

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

[2021-2022 Academic Catalog]

**First Year - 1st Semester**

ISCI 151/L: Integrated Science I; or  
Department-Approved Natural Science\*  
MATH 123: Calculus I  
ENGL 101: Composition I  
Fine Arts  
BME 101/L: Intro to BME/Lab

SGR/Major Requirement	Cr Hrs
SGR 6	4
SGR 5+BS	5
SGR 1	3
SGR 4	3
Major	2
<b>Semester Credit Hours:</b>	<b>17</b>

**Second Year - 1st Semester**

ISCI 225/225L: Integrated Science III/Lab  
MATH 225: Calculus III  
CHEM 326/L or CHEM 310/L: Organic Chemistry  
BME 304: BME Fluid Mechanics

SGR/Major Requirement	Cr Hrs
BS + M	4
Major	4
Major	5
Major	3
<b>Semester Credit Hours:</b>	<b>16</b>

**Third Year - 1st Semester**

BME 303: Introduction to Biomechanics  
MATH 481: Probability and Statistics (Math  
Minor)  
BME 300: Quantitative Systems Phys I  
BME/MET 232: Properties of Materials  
BME/IENG 301: Engineering Economics  
ENGL 210: Intro to Literature

SGR/Major Requirement	Cr Hrs
Major	3
Major	3
Major	3
Major	3
Major	2
BS+ Major	3
<b>Semester Credit Hours:</b>	<b>17</b>

**Fourth Year - 1st Semester**

BME 464: BME Senior Design I  
BME 401: Introduction to Biomaterials  
  
Engineering Elective  
Department Approved Social Science or  
Humanities Electives  
Humanities

SGR/Major Requirement	Cr Hrs
Major	3
Major	3
Major	3
BS+ Major	3
SGR 4	3
<b>Semester Credit Hours:</b>	<b>15</b>

**First Year - 2nd Semester**

ISCI 153/L: Integrated Science II; or  
Department-Approved Natural Science\*  
MATH 125/L: Calculus II  
CSC 170/L: Programming  
PHYS 211/L: University Physics I

SGR/Major Requirement	Cr Hrs
SGR 6	4
Major	5
Major	3
Major	4
<b>Semester Credit Hours:</b>	<b>16</b>

**Second Year - 2nd Semester**

ISCI/BME 335/L: Biomedical Technologies/I  
MATH 321: Differential Equations  
CHEM 328/L: O Chem II or CHEM 330:  
BME/EM 214: Statics  
CMST 101: Fundamentals of Speech

SGR/Major Requirement	Cr Hrs
Major	4
Major	3
BS+Major	5
Major	3
SGR 2	3
<b>Semester Credit Hours:</b>	<b>18</b>

**Third Year - 2nd Semester**

BME 306: BME Thermodynamics  
  
BME 305: BME Transport Phenomena  
BME 302: Quantitative Systems Phys II  
BME 463/L: BME Lab  
Social Science  
Advanced Composition

SGR/Major Requirement	Cr Hrs
Major	3
Major	3
Major	3
Major	1
SGR 3	3
SGR 1	3
<b>Semester Credit Hours:</b>	<b>16</b>

**Fourth Year - 2nd Semester**

BME 465: BME Senior Design II  
BME Electives  
Department Approved Social Science or  
Humanities Electives  
Social Science

SGR/Major Requirement	Cr Hrs
Major	3
Major	6
BS+Major	3
SGR 3	3
<b>Semester Credit Hours:</b>	<b>15</b>

**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.