

Landscape Ecology and Management
Preliminary SYLLABUS--FNRM 3204/5204—FALL 2022

Tuesday and Thursday, 3:00-4:15, 100 Skok Hall

Instructor: Lee E. Frelich (330F Green Hall)

Office hours: 2:00-2:50 Tue and Thur and by appointment

CLASS SCHEDULE

Dates	Lecture topic	Readings
Sept. 6, 8	Introduction: Scale and heterogeneity	Wiens 1989; Turner 2005
Sept. 13, 15, 22, 27	Landscape pattern development; landform, biotic effects, neighborhood effects, disturbance, long-term ecosystem development	Forman and Godron 1981; Frelich et al. 1993; Peltzer et al. 2010
Sept. 20	Landform project introduction and small group workday	
Sept 29, Oct. 4	Metapopulations	See Reading assignment #1
Oct. 6	Trophic cascades	Callan et al. 2013; Frelich et al. 2012
Oct. 11, 13	Landform Project Symposium, Small group presentations	
Oct. 18	Review for Exam I	
Oct. 20	Exam I	
Oct. 25, 27	Lee in New York; no in person class. Online lecture: Biome transitions and climate, landscape diversity and refugia	Toot et al. 2020; Frelich et al. 2020 Anderson and Ferree 2010; Stralberg et al. 2020
Nov. 1	Landscape conservation project, small group workday and discussion of Biome transitions, landscape diversity and refugia	
Nov. 3, 8, 10	Landscapes and population dynamics: fragmentation, reserve design, island biogeography, species area curves	Fischer and Lindenmayer 2007; Margules and Pressey 2000
Nov. 15, 17	Landscape Conservation Symposium, small group presentations	
Nov. 24	Thanksgiving holiday—no class	
Nov. 22, 29, Dec. 1, 6, 8	Case studies of management in Minnesota Multi-functional landscapes—Dean Current Prairie Plan—Lee Frelich Ecological planning in Minneapolis Modelling of landscapes	See reading assignment #2
Dec. 8	Review for exam II	
Dec. 13	Exam II	

DUE DATES FOR EXERCISES, READING ASSIGNMENTS, PRESENTATIONS and EXAMS:

Exercise assignments:

- Exercise #1, Disturbance scale and timing Sept 27
- Exercise #2, Multi-use landscapes Nov 10

Reading assignments:

- RA #1, Metapopulation dynamics Oct 6
- RA #2, Fragmentation and extinction debt Dec 1

Project presentations:

- Landform project small group presentations in class Oct 11, 13
- Landscape conservation project small group project Nov. 8 outline and key references
Presentations in class Nov. 15, 17

Exams

- Exam I Oct. 20
- Exam II Dec. 13

COURSE FORMAT/TEACHING MODE: The course is planned to be fully in person this semester (unless this changes due to Covid). We will use a number of learning formats, including traditional in person lectures, small group discussions and small group presentations and 2 exams that will be available on canvas. Students will be expected to attend or view lectures (in their varied formats) and participate in class discussions and small group exercises, and be respectful of all views and perspectives presented. Students are responsible for all information disseminated in class and all course requirements, including deadlines and examinations.

READINGS: There is no required textbook for this course. Assigned required readings from a variety of sources will be posted on Canvas, and these may be to accompany lectures (listed next to lecture above), or for the reading assignments (listed in the individual assignments). I will assume you are familiar with these readings when I lecture and in preparation for exams.

GRADUATE STUDENT WORK: Graduate students (FNRM 5204) will have longer presentations than undergraduates, some additional questions on some of the assignments, and will need to meet a higher standard for quality of writing and presentation.

EXAM POLICY: There will be two exams via canvas during the semester, including one on the last day of class, but no exam during the final exam period. You are expected to take these at the scheduled time, but let me know if you need to make special arrangements.

ADDITIONAL EXPECTATIONS:

- If a student has a legitimate, unavoidable conflict for those days with lectures, small group work or presentations, or exams take place, they need to let the instructor know so that, if needed, arrangements can be made to make up the work. Unexpected illness or documented personal emergencies are examples of exceptions to this policy, although when these occur, please let me know as soon as you can.
- The instructor will specify the conditions, if any, under which an "Incomplete" will be assigned instead of a grade. The instructor may set dates and conditions for makeup work, if it is allowed. "I" grades will automatically lapse to "F"s at the end of the next semester of a student's registration, unless an instructor agrees to submit a change of grade for a student during a subsequent semester to maintain the grade of "I".
- Students are not permitted to submit extra work in an attempt to raise their grade.

GRADING AND POLICY ON LATE WORK: The two major grading systems used are the A-F and S-N. Departmental majors must take major courses on the A-F system; non-majors may use either system. The FNRM 3204/5204

instructor will specify criteria and achievement levels required for each grade. All students, regardless of the system used, will be expected to do all work assigned in the course, or its equivalent as determined by the instructor. Any changes you wish to make in the grading base must be done in the first two weeks of the semester.

Assignments will generally be 'handed in' and graded on canvas, although group presentations can be handed in as a pdf of the powerpoint. Items turned in late may be penalized (by 10% of points, 20% if more than a week late) unless you have a good excuse. Because presentations will take more than one class period for all groups to present, due dates will obviously vary by a few days. For small group projects, the same grade will be assigned to all group members.

The course will be graded on a curve (separate ones for undergraduate and graduate students), with 600 total points and 10% increments for each letter grade. Scores of 93-100, A; 90-92, A-; 87-89, B+; 83-88, B; 80-82, B-, etc., (x 6 for course total).

Work item	Points each	Total points
Exercises (2)	50	100
Reading assignments (2)	50	100
Exams (2)	100	200
Project presentations (2)	100	200
Course total		600

ADDITIONAL INFORMATION FROM THE UNIVERSITY OF MINNESOTA

Scholastic misconduct: Scholastic misconduct is broadly defined as "any act that violates the right of another student in academic work or that involves misrepresentation of your own work. Scholastic dishonesty includes, (but is not necessarily limited to): cheating on assignments or examinations; plagiarizing, which means misrepresenting as your own work any part of work done by another; submitting the same paper, or substantially similar papers, to meet the requirements of more than one course without the approval and consent of all instructors concerned; depriving another student of necessary course materials; or interfering with another student's work."

Lectures, assignments and exams should not be uploaded to outside websites, and students should not utilize information from these sites to aid them in their homework or other assignments. Uploading an instructor's, and/or copying work from one of the websites is likely a violation of the student conduct code.

Student Mental Health and Stress Management: As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. University of Minnesota services are available to assist you via <http://www.mentalhealth.umn.edu/>.

Disabilities: Students with disabilities that affect their ability to participate fully in class or to meet all course requirements are encouraged to bring this to the attention of the instructor so that appropriate accommodations can be arranged. Further information is available from [Disability Resource Center](#) (180 McNamara).

University of Minnesota Policy on Sexual Harassment: Sexual harassment by or toward a member of the University community is prohibited in Administrative Policy: Sexual Harassment, Sexual Assault,

Stalking and Relationship Violence. Please contact the [Office of Equal Opportunity and Affirmative Action \(EOAA\)](#) with any questions or concerns (274 McNamara).

Conflicts: For assistance with any University-based conflicts or complaints please contact the Student Conflict Resolution Center at sos@umn.edu or call 612-624-7272.

Covid-19 information: Students are expected to follow University of Minnesota Guidelines that are in effect during fall semester 2022, regarding vaccination, and quarantine and face coverings if sick with or exposed to Covid-19. Students can contact the Disability Resource Center for information about acceptable mask accommodations. Failure to comply with expected safety measures may result in a student conduct code violation (reporting to the Office of Community Standards).

If the instructor contracts Covid-19 then class will be given online via zoom for the required quarantine period, before returning to in person instruction. If this should occur it will be announced via Canvas and via email.