## BSChE Requirements for Students Matriculating in Fall 2019 and Later

### Physical Sciences
- General Chemistry (Chem 111A or 105, Chem 112A or 106) **6**
- Chemistry Laboratory (Chem 151, Chem 152) **4**
- General Physics (Physics 197, Physics 198) **8**
- Organic Chemistry (Chem 261) **4**

**Unit Subtotal** **22**

### Biological Science
- Biology in EECE (EECE 306) **3**(1)

**Unit Subtotal** **3**

### Mathematics & Computing
- Calculus II & III (Math 132, Math 233) **6**
- Differential Equations (Math 217) **3**
- Engineering Mathematics A, B (ESE 318, ESE 319) **6**
- Probability and Statistics for Engineering (ESE 326) **3**
- Intro to Computer Science (w/ MATLAB extension) (CSE 131) **3**
- Computational Modeling in EECE (EECE 202) **3**

**Unit Subtotal** **24**

### Chemical Engineering Core
- Introduction to EECE (EECE 101) **3**(2)
- Process Analysis and Thermodynamics (EECE 205) **4**
- Thermodynamics II in EECE (EECE 204) **3**
- Transport Phenomena I (EECE 301) **3**
- Transport Phenomena: Energy and Mass Transfer (EECE 307) **4**
- Mass Transfer Operations (EECE 304) **3**
- Materials Science (EECE 305) **3**
- Chemical Process Dynamics & Control (EECE 401) **3**
- Chemical Reaction Engineering (EECE 403) **3**
- Unit Operations Laboratory (EECE 405) **4**
- Process Design, Economics and Simulation (EECE 409) **2**
- ChE Capstone (EECE 402) **3**

**Unit Subtotal** **38**

### Other
- ChE Electives **18**
- Engr 4501, 4502, 4503 (Ethics, Leadership, etc.) **3**
- Humanities & Social Science Electives **15**
- Technical Writing **3**

**Unit Subtotal** **39**

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(1) Students intending to pursue medical school should take BIOL 2960: Principles of Biology (4 units) in place of EECE 306: Biology in EECE

(2) Dual degree and transfer students should take either EECE 103: Current Topics in EECE (1.0 unit) or EECE 210: Intro to Environmental Engineering (3.0 units) in lieu of EECE 101