

**Sample Honors &  
 Chemical Engineering BS Curriculum**

<b><u>First Year – First Semester (18)</u></b>	<b><u>Cr.</u></b>	<b><u>First Year – Second Semester (18)</u></b>	<b><u>Cr.</u></b>
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
<b><u>Second Year – First Semester (18)</u></b>	<b><u>Cr.</u></b>	<b><u>Second Year – Second Semester (17)</u></b>	<b><u>Cr.</u></b>
HON 211 Civilizations III	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 Eng. Thermodynamics	3
CHY 253 Organic Chemistry Lab	2	CHY 252 Organic Chemistry II	3
MAT 228 Calculus III	4	MAT 258 Intro. to Differential Equations with Linear Algebra	4
HON 180 <sup>a</sup> A Cultural Odyssey	1		
<b><u>Third Year – First Semester (16)</u></b>	<b><u>Cr.</u></b>	<b><u>Third Year – Second Semester (16)</u></b>	<b><u>Cr.</u></b>
CHE 352 Process of Control	3	HON 310 Honors Tutorial	3
CHE 360 Elements of Chemical Engineering	4	CHE 361 Chemical Engineering Lab I	3
CHE 386 Chemical Egr. Thermodynamics II	3	CHE 362 Elements of Chemical Engineering II	4
MEE 252 Statics and Strength of Materials	3	CHE 368 Kinetics and Reactor Design	3
Advanced Chemistry Elective <sup>b</sup>	3	CHY 472 Physical Chemistry II	3
<b><u>Fourth Year – First Semester (15)</u></b>	<b><u>Cr.</u></b>	<b><u>Fourth Year – Second Semester (14)</u></b>	<b><u>Cr.</u></b>
HON 498 Honors Directed Study	3	HON 499 <sup>d</sup> Honors Thesis	3
CHB 493 Chemical and Biological Egr. Seminar	0	CHE 479 Process Design Projects	4
CHE 363 Chemical Engineering Lab II	3	CHB 493 Chemical and Biological Egr. Seminar	1
CHE 477 Elements of Chemical Process Design	3	ECE 209 Fundamentals of Electric Circuits	3
Technical Elective I <sup>c</sup>	3	Technical Elective II <sup>d</sup>	3
CHE 478 Analysis, Simulation, and Synthesis of Chemical Processes	3		

**Total Credits: 130 - 132 (130\*)**

**Thesis counts for major capstone: N<sup>d</sup>**

- NOTES:** <sup>a</sup> 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.
- <sup>b</sup> Advanced Chemistry course may be any upper level (300 level or higher) chemistry, biochemistry or chemical engineering course with significant chemistry content. Some possible courses include: CHY 475, CHY 483, CHE 410, CHE 420, CHE 430, CHE 460 or BMB 322
- <sup>c</sup> Technical Electives: these courses can be selected from the list of pre-approved technical electives. Students may receive permission for other courses provided they have an approval form signed by their advisor. (See <sup>d</sup>)
- <sup>d</sup> HON 499 counts as one technical elective. The Honors thesis may count as a second technical elective on a case-by-case basis. See your advisor before proceeding.

\*Total credits without Honors