**Course Description:** This two-week course focuses on the relationships between population ecology and human health. Important topics that will be explored include the intersection of the ecology of organisms and human health, how humans interact with biological and physical environments in ways that promote or harm human health, and how threats to human health are assessed and monitored.

The course is “learning by doing”—field-based, individually tailored to student interests, and appropriate for students in the natural sciences, health sciences, or public health sciences. Course activities include field trips, field data collection and analysis, and student-led research projects and presentations.

**Pre-requisites:** Introductory biology or equivalent, or consent of the instructor

**Assignments:** Students will be asked to demonstrate their mastery of the material in three settings: group field projects, 3 one-page papers on topics of the student’s choice, and a presentation at the end of the course on a topic of interest to the student.

**Course Objectives:** Topics covered in the course include
- Epidemiologic principles, concepts, and methods
- Ecological principles and concepts
- Principles and techniques for field data collection, analysis, and reporting
- Interpretation of epidemiologic findings in broader ecological terms; synthesis of epidemiologic and ecological approaches
- Synthesis and presentation of epidemiologic and ecological characteristics for a population health challenge

At the completion of this course, students should be able to
1. Define the fields of epidemiology and ecology, and describe their places in scientific inquiry;
2. Explain the conceptual similarities between epidemiology and ecology, and their shared challenges;
3. Define and apply epidemiologic concepts and methods, including measures of effect and association, study design, confounding and bias;
4. Apply epidemiologic approaches to population health challenges;
5. Interpret epidemiologic studies and findings in ecological terms;
6. Describe the associations between environment and human population health;
7. Assess built, altered, and natural environments for potential associations to human population health.
8. Summarize and synthesize scientific knowledge relating population health to environmental conditions, and present those findings to a wide range of audiences

**Required Course Materials:** none

**Textbook to Purchase:** None

**Equipment:** None

**Course Requirements:** none

**Course Grade:**

<table>
<thead>
<tr>
<th>Student Activity</th>
<th>Percent of Grade</th>
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</thead>
<tbody>
<tr>
<td>Participation (including group work)</td>
<td>40%</td>
</tr>
<tr>
<td>One-pagers (3@10% each)</td>
<td>30%</td>
</tr>
<tr>
<td>Presentation</td>
<td>30%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100%</strong></td>
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</tbody>
</table>

**Course Schedule:** All Lakeside courses are immersion-based; in this course, students meet or have assignments from 8 am to 5 pm, five days per week. Activities each day are determined by a combination of weather, topic, student interests, and other considerations, but are ultimately designed to most effectively meet course goals.

**Policies and Instructions:**

As a registered student in a Distance Education course through The University of Iowa, you are responsible for the policies and instructions posted below.

**Special Modifications:** If you are a person with a disability who requires an accommodation in order to participate in University of Iowa Continuing Education courses or programs, please contact Student Disability Services: 3015 Burge Hall, (319) 335.1462, or sds-information@uiowa.edu, or fax: (319) 335.3973. Reasonable accommodations for students with physical, mental, or learning disabilities will be made. The Division of Continuing Education is committed to both Section 504 of the Rehabilitation Act of 1973 and Section 508 of the Workforce Investment Act of 1998.

**Academic Misconduct:** All forms of plagiarism and any other activities that result in a student presenting work that is not his or her own are academic fraud. All academic fraud is reported to the departmental DEO and the Associate Dean of Continuing Education. All incidents of academic misconduct (plagiarism and cheating) will be subject to the rules and regulations of the College of Liberal Arts and Sciences as defined and stated in the Academic Policies Handbook (http://clas.uiowa.edu/students/handbook).

In this class, students are not allowed to collaborate with others on assignments. Do not share your work with others or ask others to see their completed assignments since both are considered academic misconduct. If you need help, please contact the instructor by email. Students are responsible for understanding this policy; if you have questions, ask for clarification.
**Understanding Sexual Harassment:** Sexual harassment is reprehensible and will not be tolerated by the University. It subverts the mission of the University and threatens the well-being of students, faculty, and staff. Visit this site ([http://www.sexualharassment.uiowa.edu/](http://www.sexualharassment.uiowa.edu/)) for definitions, assistance, and the full University policy.

**Complaint Procedures:** If at any time you have concerns about this class or your performance in it, please do not hesitate to contact me. If you do not feel that your concern has been resolved satisfactorily, you may contact the Department Chair (contact information provided at the top of page one of this syllabus). If you still do not feel that your concern has been resolved satisfactorily, you may contact University College, 310 Calvin Hall, (319) 335-1497, uc-academics@uiowa.edu. All complaints must be made within six months of the incident.

**Administrative Home of the Course:** The administrative home of this course is the University College (UC), which governs academic matters relating to the course such as the add/drop deadlines, the second-grade-only option, issues concerning academic fraud or academic probation, and how credits are applied for various graduation requirements. Different colleges might have different policies. If you have questions about these or other UC policies, contact your academic advisor or the Division of Continuing Education, 250 Continuing Education Facility, (319) 335-2575, dce-registration@uiowa.edu. As a registered student in a Distance Education course through The University of Iowa, you are responsible for the policies and instructions as posted online: [http://uc.uiowa.edu/students/admitted-university-college-programs/academic-standards](http://uc.uiowa.edu/students/admitted-university-college-programs/academic-standards).