

**Suggested Course Sequence for
Biochemistry (BS) and Biomedical Engineering (MS) Fast Track Program**

<u>First Year Fall</u>	<u>Hrs</u>	<u>First Year Spring</u>	<u>Hrs</u>
Math 1426 Calculus I	4	MATH 2425 Calculus II	4
CHEM 1341/1181 General Chemistry I	4	CHEM 1342/1182 General Chemistry II	4
BIOL 1441 Cell and Molecular Biology	4	ENGL 1302 Critical Thinking, Reading, and Writing II	3
ENGL 1301 Critical Thinking, Reading, and Writing I	3	Creative Arts	3
Total Hrs	15	Total Hrs	14

<u>Second Year Fall</u>	<u>Hrs</u>	<u>Second Year Spring</u>	<u>Hrs</u>
MATH 2326 Calculus III	3	MATH 3319 Differential Equations and Linear Algebra	3
PHYS 1443 General Technical Physics I	4	PHYS 1444 General Technical Physics II	4
CHEM 2321 Organic Chemistry	3	Language, Philosophy, and Culture Core	3
CHEM 2343 Synthesis and Analysis Lab I	3	CHEM 2322 Organic Chemistry	3
CHEM 2335 Quantitative Chemistry	3	CHEM 2144 Synthesis and Analysis Lab II	1
Total Hrs	16	Total Hrs	14

<u>Third Year Fall</u>	<u>Hrs</u>	<u>Third Year Spring</u>	<u>Hrs</u>
CHEM 3321 Physical Chemistry I	3	BE 3310 Biome Fluid Flow Comp Lab	3
CHEM 3181 Physical Chemistry I Lab	1	CHEM 4242 Biochemistry Lab	2
CHEM 4311 Biochemistry I	3	CHEM 3322 Physical Chemistry II	3
Chem 3317 Inorganic Chemistry I	3	CHEM 3181 Physical Chemistry II Lab	1
HIST 1311 History of the United States	3	HIST 1312 History of the United States	3
BE 3380 Human Physiology	3	CHEM 4312 Biochemistry II	3
Total Hrs	16	Total Hrs	15

<u>Fourth Year Fall</u>	<u>Hrs</u>	<u>Fourth Year Spring</u>	<u>Hrs</u>
BE 5331 Polymers and Biocompatibility	3	BE 5333 Nanobiomaterials	3
CHEM 4461 Instrumental Analysis	4	BE 5333 Nanobiomaterials	3
POLS 2311 Government of the United States	3	POLS 2312 State and Local Government	3
BIOL 3315 Genetics	3	Social/Cultural Studies Elective	3
Choose 1 of the following selected courses:	3	Foundational Component Course (if needed)	3
CHEM 4313 Metabolism and Regulation		BE 5365 Tissue Engineering Lab	3
CHEM 4314 Enzymology			
Total Hrs	16	Total Hrs	15

Total Number of Credits for Undergraduate Degree: 121 Hrs
Total Number of Graduate Hours Taken as an Undergrad: 9 Hrs
Total Number of Advanced Undergrad Hours taken: 38 Hours

<u>Fifth Year Fall, Spring, and Summer</u>		<u>Hrs</u>
Choose 1 of the following selected options:		
*Thesis substitute option:	6	Choose 1 Bioengineering graduate level 3- credit hour class
Choose 2 Bioengineering graduate level 3- credit hour classes **		
Thesis option:		Choose one of the following statistics courses Math 5392 / Math 5305/ Math 5355
BE 5698 Master's Degree Thesis		Total Hrs 12

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