BIEB 135 Syllabus Winter 2018
Aquatic Ecology Lab

Lab: Monday and Wednesday	1:00-5:50pm	York 1310
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BIEB 135 (***Aquatic Ecology Lab***) provides an overview of the physical, chemical and biological processes that characterize inland and coastal waters (lakes, streams and estuaries). This course will introduce some of the dominant biota of aquatic environments, and how they are related to physical and chemical processes of the systems in which they reside. A series of case studies and contemporary issues will also be presented to highlight the interdisciplinary nature of this science, and its application to environmental problem solving and conservation. You will learn to use methods for sampling the physical and biological environment and experiments to measure key processes. The course emphasizes data analysis and presentation and scientific writing.

Course Policies- ATTENDANCE AT LABS AND FIELD TRIPS IS MANDATORY! Your grade will be substantially reduced for an assignment if you miss any of the labs or field trips. Assignments turned in late are penalized at 10% per day. If you have a medical reason for missing class, you will not be penalized only with suitable documentation from a health care provider. However, you should not come to lab if you are ill with a contagious disease.

Field excursions- We will be spending some of our lab time in the field. We will often meet at off-campus locations. You are required to provide your own transportation. The field sites will be posted on TED. You will need to provide your own transportation to the field site.

LAB SAFETY (York 1310) No food or drink is allowed in any York labs – sadly not even coffee. Please never prop open the door to York 1310 unless class is in session. This is for security reasons – both your safety and to prevent theft of equipment or computers.

LAB ETIQUETTE Multiple other courses are using York 1310 this quarter, and ecology lab activities are sometimes fairly dirty, because we bring in materials from the field. At the end of each class period you should wipe down the lab bench with a paper towel and water. Any table that needs to be cleaned by the TAs or Professor will lose participation points for that day.

GRADING SCHEME: There are four lab reports and one oral presentation, all are worth an equal portion of your final grade. Your grade will be deducted for time missed in lab (e.g., arriving late or leaving early) or failure to attend.

DROP POLICY / WAIT LIST The Division of Biology requires that all students attend the 1st meeting of any lab course, otherwise you will be dropped from the course. The drop policy for lab courses is different than for lecture courses. Any student that drops after the end of the second lab meeting will have a "W" on their transcript. The Division of Biology has an automated, first on, first off policy regarding the wait list. The Division's policies are described at:
http://biology.ucsd.edu/undergrad/course/waitlist.html.
If you are on the wait list and hope to add, you should participate in ALL course activities, exactly as if you were enrolled.

WRITING Writing will be a large portion of your grade. Good writing takes practice and effort, just like any skill. Scientific writing has specific expectations, and practice is the only way to improve. We will discuss the findings that relate to each lab report in class, and will try and give as many suggestions as possible in the grading process. Grading expectations will get stricter as the quarter progresses as we expect you to incorporate this feedback. There are no re-writes. Labs will be graded both on specifics (did you address all the hypotheses?) and on the general qualities (did you convey the information in the clearest, most concise manner possible?). Because of this, there will often be more than one right way to do things. Your overall ability to communicate, through words, statistics, and graphics, will count for a lot. If you are concerned about your writing, have a friend read it through for clarity. They can't write your report for you, nor can you copy theirs, but they can give you friendly comments with the goal of improving your writing just as professional scientists solicit friendly reviews of their work.

GRADING Your grade for the course will be based on a total of 100 points. 20% will be for each of the four written lab reports, and 20% for the oral presentation.

For lab reports, content will account for 75% of the grade, based on correctness and completeness of information conveyed in 5 equally weighted components: 1) introduction, 2) description of the methods, 3) presentation of results, and 4) interpretation of discussion, with 5) proper citation of references. The remaining 25% will be based on clarity: writing concisely without unnecessary information, in complete sentences, with proper spelling and grammar. All assignments are due by the start of the class meeting period on the due date, late assignments will lose 10% for each day the assignment is late (ex. 1 day and 1 hour late = 10% reduction in the grade).

In addition to lateness, your grade on lab reports will be reduced for missing labs, arriving late or leaving early. For instance, each lab report is based on 3 class periods. If you miss all or part of one, your grade will be reduced by 1/3, meaning your maximum possible grade will be 67%. Missing class is very costly to your grade.

Finally, in week 10 you will make an individual presentation on a specific topic in published papers from the scientific literature, worth 20% of your final grade. More information on assignments, including rubrics, will be found on TritonED.

ACADEMIC INTEGRITY

Students are expected to do their own work. Cheating will not be tolerated and all suspected cases will be handed over to the Academic Integrity Coordinator. *Any student caught cheating will fail the course*. Submitting any material written by someone else (copied from a lab member, or from any on-line source) is a violation of academic integrity. For information on academic integrity at UCSD: https://students.ucsd.edu/academics/academic-integrity/index.html

Schedule

Date	Topic	Reports
January 8	Introduction to the course & Safety lecture	
January 10	Introduction to Freshwater Ecology- Physical, chemical and biological properties of water	
January 15	NO CLASS- MLK DAY	
January 17	Lab 1: Field Trip,: Miramar and Lake Murray Reservoirs (Field work)	
January 22	Lab 1: Zooplankton and Phytoplankton identification and measurement (Lab Work)	
January 24	Lab 1: Lake lab work and data analysis	
January 29	Lab 2: Dawson Creek and San Diego River sampling, (Field work)	**Lab 1 Report Due**
January 31	Lab 2: Stream invertebrates (Lab work)	
February 5	Lab 2: Stream lab work and data analysis	
February 7	Lab 3: Estuarine sampling (Field work)	**Lab 2 Report Due**
February 12	Lab 3: Estuarine invertebrates (Lab work)	
February 14	Lab 3: Estuarine lab work and data analysis	
February 19	NO CLASS- PRESIDENTS DAY	
February 21	Lab 4: Nutrient, energy and grazer limitation (Field and lab work)	**Lab 3 Report Due**
February 26	Lab 4: Nutrient, energy and grazer limitation (Lab work)	
February 28	Lab 4: Experiment lab work and data analysis	
March 5	Lab 5: Water chemistry: N, P and chlorophyll analysis (Lab work)	
March 7	Lab 5: Final data analysis and oral presentations	
March 12	Oral presentations	**Lab 4 Report Due**
March 14	Oral presentations	