### FALL
- **BMEN 101**
  - Prof. Dev. & Ethics I
- **Biol 101 &L**
  - SCI: Biological Principles I
- **Chem 111 &L**
  - SCI: General Chemistry I & Lab
- **Math 141**
  - ARP: Calculus I
- **Engr 101**
  - CMW: Critical Reading & Comp.

### SPRING
- **BMEN 211**
  - Model & Sim. Of BMEN Sys.
- **Biol 102 &L**
  - Biological Principles II
- **Chem 112 &L**
  - General Chemistry II & Lab
- **Math 142**
  - ARP: Calculus II
- **Engr 102**
  - CMW: Rhetoric & Composition

### FRESHMAN (34)
- **BMEN 202**
  - Prof. Dev. & Ethics II
- **Math 241**
  - Vector Calculus
- **Phys 211 &L**
  - Essentials of Physics I & Lab
- **Chem 333**
  - Organic Chemistry I
- **Chem 331 L**
  - Organic Chem. Lab I
- **Biol 302 &L**
  - Cell & Molecular Biol. & Lab

### SOPHOMORE (32)
- **BMEN 260**
  - Biomechanics
- **Biol 290**
  - Thermo. of Biomolecular Sys.
- **Math 242**
  - Elem. Differential Equations
- **Phys 212 &L**
  - Essentials of Physics II & Lab
- **Stat 509**
  - Statistics for Engineers

### JUNIOR (33)
- **BMEN 271**
  - Biomaterials
- **BMEN 321**
  - Biomonitoring & Electrophys.
- **BMEN 391**
  - Kinetics in Biomolecular Systems
- **ECHE 320**
  - Fluid Mechanics
- **Elective**
  - AIU: Aest. & Intr. Understanding
- **Elective**
  - GSS: Social Science

### SENIOR (31)
- **BMEN 427**
  - Senior BMEN Design I
- **BMEN Elective**
  - BMEN elective
- **ENCPE Elective**
  - Engineering/Computing Elective
- **TECH Elective**
  - Technical Elective
- **TECH Lab**
  - Technical Lab Elective
- **Elective**
  - GHS: Historical Thinking

### SPRING
- **BMEN 303**
  - Prof. Dev. & Ethics III
- **BMEN 345**
  - Human A & P for BMEN
- **BMEN 354**
  - Biotransport
- **BMEN 361**
  - Biomedical Instrumentation
- **BMEN ELCT**
  - BMEN elective

### ADDITIONAL REQUIREMENTS (0-12)
These additional University requirements may be satisfied through overlay courses, by placement testing, or by stand alone courses beyond the curriculum requirements above.

**CMS Effective, Engaged, and Persuasive Communication: Spoken Component**
Any approved Carolina Core CMS overlay or stand alone course.

**INF Information Literacy**
USC’s ENGL 102 or other approved Carolina Core INF overlay or stand alone course.

**GFL Global Citizenship and Multicultural Understanding: Foreign Language**
Score of two or better on foreign language test, or equivalent study of approved Carolina Core GFL course(s).

* Indicates a lower division course to be completed before junior level courses.
Biomedical Engineering Electives (9 hours)
BMEN 342, all 389s, 392, 499, 546, 572, all 589's
EMCH 580
EXSC 535
PSYC 507

Engineering Electives (6 hours)
ECIV 350, 521
ELCT 220, 321, 331, 361, 363, 350, 540,
EMCH 111, 308, 327, 330, 332, 354, 371, 497, 501, 502, 507, 508, 516, 528, 529, 532, 535, 554, 555,
557, 560, 571, 575, 580, 584, 585, 586
any Biomedical elective can be used as an engineering elective

Technical Electives (6 hours)
BIOL 250, 301, 303, 415, 460, 505, 530, 531, 534, 541 (or CHEM 550), 545 (or CHEM 555),
546 (or CHEM 556), 553, 610, 612, 620, 635, 653, 655, 656, 662, 665, 667, 690
CHEM 321, 334, 340, 541, 542, 545, 550 (or BIOL 542), 555 (or BIOL 545), 556 (or BIOL 546)
EXSC 530, 535, 562
MATH 344, 374, 520, 524, 526 or 544, 546, 547, 550, 552
PHYS 514, 515, 516, 517, 521, 522
STAT 516, 518, 519, 520, 523, 525, 528, 530, 582
any Biomedical Engineering elective or Engineering elective can be used as a technical elective

Technical Lab Elective (1 hour)
BIOL 250L, 460L, 505L, 505L, 534L, 541L or (CHEM 550L)
CHEM 321L, 332L, 333L ᵃ, 334L, 340L, 541L, 542L, 550L (or BIOL 541L)
ECIV 350L
EMCH 555L
EXSC 530L
MATH 344L

³ CHEM 333L is a two credit course that may satisfy the CHEM 331L and technical lab elective.

Curriculum Notes
C or better required in ENGL 101, 102, MATH 141, 142, BMEN 211, BIOL 101 & L, CHEM 111 & L,
and PHYS 211 & L.

ECHE 101, ENCP 101, or ELCT 101 can substitute for BMEN 101

Fall 2015