

# FORS 481 Forest Planning Spring 2022

## 1. Instructor and course details

Instructor: Beth Dodson

Email: [Elizabeth.dodson@umontana.edu](mailto:Elizabeth.dodson@umontana.edu)

Office Hours: Open door/by appointment  
<https://umontana.zoom.us/j/5075917572>

Class Times: T/Th 9:30-10:50 PM

Class Location: Forestry 206 or 305 (see course schedule)

Zoom link for FORS481 sessions:

<https://umontana.zoom.us/j/99721045196?pwd=OG12aUhhZ2M4eW5yZndtN3BkdzJkZz09>

Zoom link for joint FORS481/PTRM 485 sessions:

<https://umontana.zoom.us/j/94384113139>

Required Text: *Ecological Forest Management* by JF Franklin, KN Johnson, and DL Johnson

Prerequisites: FORS 320 Forest Economics

FORS 349 Practice of Silviculture or FORS 347 Multiple Resource Silviculture

## 2. Course Description

Integrated multiple use planning at the forest-wide level: defining multi-resource management goals, generating management alternatives, projecting outcomes, assessing environmental impacts, and implementing preferred option.

## 3. Learning Outcomes

- Assess the planning processes used by a range of forest land owners, managers, and stakeholders and compare the role of foresters in each.
- Understand the impact of temporal and spatial scale on forest planning efforts.
- Develop written and oral communication skills through research into a chosen forest planning effort.

## 4. Course Policies

- Mask use is required within the classroom.
- If you feel sick and/or are exhibiting COVID symptoms, please don't come to class, contact the Curry Health Center at (406) 243-4330, and contact Beth ASAP to make alternate arrangements for class attendance.
- If you are required to isolate or quarantine, you will receive support in the class to ensure continued academic progress. Contact Beth ASAP to make alternate arrangements. Where possible, this will be in the form of attending class via zoom.
- UM recommends students get the COVID vaccine and booster. Please direct your questions or concerns about vaccines to the Curry Health Center.

- Drinking liquids and eating food is discouraged within the classroom.
- Mask use is required in vehicles when traveling to field sites as part of class/fieldwork.
- Please note this class may be streamed and/or recorded.
- All assignments are due at the BEGINNING of class unless otherwise specified. Late assignments will lose 10% of the potential points per day late.
- All work must be neat, legible and complete.
- All work will be submitted on-line through the class Moodle or Box, unless otherwise specified. Graded assignments will also be returned electronically.
- While you are allowed to work with fellow students on individual assignments, all submitted individual assignments must represent your own individual work.
- All course materials (assignments, schedule with due dates, etc.) will be posted on the course Moodle, available through the UOnline home page. The course Moodle can be accessed from any computer with internet access.
- All course communications and announcements will be made via university email.
- The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and Disability Services for Students (DSS). If you think you may have a disability adversely affecting your academic performance, and you have not already registered with DSS, please contact DSS in Lommasson 154 or 406.243.2243. We will work with you and DSS to provide an appropriate modification.
- All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University.
- All students need to be familiar with the Student Conduct Code as a part of Community Standards for the University of Montana. The Code is available for review online at [Student Conduct Code](#).

**Important dates:**

<b>Date</b>	<b>Description</b>
2/7/2020	Last day to drop with advisor & instructor signatures (After this day a “W” will appear on transcript).
3/29/2020	Last day to drop a course. Drops after this date will be allowed only <i>under very limited and unusual circumstances</i> . Not doing well in the class, deciding you are concerned about how the class grade might affect your GPA, deciding you did not want to take the class after all, or deciding you want to change majors are not among those limited and unusual circumstances. If you want to drop a class for these sorts of reasons, make sure you do so before 5 pm on March 29.

**5. Grading**

*Please note, this class is offered for traditional letter grade only, it is not offered under the credit/no credit option.*

Grades will be based on individual and group work assigned during the semester and active participation in class sessions. Grades will be based on points received out of points possible. The standard +/- grading scale will be used. All efforts will be made to return graded work within one week of when it is turned in. Posted grades will be updated continuously.

<u>Assignment</u>	<u>Percent of final course grade</u>
Group Mt. Jumbo project	35%
Individual plan research	35%
Participation/weekly assignments	30%

## **6. Assignments**

### **Mt. Jumbo Project**

Students will work in combined Forestry-Recreation groups of 4-5 students to gather and analyze data to assist the City of Missoula in current/upcoming planning efforts that consider the interaction between vegetation management efforts and public recreation on city-managed open space lands on Mt. Jumbo.

All group assignments will be submitted via project Box folder (<https://umt.box.com/s/bpdpt23ngjox65d2an1t7dxfp53mv20d>).

Timeline:

Jan 25 - Representatives from the City of Missoula will present past and current planning, restoration, and recreation management efforts on Mt. Jumbo

Feb 1 - Research Question Presentation: Student groups are formed containing at least one each FOR and PTRM student(s). Each group will brainstorm research questions. Before the end of the period, groups will report back to the class in order to refine questions as needed to avoid topic overlap.

Feb 8 - Groups present research question and background to representatives of the City of Missoula, with managers providing feedback and discussion further refine questions.

March 8 - Students will present their final survey instrument (formatted question) and data collection plan (as a class) to representatives of the City of Missoula.

March 29 - Review of survey techniques and expectations. Groups will sign up for a minimum of 2, 2-hour data collection periods when the whole group can be present.

April 26 - Group work time for data analysis and presentation preparation.

May 3 - Final results will be presented to the City of Missoula representatives in both oral and written formats.

May 5 - In-class reflection

## Mt. Jumbo Project Assignments

**Research Question Presentation:** Each group will prepare and deliver a seven to eight-minute PowerPoint presentation describing: 1) the general topic of interest the group has decided to explore, 2) a brief review of the literature on the topic, and 3) the research question that was formed from both information provided by the City of Missoula and the review of the literature. This presentation will be given in class to the City of Missoula on February 8th. The Powerpoint Presentation will be turned in via the shared Box folder. All students' names must be on the first slide of the Powerpoint. (10% of project grade)

**Group Literature Review:** This assignment consists of a 3 to 5-page literature review (double-spaced) that includes, at a minimum, discussion based on 3 citations that establish forest management context (25%), discussion based on 3 citations that establish recreation management context (25%), and discussion of 2 past studies describing public opinion of the group's chosen topic area (25%). Papers will be graded for quality of writing (25%). This assignment will be turned in via the shared Box folder. All students' names must be on the document. Due Feb. 8. (20% of project grade)

**Group Question Modification Reflection:** This assignment consists of a 1-page memo (double-spaced) summarizing feedback from the City of Missoula staff and subsequent modifications to the group's research question. Grades will be assigned based on 50% critical thought, 50% quality of writing. This assignment will be turned in via the shared Box folder. All students' names must be on the document. Due Feb. 15. (10% of project grade)

**Group Final Survey Question(s):** Students will present their final survey instrument (formatted question) and data collection plan (as a class) to representatives of City of Missoula (template provided). This assignment will be turned in via the shared Box folder. All students' names must be on the document. Due March 8. (15% of project grade)

**Individual Ethics Training:** Students must complete the University of Montana ethics training in order to conduct research involving human participants. Students must complete the training (link will be provided), and then submit their certificate of completion via Box. Due March 29. (10% of project grade)

**Individual Survey Reflection:** Students must write a one-page (double spaced) reflection essay on their four hours of surveying. Due April 26. (10% of project grade)

**Group Final Results:** Results and management implications (template provided - 1 pg), presented both orally and in writing to City of Missoula. Due May 3. (20% of project grade)

**Individual Project Reflection:** In-class reflection on May 5. (5% of project grade)

Individual planning assignment: Each student will select a unique plan to study throughout the semester. This plan will be selected via discussion post on Moodle by Thursday, January 20 on a first-come, first-serve basis (no more than one student per plan). Periodic assignments connecting lecture content with plans will be posted on Moodle and announced via email and in class (25% of project grade). At a minimum, these assignments will include short-answer and essay questions regarding topics of interest; an initial overview presentation that includes a description of the plan, agency or lands included, ecosystems covered, primary goals and objectives, and management activities included (in class on Th Jan 27; 20% of project grade); interview guide (due March 3, 10% of project grade), interviews, and interview summaries (due March 31, 20% of project grade) related to topics of interest to each student and professionals in positions related to the student's plan and questions; and final presentation of findings throughout the semester during the final exam period (W May 11, 8-10 am, 25% of project grade).

Participation: Short assignments will be posted on Moodle by 9 am on the morning before each class period and will be due by 9 am prior to class. These assignments will include questions pertaining to that day's required reading, material presented in the previous class, and preparatory questions pertaining to that day's class. Active participation is expected of all students during class sessions, including small group and class discussions.

## 7. Schedule (will be updated on Moodle as needed)

Date	Meeting room	Topic	Guest Speaker	Reading
18-Jan	FOR206	Course intro		
20-Jan	FOR305	Forest and Recreation Planning	Beth/Will	Ch. 1 – Sustaining forests and their benefits; Meinecke 1937
25-Jan	FOR305	Mt. Jumbo planning context	City of Missoula representatives	Ch. 2 – Understanding forests as ecosystems
27-Jan	FOR206	Initial plan presentations		Ch. 3 – Forest dynamics: disturbances, developmental stages, and forest archetypes
1-Feb	FOR305	Mt. Jumbo group work time		
3-Feb	FOR206	Making silvicultural decisions	Jodi Wetzstein, BLM (invited)	Ch. 4 – Silvicultural principles for ecological forestry
8-Feb	FOR305	Group presentation of research questions to MSO; feedback and refinement	City of Missoula representatives	
10-Feb	FOR206	Conservation strategies - examples from TNC efforts in western Montana	Steve Kloetzel, TNC (invited)	Ch. 5 – Larger spatial-scale concerns: landscapes and regions
15-Feb	FOR305	Strategic planning for wilderness	Travis Belote - The Wilderness Society	
17-Feb	FOR206	Forest Management in New England	Ray Berthume, Wagner Forest Management	Ch. 6 – Economic, social, and political drivers of forestry
22-Feb	FOR206	Lobbying for forest management	Jason Toddhunter, Bryan Lorango, MLA (invited)	Ch. 7 – Legal frameworks for forestry
24-Feb	FOR206	Forest Collaboration	Tim Love, Forest Collaboration Network	Ch. 8 – Resolving forestry conflicts through collaboration
1-Mar	FOR305	Mt. Jumbo group work day		Ch. 9 – Capital, income, and sustainability
3-Mar	FOR206	DNRC planning	Dan Rogers, DNRC	Ch. 10 – The economic value of forests

8-Mar	FOR305	Presentation of survey instrument and data collection plan	Representatives of City of Missoula	
10-Mar	FOR206	Montana Forest Action Plan	Wyatt Frampton, DNRC (invited)	Ch. 11 – Adaptive management: achieving resilience in the face of change and uncertainty
15-Mar	FOR206	Tribal forestry: CSKT forest plan revisions	Tony Incashola or Tony Harwood, CS&KT Forestry, Tribal Forest Planning (invited)	Ch. 12 – Forests on fire: nature’s thermal creativity
17-Mar	FOR206	Fire Adapted Missoula	Michael Albritten, BLM (invited)	Ch. 13 – The fire next time: strategies for fire and fuels management
22-Mar	FOR305	SPRING BREAK		
24-Mar	FOR305	SPRING BREAK		
29-Mar	FOR305	Data collection prep		
31-Mar	FOR305	Rattlesnake dam removal	Morgan Valiant, Forester, City of Missoula	
5-Apr	FOR206	Planning within a fragmented land base - case of Blackfoot Challenge	Cindy Super, Forestry Coordinator, Blackfoot Challenge	Ch. 14 – Conserving and restoring biological diversity
7-Apr	FOR206	Carbon Credits Market opportunities for private ownerships - Lubrecht Forest	Tom Buchholz-Senior Scientist, Spatial Informatics Group	Ch. 15 – Climate change, carbon, and forests
12-Apr	FOR305	USFS planning	Jennifer Hensiek - USFS Lolo NF Missoula District Ranger	Ch. 20 – The greatest good: planning the future of US national forests
14-Apr	FOR206	Tree Farm Inspector training	Peter Kolb, MSU Extension (invited)	Ch. 16 - Forest Certification

19-Apr	FOR206	Examples of structured planning methods: Weyerhaeuser - Sothern Timberlands	James Castleberry and Tommy Tadlock, Weyerhaeuser Southern Timberlands (invited)	Ch. 17 – Classical forest regulation: its relevance to ecological forestry
21-Apr	FOR206	Review and categorization of forest planning models		Ch. 18 – Making decisions: naturalistic and structured approaches
26-Apr	FOR305	Mt. Jumbo group work time		Ch. 19 – Forest planning under ecological forestry
28-Apr	FOR206	The role of the forest products industry	Paul McKenzie, Stoltze	Ch. 21 – Potential contributions of ecological forest management
3-May	FOR305	Final Mt. Jumbo presentations	Representatives of City of Missoula	
5-May	FOR206	Reflection/wrap-up exercise - split class		
11-May	FOR206	Final plan presentations (W, 8-10 am)		