

SYLLABUS TENTATIVE!!!

BIO 417 - Coastal Herpetology Professor: Dr. Pablo Delis (FSC 335) Summer 2017

At Marine Science Consortium, Wallops Island, Virginia

June 12-June 30*

Lecture meeting time: M-T-W-TH 8:30-12:00* **Field/Laboratory time: M-T-W-TH 14:00-19:30***
(THESE TIMES MIGHT CHANGE AS NEEDED)*

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Prerequisites

Students registering for this class must have successfully taken Principles of Biology I (BIO 115) Vertebrate Zoology, or permission of instructor.

Course Objectives

This course will offer students a comprehensive review of amphibian and reptile diversity, emphasizing origins, biogeography, morphology, ecology, behavior, and conservation. Natural history and evolutionary relationships will be the unifying theme. The course is a combination of lecture and laboratory. The laboratory will give students a practical overview of herpetological diversity using preserved as well as live specimens. The practical experience will be also complemented by hands on, field research, and herpetological sampling techniques. The laboratory portion of this class is intended to complement the lectures and will, when possible, follow the subjects discussed in such lectures.

Course Mechanics

Classes will be a combination of lecture, laboratory experience, and field trips. Laboratory work will be based on a combination of in lab experience and field trips (*). Attendance to the class laboratory and field trips is mandatory and therefore will be monitored. Students missing laboratory or field trips will be penalized with a 10% deduction from the corresponding grade portion. With proper documentation, a justifiably (medical or police emergency) missed lab or field trip might be made up with a supplemental assignment to be decided by the professor. Individuals are responsible for obtaining class notes from classmates and making up missing exercise on their own. Data show that absences or tardiness to lectures weight negatively on students' final grade, therefore, punctual and consistent attendance is strongly encouraged. Students are expected to attend class prepared to discuss the topic of the day. This means that students must read the textbook material or other suggested readings prior to the given class. Students are responsible for the knowledge of all the materials in the book, handouts, and notes that I may assign or provide during the classes.

Textbooks Recommended OR REQUIRED.

Halliday, T. and K. Adler. 2002. **Firefly Encyclopedia of Reptiles and Amphibians**. Firefly Books (U.S.) Inc. Buffalo, NY. USA. 240 pp. ISBN: 978-1552976135 **Recommended**

Vitt, Laurie and Janalee Caldwell. 2014. **Herpetology: An Introductory Biology of Amphibians and Reptiles**. 4th Edition ISBN: 978-0-12-386919-7 **REQUIRED**

Conant, Roger and Joseph T. Collins - 1998. **A Field Guide to Reptiles and Amphibians: Eastern and Central North America**, Third Edition, Expanded. ISBN: 978 0 395 90452-7 **REQUIRED**

White, J. J. and A. W. White. 2002. **Amphibians and Reptiles of Delmarva**. Tidewater Publishers Centreville, Maryland. ISBN: 978 0 870 3354-33 **Recommended**

Wingerd D. Bruce. 1988. **Frog Dissection Manual**. The John Hopkins University Press. Baltimore, Maryland. **Recommended**

Special laboratory Information

Laboratory exercises will be informally integrated with the lecture and take place in the same classroom as the lectures.

Special Field Work Information

Field trips, will take place to Wallops Island, Assateague Island, Savage Neck Dunes Preserve and other nearby natural sites. Students will spend extended periods of time in the field, up to 8 hours in a given day. Students will carry out mapping and characterization of habitat, deploy trapping equipment, carry out several types of surveys including nocturnal and diurnal. More specific information about, meeting times, personal equipment, tools, dress code, etc required from student will be discussed the first day of classes and prior to the trips. Students are responsible for following safety procedures, following the instructions of the professor, and maintaining an active and constructive attitude during these activities.

Exams and Grading

Lecture exams will be one midterm exam and one comprehensive final exam. Lecture exams will be combination of essay, short answer, and multiple choice. There will be two laboratory exams, based on preserved specimens, photos, and sound recordings on species. The practical exam will be made of fill-in-the-blank kind of questions. In both lecture and laboratory exams the spelling of scientific terms/nomenclature will be graded. Review papers, paper discussion, oral presentations, field trip reports, and participation might be additional portions of the final grade. The final grade in the class will be given following this formula:

Grading

Lecture

Exam 1	100 points
Review Paper	100 points
Final Exam	200 points
Maximum Total	400 points

Laboratory

Exam 1	100 points
Field/Lab Attitude/Participation	100 points
Final practical	200 points
Maximum Total	400 points
Grand Total	800 points

Letter grades: A = 90-100%, B = 80-89%, C = 70-79%, D = 60-69%, F = below 60%.

Literature Review Paper

Students will turn in a **5-page literature review** paper on the standing knowledge of two amphibian or reptile taxa from **Coastal Habitats or Islands around the world**. The specific subject must be approved by the professor. A title page, an abstract page, and literature cited page must be added to

the paper. Citations **from primary literature** must be used **and hard/or electronic copies, turned in with the paper (I keep these items as references of academic performance!).** Citations and Literature Cited section must follow the CSE (ex. Delis 2010). A minimum of 20 (if possible modern) sources is expected, more is desirable. Do not use encyclopedias or exclusively internet sources. With the consent of the professor, some exceptions to the citation requirements might be allowed. More details of the review paper can be discussed in class.

Term Paper Guidelines and Grading

Formatting deductions

Deviations from seven page (-5 points for each page over 8 or below seven), Typed (-25), Double space (-5), Pages numbered (-5), Spelling errors (-2 up to -25), Grammar/punctuation errors (-2 to -25), References format (-2 to -10)

Cover/title page Example: (5 pts)

Title: must be informative and specific, if creative or funny, even better. For example; "Jumping Efficiency of Ranid and Hylid Anurans: Ranids Win, Feet Down" by John Doe, March - 14 - 2012

Abstract: (15 pts)

On a separate page, this is a brief overview or summary of your paper. Stick to the most important points to make and make them clearly and succinctly. Add the major conclusions. It should be two to three paragraphs on one full page.

Paper: (75 pts)

Introduction: (1/2-1 page) (15 pts)

Offer the background and statements on the rational for investigating or reviewing the topic. Explain what this paper tries to elucidate or investigate.

Body: (4-5 pages) (40 pts)

This part should read in a logical sequence. Organize the information so it makes sense and helps the reader to understand the subject best. It should not be a shopping list. It should read through a common thread to offer the information in the most logical and common sense cal possible way.

Discussion: (1-2 pages) (20 pts)

You must contrast and critique, specially using your own opinion, the major findings of the paper. It must include your personal evaluation of the quality and status of the knowledge on the subject. Offer ideas about interesting and meaningful things to add to the paper through future scientific research.

Literature Cited: (10 pts)

List of all the references from all the information cited in the text. Follow CSE guidelines.

Check <http://www.unc.edu/depts/wcweb/handouts/cbe.html> for further details.

Ask me, if you need further clarification on anything!

Miscellaneous policies of the course

Any attempt to cheat will result in an automatic "F" for the course, in addition to other academic punishments determined by university policies. You are strongly encouraged to obtain telephone numbers of at least two classmates, so that you may stay updated, if you miss class. When you enter

the classroom/lab each day, make sure that alarm watches, pagers, and cellular phones are turned off, unless **exceptional** justification.

LECTURE TENTATIVE SCHEDULE

BIO 417

Date	Topic
First Week	
Introduction, Syllabus, History of Herpetology	
Amphibian and Reptilian Basic Anatomy, Evolution	
Caecilians, Salamanders, and Frogs	
Second Week	
Introduction to Reptiles	
WED, June 18, Lecture Exam 1 (to amphibians) (Morning), Lab Exam 1 (Afternoon)	
Turtles, Crocodylians, Tuataras, Lizards, Snakes	
Third Week	
Turtles, Crocodylians, Tuataras, Lizards, Snakes	
Review/make up work	
TU, June 24, Paper Due (Morning)	
WED, June 25, Oral Presentation? LAST DAY OF CLASSES	
TH, June 26, Comprehensive Lecture (Morning) and Lab Exam (Afternoon)	
***** END OF SEMESTER *****	

LABORATORY/FIELD TENTATIVE SCHEDULE

BIO 417

Date	Topic	Handouts
June 9	Lab 1 - Amphibian Anatomy (Frog skeleton and Dissection)	
June 10	Lab 2 - Amphibian Diversity and Movie Life on Earth	
June 11	Field 1 – Aquatic Turtles in Wallops Island	
June 12	Field 2 – Aquatic Turtles in Wallops Island	
June 13	Field 3 – Amphibian and larvae in Wallops Island	
June 16	Field 4 – Aquatic Turtles in Assateague Bay	
June 16	Lab 3 - Reptilian Anatomy (Turtle skeleton, Dissections)	
June 17	Field 5 – Sea turtles in Open Ocean	
June 19	Lab 4 - Reptilian Diversity and Movie Life on Earth	
June 23	Field 6 – Snakes at Wallops Island	
June 24	Field 7 – Snakes at CBFS	

SOME IMPORTANT NOTES TO KEEP IN MIND

**(*) GIVEN WEATHER AND OTHER LOGISTICS, I RESERVE THE RIGHT TO
MODIFY THE TERMS, INCLUDING TIMINGS, IN THIS SYLLABUS, IF**

NECESSARY

READ AND GET FAMILIAR WITH THE SYLLABUS!!!

**All students in this course are responsible for knowing and complying with
the terms stated above**