



Course Syllabus **Ecology and the Environment/ Bio 8043**

Instructor: Dr. Rachel Jolley

Course Description:

Investigation of biodiversity, ecological hierarchies, and interactions between biota and the environment. Includes an introduction to contemporary environmental science issues.

Course Overview:

This course will introduce you to the fundamental concepts of ecology—the study of the relationships between organisms and their environment. We will cover 7 Units (1 unit per week): the physical environment, organisms and their environment, populations, species interactions, community ecology, ecosystem ecology, and ecological biogeography. I have created video lectures summarizing each chapter that we cover, for your convenience. However, you will also want to read each chapter in the text to get a more comprehensive understanding of each topic. It is expected that you already have a good understanding of biological concepts as a foundation for this course.

Learning Outcomes:

The goal of this course is to provide students with understanding of the concepts and principles that act upon populations, communities, and ecosystems. Upon successful completion of this course, students are expected to discuss the biotic and abiotic factors that affect ecosystems; describe the processes of natural selection; develop and use life history tables to understand population growth; detail different species interactions, such as competition, predation, mutualism, etc.; explain the factors influencing the structure of communities; and diagram the energy fluxes in an ecosystem.

Classroom Material:

Textbook: Smith, T. M. and Smith, R.L. 2015. *Elements of Ecology* (9th Edition). Pearson: Boston (ebook available through MasteringBiology.com). You will be required to read each chapter covered and understand the material.

Supplemental resources: Mastering Biology.com includes videos, ebook, practice quizzes, etc. You will need to register through the website to access this site (not required). Supplemental lectures covering each chapter are posted in each Unit section.

MSU Honor Code:

The Mississippi State University Honor Code states: “As a Mississippi State University student I will conduct myself with honor and integrity at all times. I will not lie, cheat, or steal, nor will I accept the actions of those who do.”

Upon accepting admission to Mississippi State University, students immediately assume a commitment to uphold the Honor Code, to accept responsibility for learning, and to follow the philosophy and rules of the Honor Code. Students will be required to state their commitment to uphold the Honor Code on all quizzes, examinations, papers, and other academic work. Ignorance of the rules does not exclude any student from the requirements of the Honor Code. For additional information please visit: <http://www.honorcode.msstate.edu/>

See the final page of this syllabus for further information on the MSU Academic Honor Code.

Contact Information:

I prefer email as the dominate form of communication (rjolley@biology.msstate.edu). I will try to respond within 24 hours, though weekends and holidays may delay the response time. You may also feel free to call/text me if you need to reach me more quickly (662-368-8133).

For all technical questions or problems with Blackboard Learn, please contact the Center for Distance Education Technology by phone (662-325-0278), by live chat during normal business hours (http://www.distance.msstate.edu/distance/technical_assistance), or by email (help@distance.msstate.edu).

Students should not contact the MSU ITS Helpdesk with issues associated with the ProctorTrack System. Technical Support is handled by Verificent Technologies. Verificent Technical Support contacts are as follows:

- General support: support@verificent.com
- Point of contact: Rajnish Kumar: rajnish@verificent.com or by phone: 404-964-9591
- Live chat from within Proctortrack test (down at bottom right of the screen while in test)

Unit Assessments:

Each unit will have a unit assessment (quiz). You will not be authorized to use any material to complete the assessments (no notes, textbooks, internet, phone, etc.), though you can use scratch paper (blank) and a calculator (not on your phone). Assessments will consist of multiple choice (or True/False) questions, short answer questions, and short essays (~200 words). There will be a total of 7 assessments. You will be able to drop your lowest assessment grade, to accommodate summer travel or emergencies that may come up.

Discussion Board Activities:

Each week you will also be required to participate in the class discussion board. This is a chance to learn about current ecological issues. You will be required to post at least twice during the week (two separate days). One post will be your response to the discussion board question. Your second post will be a comment on another student's post. Your posts should reflect a critical and thoughtful understanding of the topic, and bring the discussion to a higher level of inquiry and investigation. You will be graded on your discussion board posts (see grading rubric below). 50% of your grade will come from you initial post and 50% from your follow-up post. You will be able to drop your lowest discussion board grade, to accommodate summer travel or emergencies that may come up.

Exams:

During this course, you will have a mid-term exam (Chapters 1-11) and a final exam (Chapters 12-22). Exams will consist of multiple choice and short answer questions, as well as two short essays (approximately 200 words). You will have 2 hours to the complete each exam. These will also be proctored and you will not be authorized to use any other resources other than scratch paper (blank) and a calculator (not on your phone).

Exams will be administered through Proctortrack. Please see the student manual for instructions on how to use this software. **You will be required to take the practice test within the first 3 days of the course, so that your computer can be verified. Please click on "Proctored exams" in the Course Menu to access the practice test and all exams.**

Late Policy:

Assignments will not be accepted late. All assignments must be submitted within the restricted time frame. Assessments will no longer be available after midnight (or 2 am, depending on your time zone) of the day they are due.

Schedule:

Because this course covers such a broad range of topics and we are confined to a 10-week period, we will not be able to cover all of the chapters in the textbook. We will not get to Unit VII (Biogeography) and we are limited in covering Unit VI (we will only cover parts of this unit). Because of time restraints, there will not be a separate assessment and discussion board topic for Unit VI—though the material will be covered in the final exam. We will cover contemporary environmental science issues through the Discussion Board topics, rather than assessments and lectures. Below is the course schedule, including due dates for assignments.

Unit	Chapters	Dates for Discussion	Dates for
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	covered	Board posts	Assessment/Exam
I: The Physical Environment	1-4	June 1-7	June 8-11
II: The Organism and its Environment	5-7	June 8-14	June 15-18
III: Populations -A	8-9	June 15-21	June 22-25
III: Populations-B	10-11	June 22-28	June 29-2
Mid-term Exam	1-11		July 6-9
IV: Species Interactions-A	12-13	July 6-12	July 13-16
IV: Species Interactions-B	14-15	July 13-19	July 20-23
V: Community Ecology	16, 18-19	July 20-26	July 29-30
VI: Ecosystem Ecology*	21-22	July 27-31	
Final Exam	12-22		Aug 2-3

*Unit VI will not have an assessment or discussion board associated with it, but the information will be included in the Final Exam.

Grading:

Assignment	Value of each	Cumulative value
Unit Assessments (lowest dropped)	8.3% x 6	50%
Weekly Discussion boards (lowest dropped)	3.3% x 6	20%
Exams (mid-term and final)	15% x 2	30%
Total		100%

A: 90-100% B: 80-89% C: 70-79% D: 60-69% F: <60%

Discussion Board Grading Rubric:

Initial Posting to the Discussion Board

Exemplary 50 - 45 pts	Acceptable 44 - 30 pts	Limited 29 - 1 pts	Not Attempted 0
Initial posting is exceptionally clear and focused, thought provoking, and stimulates further discussion.	Initial posting demonstrates knowledge of the main ideas, but slightly off-topic, and the post struggles to stimulate further discussion.	Initial posting is vague, incomplete, demonstrates a lack of understanding of the topic, or fails to stimulate any further discussion.	No initial posting has been made to the discussion board.

Comment Posting to the Discussion Board

Exemplary 50 - 45 pts	Acceptable 44 - 30 pts	Limited 29 - 1 pts	Not Attempted 0
Follow-up posting is clear and focused, demonstrates a critical and thoughtful understanding of the topic, and brings the discussion to a higher level of inquiry and investigation.	Follow-up posting demonstrates a basic understanding of the topic and brings the discussion to a higher level of inquiry.	Follow-up posting lacks soundness, demonstrates a lack of understanding of the topic, is superficial, or does not demonstrate critical understanding.	No comment posting has been made to the discussion board.

Initial Post =50 points + Follow-up Post=50 points= 100 points total

Extra Credit:

There will be no extra credit offered for this course.

Title IX:

MSU is committed to complying with Title IX, a federal law that prohibits discrimination, including violence and harassment, based on sex. This means that MSU's educational programs and activities must be free from sex discrimination, sexual harassment, and other forms of sexual misconduct. If you or someone you know has experienced sex discrimination, sexual violence and/or harassment by any member of the University community, you are encouraged to report the conduct to MSU's Director of Title IX/EEO Programs at 325-8124 or by e-mail to titleix@msstate.edu. Additional resources are available at <http://www.msstate.edu/web/security/title9-12.pdf>, or at <http://students.msstate.edu/sexualmisconduct/>.

Academic Honor Code:

I. DEFINITION OF ACADEMIC MISCONDUCT

Cheating, plagiarism, or any other form of academic dishonesty will not be tolerated. Any violation will be dealt with according to the MSU Student Honor Code procedures (<http://www.honorcode.msstate.edu/>). The Honor Code Council Office provides, at the preceding URL, a listing of definitions of acts that constitute academic dishonesty.

However, that is not meant to be an exhaustive list, and other acts may be determined to violate the Honor Code. Note, especially, that many acts of academic dishonesty in the online environment may not be covered in the specific listing of prohibited behaviors.

Item #7 in the "Definitions" section, "Violation of Departmental or College Rules" indicates that "Students may not violate any announced departmental or college rule relating to academic matters..." These "Departmental Rules" include those rules established for proper student conduct during proctored assessments. Proper student conduct during proctored assessments, especially those proctored via Remote Proctor services, should adhere to the following standards.

The online testing environment should mimic the "in class" testing environment. Please find a **quiet, secure, fully lighted room for the examination.**

- a. No other people in the room
- b. No communicating with others by any means (with the exception of contact with your instructor in an emergency)
- c. No leaving the room
- d. Clean desk or table with nothing except computer and remote proctor system on the desktop or tabletop including removal of all books, papers, notebooks or other materials, unless specifically permitted in written guidelines for a particular examination
- e. No writing visible on desk or on walls
- f. No music or TV playing
- g. No use of headphones
- h. No use of cell phone for any reason other than to contact support or your instructor
- i. All other computer monitors must be powered off

II. SANCTIONS AGAINST ACADEMIC MISCONDUCT

When it is determined by the Honor Code Council or a faculty member that a student has violated the MSU Honor Code, *the normal sanction assigned for a first offense will be an "XF" for the course, probation, and a requirement to complete the Academic Integrity Intervention Program.* The Honor Code Council or faculty member will only impose a lesser grade sanction (a lowered course grade rather than an F) in exceptional circumstances, such as a case where the assignment involved is a minor part of the final course grade. The dishonesty notation ("X"), probation and the intervention program will be required with all grade sanctions. If a faculty member wishes to impose a more severe penalty than an XF, then the case must be referred to the Honor Code Council. The Honor Code Council has the authority to remove a student from the University, even for first offenses. Decisions by the Honor Code Council Hearing Panels are binding on all parties.