BIODIVERSITY (BIEB 140)

Tu/Th: 3:30 - 4:50 PM

Professor Kaustuv Roy

Date	Lecture Topic	Tasks/Assignments
Tu March 29	Introduction, defining and measuring biodiversity Reading: Costello et al. 2013	
Th March 31	Phylogenies and the tree of life Readings: Gould 1992 & Omland 2014	No assignments this week
Discussion	Meet and greet - get to know your IA	
Tu April 5	A very short history of biological diversity Reading: Simpson & Kiessling 2010	Mini -assignment: "Animal of the week" Due: Friday April 8
Th April 7	Early History of Animals Readings: Fox 2016 & Droser & Gehling 2015	
Discussion	Paper + General discussion	Paper summary: Costello et al. 2013
Tu April 12	Invertebrates I Readings: None	
Th April 14	Reefs, past, present and (?)future Reading: Knowlton & Jackson 2013	**Quiz 1: lectures 1-4**
Discussion	General Discussion	
Tu April 19	Invertebrates II Readings: Labandeira & Sepkoski 1993 & Brown 2001	Mini -assignment: "Plant of the week" Due: Friday April 22
Th April 21	Plants Reading: Enquist et al. 2001	
Discussion	Paper + General discussion	Paper summary: Knowlton & Jackson 2013
Tu April 26	Fishes, Amphibians and Reptiles Reading: Seehausen 2015	
Th April 28	Birds – the feathered dinosaurs Reading: Xu et al. 2014	**Quiz 2: lectures 5 - 8**
Discussion	General Discussion	
Tu May 3	The mammalian radiation Reading: Jones & Safi 2011	Mini -assignment: "Biodiversity news of the week" Due: Friday May 6
Th May 5	Deep Sea Biodiversity – the final frontier Readings: Canganella & Kato 2014; Van Dover et al. 2002	
Discussion	Paper + General discussion	Paper summary: Enquist et al. 2001
Tu May 10	Biogeography & Macroecology Readings: Gaston 1996; Gaston 2000	
Th May 12	Global climate change & Biodiversity I Readings: None	**Quiz 3: lectures 9-12**
Discussion	General Discussion	
Tu May 17	Global climate change & Biodiversity II Readings: Moritz et al. 2008	Mini -assignment: "My favorite urban species" Due: Friday May 20
Th May 19	Exploitation of Biodiversity and its consequences Readings: Fenberg & Roy 2008; Pauly & Watson 2003	
Discussion	Paper + General discussion	Paper summary: Moritz et al. 2008
Tu May 24	Extinctions I Reading: Jablonski 2008	
Th May 26	Extinctions II Reading: Barnosky et al. 2011	**Quiz 4: Lectures 13-16**
Discussion	No Discussion Sections. Memorial Day Holiday	

Tu May 31	Why Biodiversity matters and the future Reading: None	Mini -assignment: "Profile of a US endangered species" Due: Friday June 3
Th June 2	Open Discussion of topics covered in the class	
Mon June 6	"FINAL" 3 PM - 6 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:
Tuesday 10:30 - 11:30 AM Muir Biology 1113. 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 140 course site on Canvas should provide you with required readings, assignments, and quizzes.

Lectures: I highly recommend attending the lectures. This class does not have a textbook and so the lecture materials are the primary content and the focus of exams. Because of that, students who attend the lectures tend to do better in this 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 Assistants	e-mail
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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 where you will need to write a summary of that paper. 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]

Print out and hand the paper summary to your IA at the start of the discussion section. 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 you want discussed/clarified**.

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

Grading:
This year 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 asynchronously in Canvas. **No late/makeup quizzes**.

Quizzes will be available on alternate Thursdays (dates below) from 10 AM - 10 PM Pacific Time. 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. Quiz dates: April 14, April 28 May 12, May 26 and **Monday June 6 (3-6PM).**

Paper summaries: There will be four paper summaries due during discussion sections (roughly every other week) as described above. **These assignments should be printed out and submitted to your IA during the relevant discussion section. No late submissions will be accepted**.

Mini-assignments: Throughout the quarter there will be a total of five mini-assignments to be submitted through Canvas. For each of these you will need to do some research online and very briefly answer (3- 4 sentences) the questions. These should not take you more than 20-30 minutes to complete. 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 out of 5)	200	70%
Paper summaries (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