE 302 Mechanical Behavior of Materials 3 MAE 303 Thermodynamics 3 MAE 412 System Dynamics 3 Applied Elective 3 Technical Elective 3 Math and Science Courses 3 MTH 151 Calculus II or Engineers 5 MTH 162 Calculus II 4 MTH 200 Introduction to Linear Algebra 3 MTH 310 Multivariable Calculus 3 MTH 311 Introduction to Ordinary Differential Equations 3 MTH 312 Principles of Chemistry 4 CHM 122 Principles of Chemistry 4 CHM 123 Chemistry Laboratory I 1 CHM 221 Introduction to Structure and Dynamics 4 CHM 221 Introduction to Structure and Dynamics 4 CHM 222 Organic Chemistry I (Lecture) 3 CHM 205 Chemical Dynamics Laboratory 1 CHM 360 Physical Chemistry I (Lecture) 3 PHY 222 University Physics II 3	MAE 241	Measurements Laboratory	3
MAE 303 Thermodynamics 3 MAE 309 Fluid Mechanics 3 MAE 412 System Dynamics 3 Applied Elective 3 Technical Elective 3 Math and Science Courses **** MTH 151 Calculus I for Engineers 5 MTH 210 Introduction to Linear Algebra 3 MTH 211 Introduction to Multivariable Calculus 3 MTH 311 Introduction to Ordinary Differential Equations 3 CHM 121 Principles of Chemistry 4 CHM 121 Principles of Chemistry 4 CHM 122 Introduction to Structure and Dynamics 4 CHM 221 Introduction to Structure and Dynamics 4 CHM 221 Introduction to Structure and Dynamics 4 CHM 201 Organic Chemistry I (Lecture) 3 CHM 205 Chemical Dynamics Laboratory 1 CHM 206 Physical Chemistry I (Lecture) 3 PHY 222 University Physics II 3 PHY 222 University Physics III	MAE 301	Engineering Materials Science	3
MAE 309 Fluid Mechanics 3 MAE 412 System Dynamics 3 Applied Elective 3 Technical Elective 3 Math and Science Courses 5 MTH 151 Calculus I for Engineers 5 MTH 20 Introduction to Linear Algebra 3 MTH 310 Multivariable Calculus 3 MTH 311 Introduction to Ordinary Differential Equations 3 CHM 121 Principles of Chemistry 4 CHM 131 Chemistry Laboratory I 1 CHM 221 Introduction to Structure and Dynamics 4 CHM 214 Chemistry Laboratory I 1 CHM 225 Chemical Dynamics Laboratory I 1 CHM 201 Organic Chemistry I (Lecture) 3 OHM 205 Chemical Dynamics Laboratory 1 CHM 206 Chemical Dynamics Laboratory 1 CHM 207 Organic Chemistry I (Lecture) 3 PHY 222 University Physics II 3 PHY 222 University Physics III 3 <td>MAE 302</td> <td>Mechanical Behavior of Materials</td> <td>3</td>	MAE 302	Mechanical Behavior of Materials	3
MAE 412 System Dynamics 3 Applied Elective 3 Technical Elective 3 Math and Science Courses 5 MTH 151 Calculus I for Engineers 5 MTH 162 Calculus II 4 MTH 210 Introduction to Linear Algebra 3 MTH 311 Introduction to Ordinary Differential Equations 3 MTH 312 Principles of Chemistry 4 CHM 121 Principles of Chemistry 4 CHM 131 Chemistry Laboratory I 1 CHM 221 Introduction to Structure and Dynamics 4 CHM 211 Chemistry Laboratory II 1 CHM 201 Organic Chemistry I (Lecture) 3 CHM 201 Organic Chemistry I (Lecture) 3 CHM 205 Chemical Dynamics Laboratory 1 CHM 360 Physical Chemistry I (Lecture) 3 PHY 222 University Physics II 3 PHY 223 University Physics II 3 PHY 224 University Physics III Lab 1	MAE 303	Thermodynamics	3
Applied Elective	MAE 309	Fluid Mechanics	3
Math and Science Courses	MAE 412	System Dynamics	3
Math and Science Courses 5 MTH 151 Calculus I for Engineers 5 MTH 162 Calculus II 4 MTH 210 Introduction to Linear Algebra 3 MTH 310 Multivariable Calculus 3 MTH 311 Introduction to Ordinary Differential Equations 3 CHM 121 Principles of Chemistry 4 CHM 113 Chemistry Laboratory I 1 CHM 221 Introduction to Structure and Dynamics 4 CHM 114 Chemistry Laboratory II 1 CHM 201 Organic Chemistry I (Lecture) 3 OHM 205 Chemical Dynamics Laboratory 1 CHM 360 Physical Chemistry I (Lecture) 3 PHY 221 University Physics II 3 PHY 222 University Physics II 3 PHY 223 University Physics III Lab 1 PHY 224 University Physics III Lab 1 PHY 350 Intermediate Electricity and Magnetism II 3 Or CHM 202 Organic Chemistry II (Lecture) PHY 361 </td <td>Applied Elective</td> <td></td> <td>3</td>	Applied Elective		3
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MTH 210 Introduction to Linear Algebra 3 MTH 310 Multivariable Calculus 3 MTH 311 Introduction to Ordinary Differential Equations 3 CHM 121 Principles of Chemistry 4 CHM 113 Chemistry Laboratory I 1 CHM 122 Introduction to Structure and Dynamics 4 CHM 124 Chemistry Laboratory II 1 CHM 201 Organic Chemistry I (Lecture) 3 CHM 205 Chemical Dynamics Laboratory 1 CHM 360 Physical Chemistry I (Lecture) 3 PHY 221 University Physics II 3 PHY 222 University Physics II 3 PHY 223 University Physics II Lab 1 PHY 224 University Physics II Lab 1 PHY 225 University Physics III Lab 1 PHY 350 Intermediate Electricity and Magnetism 3 PHY 351 Intermediate Electricity and Magnetism II 3 or CHM 202 Organic Chemistry II (Lecture) PHY 360 Introduction to Modern Physics 3 General Education Requirements 3	MTH 151	Calculus I for Engineers	5
MTH 310 Multivariable Calculus 3 MTH 311 Introduction to Ordinary Differential Equations 3 CHM 121 Principles of Chemistry 4 CHM 113 Chemistry Laboratory I 1 CHM 221 Introduction to Structure and Dynamics 4 CHM 114 Chemistry Laboratory II 1 CHM 201 Organic Chemistry I (Lecture) 3 CHM 205 Chemical Dynamics Laboratory 1 CHM 360 Physical Chemistry I (Lecture) 3 PHY 221 University Physics II 3 PHY 222 University Physics II 3 PHY 223 University Physics II Lab 1 PHY 224 University Physics II Lab 1 PHY 350 Intermediate Electricity and Magnetism 1 PHY 351 Intermediate Electricity and Magnetism 3 or CHM 202 Organic Chemistry II (Lecture) PHY 360 Introduction to Modern Physics 3 General Education Requirements 3 Wifts 105 First-Year Writing I 3 WRS 107 First-Year Writing II: STEM 3	MTH 162	Calculus II	4
MTH 311 Introduction to Ordinary Differential Equations 3 CHM 121 Principles of Chemistry 4 CHM 113 Chemistry Laboratory I 1 CHM 221 Introduction to Structure and Dynamics 4 CHM 211 Chemistry Laboratory II 1 CHM 201 Organic Chemistry I (Lecture) 3 CHM 205 Chemical Dynamics Laboratory 1 CHM 360 Physical Chemistry I (Lecture) 3 PHY 221 University Physics II 3 PHY 222 University Physics II 3 PHY 223 University Physics II Lab 1 PHY 224 University Physics II Lab 1 PHY 255 University Physics III Lab 1 PHY 350 Intermediate Electricity and Magnetism 3 PHY 351 Intermediate Electricity and Magnetism II 3 or CHM 202 Organic Chemistry II (Lecture) PHY 360 Introduction to Modern Physics 3 General Education Requirements Written Communication Skills: 3 WRS 105 First-Year Writing I: STEM 3 WRS 107 <td>MTH 210</td> <td>Introduction to Linear Algebra</td> <td>3</td>	MTH 210	Introduction to Linear Algebra	3
CHM 121 Principles of Chemistry 4 CHM 113 Chemistry Laboratory I 1 CHM 221 Introduction to Structure and Dynamics 4 CHM 214 Chemistry Laboratory II 1 CHM 201 Organic Chemistry I (Lecture) 3 CHM 205 Chemical Dynamics Laboratory 1 CHM 360 Physical Chemistry I (Lecture) 3 PHY 221 University Physics II 3 PHY 222 University Physics III 3 PHY 223 University Physics III Lab 1 PHY 255 University Physics III Lab 1 PHY 350 Intermediate Electricity and Magnetism 3 PHY 351 Intermediate Electricity and Magnetism II 3 or CHM 202 Organic Chemistry II (Lecture) PHY 360 Introduction to Modern Physics 3 General Education Requirements Written Communication Skills: 3 WRS 105 First-Year Writing I. STEM 3 WRS 107 First-Year Writing II: STEM 3 WRS 108 First-Year Writing II: STEM 3 Quantitative Skills:	MTH 310	Multivariable Calculus	3
CHM 113 Chemistry Laboratory I 1 CHM 221 Introduction to Structure and Dynamics 4 CHM 114 Chemistry Laboratory II 1 CHM 201 Organic Chemistry I (Lecture) 3 CHM 205 Chemical Dynamics Laboratory 1 CHM 360 Physical Chemistry I (Lecture) 3 PHY 221 University Physics I 3 PHY 222 University Physics II 3 PHY 223 University Physics III Lab 1 PHY 224 University Physics III Lab 1 PHY 350 Intermediate Electricity and Magnetism 3 PHY 351 Intermediate Electricity and Magnetism II 3 or CHM 202 Organic Chemistry II (Lecture) PHY 360 Introduction to Modern Physics 3 General Education Requirements 3 Written Communication Skills: 3 WRS 105 First-Year Writing I 3 WRS 107 First-Year Writing II: STEM 3 Quantitative Skills: 4 4 MTH 151 Calculus I for Engineers (fulfilled through the major)	MTH 311	Introduction to Ordinary Differential Equations	3
CHM 221 Introduction to Structure and Dynamics 4 CHM 114 Chemistry Laboratory II 1 CHM 201 Organic Chemistry I (Lecture) 3 CHM 205 Chemical Dynamics Laboratory 1 CHM 360 Physical Chemistry I (Lecture) 3 PHY 221 University Physics I 3 PHY 222 University Physics II 3 PHY 223 University Physics III Lab 1 PHY 224 University Physics III Lab 1 PHY 350 Intermediate Electricity and Magnetism 3 PHY 351 Intermediate Electricity and Magnetism II 3 or CHM 202 Organic Chemistry II (Lecture) PHY 360 Intermediate Electricity and Magnetism II 3 or CHM 202 Organic Chemistry II (Lecture) PHY 360 Intermediate The Physics 3 General Education Requirements 3 Written Communication Skills: 4 WRS 105 First-Year Writing I 3 WRS 107 First-Year Writing II: STEM 3 Quantitative Skills: 4 3 MTH 151 C	CHM 121	Principles of Chemistry	4
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CHM 201 Organic Chemistry I (Lecture) 3 CHM 205 Chemical Dynamics Laboratory 1 CHM 360 Physical Chemistry I (Lecture) 3 PHY 221 University Physics I 3 PHY 222 University Physics II 3 PHY 223 University Physics III 3 PHY 224 University Physics II Lab 1 PHY 350 Intermediate Electricity and Magnetism 3 PHY 351 Intermediate Electricity and Magnetism II 3 or CHM 202 Organic Chemistry II (Lecture) PHY 360 Introduction to Modern Physics 3 General Education Requirements Written Communication Skills: First-Year Writing I 3 WRS 105 First-Year Writing II: STEM 3 Quantitative Skills: A 3 MTH 151 Calculus I for Engineers (fulfilled through the major) 4	CHM 221	Introduction to Structure and Dynamics	4
CHM 205 Chemical Dynamics Laboratory 1 CHM 360 Physical Chemistry I (Lecture) 3 PHY 221 University Physics I 3 PHY 222 University Physics III 3 PHY 223 University Physics III 3 PHY 224 University Physics III Lab 1 PHY 350 Intermediate Electricity and Magnetism 3 PHY 351 Intermediate Electricity and Magnetism II 3 or CHM 202 Organic Chemistry II (Lecture) PHY 360 Introduction to Modern Physics 3 General Education Requirements Written Communication Skills: First-Year Writing I 3 WRS 105 First-Year Writing II: STEM 3 Quantitative Skills: A 3 MTH 151 Calculus I for Engineers (fulfilled through the major)	CHM 114	Chemistry Laboratory II	1
CHM 360 Physical Chemistry I (Lecture) 3 PHY 221 University Physics I 3 PHY 222 University Physics III 3 PHY 223 University Physics III Lab 1 PHY 224 University Physics III Lab 1 PHY 350 Intermediate Electricity and Magnetism 3 PHY 351 Intermediate Electricity and Magnetism II 3 or CHM 202 Organic Chemistry II (Lecture) PHY 360 Introduction to Modern Physics 3 General Education Requirements Written Communication Skills: First-Year Writing I 3 WRS 105 First-Year Writing II: STEM 3 Quantitative Skills: A A MTH 151 Calculus I for Engineers (fulfilled through the major)	CHM 201	Organic Chemistry I (Lecture)	3
PHY 221 University Physics I 3 PHY 222 University Physics II 3 PHY 223 University Physics III 3 PHY 224 University Physics II Lab 1 PHY 255 University Physics III Lab 1 PHY 350 Intermediate Electricity and Magnetism 3 PHY 351 Intermediate Electricity and Magnetism II 3 or CHM 202 Organic Chemistry II (Lecture) PHY 360 Introduction to Modern Physics 3 General Education Requirements Written Communication Skills: First-Year Writing I 3 WRS 105 First-Year Writing II: STEM 3 Quantitative Skills: MTH 151 Calculus I for Engineers (fulfilled through the major)	CHM 205	Chemical Dynamics Laboratory	1
PHY 222 University Physics II 3 PHY 223 University Physics III Lab 1 PHY 224 University Physics III Lab 1 PHY 225 University Physics III Lab 1 PHY 350 Intermediate Electricity and Magnetism 3 PHY 351 Intermediate Electricity and Magnetism II 3 or CHM 202 Organic Chemistry II (Lecture) PHY 360 Introduction to Modern Physics 3 General Education Requirements Written Communication Skills: First-Year Writing I 3 WRS 105 First-Year Writing II: STEM 3 WRS 107 First-Year Writing II: STEM 3 Quantitative Skills: MTH 151 Calculus I for Engineers (fulfilled through the major)	CHM 360	Physical Chemistry I (Lecture)	3
PHY 223 University Physics III 3 PHY 224 University Physics II Lab 1 PHY 225 University Physics III Lab 1 PHY 350 Intermediate Electricity and Magnetism 3 PHY 351 Intermediate Electricity and Magnetism II 3 or CHM 202 Organic Chemistry II (Lecture) PHY 360 Introduction to Modern Physics 3 General Education Requirements Written Communication Skills: WRS 105 First-Year Writing I 3 WRS 107 First-Year Writing II: STEM 3 Quantitative Skills: MTH 151 Calculus I for Engineers (fulfilled through the major)	PHY 221	University Physics I	3
PHY 224 University Physics II Lab 1 PHY 225 University Physics III Lab 1 PHY 350 Intermediate Electricity and Magnetism 3 PHY 351 Intermediate Electricity and Magnetism II 3 or CHM 202 Organic Chemistry II (Lecture) PHY 360 Introduction to Modern Physics 3 General Education Requirements Written Communication Skills: WRS 105 First-Year Writing I 3 WRS 107 First-Year Writing II: STEM 3 Quantitative Skills: MTH 151 Calculus I for Engineers (fulfilled through the major)	PHY 222		3
PHY 225 University Physics III Lab 1 PHY 350 Intermediate Electricity and Magnetism 3 PHY 351 Intermediate Electricity and Magnetism II 3 or CHM 202 Organic Chemistry II (Lecture) PHY 360 Introduction to Modern Physics 3 General Education Requirements Written Communication Skills: WRS 105 First-Year Writing I 3 WRS 107 First-Year Writing II: STEM 3 Quantitative Skills: MTH 151 Calculus I for Engineers (fulfilled through the major)	PHY 223		3
PHY 350 Intermediate Electricity and Magnetism 3 PHY 351 Intermediate Electricity and Magnetism II 3 or CHM 202 Organic Chemistry II (Lecture) PHY 360 Introduction to Modern Physics 3 General Education Requirements Written Communication Skills: WRS 105 First-Year Writing I 3 WRS 107 First-Year Writing II: STEM 3 Quantitative Skills: MTH 151 Calculus I for Engineers (fulfilled through the major)	PHY 224		1
PHY 351 Intermediate Electricity and Magnetism II 3 or CHM 202 Organic Chemistry II (Lecture) PHY 360 Introduction to Modern Physics 3 General Education Requirements Written Communication Skills: WRS 105 First-Year Writing I 3 WRS 107 First-Year Writing II: STEM 3 Quantitative Skills: MTH 151 Calculus I for Engineers (fulfilled through the major)	PHY 225		1
or CHM 202 Organic Chemistry II (Lecture) PHY 360 Introduction to Modern Physics 3 General Education Requirements Written Communication Skills: WRS 105 First-Year Writing I 3 WRS 107 First-Year Writing II: STEM 3 Quantitative Skills: MTH 151 Calculus I for Engineers (fulfilled through the major)	PHY 350	· · · · · · · · · · · · · · · · · · ·	3
PHY 360 Introduction to Modern Physics 3 General Education Requirements Written Communication Skills: WRS 105 First-Year Writing I 3 WRS 107 First-Year Writing II: STEM 3 Quantitative Skills: MTH 151 Calculus I for Engineers (fulfilled through the major)	PHY 351		3
General Education Requirements Written Communication Skills: WRS 105 First-Year Writing I 3 WRS 107 First-Year Writing II: STEM 3 Quantitative Skills: MTH 151 Calculus I for Engineers (fulfilled through the major)	or CHM 202		
Written Communication Skills: WRS 105 First-Year Writing I 3 WRS 107 First-Year Writing II: STEM 3 Quantitative Skills: MTH 151 Calculus I for Engineers (fulfilled through the major)	PHY 360	Introduction to Modern Physics	3
WRS 105 First-Year Writing I 3 WRS 107 First-Year Writing II: STEM 3 Quantitative Skills: MTH 151 Calculus I for Engineers (fulfilled through the major)	-		
WRS 107 First-Year Writing II: STEM 3 Quantitative Skills: MTH 151 Calculus I for Engineers (fulfilled through the major)			
Quantitative Skills: MTH 151 Calculus I for Engineers (fulfilled through the major)	WRS 105	-	3
MTH 151 Calculus I for Engineers (fulfilled through the major)	WRS 107	First-Year Writing II: STEM	3
	Quantitative Skills:		
Areas of Knowledge:		Calculus I for Engineers (fulfilled through the major)	
	Areas of Knowledge:		

Arts and Humanities Cognate	9
People and Society Cognate	9
STEM Cognate (9 credits) (fulfilled through the major)	
Total Credit Hours	127

Suggested Plan of Study

Fall Credit Hours MAE 111 Introduction to Engineering I 3 WHS 105 First-Year Writing I 3 MTH 151 Calculus I for Engineers 5 PHY 221 University Physics I 3 PHY 221 University Physics II 3 Spring 9 CAE 210 Mechanics of Solids I 3 WRS 107 First-Year Writing II. STEM 3 WRS 107 First-Year Writing II. STEM 3 MTH 162 Calculus II 4 PHY 222 University Physics II. B 1 PHY 222 University Physics II. B 1 MAE 207 Mechanics of Solids II 3 MAE 207 Mechanics of Solids II 3 MAE 207 Mechanics of Solids II 3 MTH 210 Introduction to Linear Algebra 3 MTH 211 Principles of Chemistry 4 CHM 122 Principles of Chemistry 3 PHY 223 University Physics III 3 PHY 225			
MAE 111 Introduction to Engineering I 3 3 WRS 105 First-Year Writing I 3 3 WRS 105 First-Year Writing I 3 3 5 PHY 221 University Physics I 3 3 Credit Hours I 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Freshman Year		
WRS 105 First-Year Writing I 3 MTH 151 Calculus I for Engineers 5 PHY 221 University Physics I 3 Credit Hours 14 Spring MAE 112 Introduction to Engineering II 2 CAE 210 Mechanics of Solids I 3 WISS 107 First-Year Writing II: STEM 3 MITH 162 Calculus II 4 PHY 222 University Physics II Lab 1 PHY 224 University Physics II Lab 1 Credit Hours 16 Sophomore Vear Fall MAE 207 Mechanics of Solids II 3 Credit Hours 3 CHM 121 Principles of Chemistry 3 CHM 121 Physical Laboratory I 1 Introduction to Linear Algebra 3 A University Physics III 3 PHY 223 University Physics III Lab 1			

PS Cognate (PS Elective) ¹		3
	Credit Hours	13
Senior Year		
Fall		
MAE 302	Mechanical Behavior of Materials	3
MAE 412	System Dynamics	3
CHM 360	Physical Chemistry I (Lecture)	3
PHY 360	Introduction to Modern Physics	3
PS Cognate (Adv. PS Elective) ¹		3
	Credit Hours	15
Spring		
PHY 351 or CHM 202	Intermediate Electricity and Magnetism II or Organic Chemistry II (Lecture)	3
ECE 305	Electronics I	3
CHM 205	Chemical Dynamics Laboratory	1
Applied Elective ²		3
Technical Elective ³		3
HA Cognate (Adv. HA Elective) ¹		3
	Credit Hours	16
	Total Credit Hours	124

You must complete a minimum of 1 PS cognate and 1 HA cognate to be selected from the list of available cognates. Each cognate should be a minimum of three courses (9 credit hours).

Applied electives are advanced courses selected in coordination with the Faculty Advisor and require his/her approval.

Technical Electives are advanced courses in mathematics, science or engineering, approved by the Faculty Advisor, as appropriate for individual objectives.