



**California State Polytechnic University, Pomona  
Degree Curriculum Sheet**

Plan (Major) **Biology, B.S.**

Catalog Year **2017-2018**

Name \_\_\_\_\_

Subplan/Option **Botany**

Minimum Units Required **180**

Student ID \_\_\_\_\_

**Required Core Courses**

BIO 122/122L - Foundations of Biology: Reproduction and Development (3/2)  
 BIO 123/123L - Foundations of Biology: Biodiversity (3/2)  
 BIO 211/211L - Biometrics (3/1)  
 BIO 303 - Genetics (4)  
 BIO 490 - Scientific Communication (1)

**Total Units 19**

**Required Subplan/Option Core Courses**

BIO 325/325L - Principles of Ecology (3/1)  
 BIO 413 - Principles of Evolution (4)  
 BOT 201/201L - Form and Function in Plants (3/1)  
 BOT 343/343L - California Flora (1/2)  
 BOT 428/428L - Plant Physiology (4/1)  
 BOT 434/434L - Evolution of Plants (3/2)  
 BOT 435/435L - Plant Anatomy (2/2)  
 BOT 456/456L - Plant Tissue Culture (3/1)  
 MIC 201/201L - Basic Microbiology (3/1)  
 MIC 436/436L - Plant-Microbe Interactions (2/2)

**Total Units 41**

**Required Support Courses**

The following major support courses should be used to satisfy the indicated GE requirements. If these courses are not used to satisfy GE, the total units to degree may be more than 180 units.

BIO 121/121L - Foundations of Biology: Energy and Matter - Cycles and Flows (3/2) (B2, B3)

BIO 304 - Environment and Society (4) (B5) or  
 BIO 340 - Biodiversity Conservation (4) (B5)

CHM 121 - General Chemistry (3) (B1) and  
 CHM 121L - General Chemistry Laboratory (1) (B3)

CHM 122 - General Chemistry (3) and  
 CHM 122L - General Chemistry Laboratory (1)

CHM 123 - General Chemistry (3) and  
 CHM 123L - General Chemistry Laboratory (1)

CHM 201 - Elements of Organic Chemistry (3) and  
 CHM 250L - Elements of Organic Chemistry Laboratory (1)

CHM 321/321L - Elements of Biochemistry (3/1)

**Required Support Courses Con't.**

ENG 130 - Freshman English II (4) (A3) or  
 PHL 202 - Critical Thinking (4) (A3) (A3)

ENG 107 - Stretch Composition III (4) (A2) or  
 ENG 109 - Advanced Stretch Composition II (4) (A2) or  
 ENG 110 - First-Year Composition (4) (A2)

MAT 120 - Calculus for the Life Sciences (4) (B4)

PHY 121 - College Physics (3) and  
 PHY 121L - College Physics Laboratory (1)

PHY 122 - College Physics (3) and  
 PHY 122L - College Physics Laboratory (1)

PHY 123 - College Physics (3) and  
 PHY 123L - College Physics Laboratory (1)

PLT 231/231L - Basic Soil Science (3/1)

FN 203 - Health, Nutrition and the Integrated Being (4) (E) or

PSY 201 - General Psychology (4) (E) or

PSY 210 - Mind, Brain, and Behavior: An Integrated View (4) (E) or

SCI 101/101A - Science and Mathematics: Freshman Experience I (1/1) (E) and  
 SCI 102/102A - Science and Mathematics: Freshman Experience II (1/1) (E)

STA 120 - Statistics with Applications (4) (B4)

**Total Units 65**

**Elective Support Courses**

Approved electives include any 200, 300, or 400 level courses in the Biological Sciences Department not specifically designed for non-majors. Only 2 units of BIO 200 or BIO 400 allowed. Only 4 units of BIO 441 or BIO 461 allowed. Only 2 units of BIO 462 allowed. Also included are any advanced Chemistry or Math courses and PLT 131/131L, PLT 220/220L, PLT 404/404L, PLT 421/421L, PLT 427/427L, PHY 304/304L, and PHY 410. See advisor for approval of courses offered by other departments.

**Total Units 15**

**General Education Requirements**

**Area A. Communication and Critical Thinking (12 units)**

1. Oral Communication
2. Written Communication
3. Critical Thinking

**Area B. Mathematics and Natural Sciences (16 units)**

1. Physical Science
2. Biological Science
3. Laboratory Activity
4. Mathematics/Quantitative Reasoning
5. Science and Technology Synthesis

**Area C. Humanities (16 units)**

1. Visual and Performing Arts
2. Philosophy and Civilization
3. Literature and Foreign Languages
4. Humanities Synthesis

**Area D. Social Sciences (20 units)**

1. U.S. History, Constitution, and American Ideals
  - a. United States History
  - b. Introduction to American Government
2. History, Economics, and Political Science
3. Sociology, Anthropology, Ethnic and Gender Studies
4. Social Science Synthesis

**Area E. Lifelong Understanding and Self-development (4 units)**

**Total Units 68**

**American Institutions**

Courses that satisfy this requirement may also satisfy GE Area D1.

**8**

**American Cultural Perspectives Requirement**

Refer to the University Catalog General Education Program section for a list of courses that satisfy this requirement. Course may also satisfy major, minor, GE, or unrestricted elective requirements.

**4**

All persons who receive undergraduate degrees from Cal Poly Pomona must pass the Graduation Writing Test (GWT). The test must be taken by the quarter following completion of 120 units for undergraduates.