## GRADUATE DEGREE PROGRAM IN ECOLOGY

### Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Course Description</th>
<th>Prerequisite</th>
<th>Restriction</th>
<th>Registration Information</th>
<th>Term Offered</th>
<th>Grade Mode</th>
<th>Special Course Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECOL 505</td>
<td>Foundations of Ecology</td>
<td>3</td>
<td>Overview of the science of ecology; what questions are asked, how they are answered.</td>
<td>LAND 220 or LIFE 320 or NR 220 or LIFE 220.</td>
<td>llauiplinary.</td>
<td>Traditional</td>
<td>Fall</td>
<td>Traditional</td>
<td>No</td>
</tr>
<tr>
<td>ECOL 571</td>
<td>Advanced Topics in Ecology</td>
<td>Var[1-3]</td>
<td>Current research topics presented and analyzed by visiting scientists.</td>
<td>None.</td>
<td>None.</td>
<td>One course in ecological principles.</td>
<td>Spring</td>
<td>Traditional</td>
<td>No</td>
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<tr>
<td>ECOL 592</td>
<td>Interdisciplinary Seminar in Ecology</td>
<td>Var[1-3]</td>
<td>Concepts and principles of basic and applied ecology in an interdisciplinary context.</td>
<td>None.</td>
<td>None.</td>
<td>One 300- or 400-level course in ecology.</td>
<td>Fall, Spring</td>
<td>Instructor Option</td>
<td>No</td>
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<tr>
<td>ECOL 600</td>
<td>Community Ecology</td>
<td>3</td>
<td>Current theories and tests of the dynamics and regulation of plant and animal communities.</td>
<td>(STAT 100 to 499 - at least 1 course) and (MATH 141 or MATH 155 to 161 - at least 1 course or MATH 255 to 261 - at least 1 course) and (LAND 220 or LIFE 320 or NR 220 or LIFE 220).</td>
<td>Must be a: Graduate, Professional.</td>
<td>Must register for lecture and recitation.</td>
<td>Fall</td>
<td>Instructor Option</td>
<td>No</td>
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<tr>
<td>ECOL 610</td>
<td>Ecosystem Ecology</td>
<td>3</td>
<td>Concepts, methods, issues in ecosystem science: energy and matter cycling; systems perspectives, simulation modeling, sustainability, global change.</td>
<td>LIFE 320 or ECOL 000 to 9999 - at least 1 course.</td>
<td>Must be a: Graduate, Professional.</td>
<td>Fall (even years).</td>
<td>Traditional</td>
<td>No</td>
<td></td>
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<tr>
<td>ECOL 620</td>
<td>Applications in Landscape Ecology</td>
<td>4</td>
<td>Spatial patterning of landscape elements and dynamics of ecological systems; spatial heterogeneity. Influence on biotic and abiotic processes.</td>
<td>None.</td>
<td>Must be a: Graduate, Professional.</td>
<td>Written consent of instructor.</td>
<td>Spring</td>
<td>Traditional</td>
<td>No</td>
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<tr>
<td>ECOL 693</td>
<td>Research Seminar</td>
<td>1</td>
<td>Critique of research programs, plans, and ecological theory.</td>
<td>None.</td>
<td>None.</td>
<td>Written consent of instructor.</td>
<td>Spring</td>
<td>S/U Sat/Unsat Only</td>
<td>No</td>
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<tr>
<td>ECOL 695</td>
<td>Independent Study</td>
<td>Var[1-18]</td>
<td>Non-thesis research in ecology.</td>
<td>None.</td>
<td>None.</td>
<td>Written consent of instructor.</td>
<td>Fall, Spring, Summer</td>
<td>Instructor Option</td>
<td>No</td>
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<tr>
<td>ECOL 698</td>
<td>Research</td>
<td>Var[1-18]</td>
<td>Non-thesis research in ecology.</td>
<td>None.</td>
<td>None.</td>
<td>Written consent of instructor.</td>
<td>Fall, Spring, Summer</td>
<td>Instructor Option</td>
<td>No</td>
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<tr>
<td>ECOL 699</td>
<td>Thesis</td>
<td>Var[1-18]</td>
<td>Non-thesis research in ecology.</td>
<td>None.</td>
<td>None.</td>
<td>Written consent of instructor.</td>
<td>Fall, Spring, Summer</td>
<td>Instructor Option</td>
<td>No</td>
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<tr>
<td>ECOL 799</td>
<td>Dissertation</td>
<td>Var[1-18]</td>
<td>Non-thesis research in ecology.</td>
<td>None.</td>
<td>None.</td>
<td>Written consent of instructor.</td>
<td>Fall, Spring, Summer</td>
<td>Instructor Option</td>
<td>No</td>
</tr>
</tbody>
</table>

## Graduate Degree Program in Ecology

Courses

- **ECOL 505 Foundations of Ecology** 3 (2-0-1)
  - **Course Description:** Overview of the science of ecology; what questions are asked, how they are answered.
  - **Prerequisite:** LAND 220 or LIFE 320 or NR 220 or LIFE 220.
  - **Term Offered:** Fall.
  - **Grade Mode:** Traditional.
  - **Special Course Fee:** No.

- **ECOL 571 Advanced Topics in Ecology** Var[1-3] (0-0-0)
  - **Course Description:** Current research topics presented and analyzed by visiting scientists.
  - **Prerequisite:** None.
  - **Registration Information:** One course in ecological principles.
  - **Term Offered:** Spring.
  - **Grade Mode:** Traditional.
  - **Special Course Fee:** No.

- **ECOL 592 Interdisciplinary Seminar in Ecology** Var[1-3] (0-0-0)
  - **Course Description:** Concepts and principles of basic and applied ecology in an interdisciplinary context.
  - **Prerequisite:** None.
  - **Registration Information:** One 300- or 400-level course in ecology.
  - **Terms Offered:** Fall, Spring.
  - **Grade Mode:** Instructor Option.
  - **Special Course Fee:** No.

- **ECOL 600 Community Ecology** 3 (2-0-1)
  - **Course Description:** Current theories and tests of the dynamics and regulation of plant and animal communities.
  - **Prerequisite:** (STAT 100 to 499 - at least 1 course) and (MATH 141 or MATH 155 to 161 - at least 1 course or MATH 255 to 261 - at least 1 course) and (LAND 220 or LIFE 320 or NR 220 or LIFE 220).
  - **Restriction:** Must be a: Graduate, Professional.
  - **Registration Information:** Must register for lecture and recitation.
  - **Term Offered:** Spring.
  - **Grade Mode:** Traditional.
  - **Special Course Fee:** No.

- **ECOL 610 Ecosystem Ecology** 3 (3-0-0)
  - **Course Description:** Concepts, methods, issues in ecosystem science: energy and matter cycling; systems perspectives, simulation modeling, sustainability, global change.
  - **Prerequisite:** LIFE 320 or ECOL 000 to 9999 - at least 1 course.
  - **Restriction:** Must be a: Graduate, Professional.
  - **Term Offered:** Fall (even years).
  - **Grade Mode:** Traditional.
  - **Special Course Fee:** No.

- **ECOL 620 Applications in Landscape Ecology** 4 (2-2-1)
  - **Course Description:** Spatial patterning of landscape elements and dynamics of ecological systems; spatial heterogeneity. Influence on biotic and abiotic processes.
  - **Prerequisite:** None.
  - **Restriction:** Must be a: Graduate, Professional.
  - **Registration Information:** Must register for lecture, lab, and recitation. Previous coursework in geographic information systems, ecology, statistics, and mathematics.
  - **Term Offered:** Spring (odd years).
  - **Grade Mode:** Traditional.
  - **Special Course Fee:** No.

- **ECOL 693 Research Seminar** 1 (0-0-1)
  - **Course Description:** Critique of research programs, plans, and ecological theory.
  - **Prerequisite:** None.
  - **Restriction:** Must be a: Graduate, Professional.
  - **Registration Information:** Written consent of instructor.
  - **Term Offered:** Fall, Spring, Summer.
  - **Grade Mode:** S/U Sat/Unsat Only.
  - **Special Course Fee:** No.

- **ECOL 695 Independent Study** Var[1-18] (0-0-0)
  - **Course Description:** Non-thesis research in ecology.
  - **Prerequisite:** None.
  - **Restriction:** Must be a: Graduate, Professional.
  - **Term Offered:** Fall, Spring, Summer.
  - **Grade Mode:** Instructor Option.
  - **Special Course Fee:** No.

- **ECOL 698 Research** Var[1-18] (0-0-0)
  - **Course Description:** Non-thesis research in ecology.
  - **Prerequisite:** None.
  - **Restriction:** Must be a: Graduate, Professional.
  - **Term Offered:** Fall, Spring, Summer.
  - **Grade Mode:** Instructor Option.
  - **Special Course Fee:** No.

- **ECOL 699 Thesis** Var[1-18] (0-0-0)
  - **Course Description:** Non-thesis research in ecology.
  - **Prerequisite:** None.
  - **Restriction:** Must be a: Graduate, Professional.
  - **Term Offered:** Fall, Spring, Summer.
  - **Grade Mode:** Instructor Option.
  - **Special Course Fee:** No.

- **ECOL 799 Dissertation** Var[1-18] (0-0-0)
  - **Course Description:** Non-thesis research in ecology.
  - **Prerequisite:** None.
  - **Restriction:** Must be a: Graduate, Professional.
  - **Term Offered:** Fall, Spring, Summer.
  - **Grade Mode:** Instructor Option.
  - **Special Course Fee:** No.