### INTRODUCTORY REQUIREMENTS

**Calculus:**
- MATH 11A (FWS) 
  OR MATH 19A (FWS) 

**General Chemistry:**
- CHEM 1A (FWS) 
  OR 1B (FWS) 
  OR 1C/N (FWS) 

**Biology:**
- BIOL 20A (FWS) 
  OR BIOE 20B (FWS) 
  OR BIOE 20C (FWS) 

**Organic Chemistry:**
- CHEM 8A/L (FW) 
  OR CHEM 8B (WS) 

**Statistics:**
- AMS 5 (FWS) 
  OR 7/L (FWS) 

**Physics:**
- PHYS 6A/L (FW) 
  OR PHYS 7A/6L (F) 

**Education:**
- *EDUC 50C CalTeach 1: Science 

**Astronomy:**
- ASTR 2 Overview of the Universe (FW) 

**Earth Sciences:**
- EART 20/L Environmental Geology (-) 

### ADVANCED REQUIREMENTS (11 courses + associated labs)

**Biochemistry:**
- BIOL 100 (FW) 

**Molecular Biology:**
- BIOL 101 (WS) 

**Genetics:**
- BIOL 105 (FWS) 

**Ecology:**
- BIOE 107 (FWS) 

**Evolution:**
- BIOE 109 (FWS) 

**CAL Teach 2 Education:**
- *EDUC 100C 

**Teaching Science:**
- *EDUC 185C 

**CAL Teach 3 Science:**
- *EDUC 185L 

**Diversity:**
- ONE from the following...
  - *EDUC 128 Immigrants and Education 
  - *EDUC 141 Bilingualism and Schooling 
  - *EDUC 164 Urban Education 
  - *EDUC 181 Race, Class and Culture in Education 

**Cell & Development:**
- ONE from the following...
  - BIOL 110 Cell Biology (FS) 
  - BIOL 115 Eukaryotic Molecular Biology (W) 
  - METX 119 Microbiology (FS) 

**Physiology:**
- ONE from the following...
  - BIOE 131 Animal Physiology (W) 
  - BIOE 135/L Plant Physiology (W) 
  - BIOE 113 Mammalian Endocrinology (-) 
  - BIOE 130 Human Physiology (FW) 

**Laboratory:**
- ONE upper-division 5-unit Lab course 
  - OR BIOE 131L Animal Physiology Lab (W) 
  - OR BIOE 135L Plant Physiology Lab (W) 
  - OR BIOE 130L Human Physiology Lab (FW) 

**Disciplinary Communication:**
- Successful completion BIOE 107 Ecology and BIOE 109 Evolution 

*NOTE: Be sure to check prerequisites and timing of offerings for electives taught outside of the Biological Sciences

---

**Major Qualification Policy**

1. CHEM 1A 
2. CHEM 1B 
3. BIOL 20A 
4. BIOE 20B 
5. BIOE 20C 
6. MATH 11A or MATH 19A