PLANT BIOLOGY: ECOLOGY AND EVOLUTIONARY BIOLOGY, BS

Requirements for Students Matriculating in or before Academic Year 2017-2018. Learn more about University Academic Regulation 3.1 (http://catalog.okstate.edu/university-academic-regulations/#matriculation).

Minimum Overall Grade Point Average: 2.00
Total Hours: 120

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1113</td>
<td>Composition I</td>
<td>3</td>
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<tr>
<td>or ENGL 1313</td>
<td>Critical Analysis and Writing I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1213</td>
<td>Composition II</td>
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<tr>
<td>ENGL 1413</td>
<td>Critical Analysis and Writing II</td>
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<tr>
<td>ENGL 3323</td>
<td>Technical Writing</td>
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</table>

American History & Government
HIST 1103 | Survey of American History | 3 |
POLS 1113 | American Government | 3 |

Analytical & Quantitative Thought (A)
MATH 1613 | Trigonometry (A) | 3 |
STAT 4013 | Statistical Methods I (A) | 3 |
or STAT 2013 | Elementary Statistics (A) | 3 |

Humanities (H)
Courses designated (H) | 6 |

Natural Sciences (N)
Must include one Laboratory Science (L) course
Biol 1114 | Introductory Biology (LN) | 4 |
PHYS 1114 | General Physics (LN) | 4 |

Social & Behavioral Sciences (S)
Courses designated (S) | 3 |

Additional General Education
Courses designated (A), (H), (N), or (S) | 6 |

Hours Subtotal | 41 |

Diversity (D) & International Dimension (I)
May be completed in any part of the degree plan
Select at least one Diversity (D) course
Select at least one International Dimension (I) course

College/Departmental Requirements
First Year Seminar
A&S 1111 | A&S First Year Seminar (transfer students with 15 hours exempt) | 1 |

Arts & Humanities
See note 2.a. | 3 |

Natural & Mathematical Sciences

CHEM 1314 | General Chemistry (LN) | 4 |
CHEM 1515 | General Chemistry (LN) | 4 |

Foreign Language
See note 3 | 0 |

Upper-Division General Education
Select 6 hours outside major department
See note 2.c.

Hours Subtotal | 13 |

Major Requirements
Minimum GPA 2.50 in Major Requirements or minimum grade of "C" in each course; AND 2.0 minimum GPA in all BIOL & BOT courses

Core Courses
BIOL 3023 | General Genetics | 3 |
BIOL 3034 | General Ecology | 3 |
BIOL 4133 | Evolution | 3 |
BOT 1404 | Plant Biology (LN) | 4 |
BOT 3233 | Plant Anatomy | 3 |
BOT 3463 | Plant Physiology | 3 |
BOT 4400 | Undergraduate Research | 1 |

Select 9 hours of upper-division coursework from BOT (No more than 3 hours of general education courses in the natural sciences) | 9 |

Related Courses
BIOL 1604 | Animal Biology | 4 |
or MICR 2123 | Introduction to Microbiology | 4 |
BOT 3005 | Field Botany | 5 |
or BOT 3114 | Plant Taxonomy | 5 |

Select one of the following: | 5 |
CHEM 3015 | The Chemistry of Organic Compounds | 5 |
CHEM 3053 | Organic Chemistry | 5 |
& CHEM 3112 | and Organic Chemistry Lab | 5 |
& CHEM 3153 | and Organic Chemistry | 5 |

Supplemental Courses
Select 9 to 14 hours of the following (no more than 3 hours of general education courses): | 12 |
BIOL 3104 | Invertebrate Zoology | 12 |
BIOL 3163 | Environmental Biology | 12 |
BIOL 3513 | Principles of Conservation Biology | 12 |
BIOL 4113 | Conservation Genetics | 12 |
BIOL 4174 | Mammalogy | 12 |
BIOL 4434 | Limnology | 12 |
BIOL 4464 | Ornithology | 12 |
BOT 4023 | Community Ecology | 12 |
ENTO 4464 | Insect Biology and Classification | 12 |
GEOG 3333 | Spatial Analysis (A) | 12 |
GEOG 4053 | Biogeography | 12 |
GEOG 4073 | Climate Change: Past, Present, and Future | 12 |
GEOG 4083 | Geography of Grass-Dominated Ecosystems | 12 |
GEOG 4203 | Fundamentals of Geographic Information Systems | 12 |
GEOG 4333 | Remote Sensing | 12 |
GEOG 4343  Geographic Information Systems: Resource Management Applications
GEOG 4383  Introduction to GIS Programming
NREM 3012  Applied Ecology Laboratory
NREM 3013  Applied Ecology and Conservation
NREM 3083  Geospatial Technologies for Natural Resources
NREM 3213  Forest Ecology
NREM 3713  Wildland Fire Ecology and Management
NREM 4023  Restoration Ecology
NREM 4033  Ecology Of Invasive Species
NREM 4093  Natural Resources, People and Sustainable Development (I)
NREM 4213  Forest Biology
NREM 4403  Wetland Ecology and Management
SOIL 2124  Fundamentals of Soil Science (N)
SOIL 4363  Environmental Soil Science

Hours Subtotal 56

Electives
Select 10 hours 10

May need to include 6 hours of a foreign language (see note 3) 3
May need to include 6 hours upper-division general education outside major department (see note 2.c.) 3

Hours Subtotal 10

Total Hours 120

1 College and Departmental Requirements that may be used to meet Gen Ed Requirements.

Other Requirements

- See the College of Arts and Sciences Requirements.
- **Upper-Division Credit:** Total hours must include at least 40 hours in courses numbered 3000 or above.
- **Hours in One Department:** Hours in one department in excess of 54 will be added to the minimum total of 120 required for graduation.

College of Arts and Sciences Requirements

1. **General Education Requirements**
   No more than two courses (or eight hours) from the major department may be used to meet General Education and College and Departmental Requirements. The General Education required English Composition, required U.S. History, required American Government, one required MATH or STAT course, and required foreign language for B.A. degrees do not count against the two-course maximum.

2. **A&S College/Departmental Requirements**
   a. Arts and Humanities are defined as any course carrying an (H) designation or courses from AMST, ART, DANC, ENGL (except ENGL 3323 Technical Writing) HIST, MUSI, PHIL (except PHIL 1313 Logic and Critical Thinking (A), PHIL 3003 Symbolic Logic (A) and PHIL 4003 Mathematical Logic and Computability), REL, TH, and foreign languages.
   b. Natural and Mathematical Sciences are defined as any course from the following prefixes: ASTR, BIOL, BIOL, BOT, CHEM, CS (except CS 4883 Social Issues in Computing), GEOL, MATH, MICR, PHYS, and STAT; or courses from other departments that carry an (A) or (N) general education designation.
   c. The required six hours of upper-division General Education may not include courses from the student’s major department. This requirement may be satisfied by courses also used to satisfy any part of a student’s degree program (i.e., in General Education, College Departmental Requirements, Major Requirements or Electives).
   d. Non-Western Studies Requirement for B.A. and B.F.A.; One 3-hour course in Non-Western Studies from:

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<th>Code</th>
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<tr>
<td>AMIS 2013</td>
<td>Introduction to American Indian Studies (D)</td>
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<td>AMIS 4013</td>
<td>American Indian Sovereignty (D)</td>
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<td>ANTH 3443</td>
<td>Peoples of Mesoamerica (IS)</td>
<td>3</td>
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<tr>
<td>ANTH 4223</td>
<td>The Aztec Empire (H)</td>
<td>3</td>
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<tr>
<td>ART 3693</td>
<td>Survey of Asian Art (H)</td>
<td>3</td>
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<td>ART 3733</td>
<td>History of Latin American Art I</td>
<td>3</td>
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<td>ART 4603</td>
<td>History of Ancient Egyptian Art</td>
<td>3</td>
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<td>ART 4653</td>
<td>History of Indian Art</td>
<td>3</td>
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<tr>
<td>ART 4663</td>
<td>History of Chinese Art (H)</td>
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<td>ART 4673</td>
<td>History of Japanese Art</td>
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<td>ART 4683</td>
<td>Modern and Contemporary Art in Asia</td>
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<td>ART 4703</td>
<td>Art East and West: Biases and Borrowings</td>
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<td>ART 4713</td>
<td>The Visual Culture of the Islamic World (HI)</td>
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<td>ART 4763</td>
<td>Native American Art and Material Culture</td>
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<td>CHIN 1813</td>
<td>Elementary Chinese II</td>
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<td>ENGL 2963</td>
<td>Survey of Nonwestern Traditions (HI)</td>
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<td>ENGL 3183</td>
<td>Native American Literature (DH)</td>
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<td>ENGL 3190</td>
<td>Readings in Postcolonial and Multiethnic Literature (African Novel)</td>
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<td>ENGL 4330</td>
<td>Studies in Native American Literature</td>
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<td>FLL 1000</td>
<td>Special Studies in Foreign Languages and Literatures (Arabic 2 &amp; Mvskoke2)</td>
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<td>GEOG 3053</td>
<td>Introduction to Central Asian Studies (IS)</td>
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<td>GEOG 3733</td>
<td>Russia and Its Neighbors (IS)</td>
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<td>GEOG 3753</td>
<td>Asia (IS)</td>
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<td>GEOG 3763</td>
<td>Africa (IS)</td>
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<td>GEOG 3783</td>
<td>The Middle East (IS)</td>
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<td>HIST 1713</td>
<td>Survey of Eastern Civilization (H)</td>
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<td>HIST 3013</td>
<td>Ancient Egypt and Israel (H)</td>
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<td>HIST 3043</td>
<td>Ancient Mesopotamia: Iraq, Iran &amp; Syria from 4000-333 B.C. (H)</td>
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<td>HIST 3053</td>
<td>Introduction to Central Asian Studies (IS)</td>
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<tr>
<td>HIST 3123</td>
<td>The History of Modern Africa (HI)</td>
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<td>HIST 3133</td>
<td>African Diaspora History (H)</td>
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<td>HIST 3153</td>
<td>Russia to 1861 (H)</td>
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<td>HIST 3163</td>
<td>Russia Since 1861 (H)</td>
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<td>The Medieval World, 500-1500 (H)</td>
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<td>HIST 3403</td>
<td>East Asia to 1800 (H)</td>
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### Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2023.