MCD Biology BS (2020-21)

Lower Division Requirements

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

**General Chem:**
- **CHEM 1A: General Chemistry (FWS)**
- **CHEM 1B: General Chemistry (FWS)**
- **CHEM 1C: General Chemistry (FWS)**
- **CHEM 1N: General Chem Lab (FWS)**

**Biology:**
- **BIOL 20A: Cell and Molecular Bio (FWS)**
- **BIOE 20B: Development and Physiology (FWS)**
- **BIOE 20C: Ecology & Evolution (FWS)**
- **BIOE 102: Experimental Bio Lab (FWS)**

**Organic Chem:**
- **CHEM 8A: Organic Chemistry (FWS)**
- **CHEM 8B: Organic Chemistry (WS)**
- **CHEM 8L: Organic Chem Lab (FW)**

**Statistics:**
- **STAT 5: Statistics (FWS)**
- **STAT 7: Stats for the Biological, Environmental, and Health Sciences (FWS)**
- **STAT 7L: Stats Lab (FWS)**

**Physics:**
- **PHYS 6A: Introductory Physics I (FWS)**
- **PHYS 6B: Introductory Physics II (WS)**
- **PHYS 6C: Introductory Physics III (FS)**
- **PHYS 6L: Introductory Physics I Lab (FW)**

After passing the above qualification courses shaded green with a C or better, you can submit a Petition to Declare. All qualification courses must be completed by the end of the 5th quarter and students must petition to declare by the 6th quarter deadline.

Declared

Upper Division Courses

Complete the major with the following:

**CORE COURSES:**
- **BIOL 105: Genetics (FWS)**
- **BIOL 100: Biochemistry (WS)**
- **BIOL 101: Molecular Biology (FS)**
- **BIOL 101L: Molecular Biology Lab (FWS)**
- **BIOL 102L: Toxic RNA Lab I**
- **BIOL 110: Cell Biology (FW)**

**ELECTIVES: 3 UPPER DIVISION ELECTIVES (ONLY ONE OF WHICH MAY BE A 3-UNIT COURSE: BIOL 112, 116 OR 117)**
- **BIOL 106: Biochemistry & Molecular Bio I (F)**
- **BIOL 107: Biochemistry & Molecular Bio II (W)**
- **BIOL 107L: Biochemistry & Molecular Bio Lab I (F)**
- **BIOL 108: Biochemistry & Molecular Bio III (S)**
- **BIOL 109: Evolution**
- **BIOL 110: Plant Physiology/Lab**
- **BIOL 111A: Immunology**
- **BIOL 111B: Immunology**
- **BIOL 112: Virology**
- **BIOL 113: Cancer Cell Biology**
- **BIOL 114: Eukaryotic Molecular Biology**
- **BIOL 115: Advanced Topics in Cell Biology**
- **BIOL 116: Global Health & Neglected Diseases**
- **BIOL 117: Principles of Human Genetics**
- **BIOL 117A: Developmental Biology**
- **BIOL 118: Intro to Neuroscience**
- **BIOL 119: Advanced Molecular Neuroscience**
- **BIOL 120: Developmental Neurobiology**
- **BIOL 121: Human Physiology**
- **BIOL 122: The RNA World**
- **BME 110: Computational Biology Tools**
- **BME 130: Genomics**
- **BME 160: Research Programming for Biologists & Biochemists**
- **BME 178: Stem Cell Biology**
- **METX 119: Microbiology**
- **METX 120: Microbiology**
- **PHYS 180: Biophysics**

**LAB: 1 LAB COURSE REQUIRED**
- **BIOL 105L: Biochemistry Lab**
- **BIOL 106L: Toxic RNA Lab I**
- **BIOL 106L: Toxic RNA Lab II**
- **BIOL 106L: Eukaryotic Genetics Lab**
- **BIOL 106L: Eukaryotic Genetic Engineering Lab**
- **BIOL 109: Yeast Molecular Genetics Lab**
- **BIOL 115L: Eukaryotic Molecular Biology Lab**
- **BIOL 120L: Developmental Biology Lab**
- **BIOL 121L: Environmental Phage Biology Lab**
- **BIOL 186L: Undergraduate Research in MCD Biology**
- **METX 119L: Microbiology Lab**

**DISCIPLINARY COMMUNICATION & SENIOR EXIT REQUIREMENTS ARE SATISFIED BY COMPLETING ONE 5-UNIT LAB COURSE FROM THE ABOVE LIST.**

Please refer to your **2020-21 UCSC General Catalog** for more information or clarification.