

Course : **Geog 307 –Biogeography: Theory and Method**

Semester : Spring 2011

Course Format

And Credit hours : 3 hr Lecture and Discussion

Prerequisites : Geog 107 or consent of instructor

Instructor : Dr. Amy E. Hessler, G-49 Brooks Hall  
293-8210, Amy.Hessler@mail.wvu.edu

Schedule : Tues/Thurs 10-11:15am

Location : Room 419 Brooks Hall

Office Hours: Mon. 1-2:30 pm, Thurs. 11:30-1pm or by appointment

Course Objectives : The objectives of this course are to explore the multiple scales of analysis currently practiced by biogeographers, including analysis focused on individuals, communities, landscapes, biomes, and the entire biosphere. Quantitative methods and models will be applied to current questions regarding environmental problems in the biosphere. Students will be expected to work individually and in small groups.

Expected Learning

Outcomes :

Upon successful completion of this course students will be able to:

1. appreciate the importance of space, time, and scale in biogeographical theory and practice.
2. differentiate between species-level life history patterns for migration.
3. apply different measures of biodiversity to community level data.
4. use tabular databases to generate species-area curves.
5. describe the history of island biogeography theory and its role in conservation biology.
6. calculate measures of biodiversity at landscape scales.
7. characterize basic biogeochemical cycling (carbon, nitrogen and water) at the biome scale and be able to run a biogeochemical model (Biome-BGC) for an evergreen needle leaf forest.
8. develop analytical and quantitative skills through exercises using MS Excel and PSI-plot's calculation and graphing capabilities.
9. increase their proficiency in oral and written communications through assignments and discussion.
10. work with a team of their peers.

Required Text:

MacDonald, G. 2001. Space, Time and Life: The Science of Biogeography. Wiley. P. 336.  
ISBN: 0-471-24193-8.

*Readings for article summaries are available on ecampus.*

Grading :

	Percent	Points
Assignments (8)	40%	200
Exams (2)	40%	200
Article Summaries (5)	10%	50
Class Participation	10%	50
Total	100%	500

Grade Assignment :

Percent	Points	Grade
90-100	>450	A
80-89	400-449	B
70-79	350-399	C
60-69	300-349	D
0-59	0-299	F

Grading Policy :

No make-up exams except by prior arrangement with instructor. Late assignments (turned in after 5:15pm the day they are due) receive 50% of earned credit but may be turned in up until the last day of classes.

Assignments:

Students must complete all 8 of the assignments. Time will be available during class to work on these assignments, but students will occasionally need to complete these assignments outside of class. Assignments may be performed by groups of 2 students, but each student must turn in his/her own work. Each assignment will be worth the same credit (25 points).

In addition, students must turn in five article summaries (worth 10 points ea.) based on the recommended article readings. Please see attached example and instructions. These must be turned in the week the reading is assigned, however students may write additional summaries and choose the best five scores.

**Assignments in total will be worth 50% of the student's grade.**

Attendance Policy:

Consistent with WVU guidelines, students absent from regularly scheduled examinations because of authorized University activities will have the opportunity to take them at an alternate time. Make-up exams for absences due to any other reason will be at the discretion of the instructor. Students may miss two class meetings (but must make up any missed assignments). Additional absences will result in a drop of one letter grade for each absence.

Social Justice  
Statement :

“West Virginia is committed to social justice. I concur with that commitment and expect to maintain a positive learning environment based upon open communication, mutual respect, and nondiscrimination. Our University does not discriminate on the basis of race, sex, age, disability, veteran status, religion, sexual orientation, color or national origin. Any suggestions as to how to further such a positive and open environment in this class will be appreciated and given serious consideration.

If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class. Please advise me and make appropriate arrangement with Disability Services (293-6700).”