BIO5380 Advanced Ecology: Biogeography
Fall 2017

Instructor: Dr. Monte L. Thies
Office: LBD115D e-mail: woodrat@shsu.edu Phone: (936)294-3746
Office Hours: Anytime, by appointment

Required Text:

Lomolino, M. V., B. R. Riddle, and R. J. Whittaker. 2016. Biogeography, 5th ed. Sinauer.

Additional readings will be provided as needed.

COURSE EXPECTATIONS

Reading assignments from class text (Lomolino et al., 5th ed.) and regular attendance in all scheduled lectures is required. Part of your grade will be determined by your regular participation in class, so active classroom interaction is a must for those who want to do well in this course. Grading will be based on two midterm exams, a comprehensive final, and a student project consisting of a prospectus, term paper, and class presentation.

*Note: it is your responsibility to be aware of all add-drop deadlines: be aware of the posted deadlines if you need at some point to drop the course.

Grades will be based on:

- Exam1 – 20%
- Exam2 – 20%
- Comprehensive Final – 25%
- Student project – 35%
  - Prospectus – 5%
  - Term Paper – 15%
  - Presentation – 15%

Prospectus due: 25 October (or earlier)
Final Term Paper Due: 10:00 a.m. 27 November (NO LATE PAPERS)
Presentation: Last 2-3 class periods of semester, schedule to be determined by topic
Final Examination: 10:30-12:00 Monday, 4 December

Lecture Schedule

Introduction and Orientation to the class.
The Science and History of Biogeography
The Physical Environment
The basics of Species Distributions
Geography of Communities
Plate Tectonics and Continental Drift
Speciation and Extinction

Glaciation and Biogeographic - Dynamics of the Pleistocene
The theory of Island Biogeography
Diversity Gradients
Measuring Dispersal
The Geography of Diversification
Historical Biogeography of Lineages
Phylogeography
Historical & Vicariance Biogeography
Historical biogeography: testing biogeographical hypotheses
Island Biogeography and Conservation
The Future of Biogeography: Pattern and Process in Biogeography

Student Projects:

Prospectus: due 25 October (or earlier)

The prospectus must include a 1-2 page outline or text summary and at least 10 primary references for your topic.

Final Term Paper: due 10:00 a.m. 27 November (NO LATE PAPERS)

Term papers may be on any topic in Biogeography that is approved by the instructor. They must be at least 10-15 pages in length in double-spaced, 12-point type (excluding any figures and tables). Papers should review some topic of interest from a conceptual point of view (e.g., there should be some significant biogeographical issue or question involved, not just a summary of facts).

Powerpoint presentations on selected term paper topics will be given during the past 2-3 class periods. Topics covered and assignments of presentation dates will be made during class after all prospectuses have been evaluated. Presentations should be 12-15 minutes in length with an additional 5 minutes for questions. Grades will be determined by combining scores from peer evaluations, thoroughness of topic coverage, and ability to answer questions.