

Major Credit Hour count: 96 [130 degree]

Major: Biomedical Engineering, B.S.

[2020-2021 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 | SGR 6 | 4 | ISCI 153/L: Integrated Science II | 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 | | | |
| 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/I | Major | 4 |
| MATH 225: Calculus III | Major | 4 | MATH 321: Differential Equations | Major | 3 |
| | | | CHEM 328/L: OChem II or CHEM 330: | | |
| CHEM 326/L: Organic Chemistry | Major | 5 | Struc. Func. Bio | BS+Major | 5 |
| BME 304: BME Fluid Mechanics | Major | 3 | BME/EM 214: Statics | Major | 3 |
| Semester Credit Hours: | | 16 | SPCM 101: Fundamentals of Speech | SGR 2 | 3 |
| <u>Third Year - 1st Semester</u> | | | Semester Credit Hours: | | 18 |
| BME 303: Introduction to Biomechanics | Major | 3 | <u>Third Year - 2nd Semester</u> | | |
| MATH 481: Probability and Statistics (Math Minor) | Major | 3 | BME 306: BME Thermodynamics | Major | 3 |
| BME 300: Quantitative Systems Phys I | Major | 3 | BME 305: BME Transport Phenomena | Major | 3 |
| BME/MET 232: Properties of Materials | Major | 3 | BME 302: Quantitative Systems Phys II | Major | 3 |
| BME/IENG 301: Engineering Economics | Major | 2 | BME 463/L: BME Lab | Major | 1 |
| Department Approved Elective: ENGL 210 | BS+ Major | 3 | Social Science | SGR 3 | 3 |
| Semester Credit Hours: | | 17 | ENGL 201: Composition II | SGR 1 | 3 |
| <u>Fourth Year - 1st Semester</u> | | | Semester Credit Hours: | | 16 |
| BME 464: BME Senior Design I | Major | 3 | <u>Fourth Year - 2nd Semester</u> | | |
| BME 401: Introduction to Biomaterials | Major | 3 | BME 465: BME Senior Design II | 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 | | | |
| Semester Credit Hours: | | 15 | Semester Credit Hours: | | 15 |
| | | | Total Major Requirements | | 130 |

Notes: New Joint program with SDSM&T 2019-2020