Amphibians and Reptiles of Oregon (BI468/568)

Instructor: Tom Titus, 318 Huestis Hall, titus@uoregon.edu
Lecture: 10:00-11:50 M, W 5 Klamath
Office hours: 11:50-12:50 M-Th 5 Klamath (or by appointment).
Assistant: Krystal Abrams, youngkrystal7@gmail.com

Course Schedule

Week 1:

6/24 Course introduction, animal diseases, handling
Introduction to amphibians and reptiles

6/26 Introduction to amphibians and reptiles (cont.);
Cascades: physiography, climate, habitats, diversity

6/28-6/29 Cascades Field Trip: Hidden Lake/HJ Andrews, meet 8:00AM, return 6/29 about 2PM.
Project Proposal due

Week 2:

7/1 Amphibian life history; diversity and evolution
Amphibian and reptile aptations to altitude.

7/3 Coast Range/Willamette Valley: physiography, climate, habitats, diversity
Herpetofauna and forest management
Reflection #1 due.

7/5 Coast Range Field trip, meet 8:00AM, return about 5PM

BI568 week 2 reading summary due

BI568 Reading: Morrison and Hero. 2003. Geographic Variation in Life-History Characteristics of Amphibians: A Review. Journal of Animal Ecology 72:270-279.

Week 3:

7/8 Herpetofauna and forest management (cont.)
Great Basin: physiography, climate, habitats, diversity

7/10 Thermal ecology of Great Basin lizards
Great Basin amphibians: Aptations to an arid environment

7/11-14 Great Basin Field Trip. Meet 2PM. Return on 7/14 approximately 6PM.
Project Outline due
BI568 week 3 reading summary due

BI568 Reading: Sinervo et al. 2010. Erosion of Lizard Diversity by Climate Change and Altered Thermal Niches. Science 328:894-899.

Week 4

7/15 Land use impacts on Great Basin herpetofauna
Aesthetics and Science in amphibian and reptile conservation.

7/17 Review and Final exam

7/19 **Course Project due**
Field Journal due (with Reflection #2 included)
BI568 week 4 reading summary due

BI568 Reading: Todd et al. 2014. Effects of timber harvesting on terrestrial survival of pond-breeding amphibians. Forest Ecology and Management 313 (2014) 123-131.

Field Trips

Field trips are required (not to mention fun!). Participation is non-negotiable. Be at the designated meeting place ON TIME. The vans will leave once seating has been arranged. Handling of rattlesnakes is absolutely forbidden in this course.

Course Websites

The "Oregon Amphibians and Reptiles" website can be accessed at https://blogs.uoregon.edu/bi468titus/author/risser/. The checklist has links to a set of digitized photographs for most Oregon species. Please use the website as a supplement for identification of amphibians and reptiles that you will encounter on the field trips and elsewhere. Our Canvas site will include syllabus, lectures, field journal information, BI568 readings, field trip lists, old exams, and more.

Course Project

The course project will be worth 35% of the course grade. The effort on your project should reflect that of any 4-credit/10-week course that you might take during the regular academic year. However, our class is a mere four weeks long, so YOU must begin organizing your project immediately!
NO LATE PROJECTS WILL BE ACCEPTED.
Topic: Choice of topics is open, but the primary focus must be on some aspect of the biology of Oregon amphibians and/or reptiles. Original research is acceptable but not realistic given our time constraints. Past projects have covered the gamut from standard research papers to original music and poetry. Regardless of the final form of your project, there must be a hard copy write up (example: a Powerpoint presentation must be printed out).
Project checkpoints:
Project Proposal (Week 1): On or before **Friday, June 28** you will submit a brief project proposal (not to exceed one page) for instructor approval. Include a short narrative outlining the nature of the project and its significance. Also include a list of criteria by which you would like the final version to be graded.
Project Outline and Resources (Week 3): By **Thursday, July 11** you will have completed a detailed outline of your project and a list of project resources, including literature. Graphics oriented projects should include a diagrammatic sketch of the project layout.
Final Version (Week 4): The final version of your project will be due on **Friday, July 19**. Please submit a **hard (paper) copy** and **an electronic version (email is fine)**. Grading will be based on the criteria you submitted and we agreed upon during the first week of class. 10% of your project grade will be based on your adherence to the schedule outlined above.

Field Journal

You are required to maintain a detailed field journal during this course, which will be worth 20% of your final grade. The journal will be composed primarily of notes taken during the three field trips. Please see the guide to keeping a field journal posted on Blackboard. Field journals will be due immediately following our last field trip on **Friday, July 19**.

Reflections

There are many ways to know things and many ways to relate to the natural world outside standard scientific methodology. You will have an opportunity to explore this with two small writing assignments from our field trips to Hidden Lake/HJ Andrews Forest. These will be approximately 500 words. Longer is NOT better. Find a place to be alone. The structure is flexible, but if you need an organizational starting point, a suggestion would be three paragraphs. Spend one paragraph describing the place you have chosen in excruciating detail. In the second paragraph describe your own state while you are in this place (internal and external if you like). The last paragraph could contain any insights from your human experience of that place into what an amphibian or reptile might also experience there. The fieldwork (the "data" that you collect) for these writings should be taken alone in your field notebook. You are free to consult with one another during the writing process if you wish, but your words are likely to be so individualized that collaboration will be unnecessary. Reflections will be worth 10% of your final grade. **Typed Reflection #1 (due Wednesday, July 3)**. **Reflection #2 may remain hand-written in your field journal (due July 20).**

BI568 Reading Assignments:

For BI568 students, weeks 2-4 will include a weekly reading assignment. For each paper write a one paragraph summary of the paper, including 1) the hypothesis that was tested (Was an hypothesis tested? If not, what was the purpose of the paper?), 2) How was the hypothesis tested, or the data gathered and analyzed? 3) What was/were the conclusion(s)? 4) What is a logical next study based on these results?

Final Exam: The final exam will be in class on **July 17**. The exam will be a mix of identification from pictures, short answer, multiple choice, and essay questions. The final exam is worth 35% of your grade.

Grading: BI468 grades will be based on 35% for the final exam, 35% for the course project, and 20% for the field journal, and 10% for writing reflections. BI568 grades will be based on 30% for the final exam, 30% for the course project, 20% for the field journal, and 10% for reading summaries, and 10% for writing reflections.
NO LATE ASSIGNMENTS WILL BE ACCEPTED AND NO INCOMPLETE GRADES WILL BE GIVEN.

Required Texts

Jones, L.L.C., W.P. Leonard, D.H. Olson (eds.). 2005. Amphibians of the Pacific Northwest. Seattle Audubon Society.

St. John, A. 2002. Reptiles of the Northwest. Lone Pine Publishing.

Additional Helpful Books:

Nussbaum, R.A., E.D. Brodie, Jr., and R.M. Storm. 1983. Amphibians and reptiles of the Pacific Northwest. University Press of Idaho.

Storm, R.M., and W.P. Leonard. 1995. Reptiles of Washington and Oregon. Seattle Audubon Society.

Corkran, C.C., and C. Thoms. 1996. Amphibians of Oregon, Washington, and British Columbia. Lone Pine Publishing.