

Geog 454: Forest Environments (Spring 2012)

Lecture: Monday, Tuesday, Thursday 3-4:30 pm (Dean 209)- 5 credits

Instructor: Dr. Megan Walsh, 308 Dean Hall, 963-3699; email: walshme@cwu.edu, office hours: Monday/Thursday 10-11am or by appointment.

Prerequisites: Geog 107 (Physical Geography) or similar preparation, or consent of instructor.

Overview: This course examines topics related to global forests of all forms, from boreal forests of Alaska and Siberia to tropical forests of Brazil and Indonesia, and everything in between. We will cover such topics as forest ecology, disturbance regimes, forest biogeography through time, and forest health and management (including human use/destruction of global forests). Case studies will focus on the forest of the Pacific Northwest and we will examine such issues as past and present logging practices and the protection of old-growth forests. In addition, readings and discussion will emphasize understanding how geospatial techniques are used to detect and document forest change.

Course objectives:

- To understand what forests are (ecologically and theoretically)
- To understand the distribution of different forest types in terms of climatic, geomorphic, and human controls
- To understand the major natural and human factors challenging the existence of forests as we know them today
- To understand the mechanisms that have driven past forest movement (latitudinally and elevationally) and changes in species composition
- To become familiar with how different geospatial technologies (aerial photos, remotely sensed images, GIS maps) are used to study forest environments
- (Reading) To be able to read scientific literature, glean the most important information, and be able to discuss it in a classroom setting
- (Research/Writing) To be able to successfully research a topic related to forests and to write a scientific paper about that research
- (Field) To be able to identify the dominant taxa in Pacific Northwest forests and some components of the understory vegetation; to become familiar with field methods used to study forests

Text and other resources:

Please make sure to bring a notebook to every class (especially labs for taking notes in the field).

Readings, grades, lecture notes, announcements, and other information will be posted on blackboard (courses.cwu.edu). Make sure you check this regularly to insure you know what is going on in class!

Grading: Your grade in the course will be based on your performance on:

Exam 1 (20%)
Exam 2 (20%)
Reading quizzes (15%)
Homework (10%)
Research Paper (25%)
Class attendance and participation (10%)

Grades will be assigned based on the following scale:

A = 100-94, A- = 93-90
B+ = 89-87, B = 86-83, B- = 82-80
C+ = 79-77, C = 76-73, C- = 72-70
D+ = 69-67, D = 66-63, D- = 62-60
F = 59 and below

Course structure: Lecture will meet for 90 minutes three times a week. Lecture attendance will be recorded daily and will go toward the attendance and participation portion of your grade. It will not be possible to make-up these points if you miss class; everyone will be allowed to miss two days of class without it affecting your attendance grade. It is in your best interest to come to every class and pay attention. Please ask for help as soon as possible if you are lost or confused. DO NOT wait until after an exam!!!

There will be two exams, each worth 20% of your final grade. You will not be allowed to miss or make up an exam unless you notify me ahead of time, and then only at my discretion. Reading quizzes will be given periodically throughout the quarter to ensure that you are keeping up with the reading. Quizzes may be given at any time during the lecture period in which they are scheduled. With adequate documentation of a medical or other issue that created an unavoidable absence, scores from another quiz may be substituted for a single missed quiz. Exam and quiz questions will consist of a mix of short answer and long answer questions, and will emphasize concepts (as opposed to factoids). Exam and quiz questions will also test on your ability to synthesize material presented in the lectures and readings.

You will be required to complete several homework assignments throughout the quarter. These assignments are worth 10% of your final grade. Some of these will be related to the readings and class discussions, others will be related to your research papers. All homework assignments must be turned in by the due date. One point will be deducted from the assignment grade for every day (or partial day) it is late (including weekends). **All assignments must still be completed to pass the course, even if they are too late to receive points.** See the individual exercises for more detailed instructions.

You will also be required to complete a research paper worth 25% of your final grade. The papers are due Friday June 1st by 5 pm (please place a hard copy in my mailbox in the Geography Department office). The papers are to be 8-10 pages, typed, 12 pt font, 1.5 spacing, 1" margins. All sources must be scientific (I will give more directions about this later) and you must use at least 12 different sources. You must use in-line citations and attach a bibliography with your paper (I don't care what style you use, as long as you are consistent throughout). The paper topic is your choice, but it must be related to forest issues (more details to come). I am requiring that everyone meet with me during the second or third week of school to discuss paper topics.

Additionally, there will be two required field trips during the quarter that will take place on the weekend. We will schedule these early in the quarter. All material covered on field trips in fair game for exams and quizzes.

Additional Policies:

You will need to arrive to class on time and leave only when dismissed. Please do not arrive or leave in the middle of lecture. It is distracting for many people, including myself. When in class you are expected to pay attention (please do not engage in unrelated conversations) and participate in all activities and discussions. Cell phones and other communication devices should be turned OFF during class. Anyone talking on the phone, texting, surfing the web, or emailing during class will be asked to leave and will automatically lose all attendance/discussion points for the day. Please be respectful of your fellow students and instructor by following these rules.

Cheating or any other academic misconduct/dishonesty will **NOT BE TOLERATED**. Examples of these behaviors include (but are not limited to):

- Plagiarism (passing off the work of another as that of your own)
- Copying answers from your neighbors during exams/activities or using a "cheat sheet"
- Dishonesty concerning reasons for absence from class or your presence in class
- Any other actions that might give you an unfair advantage over your classmates

All cases of academic dishonesty/misconduct will be treated very seriously. The penalties for engaging in academic dishonesty and/or misconduct can range from a grade of "F" for an assignment/exam to an automatic failure of the course. Please consult the university policy at <http://www.cwu.edu/~saem/index.php?page=student-conduct-code> if you have additional questions/concerns regarding academic dishonesty or CWU's Student Conduct Code.

Students with disabilities who require academic adjustments in this class are encouraged to meet with me during my office hours to discuss their disability-related needs. Please bring a copy of your Confirmation of Eligibility for Academic Adjustments (or email it to me) and your current class schedule to this meeting. If you are unable to meet during office hours due to class schedule conflicts, please call me at 963-3699 or email me at walshme@cwu.edu schedule an appointment. Students with disabilities who have not registered with the Center for Disability Services are not eligible to receive accommodations/academic adjustments. Please contact the CDS for additional information. Contact info: Center for Disability Services, Bouillion room 205, phone: 963- 2171, email: dahlberc@cwu.edu website: <http://www.cwu.edu/~dss/cms/>

Additional resources: Other useful links can be found at <http://www.cwu.edu/~acadadv/programs.php> and <http://www.cwu.edu/~acadadv/>

If you have any questions or concerns throughout the quarter, please email me or come see me! Don't wait until the end of the quarter to voice your concerns. I am here to help you get the most out of this course, so please let me know how I can help.

Note: I consider this syllabus a contract between myself and the students in this course. In writing this syllabus, I have obligated myself to follow the policies and procedures contained herein. By being a student in this course, you are responsible

for understanding and following these policies as well. I reserve the right to make changes to this syllabus. You will receive verbal and written notification of major changes to course policies, procedures and content.

Lecture topics, reading assignments, due dates, and tentative schedule:

Date	Day	Topic	Due Dates
<i>Week 1- Section 1: Forest Ecology</i>			
3/27	T	Introduction to Forest Environments	
3/29	Th	No Class (NW Science Conference)	
<i>Week 2- Section 1: Forest Ecology</i>			
4/2	M	Forest Ecology Part I: Forest Structure and Composition	
4/3	T	Forest Ecology Part II: Biogeochemical Cycles and Productivity	
4/4	Th	Forest Ecology Part III: Disturbance, Succession, and Biodiversity	
<i>Week 3- Section 2: Tropical Forests</i>			
4/9	M	Tropical Forest Ecology Part I	
4/10	T	Tropical Forest Ecology Part II	
4/12	Th	Tropical Forest Discussion	Paper topic due by 5pm
<i>Week 4- Section 2: Mangrove Forests</i>			
4/16	M	Mangrove Forest Ecology Part I	
4/17	T	Mangrove Forest Ecology Part II	
4/19	Th	Mangrove Forest Discussion	
<i>Week 5- Section 3: Boreal Forests</i>			
4/23	M	Boreal Forest Ecology Part I	
4/24	T	Boreal Forest Ecology Part II	
4/26	Th	Boreal Forest Discussion	
<i>Week 6- Section 4: Forests of the US</i>			
4/30	M	Exam 1	
5/1	T	Change in NA Forests during the Quaternary	
5/3	Th	Discussion: The Pristine Myth in America	
<i>Week 7- Section 4: Forests of the US</i>			
5/7	M	Forests at the Time of Euro-American Settlement	
5/8	T	Forest Management in the 20 th Century	
5/10	Th	Discussion: The Legacy of Smokey the Bear	Paper references due by 5pm
<i>Week 8- Section 4: Forests of the US</i>			
5/14	M	TBD	
5/15	T	TBD	
5/17	Th	No Class (SOURCE Symposium)	
<i>Week 9- Section 5: Forests of the PNW</i>			
5/21	M	The Legacy of Logging and Old Growth Forests in the PNW	
5/22	T	Forest Management and the Current Health of PNW Forests	
5/24	Th	Discussion: Case Study- The Blue Mountains of Oregon	
<i>Week 10- Section 5: Forests of the PNW</i>			
5/28	M	No Class (Memorial Day)	
5/29	T	Climate Change and the Future of PNW Forests	
5/31	Th	Discussion: Future Management of PNW Forests	
6/1	F		Paper due by 5pm