BIOLOGY OF GLOBAL CHANGE (BIEB 182)

Tu/Th: 2:00 - 3:20 PM CENTR 222

Professor Kaustuv Roy

Date	Lecture Topic	Tasks/Assignments
Tu Jan 4	Introduction to the class; what is the Anthropocene? **Reading:** *Corlett 2015*	
Th Jan 6	Climate change – past, present and future **Reading:** *Zalasiewicz and Williams 2016*	
Discussion Section - Jan 10	Meet & Greet. No Readings	
Tu Jan 11	Biogeography **Reading:** *None*	Mini Assignment 1
Th Jan 13	Climate change and species range shifts **Reading:** *Elith and Franklin 2013*	
Discussion Section - Jan 17	*Elith and Franklin 2013* [no meeting due to University holiday but paper summary is due]	**Paper Summary [due Jan17 @ 9 AM]**
Tu Jan 18	Climate change and species range shifts **Reading:** *None*	
Th Jan 20	Climate change and phenology **Reading:** *Cohen et al. 2018*	
Discussion Section - Jan 24	General Discussion of lecture topics and readings	
Tu Jan 25	Climate change and disease dynamics **Reading:** *Metcalf et al. 2017*	Min Assignment 2
Wed Jan 26	**Quiz 1: Lectures 1-4**	
Th Jan 27	Warming, acidification and marine biodiversity **Reading:** *Poloczanska et al. 2016*	
Discussion Section - Jan 31	*Metcalf et al. 2017*	**Paper Summary [due Jan31 @ 9 AM]**
Tu Feb 1	Fisheries and wildlife trade – past, present and future **Reading**: *Milner-Gulland and Bennett 2003*	
Th Feb 3	Biological consequences of human harvesting of wild species **Reading**: *Fenberg and Roy 2008*	
Discussion Section - Feb 7	General Discussion of lecture topics and readings	
Tu Feb 8	Urbanization – history and overview **Reading**: *McKinney 2002*	Mini Assignment 3
Wed Feb 9	**Quiz 2: Lectures 5 - 8**	
Th Feb 10	Urbanization – biological consequences **Reading**: *Alberti 2015*	
Discussion Section - Feb 14	*Alberti 2015*	**Paper Summary [due Feb14 @ 9 AM]**
Tu Feb 15	Urbanization – biological consequences **Reading**: Johnson and Munshi-South 2017	
Th Feb 17	Urbanization - biotic homogenization **Reading**: *None*	
Discussion Section - Feb 21	University Holiday - no meeting	

Tu Feb 22	Extinctions – past, present and future **Reading**: *Barnosky et al. 2011*	Mini Assignment 4
Wed Feb 23	**Quiz 3: Lectures 9-12**	
Th Feb 24	Extinctions – past, present and future **Reading:** *Huang and Roy 2015*	
Discussion Section - Feb 28	*Barnosky et al. 2011*	**Paper Summary [due Feb28 @ 9 AM]**
Tu March 1	Synergies among impacts, Planetary boundaries and phase shifts **Reading:** *Brook et al. 2008*	
Th March 3	Conservation and Sustainability **Reading:** *Kareiva and Marvier 2012; Doak et al. 2014*	
Discussion Section - March 7	General Discussion of lecture topics and readings	
Tu March 8	Conservation and Sustainability **Reading:** *None*	Mini Assignment 5
Wed March 9	**Quiz 4: Lectures 13-16**	
Th March 10	Discussion - Adapting to a changing world **Reading:** *None*	
Fri March 17	"FINAL" 3 PM **Quiz 5: Lectures 17-19**	

All course content available at: http://canvas.ucsd.edu/

Class Logistics and Policies - Please read carefully

Office hours for Professor Roy:
Wednesday 10:30 - 11:30 AM. Or by appointment.

Course expectations: This is an upper division EBE class that builds on the knowledge gained in the introductory and lower division EBE classes. Without such background, you are unlikely to do well in this class.

Course Website: The BIEB 182 course site on Canvas should provide you with required readings (i.e. primary research articles), assignments, and quizzes.

Lectures: I highly recommend attending the lectures. This class has no textbook and so the lecture materials are the primary content and the focus of the quizzes. Also, data show that, on average, students who attend the lectures tend to do better in this class. Lecture slides will be posted on Canvas before each lecture – you may want to download them prior to class to facilitate note taking. Please remember to turn off cellphones at the beginning of the class.

Readings: This class has no textbook but everyone is expected to read and understand the scientific papers assigned to each lecture. These papers were chosen to supplement the material that can be covered in a lecture. Required readings for individual lectures are in the "Readings" folder on Canvas as pdf files. The copyright of each of these articles is with their respective publishers/authors. By downloading an article, you agree to limit the use of the pdf file to printing of single copies for personal study. You may not modify the files in any way, or to use them for commercial purposes.

Guide to the Readings: The assigned readings for this class are either review papers that provide a broad overview of a topic or primary research paper. In either case, you don't need to "memorize" all the details. What is important is to understand the general conclusions and the main points of the paper, not the details of methods or associated information. In other words, please focus on the big picture as it pertains to the lectures.

Instructional Assistant: Stephanie Nehasil e-mail: snehasil@ucsd.edu

Discussion Section Times:

Section	Section ID	Time
A01	69342	Mon 11:00 - 11:50AM
A02	69343	Mon 12:00 - 12:50AM

Discussion Sections: The discussion sections in this class are designed around a peer-based active learning model that will allow you to (i) become comfortable reading and understanding primary scientific literature and (ii) better understand the topics covered in lecture through group discussion.

Some of the discussion sections have assigned readings. Please see Lecture Schedule for the assignments. The pdfs of all the papers are available in Canvas. You are expected to carefully read the paper assigned for that week and write a 1 page summary answering the following:

(i) what scientific questions(s) was the paper addressing [1 paragraph]

(ii) what are the main conclusion(s) of the paper [1 paragraph]

(iii) provide a brief critical review of the paper [1 paragraph]

Upload the paper summary to Canvas by the deadline before the discussion section. You will not be able to upload it after the deadline.

Your IA will then lead a discussion of the paper using all the summaries. You are expected to participate in the discussion.

In addition to paper discussions and quizzes, the discussion sections will also help you with lecture contents. For this you should come prepared to ask any questions you have. The IA will answer the questions and lead any subsequent discussion. Unlike in some other classes, your IA will not do a lecture/presentation in the discussion section. So, in order to get most out of the discussion sections, please come with questions about the lectures that can be discussed.

The points for the discussion section are based on the written summary, your participation in the discussions and attendance. If you fail to upload the summary by the deadline before the discussion section you can stay and participate but will not get any credit for that assignment.

Assesment:
In this class we will not be using Mid-term and Final exams. Instead your final grade for the class will be based on:

Quizzes: There will be a total of 5 quizzes throughout the quarter, given every other week. Each quiz will be worth 50 points but only your four highest scoring quizzes (total of 200 points) will count towards your final grade. Quizzes will include T/F, multiple choice and short answer questions from the lectures and assigned readings. The quizzes will be given in Canvas.
Quizzes will be available during the Discussion Section. Only exception is the last quiz, which will be during the scheduled Final exam for this class. Quizzes will be timed in Canvas and once you start taking a quiz you will need to finish it within the assigned time.
No late/makeup quizzes.

Quiz dates: Jan 24, Feb 7, Feb 21, March 7 and **Thursday March 17 (3-6PM).**

Paper summaries & Discussion participation: See description above.

Mini-assignments: Throughout the quarter there will be a total of five mini-assignments. For each of these you will need to do some research online and briefly answer the question(s). These assignments will be posted every other week at 10AM Pacific on Wednesday and you will have until 10AM Pacific on Friday to complete them. **No late submissions will be accepted**.

	Points	**% of grade**
Quizzes (4)	200	70%
Paper reviews & Discussion (4)	100	20%
Mini-assignments (5)	50	10%
	350	100%

Your final letter grade will be based on the total number of points you receive using the e-grades scheme below. The class will not be graded on a curve UNLESS that would benefit the entire class. We will review the collective scores on week 8 and determine if grading on a curve will be beneficial.

A+	**100%**	**to**	**97%**
A	**< 97%**	**to**	**94%**
A-	**< 94%**	**to**	**90%**
B+	**< 90%**	**to**	**87%**
B	**< 87%**	**to**	**84%**
B-	**< 84%**	**to**	**80%**
C+	**< 80%**	**to**	**77%**
C	**< 77%**	**to**	**74%**
C-	**< 74%**	**to**	**70%**
D	**< 70%**	**to**	**60%**
F	**< 60%**	**to**	**0%**

<u>Make up Policy</u>: All quizzes, paper summaries and mini-assignments need to be completed by the specified data and time. Late submissions will not be accepted and there will be no make-ups for any assignments for his class. We will only consider exceptions in the case of documented illness or emergency.

To prepare for the quizzes:

1. Attend the lectures! I would recommend taking your own notes during the lectures. ALL questions will come directly from the lectures and assigned papers.
2. Read the papers! Quizzes will have questions about the papers; these questions will require that you understand the material covered in each paper and the conclusions of the study.
3. Attend section regularly - there you will be able to ask questions about the lectures and papers, which should help you better understand the material.
4. **Do not cheat! Disciplinary steps will be taken when cheating is discovered. These steps may include failing the class and being reported to the appropriate authorities.**

*****A MESSAGE FROM THE UCSD ACADEMIC INTEGRITY OFFICE:**

Statement of Academic Integrity:
Students are expected to do their own work, as outlined in the UCSD Policy on Integrity of Scholarship <http://www-senate.ucsd.edu/manual/appendices/app2.htm>. Academic misconduct will not be tolerated. Any student who engages in suspicious conduct will be confronted and subjected to the disciplinary process. Cheaters will receive a failing grade on the exam, and/or in the course. They may also be suspended from UCSD pursuant to University guidelines. (Translation: just don't do it!)

Academic misconduct includes but is not limited to:
1. Cheating, such as using "crib notes" or copying answers from another student during the exam.
2. Plagiarism, such as using the writings or ideas of another person, either in whole or in part, without proper attribution to the author of the source.
3. Collusion, such as engaging in unauthorized collaboration on exams, completing for another student any part or the whole of an exam, or procuring, providing or accepting materials that contain questions or answers to an exam or assignment to be given at a subsequent time