BIOL 114 155 256 Biodiversity in Ireland

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Syllabus Biodiversity in Ireland – Summer 2015

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      ISBN-10: 1782050108
      ISBN-10: 0007349513
Additional readings provided.

Objective: To explore the science underlying our understanding of biodiversity and conservation in Ireland. The text (Jebb & Crowley) introduces students to the geological history of biodiversity and the present issues of conservation in Ireland. The field guide (Sterry) is an invaluable resource for exploring Irish wildlife in the field. The additional readings are designed to highlight specific and current issues we will discuss in the course.

Evaluation: The grades in this course will be field practical quizzes, paper assignments, and a final exam.

Before you leave for Ireland: (both of these are to be turned in via email by June 1st)
1. Pre-trip assignment posted on Canvas (100 points).
2. Paper summarizing a research article (100 points) on some aspect of Irish biodiversity or conservation. You can search the library databases such as Web of Science or even use Google Scholar. The article must be in a peer-reviewed scientific journal and must describe an original research project.

Before writing your paper, you need to have the article approved by me by May 20th. If you have any trouble finding an article, please contact me and I can help you find something you are interested in or make suggestions.

The assignment is to summarize each section of the article and respond to it. The assignment should have these sections (with headers):

   Introduction: at least a two-paragraph summary giving the rationale for the research.
   Methods: at least a two-paragraph summary describing the methodology in sufficient detail that a reader can get a sense of what the investigators actually did, including when and where the research was conducted.
   Results: a one or two paragraph summary. If graphs or tables were used in the paper, summarize what the important illustrations show in your own words.
   Discussion: at least a two-paragraph summary putting the results into a larger context.
   Response: describe your reaction to the article (in at least two paragraphs) which can include criticisms or suggestions for improvement or how the study brought up new questions that could be explored in some future experiment.
In Ireland:
3. **Field practical quizzes (50 points)** on identification of Irish wildlife.
4. **Participation in discussions (50 points)**. During the trip you will give a summary and lead a discussion of your research article. We will also have discussions of the course-specific readings. During these discussions you will ask good questions so we can all gain a deep understanding of the research in the articles presented by the other students.

After returning from Ireland: (to be turned in via email by July 15th)
5. **Research proposal (100 points)**: Propose a research project to investigate some aspect of biodiversity or conservation in Ireland (2-3 pages; single-spaced). This should be based on some experience you had while in Ireland. The paper should begin with a description of the experience that prompted the question being addressed by the research project. It must include a clearly-stated hypothesis and a description of an experiment to test that hypothesis. You should use references (from scientific articles) to demonstrate some expertise concerning the system being studied. I will provide more instruction regarding this.
6. **Final exam (100 points)**. I will email the exam questions after we return from Ireland. The exam will be open-note, open-book and will consist of questions that use our experiences in Ireland and the readings to explore larger issues of biodiversity and conservation.

**This grading scale will be used:**

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<th>Grades</th>
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<tr>
<td>93% - 100%</td>
<td>A</td>
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<tr>
<td>90% - 92%</td>
<td>A-</td>
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<td>87% - 89%</td>
<td>B+</td>
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<td>83% - 86%</td>
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<td>80% - 82%</td>
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<td>60% - 62%</td>
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<td>Below 60%</td>
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Students enrolled in BIOL 114 & 115:
Items numbered 3 and 5 will determine the grade for the lab (BIOL 115) the balance will determine the grade for the lecture (BIOL 114).
These two courses (BIOL 114 & 115) satisfy 3 credits toward the science requirement in the core curriculum at Xavier University

Students enrolled in BIOL 256:
Course counts as 3 credits toward Biology Major, Environmental Science Major, or Biology Minor

**Timeline of Course:**
- **Today**  Order the books. Please let Dr. Farnsworth know if you cannot get copies.
- **May 20th**  Choose your research article and email your article title to Dr. Farnsworth
- **June 1st**  Pre-trip assignments are due (email to Dr. Farnsworth)
- **July 15th**  Post-trip assignments are due (email to Dr. Farnsworth)

**Disclaimer:** I reserve the right to change anything regarding this syllabus.