

**Instructor**

Dr. Lila Fishman

[lila.fishman@mso.umt.edu](mailto:lila.fishman@mso.umt.edu); 243-5166

Office: Interdisciplinary Science Building (ISB) 319

Office hours: Tues/Thurs 11-12 or by appt.

**Teaching Assistants (for labs):** *office hours and contact info TBA in lab*

Robert Niese ([robert.niese@umontana.edu](mailto:robert.niese@umontana.edu))

Jill del Sol ([jillian.delsol@umontana.edu](mailto:jillian.delsol@umontana.edu))

Nick Sly ([nicholas1.sly@umontana.edu](mailto:nicholas1.sly@umontana.edu))

**Course Objectives and Learning Outcomes**

Welcome to the fascinating world of plant diversity! This course introduces basic concepts in plant systematics (plus ecology and evolution), with emphasis on vascular plants of Montana.

- *Learn general skills of plant identification and classification*
- *Recognize important plant families and genera of the region*
- *Understand the origins and functions of plant diversity in Montana*

**Course format**

The lecture and lab for this course are highly integrated. The lecture provides a systematic overview of families and genera, as well as the necessary conceptual framework and terminology for identifying and studying land plants. The lab is coordinated to reinforce the lecture material and exercise hands-on plant ID skills.

**Lecture: MW 11:00-11:50 in McGill 210**

**Labs: Thursdays/Fridays in NS202.**

- **Thursday Labs: 10:00-11:50 (02, Jill), 1:00-2:50 (03, Nick), 3:00-4:50 (04, Nick)**
- **Friday Labs: 9:00-10:50 (05, Robert), 12:00-1:50 (06, Jill)**

***Labs do meet the 1st week!*** Laboratory content and grading will be explained by your TA during the 1st lab session. Your lab notebook will be graded, so plan on keeping *separate* notebooks for lecture and lab (or use a 3-ring binder for everything and separate the lab material at the end of the semester).

## Course materials

### Texts and equipment (available in bookstore)

*Required:* Lesica, P. Manual of Montana Vascular Plants (please bring to *every* lab)

*Optional:* Plant dissection tools kit

*Optional:* Illustrated field guide such as Plants of the Rocky Mountains, guides to family-level identification such as Botany in a Day, or online guides such as Montana Plant-Life. Please use these resources for images and supplementary information only. Field guides are not suitable for species-level identification and taxonomies/terminology definitions vary, *so use the Lesica text and the provided lecture/lab materials as your final authority.*

### Moodle Course Supplement

All materials (handouts, PowerPoint presentations, etc.) will be posted on the course Moodle page. Please contact me if you have trouble accessing materials for this course via Moodle (but see UMLonline for general Moodle issues)! Each lab will also have a Moodle page. ***Note: The online materials are intended as a supplement to in-class note-taking, not as a substitute for attendance. You are expected to attend all lectures and labs.***

## Assessment

**Course grades will be based on 2 in-class exams, a final exam, and the lab.**

<i>Points per assignment</i>		<i>Grades</i>
Exam 1	100 points (20%)	A-, A = 90-100%
Exam 2	100 points (20%)	B-, B, B+ = 80-89%
Final Exam	150 points (30%)	C-, C, C+ = 70-79%
Lab	150 points (30%)	D-, D, D+ = 60-69%
Total	500 points	F = <60

Note: point percentages corresponding to letter grades are guidelines, but any curving will be in favor of students (that is, a score 80% = B- or better).

*More detail on lab assignments and grading will be provided in the labs.*

### Late/missed exams

If you must miss an exam due to a schedule conflict with an *approved* activity (e.g., participation in a UM-team sporting event), please let me know at least a week prior to the exam so that an alternative exam and time can be arranged. If you miss an exam due to an unplanned event (e.g., illness, car accident, etc.), you must contact me via email *as soon as physically possible* (i.e., not the following week). Make-up exams may be possible, with appropriate justification. Your TA will provide policies regarding late/missed lab quizzes/assignments during the first weeks of lab.

### Extra credit

Students can earn extra credit points (up to 8 total, 4 each x 2 times) for sharing plant-related observations and/or questions at the beginning of lecture in weeks 2-13. *Please post a photo or note to the Extra Credit link on Moodle by 9:00 am pre-lecture, so that I have a record of your points and can add any images in the day's slides. You must be present in class to earn points.*

## General policies

### Students with disabilities

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. We are happy to work with you and DSS to provide appropriate accommodations for your learning and assessment; please make any requests for accommodation as early during the semester as possible. ***Please tell me the Monday before each exam if you will be using DSS, as I need to deliver the alternate exams to DSS.***

### Academic Misconduct

Although you may work collaboratively in lab, any work submitted for grading must be exclusively your own. Cheating on exams or quizzes is, of course, a violation of the Student Conduct Code. Cheating includes allowing another student to copy your work during an exam. Students found to violate the Academic Conduct Code will receive a failing grade for the course, and will also be fully subject to University sanctions. For more information on UM policies on misconduct, see the [Student Conduct Code](#).

### Adds, drops, and changes of grading

University policies on drops, adds, changes of grade option, or change to audit status will be followed in BIOL484. These policies are described in the [course catalog](#). The last day for making many changes is September 21st.

For more general information on the semester schedule, see UM's [dates and deadlines](#) document. [University policies](http://www.umt.edu/registrar/students/dropadd.php) (<http://www.umt.edu/registrar/students/dropadd.php>) on drops, adds, changes of grading basis, etc. will be observed. After the 15<sup>th</sup> day of instruction, status changes are not automatic through Cyberbear. I will generally approve changes in grading status until the week after Exam 1 grades are posted; later changes will require substantial justification.

## How to succeed in this course

### Be present!

You will get the most out of this course by committing to attend all of the lectures and labs, and by doing any assigned readings prior to class. There is TON of new terminology in this course; it is important to keep up with it weekly or you could become overwhelmed.

### Ask questions!

Questions during lecture and lab are always encouraged. Please let me know if you need help with any material; my office hours and open lab times later in the semester are reserved for students. If you cannot attend office hours, please contact me to arrange another individual meeting time.

### Look closely at the world around you!

The point of this class is to give you the tools to identify and understand the abundant and diverse plant life around you, so practice looking at plants systematically whenever you can.

## BI00 335 Topic Schedule - Spring 2018 (\* lab quiz week)

Wee	Date	Lecture topics	Lab topic & readings ( <i>Lesica</i> )
1	Jan. 22	1. Course Intro	Logistics, intro to keying
	Jan. 24	2. Plant Systematics & Taxonomy	<i>handouts</i>
2	Jan. 29	3. Lichens	Non-seed plants
	Jan. 31	4. Non-seed plants	<i>handouts</i>
3	Feb. 5	5. Gymnosperms	Conifers, walk & keying
	Feb. 7	6. More gymnosperms	<i>handouts</i>
4*	Feb. 12	7. Angiosperms – vegetative terms	Flowers - Ranunculaceae
	Feb. 14	8. Ranunculaceae and Floral terms	<i>handouts, 42-45</i>
5	Feb. 19	<b>President's Day Holiday - no class</b>	Caryophyllaceae, <i>Opuntia</i> , etc.
	Feb. 21	9. Caryophyllaceae +	<i>54-56</i>
6	Feb.26	10. Rosaceae	Rosaceae, Saxifragaceae
	Feb. 28	<b>EXAM 1 (Lectures 1-9)</b>	<i>181-184, 112-113, 185-187</i>
7*	Mar. 5	11. More Rosids	Salicaceae, Betulaceae, Acer
	Mar. 7	12. Rosidae trees	<i>114-116, 153-160, 176-179</i>
8	Mar. 12	13. Brassicaceae, Onagraceae, Fabaceae	Rosid herbs
	Mar.14	14. Special topic	<i>125-129, 229-231, 160-165</i>
9*	Mar. 19	15. Angiosperm reproduction	Asterid shrubs
	Mar. 21	16. Asteridae/Asteridae shrubs	<i>77-81,185-186,190-203</i>
<b>SPRING BREAK</b>			
10	Apr. 2	17. Asterids II and review	Scrophulariaceae, Lamiaceae
	Apr. 4	<b>EXAM 2 (Lectures 10-16)</b>	<i>218-224, 251-253, 265-269</i>
11*	Apr. 9	18. More Asterids II	Asteraceae, Apiaceae, etc.
	Apr. 11	19. Asterids III	<i>203-210, 193-197</i>
12	Apr.16	20. Intro to monocots - Liliaceae	Liliaceae, Orchidaceae, <i>Iris</i>
	Apr.18	21. Orchidaceae and Iris	<i>270-280, 293-297</i>
13	Apr. 23	22. Special topic/catch-up	Poaceae, Collection prep
	Apr. 25	23. Grasses	<i>350-356, handouts</i>
14*	Apr. 30	24. Rushes and sedges	Cyperaceae, Juncaceae, <b>Final quiz</b>
	May 2	25. Review	<i>345-349, handouts</i>
<b>May 10</b>		<b>FINAL EXAM 10:10-12:00</b>	