

University of South Dakota
Major Credit Hour count: 96 [130 degree]
Major: Biomedical Engineering, B.S.

[2021-2022 Academic Catalog]

<u>Year / Semester</u>	SGR/Major Requirement	<u>Cr Hrs</u>	<u>Year / Semester</u>	SGR/Major Requirement	<u>Cr Hrs</u>	
<u>First Year - 1st Semester</u>			<u>First Year - 2nd Semester</u>			
ISCI 151/L: Integrated Science I; or Department-Approved Natural Science*	SGR 6	4	ISCI 153/L: Integrated Science II; or Department-Approved Natural Science*	SGR 6	4	
MATH 123: Calculus I	SGR 5+BS	5	MATH 125/L: Calculus II	Major	5	
ENGL 101: Composition I	SGR 1	3	CSC 170/L: Programming	Major	3	
Fine Arts	SGR 4	3	PHYS 211/L: University Physics I	Major	4	
BME 101/L: Intro to BME/Lab	Major	2			0	
	Semester Credit Hours:	17		Semester Credit Hours:	16	
<u>Second Year - 1st Semester</u>			<u>Second Year - 2nd Semester</u>			
ISCI 225/225L: Integrated Science III/Lab	BS + M	4	ISCI/BME 335/L: Biomedical Technologies/Lab	Major	4	
MATH 225: Calculus III	Major	4	MATH 321: Differential Equations	Major	3	
CHEM 326/L or CHEM 310/L: Organic Chemistry	Major	5	CHEM 328/L: O Chem II or CHEM 330: Organic Chemistry of Biomolecules	BS+Major	5	
BME 304: BME Fluid Mechanics	Major	3	BME/EM 214: Statics	Major	3	
		0	CMST 101: Fundamentals of Speech	SGR 2	3	
	Semester Credit Hours:	16		Semester Credit Hours:	18	
<u>Third Year - 1st Semester</u>			<u>Third Year - 2nd Semester</u>			
BME 303: Introduction to Biomechanics	Major	3	BME 306: BME Thermodynamics	Major	3	
MATH 481: Probability and Statistics (Math Minor)	Major	3	BME 305: BME Transport Phenomena	Major	3	
BME 300: Quantitative Systems Phys I	Major	3	BME 302: Quantitative Systems Phys II	Major	3	
BME/MET 232: Properties of Materials	Major	3	BME 463/L: BME Lab	Major	1	
BME/IENG 301: Engineering Economics	Major	2	Social Science	SGR 3	3	
ENGL 210: Intro to Literature	BS+ Major	3	Advanced Composition	SGR 1	3	
	Semester Credit Hours:	17		Semester Credit Hours:	16	
<u>Fourth Year - 1st Semester</u>			<u>Fourth Year - 2nd Semester</u>			
BME 464: BME Senior Design I	Major	3	BME 465: BME Senior Design II	Major	3	
BME 401: Introduction to Biomaterials	Major	3	BME Electives	Major	6	
Engineering Elective	Major	3	Department Approved Social Science or Humanities Electives	BS+Major	3	
Department Approved Social Science or Humanities Electives	BS+ Major	3	Social Science	SGR 3	3	
Humanities	SGR 4	3			0	
	Semester Credit Hours:	15		Semester Credit Hours:	15	
					Total Major Requirements	130

*Department-Approved Natural Science courses that fulfill System General Education Requirement #6 include ISCI 151/L: Integrated Science I, and ISCI 153/L: Integrated Science II; or CHEM 112/L: General Chemistry I, and CHEM 114/L: General Chemistry II (or CHEM 116/L Honors Chemistry), and BIOL 151/L General Biology I. Students with prior course credit or who wish to pursue more than one major should discuss options with an advisor.