Master Syllabus

1. Course Information
   - **College:** College of Science and Math
   - **Department:** Biological Sciences
   - **Course Title:** Global Ecology and Diversity
   - **Course Designation and Number:** Bio 1060
   - **Core Element(s):** Natural Science

   Writing Intensive: __ Yes  _X_ No

   For WI Courses: ___ All sections ___Selected Sections are WI

   Method(s) of Instruction:  
   - _X_ Lecture  
   - _X_ Discussion  
   - __ Web-enhanced  
   - __ Web-only  
   - __ Other

   Includes Lab: __X_ Yes __ No

2. Objectives

   This course addresses the following University Learning Objectives. At the end of the course, students will have opportunities to learn to:
   - communicate effectively
   - demonstrate mathematical literacy
   - evaluate arguments and evidence critically
   - apply the methods of inquiry of the natural sciences
   - demonstrate global and multicultural competence
   - demonstrate understanding of contemporary social and ethical issues
   - participate in democratic society as informed and civically engaged citizens

   BIO 1060 is a Natural Science course for the Core Element program. Learning outcomes are:
   a. Understand the nature of scientific inquiry.
   b. Critically apply knowledge of scientific theory and methods of inquiry to evaluate information from a variety of sources
   c. Distinguish between science and technology and recognize their roles in society
   d. Demonstrate an awareness of theoretical, practical, creative and cultural dimensions of scientific inquiry
   e. Discuss fundamental theories underlying modern science

   Course Content Objectives:
   a. Examine the scientific method of inquiry in ecological-related research
   b. Examine general theories of evolution, speciation, and ecological principles
   c. Discuss the global importance of the patterns and processes of biogeography, ecology and biodiversity at a continuum of spatial scales
   d. Examine the processes and mechanisms of global climate change and impacts on ecosystems
   e. Explore the earth as a total ecosystem and the effects of human behavior on its future well-being and preservation of biodiversity.
f. Explore important breakthroughs and technology in science in the field of global ecology

g. Provide a foundation to be more effective stewards of our planet.
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1. Suggested Course Materials
Textbook: Global Ecology
Online resources (websites, journal articles) will be posted on WebCT as supplemental information.

2. Suggested Methods of Evaluation
Student performance is assessed through two block midterms and one block final exam, as well as through weekly homework and laboratory assignments.

3. Grading Policy
All GE courses are graded A-F.

4. Suggested Weekly Course Outline Including Typical Assignments

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<th>Lecture Outline</th>
<th>Lab Exercises</th>
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<td>Global Ecology</td>
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<td>Ecosystems</td>
<td>Ecology of Organisms</td>
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<td>How Populations Evolve</td>
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<td>How Biological Diversity Evolves</td>
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<td>8</td>
<td>Speciation</td>
<td>Speciation</td>
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<td>Evolution of Microbial Life</td>
<td>Fossils, Bacteria</td>
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<td>Ecology of Plants, Fungi</td>
<td>Plants, Fungi</td>
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<td>The Evolution of Animals</td>
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<td>Global Warming and the Environment</td>
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<td>Global Biomes</td>
<td>Biomes &amp; Ecological Footprint</td>
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<td>Human Impact on the Environment</td>
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<td>Water Quality</td>
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5. Other
Syllabus distributed to students should employ the format approved by UCAP and must include: -Instructor name, office hours, and contact information -Office of Disability Services information -Information on how grades will be determined -Attendance policy