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BIOO 335.30: Rocky Mountain Flora

Gregory Peters

University of Montana - Missoula, greg.peters@mso.umt.edu

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Biology 335: Rocky Mountain Flora

5-week Summer session 2, 2013

This course is an introduction to plant systematics, with an emphasis on the vascular plants of western Montana.

Lectures: Health Sciences 411: TWR, 8:10 -10:00
Labs: Natural Sciences 202: TWR: 10:10 - 12:00

Instructor: Greg Peters

Email: greg.peters@mso.umt.edu (best way to get in touch)

Phone: 207-6154

Office Hours: Let me know if you want to discuss anything after lab.

Texts and equipment:

Lesica. 2012. *Manual of Montana Vascular Plants* (required)

Plants of Southern Interior British Columbia and the Inland Northwest (optional)

Plant dissection tools

Hand lens (magnification)

Lab notebook

Course objectives:

1. Plant identification
 - a. basic terminology used in plant identification
 - b. proper use of plant identification keys
2. Recognition of common plants of the Rocky Mountains
 - a. largest plant families
 - b. several common genera
3. Introduction of topics relevant to plant systematics, including classification systems and reproductive biology of plants
4. Introduction to plant community ecology and biogeography of Rocky Mountain Flora

How to succeed in this course:

You can get the most out of this course by committing to regular attendance in lecture and lab. There is a lot of terminology and you must keep up as it is presented or you might become overwhelmed. Please let me know if you need help with the material; questions are encouraged, and I am happy to meet if you have questions.

Portions of lecture materials will be made available on Moodle.

Grading will break down as follows:

Exams (2 @ 100pts)	200	
Take-home exams (2 @ 50pts)	100	90-100% = A- to A
Lab quizzes (4 @ 15pts)	60	80-89% = B- to B+
Home-keyed plants	60	70-79% = C- to C+
Lab notebook	30	60-69% = D- to D+
Lab final	30	<60% = F
<u>Field Trip Participation (2 @ 10pts)</u>	<u>20</u>	
Total points possible:	500	

University policies on drops, adds, changes of grade option, or change to audit status will be observed in this course. Please note that after the second week of the semester, such changes are NOT automatically approved; they may be requested by petition, but the petition must be accompanied by documentation of extenuating circumstances. Requests to drop a course or change the grade basis to benefit a student's grade point average will not be approved. A grade of C or higher will be considered a passing grade for the P/NP option.

Course Schedule

Date:	Lecture Topic:	Quiz/work due:	Lab Topic:
Week One			
July 2	Classification, Vegetative morphology		Lab outline
July 3	Floral morphology		Plant morphology
July 4	<i>No Class: 4th of July Holiday</i>		<i>No Lab</i>
Week Two			
July 9	Angiosperm reproduction, Ranuncul-, Ros-	Quiz 1: morphology terms	Ran, Ros
July 10	Field Trip 1	Take-Home exam 1	Field Trip 1
July 11	Api-, Saxifrag-, Fab-, Onagr-	HomeKey1, notebook check	Api - Onagr
Week Three			
July 16	Aster-, Lami-, Plantagin-, Orobanch-	HomeKey2; Quiz 2: keying	Ast - Orobanch
July 17	Exam 1		Flower walk
July 18	Boragin-, Caryo-, Polygon-, Brassic-, Eric-	HomeKey3; Quiz 3: recog.	Bor - Eric
Week Four			
July 23	Other important families & genera	HomeKey4	Other fam. & gen.
July 24	Graminoids, Orchid-, Lili-, Salic-, Betul-	HomeKey5; Quiz 4: keying	Orch - Betul
July 25	Field Trip 2	Take-home exam 2	Field Trip 2
Week Five			
July 30	Gymnosperms, Pteridophytes, Bryophytes	Notebooks	Conifer walk
July 31	Biogeography in Montana, course wrap-up	HomeKey6	Lab final
Aug. 1	Exam 2		Collect work

Some details:

- All exams and lab quizzes are cumulative.
- Assignments (including take-home exams) are collected at the beginning of class or lab.
- Most labs will include practice keying; take advantage of these opportunities to develop your skills.
- Lab quizzes will be either recognition (genera, families, terms) or keying one plant.
- Lab quizzes can not be made up. Quizzes are offered at the beginning of lab; don't be late!
- Late assignments will lose 10% of their value for each class meeting they are late.
- The Lab Notebook is your personal record of lab; make it meaningful. Ask your TA for guidelines.
- The Lab Final will be much like multiple lab quizzes: some recognition and some keying.
- The "HomeKey" assignments are outlined below:

You will be asked to turn in, at the beginning of lab time on their due-dates, 6 HomeKey plants over the course of the semester. Please anticipate giving some good time to each of these HomeKey assignments. You will be asked to find and key out one plant for each of these assignments. This is your chance to go explore and learn even more plants! Here are some guidelines:

- Use only angiosperms
- Record your keying "path," or the steps you chose
- Record the species name properly
- Record the plant itself in some useful manner: a good photo, a nice sketch, or a pressed specimen
- Please do not collect from city open spaces like Mount Jumbo (unless you pick leafy spurge...)
- Collect responsibly; do not collect from a small population