Botany 3700 Flowering Plants **Spring 2017 Syllabus**

Lecture: Tues/Thurs 8-8:50 N 210
Lab: 9:00-11:50 N 210
Professor: Andrew Gardner
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Office: N261
Office Hrs: Wednesday and Friday 9-10 am, and by appointment
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Class resources
While no books are required for this class, you may consider purchasing a book to supplement your experience. Great resources for this class include: *The Jepson Manual*, 2nd edition, *Plant Systematics: a Phylogenetic Approach*, and others. I will make many books available for you to check out during the semester if you'd like as well. Additionally, we will be discussing multiple taxonomic papers this semester. Please check the Blackboard page for posted lectures, announcements, and other information.

You will be issued a plant press. You are required to take care of and return that press at least as good as you received it. You will not receive a grade for the class until your plant press is returned in working quality.

Course description
Botany 3700 is about the study of plant taxonomy within the larger context of plant systematic research. We will cover in detail the morphologies, relationships, and classification of local flowering plants with practice in their collection and identification. Botany 3700 satisfies the departmental diversity requirement and can be used for upper division electives or as a course in various concentrations. Prerequisites include BIOL 1050 and BIOL 1150 or equivalents. Completion of the prerequisites is essential before taking this course.

I'll give several lectures at the beginning of the semester. Please check the Blackboard page for posted lectures, announcements, and other information. Labs for Flowering Plants will be different than labs for other courses that you have had. We will take walking field trips around campus, field trips to sites far from campus (e.g., Knight's Ferry, Red Hills) and will spend a LOT of time just sitting in lab identifying plants.

Field trips are a necessary part of the course. Please talk with me if you need any accommodation. Field trips will be during class and lab periods and will involve walking on unpaved, uneven surfaces (trails) as well as in mild to warm temperatures for several hours.

Major learning objectives:
1. Learn to identify salient CA plants and plant families
2. Learn about the history and evolving goals of plant classification and systematics
3. Gain skills associated with plant collection and natural history collection curation
4. Develop presentation and scientific communication skills
5. Integrate various systematic tools to add to our understanding of a specific group of CA plants

Assessment
To do well in Botany 3700, you will need to come to class and participate. In addition, you must be diligent in your collecting and practicing of plant identification. You will have to master a new vocabulary and practice learning to see patterns which will speed your identification process along and allow you to identify plants when in the field, without a field guide. Attendance in class is expected, as is active participation.

Quizzes and exams are opportunities for you to convince me you know the material. In an exam, you need to articulate a correct answer. If you haven't articulated an answer previously (practicing in a study group, writing it, etc.,) you will have a more difficult time doing it during exam time. Exams will cover the concepts from lecture and lab, and will mostly be multiple choice with matching, short answer and/or diagram questions.

You may not leave the room during an exam without my permission. You must turn off cell phones and remove your hats during exams. If you arrive late, after someone has finished the exam and left the room, you will not be able to take the exam.

You need to notify me prior to missing any exam. I rarely administer exams early, but if you have a serious extenuating circumstance, we may be able to make an arrangement as long as that request is accompanied by a note from a reliable source (see above). A makeup exam will not necessarily be given. If an emergency suddenly arises causing you to miss an exam, it is your responsibility to notify your instructor via phone or email as soon as practical. Hospitalization, death of a family member, or other serious events would be valid reason for missing an exam without prior notification. Documentation for why you missed the exam is required if you want to take a make-up exam. Make-up exams are different than the regular exams given to the rest of class.

Participating in lab is another important way to earn points. Early in the semester, students will deliver brief **Species Reports** to the rest of the class, usually in the field. Later, you will work in groups to deliver powerpoint **Group reports** to help the class learn important families or clades of plants. Finally, individuals or small groups will build **Systematic Poster Projects** that should integrate several tools of systematics to argue for a specific taxonomy. The project will draw from your own plant collections, those of previous students and of other collectors, preexisting literature on the subject, and any other lines of evidence you can muster.

Late material will lose 25% for each day missed after the deadline. Make-up and late work for the class is possible, but only with an excuse note from some reliable person (hospital, police, etc). You must make arrangements with me to take care of any work needed to be made up. I'll probably make a couple of mistakes along the way. If you think I've graded something incorrectly, send me an email and tell me about it and I'll make sure it's right. However, I do have a statute of limitations on regrades: one week from when I return them. February 22 is the census date, which is the last day to drop or add a class. University policy states that February 22 is the last day to choose CR/NC. Consult with your advisor before making your decision.

Grades are based on the percentage of total points earned, and are not "curved."

A	93-100%	C+	77-80%	D-	60-63%
A-	90-93%	C	73-77%	F	0-60%
B+	87-90%	C-	70-73%		
B	83-87%	D+	67-70%	CR	70-100%
B-	80-83%	D	63-67%	NC	0-70%

Expectations related to the learning environment

Students
a. I expect students to actively participate in class discussion, group activities, and peer-peer teaching.
b. I expect students to be prepared for class each day.
c. I expect students to respect each other, me, the environments in which we'll operate, and themselves.
d. I expect students will not cheat, but if students do so, they will not be surprised by an automatic F for the assignment or a referral to the appropriate disciplinary committee. Cheating is "submitting an in-class assignment for a student who is not present or submitting work that is not your own, but claiming that it is your own original work." Lying is "communication with intent to deceive" and cheating falls into that category.
e. Please don't allow your phones to distract you from class. Please restrict your computer and internet usage to relevant classroom activities to keep from distracting your classmates or me.
f. Please discuss with me any circumstances or accommodations you would need so we can ensure that the class is an environment in which you can learn and have fun. Please do so within the first full week of class, but don't hesitate to talk to me at any time about anything that is impeding your success in class.
g. You may not eat in the classroom because it is a laboratory, but I will give you breaks, and encourage you to keep the glucose levels up!
h. Plan ahead and keep up with the assignments; and don't hesitate to talk to or email me if you're having a hard time doing so.
i. Through this course, we will foster a sense of community as we learn to be better communicators, critical thinkers and citizens. To do this, we must all work to make our class a welcoming and productive place to learn for everyone, regardless of race, ethnicity, sexual orientation, gender identity, age, size, socioeconomic background, religion, spirituality, physical ability, mental ability, or any other aspect of one's identity.

Professor
a. I will come to class prepared to teach an informative lecture containing information relevant to the learning objectives.
b. I will strive to help you prepare for your exams by giving you 'signposts' along the way to focus your study.
c. I will not purposely be sneaky on quizzes or exams, but I have high expectations of everyone, including myself.
d. I will answer questions respectfully and will begin and end class on time.
e. I will set policy and strive to be fair to all students.
f. I will return assignments/tests promptly with useful comments.
g. I enjoy writing letters of recommendation. Because they are a letter of recommendation I do like to be able to recommend the candidate. As such, I can't usually recommend students unless they achieve a B or better in the class. In addition, if you only take the class, do well and never come talk to me, I cannot recommend you either. What would I say? Writing only 2-3 sentences isn't a compelling letter! If you do think you will need a letter from a professor get to know that professor.

TUTORING ON CAMPUS – Free tutoring services are available to assist you in most disciplines, including in biology! - Library 112 - (209) 667-3642 - www.csustan.edu/Tutoring

CAMPUS COUNSELING SERVICES – Overwhelmed by the stress of juggling classes and your home life? Our campus offers excellent counseling services to help support you! - MSR 210 - (209) 667-3381 - www.csustan.edu/Counseling/

STUDENT HEALTH CENTER – You have already paid for access to health care on campus. Services include: birth control, flu shots, immunizations, pharmacy, check-ups, HIV testing, TB tests, and doctor's notes for when you are sick! - (209) 667-3396 - healthcenter.csustan.edu

	The schedule is subject to change and will be updated as needs arise.			
	Date	Activities	Graded Items	Points
R	26-Jan	*Bag Clip Taxonomy A* , L1: Andy, Syllabus	BCT A group wksht	10
T	31-Jan	L2: Plant Diversity, Plant Parts, CA Flora, *Campus Plant Walk*		
R	2-Feb	L3: Angiosperms, Major clades, *Basics of Plant Collection*	Q1	10
T	7-Feb	L4: Flowers, Fruits	Species reports begin	10
R	9-Feb	L5: History of Classification, *Making Labels and Mounting Specimens*	Q2	10
T	14-Feb	*Paper Discussion 1*		10
R	16-Feb	EXAM 1	EXAM 1	30
T	21-Feb	*Example group report, lab*		
R	23-Feb	L6: Systematics and Phylogenetics, *Bag Clip Taxonomy B*	BCT B group report	10
T	28-Feb	L6b: Probably more phylogenetics		
R	2-Mar	*Group reports A and B, Groups A and B lab*	Group reports	30
T	7-Mar	Wetland	Q3	10
R	9-Mar	*Group reports C and D, Groups C and D lab*	Group reports	
T	14-Mar	*Group reports E and F, Groups E and F lab*	Group reports	
R	16-Mar	Arena Plains		
T	21-Mar	SPRING BREAK		
R	23-Mar	SPRING BREAK		
T	28-Mar	Knights Ferry	Q4	10
R	30-Mar	*Paper Discussion 2*		10
T	4-Apr	EXAM 2	EXAM 2	40
R	6-Apr	L7: Biogeography?		
T	11-Apr	Red Hills		
R	13-Apr	L8: Niche Modeling?		
T	18-Apr			
R	20-Apr	Knights Ferry 2!		
T	25-Apr			
R	27-Apr	Peer Review, Project Prep day	Poster draft due	10
T	2-May			
R	4-May	Project Prep day	Project collections due	10
T	9-May			
R	11-May	*Paper Discussion 3*		10
T	16-May	Project Poster Session	Poster	40
	18-24 May	EXAM 3	EXAM 3	50
			Total	310
			Total minus 1 quiz	300