COURSE SYLLABUS

Course Objectives:

The goal in BIO 323 is to introduce you to the flora of Rhode Island and the northeastern US by studying plants across a range of habitats. This will be done through close encounters with ~300 native and exotic plant species over 20 days. Although this task seems daunting, you can do it by learning the species through active identification, collection, repetition, and memorization. In the field we will learn what vegetative and floral characteristics are important for plant identification and how to use dichotomous keys to identify unknowns. We are looking forward to sharing many new plants with you, and even learning some new plants ourselves.

Course Organization:

Lectures:	TTh 4:00 pm - 8:00 pm, Greenhouse 123
Credit:	4 credit hours. Attendance is required.
Instructor:	Robin Baranowski, NPS - Biological Science Technician, Coastal Institute 014 rbaran@uri.edu ; 401-824-9909
Office Hours:	Office hours before class by appointment.

Required Texts:

Newcomb's Wildflower Guide, Lawrence Newcomb, 1998, Little, Brown and Company

Grasses: An Identification Guide, Lauren Brown, 1979, Houghton Mifflin

Fern Finder: A Guide to Native Ferns of Central and Northeastern United States and Eastern Canada, 2e, Anne C. Hallowell and Barbara G. Hallowell. 2001, Nature Study Guild.

Tree Finder: A Manual for Identification of Trees by their Leaves, Mary Theilgaard Watts. 1998, Nature Study Guild.

Recommended Text (This book is very helpful!):

Plant Identification Terminology: An Illustrated Glossary, 2e, James G. Harris, Melinda Woolf Harris, 2001, Spring Lake Pub. (Available on amazon.com or other sources)

Optional Texts:

Northeast Ferns: A field Guide to the ferns and fern relatives of the Northeastern United States, Steve W. Chadde, 2013.

Peterson Field Guides: Trees and Shrubs, George A. Petrides, 1972, Houghton Mifflin

Grading: Your grade will be based on your performance on 15 field quizzes, 2 keying practicums and a field final examination, as follows:

Activity	No.	Points Each	Points Subtotal	No. Drops	Points Total	% of Grade
Field Quizzes	15	50	750	2	650	50
Keying Practicums	2	130	260	0	260	20
Final Field Exam	1	400	400	0	400	30
Total					1,380	100

Grading Rubric: A (1218-1310), A- (1179-1218), B+ (1140-1179), B (1087-1140), B- (1048-1087), C+ (1009-1048), C (956-1009), C- (917-956), D+(878-917), D (825-878), D- (8786-825), F (<786).

Field Quizzes - Each class will start with a field quiz on 10 plants. You will be asked to provide the following:

Genus	species	Family	Common Name
Acer	*saccharum*	Sapindaceae	sugar maple

Each plant is worth a total of 4 points, one point for each part. *Spelling does count*. Partial credit will be given. You will also have several short answer botanical term questions worth 10 points total.

The material for each of these quizzes will be *lagged by three days*. That way you will have 3 days to learn each new group of plants. For example, on Quiz 1 (May 30th) the quiz will be based on the plants you learned on trip 1 (May 21st). For Quiz 2 (June 4th), we will cover material covered the first two trips (May 21st and May 23rd) (notice the quiz number corresponds to the trip number of the new material you are responsible for). All quizzes are cumulative. **Advice:** *be aware of the habitats we are in when we learn plants, this will help you narrow down what species you may have to identify if you are not sure. For example, many salt marsh plants could be quizzed at the next salt marsh field trip*!

Each quiz will also have two or three "short answer" type questions that will test your knowledge of botanical terms that have been introduced and used in context during the class, and which have been included on the notes sheets. The two lowest quiz grades will be dropped. Since it is impossible to make up a field quiz if you miss one, a missed quiz will be graded as a zero. Know that if you miss a quiz, you also miss the plants that will be covered at that location—and thus you will fall behind.

The Field Final Exam will be on the last day of class. This will consist of identifying 100 plants in the field, and will be the same format as the quizzes. You will also have several short answer botanical term questions, for extra credit.

The Keying Practicums will be in-class exams that will test your proficiency in using various plant keys. We will provide each of you with specimens of unknown plants that we have not yet covered in class (e.g. a grass, a forb, a shrub, a tree) that you will be required to key out using the required texts. You will be asked to provide the scientific name, common name, and family for the species, as well as the steps you took in the key to get to your answer.

A key to each quiz and exam will be placed in the lab when your exam is returned. Please check this key to make sure you have correct answers for all plants, and that we have not erred in grading your exam. Please also check to see that we have correctly calculated your score. If you feel there should be a change in your score, please contact Robin **within a week** of when we return your test. After that time, the grade cannot be changed.

Remember, we cannot help you if you don't ask for help. If you don't put forth the effort by participating in class or coming to talk about issues you may be having, at the end, these things can make a difference.

Accommodations for Disabilities: Any student with a documented disability is welcome to contact me as early in the semester as possible so that we may arrange reasonable accommodations. As part of this process, please contact the Disability Services for Students Office in Memorial Union, Room 330 or 401-874-2098.

BIO 323 Field Botany and Taxonomy Summer 2019

Expectations:

We expect each of you to be ready to go into the field each day, at **4:00 pm sharp, rain or shine**. Please arrive in the classroom a few minutes early. Dress appropriately for fieldwork (suggestions below). This is a "down and dirty" field course, meant to introduce all of you to the fun and challenges of the field botanist/plant ecologist.

We expect you to follow us into all field sites, wet or dry. We expect you to try your best to keep up with the class, but we also very much want you to succeed. So please contact us, *early on in the course*, about any issues you are having in the class, before they balloon into a larger problem. We cannot help you unless we know what's going on, and we cannot help you very effectively at the last minute. If you don't understand something, please ask…most likely someone else has the same question. Ask LOTS of questions, in EVERY class.

Class Flow:

Each day we will cover ~20 new plants. The following day, we will provide as a handout the "official" list with scientific name, family name, common name and notes. You should review *every* list *every* day. Occasionally the scientific name of a plant will have changed. The names and plant family on the list is what you will be expected to know on the quizzes and exam. This is a lot to learn - *we know* - please understand that daily study and repetition (oral & written) is the key to success in this course. The "notes" column will provide some important identification characteristics for the species. This notes column does not substitute for the notes that you take during class. We will often mention other ID clues that may not make it to the notes column, or you may have your own observations that will help you remember the plant. While we are out in the field learning the new plants, we will often point out some of our "old friends" to bolster your reviewing as we go along.

*****Field Preparedness*****

To be prepared for the field, here are a few suggestions.

For learning the plants: pencils, notebook, clipboard, plastic specimen bag. We will provide clippers, tape, plant presses, and ovens. **Collecting and pressing plants is the best way to learn them.** Feel free to bring a digital camera or whatever else you think will be helpful.

Clothing: sturdy shoes or boots that you don't mind getting dirty. Rain boots, rubber boots, waders, or old sneakers may come in handy for some of the wetland trips. **Remember you are expected to go out into these field sites.** Bring or wear a light long-sleeved shirt, it will help keep you from getting bitten or scratched (a hat isn't a bad idea either). For rainy days, please dress appropriately. We will go out always, unless there is crazy lightning. Have extra clothes on hand for days we are going to be in wet places, that way you can change when we get back.

Incidentals: You may want to use some sort of **bug spray**. Bring **water** to drink. We will be in the field most of the class and you could easily become dehydrated. If you are very allergic to poison ivy please bring your own bottle of Technu or soap and water for use in the field. ***Check yourselves for ticks every day. Many vector Lyme disease or other harmful infections that require prompt treatment measures.*** These are good routines to get into and we want everyone to be safe and have fun.

Tentative Trip Schedule*

Week	Date	Day	Trip #	Field Locations / Activity	Material Evaluations
Week 1	May 21	T	1	Introduction, On-Campus Walk (NE) - Kingston	
	May 23	TH	2	On-Campus Walk (SE) - Kingston	Quiz Prep
Week 2	May 28	T	3	Pettaquamscutt Rock – South Kingstown	Quiz Prep
	May 30	TH	4	Potter Woods - Kingston	Quiz 1
Week 3	June 4	T	5	Carter Preserve - Charlestown	Quiz 2
	June 6	TH	6	Carolina MGT Area - Richmond	Quiz 3
Week 4	June 11	T	7	Worden Pond - Pitch Pine Barrens - Wakefield	Quiz 4
	June 13	TH	8	Narrow River Saltmarsh - Low Tide @ 2:20 pm - South Kingstown / Middlebridge	Quiz 5
Week 5	June 18	T	9	Campus Trip - Gravel Bank and Super Fund Site - Kingston	Quiz 6 - Keying Quiz 1
	June 20	TH	10	Arcadia MGT Area - Browning Mill Pond - Exeter	Quiz 7
Week 6	June 25	T	11	Arcadia MGT Area - Pratt Farm - Exeter	Quiz 8
	June 27	TH	12	Tri-Pond Park - Wakefield	Quiz 9
Week 7	July 2	T	13	Succotash Salt Marsh - Low Tide @ 5:55pm – East Matunuck	Quiz 10
	July 5**	F**	14	Rockville Management Area – Blue Pond - Hopkinton	Quiz 11
Week 8	July 9	T	15	Campus Trip - University Bog - Kingston	Quiz 12 - Keying Quiz 2
	July 11	TH	16	Great Swamp Management Area - West Kingston	Quiz 13
Week 9	July 16	T	17	Arcadia MGT Area - Ben Utter Trail - Exeter	Quiz 14
	July 18	TH	18	Great Swamp Management Area - Power Line and Fen – West Kingston	Quiz 15
Week 10	July 23	T	19	Great Swamp Management Area – West Kingston (NO TRANSPORT)	Field Review
	July 25	TH	20	Great Swamp Management Area – West Kingston (NO TRANSPORT)	Field Exam

* Trip Schedule is subject to change due to a variety of factors (Weather, etc.) Please check email frequently, and listen in class for potential changes to the above.
** Thursday class meets Friday