Class meets on Tuesdays and Thursdays from 1-2:15 in FA 253 unless otherwise indicated. We will take one required field trip. Information about the course, handouts, and other documents for the course will be posted on the following web sites: [www.cabnr.unr.edu/gustin](http://www.cabnr.unr.edu/gustin) and [http://www.ag.unr.edu/nowak/RegGlobIss06.htm](http://www.ag.unr.edu/nowak/RegGlobIss06.htm).

**Course Outline:** (subject to change)

<table>
<thead>
<tr>
<th>Date</th>
<th>Assignment due</th>
<th>Topic</th>
<th>Reading Assignment</th>
<th>Instructor</th>
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</thead>
</table>
| Jan 24     | Introduction to course | • The precautionary principle | AE: Chapter 1  
TS: Issue 1 | Gustin & Nowak |
| 26         | Resource and land management | • Resource management paradigms  
• Policy sciences  
• Principles of resource management  
• Biodiversity | AE: Chapters 3, 5, 16, 17, 18, 19  
TS: Issues 3, 4 | Nowak |
| 31         | BN Quiz #1 | | | |
| Feb 2      | | | | |
| 7          | | | | |
| 9          | | | | |
| 21         | BN #1 due | Energy | AE: Chapters 12, 13, 14, 15  
TS: Issues 8, 10, 11,12, 19 | Gustin |
| 23         | BN Quiz #1 | | | |
| 28         | MG #1 due | Energy | AE: Chapters 1, 5, 29  
TS: Issue 9 | Nowak |
| Mar 2      | | • Evidence for past climate change (Guest lecture by Dr. Robin Tausch)  
• Increasing atmospheric CO₂ | | |
| 14         | MG Quiz #1 | | | |
| 16         | | | | |
| Mar 18, 19, & 20 | REQUIRED FIELD TRIP | • Hoover Dam  
• Yucca Mountain  
• Nevada Desert Free-Air CO₂ Enrichment Facility | | Gustin & Nowak |
| 21, 23     | Spring break | | | |
| 28         | FN Quiz #2 | Global Change (cont.) | | |
| 30         | BN #2 due | Global Change (cont.)  
• Future climate change  
• Global treaties  
• Ecological impacts | | |
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Course Objectives:
The overall goal of this capstone course is to provide a sound foundation on how to systematically integrate and use biological, physical, and social science principles in order to address environmental and natural resource problems and issues. The course will use specific examples of case studies as well as individual and group investigations to:

1. identify critical scientific and social issues that are related to the environmental and resource problems
2. develop reliable expert knowledge and data bases on those issues
3. integrate information and evaluate potential environmental and social impacts
4. communicate effectively the results of the problem analysis

Course Grading:
This course will have formal exams and quizzes, written assignments, and oral discussion assignments. The 5 written and oral assignments during the course are each worth 10% of your final course grade, the 4 quizzes during the course are each worth 10% of your final grade, and the final exam (participation in “Keep Cool”) is also worth 10% of your final grade.

Written and oral assignments
BN #1 = 10% of grade
MG #1 = 10% of grade
BN #2 = 10% of grade
MG #2 = 10% of grade
MG #3 = 10% of grade

Exams
BN Quiz #1 = 10% of grade
MG Quiz #1 = 10% of grade
BN Quiz #2 = 10% of grade
MG Quiz #2 = 10% of grade

Final Exam
“Keep Cool” = 10% of grade
TOTAL = 100%

All written assignments are due at the beginning of the class period indicated; late assignments will not be accepted and will be scored as zero. All written assignments must be
typed; handwritten assignments are unacceptable. **Quizzes and oral assignments will be made during the class period assigned by the instructor; missed quizzes and oral assignments will not be rescheduled and will be scored as zero without a UNR-approved excuse.** Grading for a particular assignment will consider both content and style. Content includes items such as careful consideration of data and results, careful examination of problems and issues, creativity, and critical thinking. Style includes clarity of presentations and composed manner for oral assignments; spelling, punctuation, neatness, and rules of formal writing for written assignments.

**Graduate student grading:** Graduate students will be expected to give a better synthesis of information required in the exams and assignments and to use up-to-date, pertinent, peer-reviewed journal articles to substantiate their discussions.

Final grades for the course will be based on assignments and participation and assigned as follows

- **A** = >90%
- **B** = 80-90%
- **C** = 70-80%
- **D** = 60-70%
- **F** = <60%

**NOTE:** This course uses the plus/minus system of grading.

**Required Textbook:**

**Reference Journals:**
Many journals have articles that relate to issues that are covered in class. These include (but are not restricted to) the following journals in ecology, environmental science, resource management, and agriculture. Most are found in the Health and Life Sciences Library.

- Agricultural and Forest Meteorology
- Atmospheric Environment
- Biogeochemistry
- Ecological Applications
- Ecological Modeling
- Ecological Monographs
- Ecology
- Ecosystems
- Ecotoxicology
- Ecotoxicology and Environmental Safety
- Environmental Geology
- Environmental Management
- Environmental Monitoring & Assessment
- Environmental Pollution
- Environmental Research
- Environmental Science and Technology
- Environmental Toxicology and Chemistry
- Environ. Tox. & Risk Assessment
- Forest Ecology and Management
- Global Change Biology
- International J. Biometeorology
- Journal of Range Management
- Microbial Ecology
- Oecologia
- Science of the Total Environment
- Soil Biology and Biochemistry
- Soil Science Soc. America Journal
- Water Air & Soil Pollution

In addition to these discipline specific journals, journals for a general scientific audience such as *Science* or *Nature* often have articles of importance.
Academic Dishonesty Policy:
Students are expected to adhere to the ethical code as described in the UNR Student Handbook. This code specifies that with enrollment, an individual commits to the principles embodied in the code. Academic dishonesty in any form is unacceptable. In the event of an academic dishonesty issue, the procedures for addressing the issue are outlined in the University’s “Academic Dishonesty Procedures”, which can be obtained from the Director of Student Judicial Affairs in the Jones Visitor Center.