

**Sample Honors &
 Biological Engineering BS Curriculum**

<u>First Year – First Semester (18)</u>		<u>Cr.</u>	<u>First Year – Second Semester (18)</u>		<u>Cr.</u>
HON 111 Civilizations I		4	HON 112 Civilizations II		4
CHB 111 Intro. to Chemical and Biological Engineering I		2	CHB 112 Intro. to Chemical and Biological Engineering II		2
CHY 121 Introduction to Chemistry		3	CHY 122 Molecular Basis of Chem. Change		3
CHY 123 Introduction to Chemistry Lab		1	CHY 124 Molecular Basis of Chem. Change Lab		1
MAT 126 Calculus I		4	MAT 127 Calculus II		4
PHY 121 Physics for Engineers and Physical Scientists I		4	PHY 122 Physics for Engineers and Physical Scientists II		4
<u>Second Year – First Semester (18)</u>		<u>Cr.</u>	<u>Second Year – Second Semester (17)</u>		<u>Cr.</u>
BIO 100 Basic Biology		4	HON 212 Civilizations IV		4
CHB 200 Fundamentals of Process Engineering		4	CHB 350 Statistical Process Control and Analysis		3
CHY 251 Organic Chemistry		3	CHE 385 Chemical Engineering Thermodynamics		3
CHY 253 Organic Chemistry Lab		2	ECE 209 Fundamentals of Electric Circuits		3
MAT 228 Calculus III		4	MAT 258 Introduction to Differential Equations with Linear Algebra		4
HON 180 ^a A Cultural Odyssey		1			
<u>Third Year – First Semester (19)</u>		<u>Cr.</u>	<u>Third Year – Second Semester (17)</u>		<u>Cr.</u>
HON 211 Civilizations III		4	HON 310 Honors Tutorial		3
BMB 300 General Microbiology		3	BMB 322 Biochemistry		3
BMB 305 General Microbiology Lab		2	BMB 323 Introductory Biochemistry Lab		1
CHE 352 Process Control		3	CHE 361 Chemical Engineering Lab I		3
CHE 360 Elements of Chem. Engineering I		4	CHE 362 Elements of Chemical Engineering II		4
MEE 252 Statistics and Strength of Materials		3	CHE 368 Kinetics and Reactor Design		3
<u>Fourth Year – First Semester (13)</u>		<u>Cr.</u>	<u>Fourth Year – Second Semester (12)</u>		<u>Cr.</u>
HON 498 Honors Directed Study		3	HON 499 Honors Thesis		3
BLE 492 Design Project		1	BLE 492 ^b Design Project		3
CHB 460 Biochemical Engineering		3	Technical Elective I ^c		3
CHB 493 Chem. & Bio. Eng. Seminar		0	Technical Elective II ^{b,c}		3
CHE 363 Chemical Engineering Lab II		3			
CHE 477 Elements of Chem. Process Design		3			

Total Credits: 132 (130*)

Thesis counts for major capstone: N^b

NOTES: ^a A Cultural Odyssey (HON 180) must be taken for 1 credit at any time during the 8 semesters, but is recommended to be taken during the first 2 years.

^b Students writing an Honors thesis (HON 498/499) in Biological Engineering and advised by an approved faculty member may be exempted from **either** the spring portion of BLE 492 for 3 credits **or** one technical elective. Check with your engineering advisor before proceeding.

^c Technical Electives should be upper level (300 or higher) engineering, mathematics, or science courses. A list of approved courses is available at the Department Office.

*Total Credits without Honors