

BIOLOGY OF GLOBAL CHANGE (BIEB 182)

Tu/Th: 5:00 - 6:20 PM PETER 102

Professor Kaustuv Roy

	Date	Lecture Topic	Tasks/Assignments
WK 1	Tu Apr 2	Introduction to the class; what is the Anthropocene?	Reading: <i>Corlett 2015</i>
	Wed Apr 3	Discussion Section	Meet & Greet. No Readings
	Th Apr 4	Climate change – past, present and future	Reading: <i>Zalasiewicz and Williams 2016</i>
WK 2	Tu Apr 9	Biogeography	Reading: <i>None</i>
	Wed Apr 10	Discussion Section	<i>Elith and Franklin 2013</i> Paper Summary [due @ 9 AM]
	Th Apr 11	Climate change and species range shifts	Reading: <i>Elith and Franklin 2013</i> Mini Assignment 1 due @ 10AM
WK 3	Tu Apr 16	Climate change and species range shifts	Reading: <i>None</i>
	Wed Apr 17	Discussion Section	General Discussion of lecture topics and readings
	Th Apr 18	Climate change and phenology	Reading: <i>Cohen et al. 2018</i>
	Fri Apr 19	Quiz 1: Lectures 1-4	open from 10AM - 10 PM
WK 4	Tu Apr 23	Climate change and disease dynamics	Reading: <i>Metcalf et al. 2017</i>
	Wed Apr 24	Discussion Section	<i>Metcalf et al. 2017</i> Paper Summary [due @ 9 AM]
	Th Apr 25	Warming, acidification and marine biodiversity	Reading: <i>Poloczanska et al. 2016</i> Mini Assignment 2 due @ 10 AM
WK 5	Tu Apr 30	Fisheries and wildlife trade – past, present and future	Reading: <i>Milner-Gulland and Bennett 2003</i>
	Wed May 1	Discussion Section	General Discussion of lecture topics and readings
	Th May 2	Biological consequences of human harvesting of wild species	Reading: <i>Fenberg and Roy 2008</i>
	Fri May 3	Quiz 2: Lectures 5 - 8	open from 10AM - 10 PM
WK 6	Tu May 7	Urbanization – history and overview	Reading: <i>McKinney 2002</i>
	Wed May 8	Discussion Section	<i>Alberti 2015</i> Paper Summary due @ 9 AM
	Th May 9	Urbanization – biological consequences	Reading: <i>Alberti 2015</i> Mini Assignment 3 due @ 10 AM

WK 7	Tu May 14	Urbanization – biological consequences	Reading: Johnson and Munshi-South 2017
	Wed May 15	Discussion Section	General Discussion of lecture topics and readings
	Th May 16	Urbanization - biotic homogenization	Reading: <i>None</i>
	Fri May 17	Quiz 3: Lectures 9-12	open from 10AM - 10 PM
WK 8	Tu May 21	Extinctions – past, present and future	Reading: <i>Tilman et al. 2017</i>
	Wed May 22	Discussion Section	<i>Tilman et al. 2017</i> Paper Summary due @ 9 AM
	Th May 23	Extinctions – past, present and future	Reading: <i>Huang and Roy 2015</i> Mini Assignment 4 due @ 10 AM
WK 9	Tu May 28	Synergies among impacts, Planetary boundaries and phase shifts	Reading: <i>Brook et al. 2008</i>
	Wed May 29	Discussion Section	General Discussion of lecture topics and readings
	Th May 30	Conservation and Sustainability	Reading: <i>Kareiva and Marvier 2012; Doak et al. 2014</i>
	Fri May 31	Quiz 4: Lectures 13-16	open from 10AM - 10 PM
WK 10	Tu June 4	Conservation and Sustainability	Reading: <i>None</i>
	Wed June 5	Discussion Section	General Discussion of lecture topics and readings
	Th June 6	Biology of a changing world - class discussion	Reading: <i>None</i> Mini Assignment 5 due @ 10 AM
	Th June 13	"FINAL" Quiz 5: Lectures 17-19	7 PM - 9:59 PM

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

Class Logistics and Policies - Please read carefully

Office hours for Professor Roy:

Tues 1:30 - 2:30 PM. Or by appointment.

Instructional Assistant: Julia Bebout

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: This class has no textbook - the lecture materials provide the primary content supplemented by the assigned readings. ***Data from previous years show that students who regularly 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 silence cellphones at the beginning of each lecture.

Guide to the Readings: Everyone is expected to read and understand the scientific papers assigned to each lecture since they supplement the material that is covered in a lecture. You can find the papers in the “Readings” folder on Canvas as pdf files. The readings are either review papers that provide a broad overview of a topic or primary research papers. In either case, you don’t need to “memorize” all the details. What is important is to understand the general results/conclusions and the main points of the paper. In other words, please focus on the big picture as it pertains to the lectures.

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.

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. They are also designed to help you develop soft skills.

Some of the discussion sections have assigned readings. Please see the class schedule above 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 need to participate in the discussion to get full points for the assignment.

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. Your 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.

Assessment

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. Please see class schedule for Quiz dates. 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 are all closed book and will be given in Canvas. Quizzes will be timed and once you start taking a quiz you will need to finish it within the assigned time.***

Paper summaries & Discussion participation: 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 attend and participate but will not get any credit for that assignment. If you upload the summary but fail to attend the in-person discussion, you will only get partial credit.

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 Monday and you will have until 10AM Pacific on Thursday 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%

Make up Policy: 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