

Syllabus

Topics in Natural Resources: Global Biodiversity

NR 5884 – CRN 17155 – 3 Credits

Spring 2009

Virginia Polytechnic and State University – College of Natural Resources
National Capital Region

INSTRUCTOR:

Michael Ruggiero, Ph.D.
Smithsonian Institution
National Museum of Natural History
P.O. Box 37012, CE-120, MRC - 0180
Washington, DC 20013-7012
202-633-2148
ruggierm@si.edu

CLASS LOCATION:

Virginia Tech, Northern Virginia Center, 7054 Haycock Rd, Falls Church,
Room TBD

MEETING TIME:

Mondays, 7:00-9:45 pm

OFFICE HOURS:

By appointment.

COURSE DESCRIPTION:

This course will review the major biodiversity issues and examine the biological principles that underpin the major international agreements on biodiversity, especially the UN Convention on Biological Diversity. Key topics include identification and monitoring of biological diversity; the ecosystem approach; marine, agricultural, inland waters, and drylands biological diversity; invasive species; bioinformatics; and indigenous knowledge, among others. Teaching methods include but are not limited to class discussion, student presentations, case studies, technical and popular readings, guest lecturers, and video.

LEARNING OBJECTIVES:

After successfully completing the course, the student will have learned

- to explain the major elements of the Convention on Biological Diversity and related international agreements,
- to describe historic and current issues related to global biological diversity conservation, and

- to explain and give practical examples of how the scientific principles of biological diversity inform political decision-making.

CLASS SCHEDULE:

- 1. Introduction to biological diversity, biodiversity, and global biodiversity**
- 2. Biodiversity and land conservation**
- 3. Biodiversity and politics**
- 4. Biodiversity and the ecosystem approach**
- 5. Biodiversity and climate change; 1st short paper due**
- 6. Convention on Biological Diversity (CBD)**
- 7. CBD thematic areas** (Marine biodiversity, Inland waters, Agricultural Biodiversity, Drylands Biodiversity; Forest Biodiversity, Mountain Biodiversity, Protected Areas, etc.)
- 8. Biodiversity inventory and monitoring**
- 9. Genetic biodiversity**
- 10. Biodiversity informatics; 2nd short paper due**
- 11. Emerging issues in global biodiversity**
- 12. Class presentations**
- 13. Class presentations**
- 14. Class presentations**
- 15. Final Paper Due**

COURSE REQUIREMENTS AND GRADING:

Classroom participation (30%). Each student will be expected to contribute to the learning environment by participating in classroom discussions based on readings assigned for that week. Arrangements can be worked out for a limited number of absences due to conflicts in work schedules.

Short papers (30%). Each student will write two 6 page (double-spaced) papers reviewing and summarizing information learned from book chapters, journal articles, and other sources on global biodiversity topics selected by the student. *First paper:* The student will read source documents about a current global biodiversity topic, summarize the key issues and background and provide a recommended course of action with talking points. *Second paper:* The student will read source documents and prepare a paper about an emerging global diversity topic.

Oral presentation (10%). Students will be responsible for choosing and presenting a case study for class discussion on one of the global biodiversity topics listed in the syllabus.

Final paper (30%). The final paper should be no longer than 15 double spaced pages and is due at the final class meeting. The format will be that of a position paper prepared for an international meeting and will support the oral presentation.

READING MATERIALS:

A reading list will be provided at the first class that includes selections from the scientific, technical, and popular literature. All readings should be available via the internet.

BLACKBOARD:

Course announcements, information, assignments, and documents will be posted on Blackboard, accessible with your PID and Password at <www.learn.vt.edu> or the Virginia Tech Home Page.

GRADUATE HONOR CODE:

The tenets of the Virginia Tech Graduate Honor Code will be strictly enforced in this course, and all assignments shall be subject to the stipulations of the Graduate Honor Code as outlined in the 2001-2003 Graduate Catalog. For more information on the Graduate Honor Code, please refer to the GHS Constitution, located online at <http://fbox.vt.edu/studentinfo/gradhonor/> Please contact the instructor immediately if you have questions.

SPECIAL ACCOMMODATIONS:

Students with special needs or circumstances are encouraged to meet with the instructor after the first class or ASAP. Please do not wait until later in the semester. In all cases, please feel free to contact the instructor should you have any questions.

COURSE EVALUATIONS:

In the spirit of continuous improvement, the instructor seeks ways to improve this course and values your input. To that end, you will be asked to complete an evaluation at the end of the semester. At any point during the course, your suggestions and comments are most welcome.

WEATHER LINE:

For weather cancellations, please check www.ncr.vt.edu and the Weather Alert Line 703-538-8325.

USEFUL INTERNET SITES:

Convention on Biological Diversity
Millennium Ecosystem Assessment
Global Biodiversity Information Facility
Inter-American Biodiversity Information
Network

<http://www.cbd.int>

<http://www.millenniumassessment.org>

<http://www.gbif.org>

<http://www.iabin.net>