San José State University School/Department Zoology 160, Zoogeography, Sect. 2, Spring 2014

Course and Contact Information

Instructor: Elizabeth McGee

Office Location: DH 546

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Office Hours: Thursdays 11:30 to 1:30 and by appointment

Class Days/Time: Mondays 5 to 7:45 p.m. and on-line

Classroom: DH 550

Prerequisites: Bio 1A or first semester core majors course in biology

Course Format

This class adopts a number of different learning strategies, including group work, lecture, presentations by teams of students, computer simulations, and an on-line component that requires internet connectivity and access to a computer.

Course Description

Zoogeography is a sub-discipline of biogeography that examines the patterns of animal biodiversity over space and through time. Using data and models from a variety of sources including zoology, ecology, evolutionary biology, paleontology, and geology, we will examine the effects of isolation, elevation, and latitude to understand spatial patterns of animal biodiversity.

Course Goals and Learning Outcomes

Upon successful completion of this class, students will be able to demonstrate:

CLO #1) the ability to understand and apply the scientific method in biogeography;

CLO #2) an understanding of evolution:

CLO #3) an understanding of the internal and external factors governing and limiting a species' distribution;

CLO #4) an understanding of speciation, dispersal, isolation, and extinction processes as they affect a taxon's distribution;

CLO #5) an ability to locate, characterize, and differentiate the major biomes the planet;

CLO #6) familiarity with library and Internet resources in biogeography.

Program Learning Objectives

This course is aligned with the following Program Learning Objectives for the Department of Biological Sciences:

PLO #1) Students will demonstrate the ability to formulate hypothesis and design experiments to address a scientific question.

PLO #4) Students will demonstrate proficiency in scientific writing skills.

PLO #5) Students will demonstrate proficiency in oral presentation skills.

PLO #6) Students will demonstrate the ability to work effectively in groups.

PLO #7) Students will demonstrate the ability to perform literature searches using relevant tools.

Required Texts/Readings

Textbook

Lomolino, Mark et al. *Biogeography*, Sinauer Associates, 4th edition. ISBN-10: 0878934944 or ISBN-13: 978-0878934942.

Other Readings

Select readings on Canvas

Other equipment / material requirements (optional)

SimBio "The Barnacle Zone" (\$5)

Course Requirements and Assignments

	Total Points
Exams:	
Exam 1 (20%)	40
Exam 2 (20%)	40
Final Exam (10%)	20
Presentations & Activities	
Terrestrial Biomes	30
Barnacle Zone writeup	10
Ice Age Tar Pits or Death Valley Trip (see below)	30
Participation	30
TOTAL	200

Exams 1 and 2 are in-class and will consist of multiple choice/true-false questions and short answer questions. Exam 3 is a take-home, essay-based exam.

Students will do a presentation in class with a partner on a terrestrial biome described in Chapter 5 of Lomolino et al. Instructions will be distributed in class. In addition, students will do a presentation on ice age tar pits. In lieu of this second presentation, you may participate in Field Studies in Natural History's Death Valley trip over spring break (additional fee is required; for more information go to http://www.sjsu-fsnh.org/deathvalley).

Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of forty-five hours over the length of the course (normally 3 hours per unit per week with 1 of the hours used for lecture) for instruction or preparation/studying or course related activities including but not limited to internships, labs, clinical practica. Other course structures will have equivalent workload expectations as described in the syllabus.

A final word on the participation component of this class: Your active participation is appreciated and expected. I expect you to first of all, show up and show up on time. Other ways to participate for full credit – ask questions, offer comments or opinions, interact with your peers, etc. Towards the end of the semester, we will discuss papers from the primary literature in class; in order to receive full participation credit, you will be required to submit questions about the papers on Canvas by noon of the Monday we meet. Fifteen percent (15%) of your grade is based on participation, so make it a habit to ask questions, makes comments, etc. at every class meeting.

Grading Policy

Grades will be assigned by taking the total number of points earned for all exams, presentations, and participation and calculating the percentage earned. Letter grades (with +/-) will be determined using the following scale:

%	%	%
A = 92-100	B - = 80 - 81	D+ = 65-67
A = 90-91	C+ = 78-79	D = 60-64
B+ = 88-89	C = 72-77	D- = 50-59
B = 82-87	C = 68-71	F = <50

Classroom Protocol

Exams, Late and Missed Assignments

Exam 1 and 2 may not be made up under any circumstances without a verifiable excuse from a physician (MD) or a court officer. If you require a make-up exam and have acceptable documentation, you MUST contact me within two days of the missed exam. The make-up exam must be taken within three days of the missed exam. The take home final exam and the write up for The Barnacle Zone will lose 3% of the maximum credit possible for every day the paper is submitted late. Work will not be accepted more than one week after the deadline.

Incompletes

Incompletes are permitted only if a student is in good standing, has completed and least two-thirds of the course, and has a serious and compelling reason to take an incomplete.

Exam Protocol

Regarding exams, any student who arrives after the first student has turned in the exam will not be permitted to take the exam. If you commute to campus, add in additional time for traffic and parking. All cell phones, etc. must be turned off and put away during the exams – absolutely no exceptions.

University Policies

Dropping and Adding

Students are responsible for understanding the policies and procedures about add/drop, grade forgiveness, etc. Refer to the current semester's Catalog Policies section at http://info.sjsu.edu/static/catalog/policies.html. Add/drop deadlines can be found on the current academic year calendars document on the Academic Calendars webpage at http://www.sjsu.edu/provost/services/academic_calendars/. The Late Drop Policy is available at http://www.sjsu.edu/aars/policies/latedrops/policy/. Students should be aware of the current deadlines and penalties for dropping classes.

Information about the latest changes and news is available at the <u>Advising Hub</u> at http://www.sjsu.edu/advising/.

Consent for Recording of Class and Public Sharing of Instructor Material

<u>University Policy S12-7</u>, http://www.sjsu.edu/senate/docs/S12-7.pdf, requires students to obtain instructor's permission to record the course.

- "Common courtesy and professional behavior dictate that you notify someone when you are recording him/her. You must obtain the instructor's permission to make audio or video recordings in this class. Such permission allows the recordings to be used for your private, study purposes only. The recordings are the intellectual property of the instructor; you have not been given any rights to reproduce or distribute the material."
 - o It is suggested that the greensheet include the instructor's process for granting permission, whether in writing or orally and whether for the whole semester or on a class by class basis.
 - o In classes where active participation of students or guests may be on the recording, permission of those students or guests should be obtained as well.
- "Course material developed by the instructor is the intellectual property of the instructor and cannot be shared publicly without his/her approval. You may not publicly share or upload instructor generated material for this course such as exam questions, lecture notes, or homework solutions without instructor consent."

Academic integrity

Your commitment as a student to learning is evidenced by your enrollment at San Jose State University. The <u>University Academic Integrity Policy S07-2</u> at http://www.sjsu.edu/senate/docs/S07-2.pdf requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of Student Conduct and Ethical Development. The Student Conduct and Ethical Development website is available at http://www.sjsu.edu/studentconduct/.

Campus Policy in Compliance with the American Disabilities Act

If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Presidential Directive-97-03 at http://www.sjsu.edu/president/docs/directives/PD_1997-03.pdf requires that students with disabilities requesting accommodations must register with the Accessible Education Center (AEC) at https://www.sjsu.edu/aec to establish a record of their disability.

Student Technology Resources

Computer labs for student use are available in the <u>Academic Success Center</u> at http://www.sjsu.edu/at/asc/ located on the 1st floor of Clark Hall and in the Associated Students Lab on the 2nd floor of the Student Union. Additional computer labs may be available in your department/college. Computers are also available in the Martin Luther King Library. A wide variety of audio-visual equipment is available for student checkout from Media Services located in IRC 112. These items include DV and HD digital camcorders; digital still cameras; video, slide and overhead projectors; DVD, CD, and audiotape players; sound systems, wireless microphones, projection screens and monitors.

SJSU Peer Connections

Peer Connections, a campus-wide resource for mentoring and tutoring, strives to inspire students to develop their potential as independent learners while they learn to successfully navigate through their university experience. You are encouraged to take advantage of their services which include course-content based tutoring, enhanced study and time management skills, more effective critical thinking strategies, decision making and problem-solving abilities, and campus resource referrals.

In addition to offering small group, individual, and drop-in tutoring for a number of undergraduate courses, consultation with mentors is available on a drop-in or by appointment basis. Workshops are offered on a wide variety of topics including preparing for the Writing Skills Test (WST), improving your learning and memory, alleviating procrastination, surviving your first semester at SJSU, and other related topics. A computer lab and study space are also available for student use in Room 600 of Student Services Center (SSC).

Peer Connections is located in three locations: SSC, Room 600 (10th Street Garage on the corner of 10th and San Fernando Street), at the 1st floor entrance of Clark Hall, and in the Living Learning Center (LLC) in Campus Village Housing Building B. Visit <u>Peer Connections website</u> at http://peerconnections.sjsu.edu for more information.

SJSU Writing Center

The SJSU Writing Center is located in Clark Hall, Suite 126. All Writing Specialists have gone through a rigorous hiring process, and they are well trained to assist all students at all levels within all disciplines to become better writers. In addition to one-on-one tutoring services, the Writing Center also offers workshops every semester on a variety of writing topics. To make an appointment or to refer to the numerous online resources offered through the Writing Center, visit the Writing Center website at http://www.sjsu.edu/writingcenter. For additional resources and updated information, follow the Writing Center on Twitter and become a fan of the SJSU Writing Center on Facebook. (Note: You need to have a QR Reader



to scan this code.)

SJSU Counseling Services

The SJSU Counseling Services is located on the corner of 7th Street and San Fernando Street, in Room 201, Administration Building. Professional psychologists, social workers, and counselors are available to provide consultations on issues of student mental health, campus climate or psychological and academic issues on an individual, couple, or group basis. To schedule an appointment or learn more information, visit <u>Counseling Services website</u> at http://www.sjsu.edu/counseling.

Zoology 160 / Zoogeography, Spring 2014

Course Schedule

Date	Topics	Deadlines (due on day of class)
Jan 27	Intro to course; Science of Biogeography Darwin's Dangerous Idea (watch outside of class)	Lomolino Ch 1
Feb 3	Geographic Template Earth Story – The Time Travellers (watch outside of class)	Lomolino Ch 3
Feb 10	Distribution of Species Ecobeaker Exercise (The Barnacle Zone)	Lomolino Ch 4
Feb 17	Student presentations: terrestrial biomes and/or aquatic communities (Groups $1-4$)	Lomolino Ch 5
Feb 24	Student presentations: terrestrial biomes and/or aquatic communities (Groups $5-8$)	Lomolino Ch 5
Mar 3	Exam 1	
Mar 10	Dispersal and Immigration The Incredible Journey of the Butterflies (watch outside of class)	Lomolino Ch 6
Mar 17	Speciation and Extinction Australia – Strange Creatures (watch outside of class)	Lomolino Ch 7
Mar 24	Spring Break! No class.	
Mar 31	Cesar Chavez Day – no class.	
Apr 7	Glaciation and Biogeographic Dynamics of the Pleistocene Ice Age Death Trap (watch outside of class)	Lomolino Ch 9
Apr 14	Island Biogeography Madagascar	Lomolino Ch 13, 14
Apr 21	Dr. Joshua Mackie: Latitudinal diversity relationships of fiddler crabs: biogeographic differences united by temperature	Reading posted on Canvas
Apr 28	Dr. Jack Matson: Small Mammal Communities in the Sierra de Los Cuchumatanes, Huehuetenango, Guatemala	Reading posted on Canvas
May 5	Ice Age Tarpits: Comparison and contrast of La Brea and Talara Tarpits (Group presentations)	
May 12	Exam 2	
May 19	Final Exam – take home final due to Canvas by 5 p.m.	