

# 2014-2015 Catalogue

## ENGINEERING B.A.E.

All students must meet the University Requirements .

The Bachelor of Arts in Engineering degree is intended to provide an engineering background for students who desire more educational breadth in the liberal arts than is possible with the various engineering B.S. degrees. Students graduating with this degree might pursue more advanced studies in engineering, or they might go on to advanced studies in fields such as business, law, environmental science, medicine, etc. The degree is not ABET-accredited and is not intended to produce students prepared to work as practicing engineers immediately upon graduation. The degree requires 120-124 credits.

Engineering B.A. students declare a primary concentration of study in engineering and a minor in liberal arts. The primary concentration can be within one of the following four areas of engineering: civil, electrical, environmental, or mechanical systems. Alternatively, students may request to develop their own tailored primary concentration in engineering. The required course work for each primary concentration area will be determined by a committee of SoE faculty with research and teaching interests in areas relevant to the concentration topic. The minor must be selected from the liberal arts minors offered by the College of Arts and Sciences (natural science and mathematical science minors may not be selected). Engineering B.A. students complete a specified set of course work in the mathematics and basic sciences and in engineering, as well as complete the B.A. distribution requirements of the College of Arts and Sciences.

## PLAN OF STUDY

### THE CURRICULUM FOR THE B.A. IN ENGINEERING

First Year	Credits	
	Fall	Spring
CE 003 Intro to Civil & Envir Engr or ENGR 002 Graphical Communication	2	
CHEM 031 General Chemistry 1	4	
ENGS 001 Written Expression	3	
MATH 021 Calculus I	4	
HSS Electives (Social Science) <sup>1</sup>	3	3
CS 020 Programming for Engineers		3
MATH 022 Calculus II		4
ME 001 First-Year Design Experience or EE 001 First-year Design Experience or ENGR 002 Graphical Communication		2
PHYS 030 Physics Problem Solving I (Optional)		0-1

PHYS 031 Physics for Engineers I		4
Year Total:	16	16-17
<b>Sophomore</b>		
	<b>Fall</b>	<b>Spring</b>
EE 003 Linear Circuit Analysis I <sup>2</sup> or EE 100 Electrical Engr Concepts	3-4	
MATH 121 Calculus III	4	
PHYS 123 Physics Problem Solving II (Optional)	0-1	
PHYS 125 Physics for Engineers II	3	
Choose two HSS Electives (Humanities) <sup>1</sup>	6	
CE 001 Statics <sup>2</sup>		3
Engineering Science <sup>2,3</sup>		3
MATH 271 Adv Engineering Mathematics		3
ME 040 Thermodynamics <sup>2</sup>		3
HSS Elective (Fine Arts) <sup>1</sup>		3
Year Total:	16-18	15
<b>Junior</b>		
	<b>Fall</b>	<b>Spring</b>
Choose two Engineering Science courses <sup>3</sup>	6	6
Minor <sup>4</sup>	3	3
Free Elective	3	3
HSS Elective (Foreign Lang) <sup>1</sup>	3	3
Year Total:	15	15
<b>Senior</b>		
	<b>Fall</b>	<b>Spring</b>
Engineering Science <sup>3</sup>	3	
Senior Thesis/Design (ME/EE focus) or Free Elective (CE/EENV focus) <sup>5</sup>	3	
Free Elective	3	
Choose two minor courses <sup>4</sup>	6	6
Choose two Engineering Science courses <sup>3</sup>		6

# 2014-2015 Catalogue

Senior Design/Thesis <sup>5</sup>		2-3
Year Total:	15	14-15
<b>Total Credits in Sequence:</b>		
		<b>122-126</b>

- <sup>1</sup> Consult the College of Arts & Sciences portion of this catalog for courses approved to meet the Bachelor of Arts distribution requirements. BAE students should use HSS or minor requirements to satisfy diversity requirement (three credits of D1 and three credits of D1 or D2).
- <sup>2</sup> Pre-Engineering Technical (PET) requirements: MATH 021 and MATH 022, CHEM 031, PHYS 031 and CS 020. All PET courses must be completed with C- or better before any sophomore engineering courses may be taken.
- <sup>3</sup> Engineering Science: All CE, EE, ME and ENGR courses (except ENGR 010). Must have a minimum of 9 credits at the 200-level.
- <sup>4</sup> Minor in a liberal arts field is required. BAE students should use HSS or minor requirements to satisfy diversity requirement (three credits of D1 and three credits of D1 or D2).
- <sup>5</sup> Senior Design/Thesis credits vary depending upon program (consult advisor).