



Instructor Name:	Sonya Le Febre
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Office Hours:	By appointment
Term:	Fall 2018
Section:	801
Course Credits:	3

Course Overview

NR565 is a unique graduate-level course designed to provide students with a fundamental understanding of ecological principles as applied to current natural resource management issues, such as invasive species management or fostering healthy forests. Natural resources ecology is complex, with interacting processes controlled by a range of variables, all of which are in constant flux. This course arms students with the essential knowledge to tackle natural resources challenges in a changing world.

Course Goals and Objectives

Upon completing this course, students will be able to:

1. Describe fundamental processes that shape ecosystem structure and function in forests, rangelands and aquatic systems
2. Analyze and anticipate ecosystem response to disturbance and management activities
3. Identify science-based management practices to address common ecological challenges
4. Manipulate and interpret ecological data from natural resource systems

Course Prerequisites

Admission to the Master of Natural Resources Stewardship degree program.

Required Texts and Materials

Additional reading and materials will be provided on Canvas.

Library & Research Help

The CSU Libraries Help Desk provides research and technical assistance either in person at Morgan Library or by phone at 970-491-1841. Jocelyn Boice is the librarian supporting this course. Contact her by email at jocelyn.boice@colostate.edu or by phone at 970-491-3882 to ask questions or set up an appointment for in-depth research help.

Important Dates to Remember

Last Day to Add/Drop Classes Without an Instructor Override: Sun, Aug 26th, 2018

Withdrawal Deadline: Mon, Oct 15th, 2018

Fall Recess: Sat, Nov 17th – Sun, Nov 25th, 2018

Last Day to Process a University Withdrawal: Fri, Dec 7th, 2018

Basis for Final Grade

Assessment	Points Possible	Percent of Final Grade
Exam 1	180	15%
Exam 2	180	15%
Evaluation Paper 1	120	10%
Evaluation Paper 2	120	10%
Evaluation Paper 3	120	10%
Evaluation Paper 4	120	10%
Problem Set 1	60	5%
Problem Set 2	60	5%
Conceptual Diagram	60	5%
Discussion board posts	180	15%
	1200	100%

Final Course Grade: 90-100% = A; 80-89% = B; 70-79% = C; 60-69% = D; 0-59% = F

Grading Expectations

As a student enrolled in this course, one of your responsibilities is to submit course work by the due dates listed in the Schedule. One of my responsibilities is to respond individually to the work you submit and to return your work in a timely manner. Discussions and Problem Sets will be returned within 7 days and Evaluation Papers and Exams will be returned within 10 days. (If, due to unforeseeable circumstances, the grading of your work takes longer than the times I have listed here, I will keep you informed of my progress and make every effort to return your work with feedback as soon as I can.)

Assessments of Learning

Evaluation Papers

Students will choose a question from a list provided by the instructor to address in a short paper. The paper, excluding figures, tables and references, shall be no longer than 1500 words and will ask the student to critically evaluate a specific ecological question. The student will be graded on correct use of terminology as presented in lectures, understanding of key ecological concepts, appropriately citing relevant research, and using logical reasoning to address ecological questions.

Problem Sets

Students will apply quantitative skills to solve ecological problems using equations presented in lecture and in readings. To receive credit, work must be shown, including problem set-up and units.

Exams

Exams will include essay questions and will be closed book, meaning that students are not permitted to consult notes, books or other resources during the exam. Questions will require students to use higher-order thinking skills such as analysis and synthesis while using correct ecological terminology.

Proctoring: This course requires that all exams are proctored. Proctors are individuals who administer the exam process following the guidelines provided by Colorado State University to ensure academic integrity.

In accordance with Colorado State University CSU Online proctoring guidelines, you have options for having exams (print-based or online) proctored for this course. All options require you to submit the online [Proctor Identification Form](#) at least two weeks prior to the first date the exam is available. If you have any questions about filling out this form, please contact the University Testing Center at 970-491-6498 or proctor@colostate.edu.

Proctoring Options:

Work with an eligible proctor external of Colorado State University. Your proctor selection is subject to approval. If you have any questions about selecting a proctor, please contact the University Testing Center at 970-491-6498 or proctor@colostate.edu. Any costs incurred due to using an external proctor are your responsibility.

Take the exam at a CSUOnline facility in Fort Collins or Denver, or at the University Testing Center (UTC) on-campus. Schedule an appointment at least three days before you need to take your exam. CSUOnline offices do not charge for proctoring services. Contact CSUOnline at (970) 492-4704 (Fort Collins) or (303) 573-6318 (Denver) or the UTC at (970) 491-6498 for more information.

Use [ProctorU](#) online proctoring services which require a webcam and microphone. Schedule an exam at least four days before you need to take your exam. The cost is included in the cost of the course, but there may be a charge if you need to reschedule.

It is your responsibility to select an eligible proctor, schedule exams with your proctor, and abide by all rules for bringing only appropriate materials into the testing area. Mobile or other electronic devices are strictly prohibited. You will need to provide photo identification to your proctor prior to taking any exam. Appropriate identification includes: driver's license, CSU Student ID, passport, or other government issued photo identification.

If you have any questions or concerns about proctoring, contact CSU Online at proctor@colostate.edu.

Discussions

To be eligible for full credit in the discussion assignments each week, students should respond to the original question by Thursday of the current week and post an additional two responses by Sunday at 11:59 pm MT. To ensure the integrity of discussions, students are not allowed to post all 3 responses on one day. The purpose of the discussions is to solicit feedback from others in the course in addition to responding to other students. Posting throughout the week enables a student to have a richer experience. Students should demonstrate quality posting based on the following thread criteria:

- Demonstration of having read the material by volunteering answers to questions and seeking clarification of points in the readings
- Asking questions that extend the thinking of the class and the instructor
- Contribution of relevant examples that support and justify claims
- Sharing experiences when asked or when relevant
- Maintaining a positive attitude and professional courtesy
- Bringing unique thought, insight and depth to the topic at hand
- Using proper grammar, spelling, punctuation and citations where appropriate

DISCUSSION GRADING RUBRIC: Each **post** carries a possible 10 points, with a maximum of 30 points possible per discussion.*

	Subject Knowledge	Quality of Interaction, Organization, Creativity and Insight	Mechanics (Punctuation, Sentence Structure and Spelling)
Outstanding	4 points Student demonstrates full knowledge of topic and is able to answer all class questions with explanations and elaboration.	3 points Student brings unique thought, insight and depth by providing justification and supporting examples. Student maintains professional courtesy.	3 points Post is free of mechanical errors.
Average	2-3 points Student is at ease with some or most aspects of the topic.	2 points Student provides some insight but does not provide adequate support for ideas.	2 points Post has some mechanical errors.
Below Average	0-1 points Student does not demonstrate an understanding of the topic.	0-1 points Student does not provide insight and/or fails to maintain professional courtesy.	0-1 points Post has many mechanical errors.

***Note:** Late postings in discussions will not be accepted for credit.

***Note:** The Introduction thread at the beginning of the course is an exception to this rule. The Introduction Discussion is worth 10 points and the student is required to post only one time.

Course Policies

Late Work Policy

There are no make-ups for discussion posts, evaluation papers, problem sets, or exams. Assignments submitted late will not be graded. If a student cannot avoid missing a deadline due to a sanctioned university or professional event or special religious observances, the student is required to inform the instructor prior to the anticipated absence and take the initiative to make up missed work in a timely fashion.

Grades of "Incomplete"

Per university policy, an instructor may assign temporary grade of Incomplete to a student who demonstrates that he or she could not complete the requirements of the course due to circumstances beyond the student's control and not reasonably foreseeable. A student must be passing a course at the time that an Incomplete is requested unless the instructor determines that there are extenuating circumstances to assign an Incomplete to a student who is not passing the course. When an instructor assigns an Incomplete, he or she shall specify in writing using the Department Incomplete Grade Form the requirements the student shall fulfill to complete the course as well as the reasons for granting an Incomplete when the student is not passing the course. The instructor shall retain a copy of this statement in his or her grade records and provide copies to the student and the department head or his or her designee. (Section I.6 of the *Academic Faculty and Administrative Professional Manual*)

Disability Access

Colorado State University is committed to providing reasonable accommodations for all persons with disabilities. Students with disabilities who need accommodations must first contact Resources for Disabled Students before requesting accommodations from the professor. Resources for Disabled Students (RDS; <http://rds.colostate.edu/home>) is located in room 100 of the General Services Building. Their phone is (970) 491-6385 (V/TDD). Students who need accommodations in this course must contact the professor at the beginning of the semester to discuss needed accommodations.

Religious Accommodation

Participation in official University activities, e.g., an out-of-town athletic event, or special religious observances may provide a legitimate reason for an excused absence. The student is responsible for discussing this with the instructor at the beginning of the semester.

Professionalism Policy

Part of this course relies on sharing opinions and sharing information. Therefore, it is of utmost importance to communicate with courtesy and professionalism. Professional Courtesy includes respecting others' opinions, being courteous and respectful, and working together in the spirit of cooperation. Sexist, heterosexist, and racist language should not be used when communicating in the course. Discussions and assignments will be graded on quality and professionalism.

E-mail Procedure: All e-mail sent to the instructor for this course should contain the following in the subject line: Course Name and Number, Your Name, Short Description of your question. Please refrain from sending out e-mails to large groups of recipients as to be respectful of others. Also note that the same rules for etiquette in the online classroom (as mentioned above) apply to content in an e-mail. Sending e-mail that violates the rules mentioned above can result in disciplinary action taken by the school.

Classroom Technology Policies: This class will use a variety of supporting technologies within the virtual classroom. Etiquette and professional courtesy (as defined above) should be displayed when using these technologies as they are an extension of the classroom.

Final Exam Policy

Final examination week is part of the regular semester. Student attendance shall be consistent with University policy.

If a student has three or more final examinations (not classes) scheduled for the same day or if conflicts of examination times occur, the student may negotiate a time change with the instructors involved. If the parties involved cannot find a mutually agreeable time, the Registrar's Office indicates which courses must be changed. **Note:** The Registrar's Office must be notified at least one week prior to Final Examination Week to allow instructors time to make appropriate accommodations. It is the student's responsibility to initiate negotiations.

Any student who has a conflict with the examination schedule must inform the instructor as soon as possible before the examination. If an agreement cannot be reached between the instructor and student as to the appropriateness of a make-up examination the student should appeal to the department head.

<http://www.registrar.colostate.edu/final-exams>

Academic Integrity

The Department of Forest and Rangeland Stewardship takes academic integrity seriously. At minimum, academic integrity means that no one will use another's work as their own. The CSU writing center defines plagiarism this way:

Plagiarism is the unauthorized or unacknowledged use of another person's academic or scholarly work. Done on purpose, it is cheating. Done accidentally, it is no less serious. Regardless of how it occurs, plagiarism is a theft of intellectual property and a violation of an ironclad rule demanding "credit be given where credit is due."

Source: (Writing Guides: Understanding Plagiarism.

<http://writing.colostate.edu/guides/guide.cfm?guideid=17>)

If you plagiarize in your work you could lose credit for the plagiarized work, fail the assignment, or fail the course. Each instance of plagiarism, classroom cheating, and other types of academic dishonesty will be addressed according to the principles published in the CSU General Catalog (under "Academic Integrity/Misconduct: <http://catalog.colostate.edu/general-catalog/policies/students-responsibilities/> .)

Of course, academic integrity means more than just avoiding plagiarism. It also involves doing your own reading and studying. It includes regular class attendance, careful consideration of all class materials, and engagement with the class and your fellow students. Academic integrity lies at the core of our common goal: to create an intellectually honest and rigorous community. Because academic integrity, and the personal and social integrity of which academic integrity is an integral part, is so central to our mission as students, teachers, scholars, and citizens, we will ask to you sign the CSU Honor Pledge as part of completing all of our major assignments. While you will not be required to sign the honor pledge, we will ask each of you to write and sign the following statement on your papers and exams:

"I have not given, received, or used any unauthorized assistance."

Title IX Information

CSU's Student Sexual Harassment and Violence policy, following national guidance from the Office of Civil Rights, requires that faculty follow CSU policy as a "mandatory reporter" of any personal disclosure of sexual harassment, abuse, and/or violence related experiences or incidents shared with the faculty member in person, via email, and/or in classroom papers or homework exercises. These disclosures include but are not limited to reports of personal relational abuse, relational/domestic violence, and stalking. While faculty are often able to help students locate appropriate channels of assistance on campus (e.g., see the CSU Health Network link below), disclosure by the student to the faculty member requires that the faculty member inform appropriate CSU channels to help ensure that the student's safety and welfare is being addressed, even if the student requests that the disclosure not be shared.

For counseling support and assistance, please see the CSU Health Network, which includes a variety of counseling services that can be accessed at: <http://health.colostate.edu/>. And, the Sexual Assault Victim

Assistance Team is a confidential resource for students that does not have a reporting requirement and that can be of great help to students who have experienced sexual assault. The web address is <http://www.wgac.colostate.edu/need-help-support>.
Source: <http://oeo.colostate.edu/title-ix-sexual-assault>

Non-Discrimination Statement

Colorado State University does not discriminate on the basis of race, age, creed, color, religion, national origin or ancestry, sex, gender, disability, veteran status, genetic information, sexual orientation, gender identity or expression, or pregnancy. The University complies with the Civil Rights Act of 1964, as amended, related Executive Orders 11246 and 11375, Title IX of the Education Amendments Act of 1972, Sections 503 and 504 of the Rehabilitation Act of 1973, Section 402 of the Vietnam Era Veterans' Readjustment Assistance Act of 1974, as amended, the Age Discrimination in Employment Act of 1967, as amended, The Pregnancy Discrimination Act of 1978, Americans with Disabilities Act of 1990, the Civil Rights Act of 1991, the ADA Amendments Act of 2008, the Genetic Information Nondiscrimination Act of 2008, and all civil rights laws of the State of Colorado. Accordingly, equal opportunity of employment and admission shall be extended to all persons. The University shall promote equal opportunity and treatment in employment through a positive and continuing affirmative action program for ethnic minorities, women, persons with disabilities, and veterans. The Office of Equal Opportunity is located in 101 Student Services. Source: <http://oeo.colostate.edu/non-discrimination-statement>

SCHEDULE: FALL 2018

All assignments and exams are due on or before the date listed by 11:59 p.m., Mountain Time.

Dates	Module #: Topic	Assignments Due	Due Dates
Week 1 Aug. 20-Aug. 26	1: The Physical Environment: Atmosphere	Mod. 1 Discussion Proctor Identification Form	Thurs, Aug. 23 Sun, Aug. 26
Week 2 Aug. 27- Sept. 2	2: The Physical Environment: Water Nutrient, and Light Resources	Problem Set 1	Mon, Sept. 3
Week 3 Sept. 3- Sept. 9	3: Adaptation and Evolution	Mod. 3 Discussion Mod. 3 Discussion Responses	Thurs, Sept. 6 Sun, Sept. 9
Week 4 Sept. 10-Sept. 16	4: Photosynthesis and Stress Response	Evaluation Paper 1	Sun, Sept. 16
Week 5 Sept. 17- Sept. 23	5: Biomes	Mod. 5 Discussion Mod. 5 Discussion Responses	Thurs, Sept. 20 Sun, Sept. 23
Week 6 Sept. 24- Sept. 30	6: Populations	Problem Set 2	Sun, Sept. 30
Week 7 Oct. 1- Oct. 7	7: Forest and Rangeland Species Interactions	Evaluation Paper 2	Sun, Oct. 7
Week 8 Oct. 8- Oct. 14	8: Invasive Species	Exam 1	Sun, Oct. 14

NR 565: Principles of Natural Resources Ecology

Dates	Module #: Topic	Assignments Due	Due Dates
Week 9 Oct. 15- Oct. 21	9: Wildlife and Landscapes	Mod. 9 Discussion Mod. 9 Discussion Responses	Thurs, Oct. 18 Sun, Oct. 21
Week 10 Oct. 22- Oct. 28	10: Fire Ecology	Mod. 10 Discussion Mod. 10 Discussion Responses	Thurs, Oct. 25 Sun, Oct. 28
Week 11 Oct. 29- Nov. 4	11: Ecosystems and Disease	Evaluation Paper 3	Sun, Nov. 4
Week 12 Nov. 5- Nov. 11	12: Ecosystem Development	Mod. 12 Discussion Mod. 12 Discussion Responses	Thurs, Nov. 8 Sun, Nov. 11
Week 13 Nov. 12- Nov. 18	13: Ecosystem Productivity and Carbon Flows	Conceptual Diagram	Sun, Nov. 18
Nov. 19- Nov. 25	FALL BREAK		
Week 14 Nov. 26- Dec. 2	14: Models and Applications	Mod. 14 Discussion Mod. 14 Discussion Responses	Thurs, Nov. 29 Sun, Dec. 2
Week 15 Dec. 3- Dec. 9	15: Climate Change Implications	Evaluation Paper 4	Sun, Dec. 9
Week 16 Dec. 10- Dec. 16	16: Exam 2	Exam 2 CSU Course Survey	Fri, Dec. 14