

FLORIDA ATLANTIC UNIVERSITY™

Graduate Programs—NEW COURSE PROPOSAL

UGPC APPROVAL _____
 UFS APPROVAL _____
 SCNS SUBMITTAL _____
 CONFIRMED _____
 BANNER POSTED _____
 CATALOG _____

DEPARTMENT NAME: GEOSCIENCES

COLLEGE OF: SCIENCE

RECOMMENDED COURSE IDENTIFICATION:

PREFIX _GEO_ COURSE NUMBER _5305_ LAB CODE (L or C) _____

(TO OBTAIN A COURSE NUMBER, CONTACT MJENNING@FAU.EDU)

COMPLETE COURSE TITLE: **BIOGEOGRAPHY**

EFFECTIVE DATE

(first term course will be offered)

CREDITS: **3**

TEXTBOOK INFORMATION: **NO TEXTBOOK REQUIRED.**

GRADING (SELECT ONLY ONE GRADING OPTION): REGULAR PASS/FAIL _____ SATISFACTORY/UNSATISFACTORY _____

COURSE DESCRIPTION, NO MORE THAN 3 LINES: Biogeography is the study of distributions of organisms and the processes responsible for the patterns. The course examines theories concerning spatio-temporal processes and patterns, populations, communities, ecosystems, biodiversity, disturbance, succession, speciation, and conservation. Classes are taught by lecture, discussion of academic literature, and field based research at local sites.

PREREQUISITES: **N/A**

COREQUISITES: **N/A**

OTHER REGISTRATION CONTROLS (MAJOR, COLLEGE, LEVEL):
N/A

PREREQUISITES, COREQUISITES & REGISTRATION CONTROLS SHOWN ABOVE WILL BE ENFORCED FOR ALL COURSE SECTIONS.

MINIMUM QUALIFICATIONS NEEDED TO TEACH THIS COURSE: **PH.D. IN BIOGEOGRAPHY, BIOLOGY, OR ECOLOGY.**

Other departments, colleges that might be affected by the new course must be consulted. List entities that have been consulted and attach written comments from each.

Scott Markwith, smarkwit@fau.edu, 561-297-2102
 Faculty Contact, Email, Complete Phone Number

SIGNATURES

SUPPORTING MATERIALS

<p>Approved by:</p> <p>Department Chair: _____</p> <p>College Curriculum Chair: _____</p> <p>College Dean: _____</p> <p>UGPC Chair: _____</p> <p>Dean of the Graduate College: _____</p>	<p>Date:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p>Syllabus—must include all details as shown in the UGPC Guidelines.</p> <p>Written Consent—required from all departments affected.</p> <p>Go to: http://graduate.fau.edu/gpc/ to download this form and guidelines to fill out the form.</p>
---	--	---

Email this form and syllabus to diamond@fau.edu and eqirjo@fau.edu one week **before** the University Graduate Programs Committee meeting so that materials may be viewed on the UGPC website by committee members prior to the meeting.

GEO 5300: BIOGEOGRAPHY

Instructor: Scott Markwith

Office: PS 344

Office Hours: TBA, also available by appointment

Email: smarkwit@fau.edu (This is the preferred form of contact.)

Phone: 561-297-2102

Course Description: Biogeography is the study of distributions of organisms and the processes responsible for the patterns. The course examines theories concerning spatio-temporal processes and patterns, populations, communities, ecosystems, biodiversity, disturbance, succession, speciation, and conservation. Classes are taught by lecture, discussion of academic literature, and field based research at local sites.

Course Goals: By the end of this course, students will:

- a. Comprehend and recall the various processes that influence the distributions of organisms and changes in those patterns.
- b. Apply this knowledge in future natural resource management and/or research situations where complex processes affect organisms at all scales.
- c. Connect observed patterns with the often long term or initially ambiguous processes in nature.
- d. Care about the effects of society's/your own actions on other organisms and the natural environment.
- e. Think critically about what is 'known' about natural processes and what we need to examine more closely; and learn how to find more information about biogeographic patterns and processes after this course is complete.

Text: There is no assigned text for this course; however, there will be assigned readings that will need to be downloaded and read for writing assignments and discussions.

Grading and Evaluation

	% of Final
Field Study Analysis	20%
Writings/Discussion Participation	20%
Paper	25%
2 Mid-Term Exams	20% (10% each)
Final Exam	15%

* There will be no extra credit assignments given in this class.

Grading criteria: The following is the grading scale for the course:

A	91-100
A-	90
B+	87-89
B	81-86
B-	80
C+	77-79
C	71-76
C-	70
D+	67-69
D	61-66
D-	60
F	<60

Field Study Analysis: This course will meet to conduct one field study assignment. Students will be split into groups to facilitate delegation of responsibilities. Students will work with their group to conduct field data collection, statistical analyses, and write up a report. No late work will be accepted because each group will have

multiple weeks to complete the work, and there should be at least one group member available to attend the class when the report is due. Every group member will receive the same grade for the reports. However, each group member will also be required to submit a grade for each of their fellow group members after the field study is completed. The average peer assessment for each student will account for 25% of their total Field Study Analysis grade.

Writing Assignments and Discussions: Writing assignments will require each student to analyze reading assignments taken from the academic literature. The papers could examine such subjects as: the strengths and weaknesses of the methodology and analyses for increasing our understanding of the focal topics; areas where our understanding may still be lacking and how research could address those questions; different ways of analyzing or studying the problems in the articles; and possible solutions to any controversies or debates should also be proposed (These are just examples, other topics could be discussed in your papers). Summaries are not acceptable (that means no summarization in the entire paper). Each student will be required to select 2 of the 5 reading assignments and write a one to two page, single spaced, ½ inch margins, 11 point Times New Roman font, papers related to each of the 2 selected reading assignments. Correct grammar, spelling mistakes, and quality of writing will be taken into account, so proofread. Each written assignment is due the day of discussion for the related readings. Because ample warning is provided about the due date for these assignments, late work will not be accepted.

The readings will also be discussed in class the day the writing assignments are due. Involvement in the discussions will affect your Writings/Discussion Participation grade. Graduate students will be in charge of leading the class discussion, and this will be factored into your Writings/Discussion Participation grade.

Term Paper: Students must write a 7-10 page paper concerning some aspect of biogeographic interest. Topical areas are relatively open, however the instructor must approve of the topic and can provide guidance for topic choice. The paper must be based on information obtained from primary academic literature (i.e. articles in academic journals). Papers must have ½ inch margins, use 11 point Times New Roman font, and be double spaced.

Exams: There will be two mid-term exams given during the semester. Exams will be composed of a combination of formats, including, but not limited to, multiple choice, matching, fill-in-the-blank, diagram interpretation, and short essay. There will also be a final exam which will cover all lectures presented after the second mid-term, and some cumulative information will be included.

Make-up Policy: Make-up exams will only be given for a verifiable excuse with documentation. Lack of documentation will result in a zero. Make-up exams will be scheduled at the instructor's discretion and may not be of the same format.

Classroom Conduct and Academic Dishonesty: All cell phones and other electronic devices are to be turned off prior to lecture. There will be plenty of interaction in the class with each other and the instructor, and please feel free to ask questions at any time, but do not chat during lectures.

Students are responsible for informing themselves about the Honor Code standards before performing any academic work. The link to more detailed information about academic honesty can be found at:
http://www.fau.edu/regulations/chapter4/4.001_Honor_Code.pdf

Scholastic dishonesty includes, among other things: plagiarism (which includes copying and pasting material from the internet), copying other's work during a test, and using notes during a test. The instructor reserves the right to use the Turn-it-in service to check all written work for plagiarism. Any test or written assignment for which you are caught cheating will be marked as a zero grade, and the incident will be reported in accordance with Honor Code regulations.

Disabilities – In compliance with the Americans with Disabilities Act (ADA), students who require special accommodations due to a disability affecting execution of coursework must register with the Office of Students with Disabilities (OSD) located in Boca in the SU, room 133 (561-297-3880) or in Davie in MD I (954-236-1222), and follow all OSD procedures.

Tentative Schedule – The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.

Lectures, Labs, Tests, and Quizzes.

Weeks	Topic
1	Syllabus; <i>Pre-Course Quiz (Ungraded)</i> ; Introduction to Biogeography.
2	Introduction to Biogeography; Ecosystems and Changes
3	<i>Discussion of Readings/Writing assignment</i> ; Populations, Communities, and Biodiversity
4	Populations, Communities, and Biodiversity
5	1st Mid-term Exam ; Dispersal
6	Dispersal; <i>Field Study Analysis Workshop</i>
7	<i>Field Sampling</i>
8	<i>Discussion of Readings/Writing assignment</i> ; Disturbance
9	<i>Discussion of Readings/Writing assignment</i> ; Succession
10	2nd Mid-term Exam ; Speciation and Diversification
11	<i>Discussion of Readings/Writing assignment</i> ; Speciation and Diversification
12	Speciation and Diversification; Conservation Biogeography
13	<i>Discussion of Readings/Writing assignment</i> ; <i>Work period for Field Study Analysis</i>
14	<i>Field Study Due</i> ; <i>Term Papers Due</i> ; Conservation Biogeography
15	Final Exam

Writing Assignments.

Weeks

Reading

- | | |
|----|--|
| 3 | Island biogeography of populations...(Schoener et al.); Cougar dispersal patterns (Sweanor et al.); Biogeographic scale and biodiversity (Lomolino and Davis) |
| 8 | Temperate-subtropical transition...(Crumpacker et al.); Optimizing dispersal and corridor models...(Epps et al.) |
| 9 | The synergism between hydrocarbon pollutants...(Peachey); Disturbance mediated variation in stand structure...(Parker et al.); Assessing the net effect of anthropogenic disturbance...(Rehage and Trexler) |
| 11 | Modelling impacts of river diversion...(Pearlstine); Predicting the multiple pathways of plant succession (Cattelino et al.) |
| 13 | Conservation of the endangered <i>Pinus palustris</i> ... (Sorrie and Weakley); Ichthyochory, the Suwannee Strait...(Markwith et al.); Genetic variation increases during biological invasion by a Cuban lizard (Kolbe et al.) |