<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Semester</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOT 2050</td>
<td>Field Botany</td>
<td>3:2:3</td>
<td>Fall</td>
<td>BIOL 1010 or BOT 2400 recommended</td>
</tr>
<tr>
<td>BOT 2100</td>
<td>Flora of Utah</td>
<td>3:2:3</td>
<td>Summer</td>
<td>None, BIOL 1010 is recommended</td>
</tr>
<tr>
<td>BOT 2400</td>
<td>Plant Kingdom</td>
<td>3:2:3</td>
<td>Spring</td>
<td>BIOL 1010 or BIOL 1610 with a minimum grade of C-</td>
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<tr>
<td>BOT 3340</td>
<td>Plant Biology</td>
<td>4:3:2</td>
<td>Fall</td>
<td>BIOL 1620 and (CHEM 1120 or CHEM 1220 or higher) with a minimum grade of C-</td>
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<tr>
<td>BOT 3800</td>
<td>Ethnobotany</td>
<td>4:3:2</td>
<td></td>
<td>BIOL 1620 with a C- or higher and University Advanced Standing</td>
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<tr>
<td>BOT 4050</td>
<td>Plant Ecology</td>
<td>3:3:0</td>
<td>Fall</td>
<td>BIOL 1620 with a C- or higher and University Advanced Standing</td>
</tr>
<tr>
<td>BOT 4055</td>
<td>Plant Ecology Laboratory</td>
<td>1:0:2</td>
<td>Fall</td>
<td>University Advanced Standing</td>
</tr>
<tr>
<td>BOT 4100</td>
<td>Plant Anatomy</td>
<td>4:3:2</td>
<td></td>
<td>BIOL 1620 and BIOL 1625 with a minimum grade of C-</td>
</tr>
<tr>
<td>BOT 4200</td>
<td>Plant Systematics</td>
<td>3:2:2</td>
<td>Spring</td>
<td>BIOL 1620 and BIOL 1620, and University Advanced Standing</td>
</tr>
<tr>
<td>BOT 4300</td>
<td>Native Trees and Shrubs of Utah</td>
<td>3:2:2</td>
<td>Fall</td>
<td>BIOL 1620 with a C- or higher and University Advanced Standing</td>
</tr>
<tr>
<td>BOT 4500</td>
<td>Introduction to Grasses</td>
<td>3:2:2</td>
<td>Fall, Summer</td>
<td>BIOL 1620 and (BOT 2050 or BOT 4300) with minimum grade of C- in each</td>
</tr>
<tr>
<td>BOT 4600</td>
<td>Plant Physiology</td>
<td>3:0:3</td>
<td>Spring</td>
<td>BIOL 1620 and CHEM 1220 both with a minimum grade of C- and University Advanced Standing</td>
</tr>
</tbody>
</table>

For biology majors and non-majors. Covers the classification, identification, and ecology of woody plants with an emphasis on native trees and shrubs. Includes field trips and laboratory work. Student plant collection required. Course Lab fee of $30 for transportation applies.
BOT 4605
Plant Physiology Laboratory
1:0:3 Spring
* Prerequisite(s): BIOL 1610, BIOL 1615, and University Advanced Standing
* Corequisite(s): BOT 4600
Focuses on laboratory aspects of topics in BOT 4600. Covers experimental methods for studying plant physiological processes such as respiration, photosynthesis, mineral nutrition, transpiration and tissue-water relations. Course Lab fee of $35 applies.

BOT 4700
Plant Tissue Culture
4:2:4 Spring
* Prerequisite(s): BIOL 1620 with a minimum grade of C- and University Advanced Standing
Teaches principles of plant micropropagation techniques. Prepares the student to design and carry out their own micropropagation systems for the cultivation of a particular plant species. Course Lab fee of $60 applies.

BOT 4800
Plant-Herbivore Interactions
3:3:0 On Sufficient Demand
* Prerequisite(s): BIOL 1620 with a C- or higher, and University Advanced Standing
Studies the diversity of interactions between plants and herbivores, and how these interactions can affect population, community, and ecosystem-level dynamics. Topics include plant defenses, tritrophic interactions, plant succession, and co-evolution. Implications of plant-herbivore interactions to natural resource management are considered.

BOT 481R
Botany Internship
1 to 5:0:5 to 25 On Sufficient Demand
* Prerequisite(s): BIOL 1620 with a C- or higher, Instructor Approval, and University Advanced Standing
Allows biology majors to earn credit while obtaining practical and research experience as an intern in a government, nonprofit, private agency, or with an approved employer. Must be supervised by agency representative and faculty advisor. Department chairperson approval required and written contracts must be completed and signed. May be repeated for a maximum of 5 credits toward graduation. May be graded credit/no credit.

BOT 489R
Student Research
1 to 4:0:3 to 12 On Sufficient Demand
* Prerequisite(s): BIOL 1620, CHEM 1210, Junior or Senior Standing, Instructor Approval, and University Advanced Standing
Provides guided research studies in botany under the direction of a Biology Department faculty mentor. Includes any combination of literature reviews, original research, and/or participation in ongoing departmental projects. Involves students in the methodology of original botanical research. Requires preparation and presentation of oral and/or written reports. Results may form the basis of the senior thesis in the major, if thesis option is chosen. May be repeated for 4 credits toward graduation.

BOT 490R
Special Topics in Botany
1 to 4:0 to 4:0 to 12 On Sufficient Demand
* Prerequisite(s): BIOL 1620 with a C- or higher, and University Advanced Standing
Explores and examines special topics relating to botany. May emphasize areas of rapid growth in botanical science or areas not covered in other courses. May be repeated for a total of 8 credits toward graduation.

BOT 499R
Senior Thesis
1 to 2:1 to 2:0 On Sufficient Demand
* Prerequisite(s): ENGL 2010 or ENGL 2020, Junior standing, Instructor Approval, and University Advanced Standing
For students who are nearing completion of a baccalaureate degree in Botany with the thesis option. Assists students who are writing a thesis based only on library research, or those who have performed laboratory/field research under BIOL 489R or BOT 489R. Provides experience in critically analyzing published literature and, if laboratory/field research was performed, comparing research results with the scientific literature. Supervised by an appointed faculty member of the Department of Biology. Requires a technically accurate report on one's findings. Includes the opportunity to present the research results to students, faculty and the community at a Department of Biology seminar. May be repeated once for a total of 2 credits toward graduation.