

## **BIOLOGY 13.01 and 13.02 – MARINE BIOLOGY – FALL 2016**

**4 hours lecture/3 hours lab (5 units)**

- **Lecture in MLC103**      **Tues AND Thurs: 9:30 am – 11:20 am**
- **Lab in S51**      **Tues (13.01) OR Thurs (13.02): 11:30 am – 2:20 pm**

**Instructor:** Jason Bram   **Office:** Bldg. S5, Room S51a

**Office Hours:** Mon & Wed 10:30-11:30; Tues 2:30-3:30 pm; Thurs. 8:30 - 9:30, and always by appt.

**E-mail Address:** bramjason@deanza.edu

**Phone #:** 408-864-8654

**Instructor webpage:** <http://www.deanza.edu/faculty/bramjason> (not important unless you like pictures of cute dogs and a little info about me!)

**Catalyst webpage:** <https://catalyst.deanza.edu/> (VERY important!)

**Connect webpage:** <http://connect.mheducation.com/class/j-bram-fall-2016> (IF YOU WANT EXTRA PRACTICE!)

**INTRODUCTION:** Welcome to Biology 13 (Marine Biology) and the study of the wondrous array of life and adaptation in our oceans! For most students this is an astounding, interesting, sometimes awe-inspiring and hopefully quite fun view of marine biology as we know it. This 5-unit course is an introduction to the wonderful diversity of marine life on earth. The course is intended for **non-biology majors**, and my goal as your instructor is to help you achieve a good understanding of the basic principles of marine life on earth! I also hope that you will develop a lifelong appreciation of marine biology - you will see for yourself that understanding marine biology makes the world a much more interesting place!

**COURSE DESCRIPTION:** An introduction to marine biology as a branch of the biological sciences and to its basic unifying principles, with selected application to the scientific method, physical and chemical oceanography, marine animals, marine plants, and marine ecology with major emphasis on the natural history of marine life. Additionally, various oceanic habitats, such as bays estuaries, and open oceans are described. This course satisfies the De Anza General Education Requirement in Natural Sciences and is transferable to both UC and CSU as a general education science course. This course does **NOT** apply towards a major in biology.

**We will be using the Catalyst webspace to:**

1. keep up on course announcements and deadlines (as a student you are responsible for any info/announcements made in class and/or put on Catalyst)
2. track your grade in the course
3. access course files like greensheets, lectures, labs, videos, and study guides.
4. Complete and turn in your homework assignments

**Please let me know as soon as possible if you have any questions/problems with accessing Catalyst.**

**We will be using the Connect webspace (NOT MANDATORY!) to**

1. give you an added resource to aid in your success!!!
2. Provide a cheaper option for your textbook!!!

**PLEASE NOTE THAT IF YOU PURCHASE THE TEXTBOOK FROM THE BOOKSTORE (NOT MANDATORY!), IT COMES WITH CONNECT. Please let me know as soon as possible if you have any questions/problems with accessing Connect.**

**ADVISORY:** English Writing 100B, and Reading 100 (or Language Arts 100) or English as a Second Language 24 and 72 (or ESL 4)

**TEXT: A textbook is required, but you have some choices!!!**

**BEST CHOICE:** Buy Marine Biology by Peter Castro and Michael Huber 10<sup>th</sup> Edition with Connect 2016 McGraw Hill (ISBN 9780078023064). \$142.90 new (107.20 used) at the bookstore. Or rent it! \$63.60 for a new rental, \$49.90 for a used rental.

The best way to use the text is as a reference. My tests come from my lectures, AND MY LECTURES MAINLY COME FROM THIS BOOK, so if there's a concept that I go over in lecture that you need further information on, the textbook is a GREAT resource! In addition, the textbook comes with Connect, which will provide you extra practice to help you prepare for the exams.

**SECOND BEST CHOICE:** Buy the e-book with Connect for \$85 directly through the publisher. The positive is that you save over \$50 and you get access to the full book. The negative is that it's an ebook and you will lose access to it at some point after the quarter. I personally like having a book that I can touch and refer to later, but this option may work for you.

**THIRD BEST CHOICE:** Have an older edition of this book or get the current edition from some other source, but there are no guarantees that it will have the same material.

My suggestions are simply that: suggestions. You need to buy the book that's best for your particular situation.

**LAB BOOK:** In regards to the lab book, I try to keep costs as low as possible so your labs will be available on Catalyst for no charge. You can print them out or view them electronically via your tablet or laptop. I HIGHLY SUGGEST not using your smart phone to view them unless you want to squint a lot. Phone screens are too small!!!

If printing will be difficult or inconvenient for you, you can also purchase a hard copy of the lab book at the bookstore for only \$9.25.

**COURSE REQUIREMENTS AND EXPECTATIONS:** You are expected to attend every class meeting. If you miss a class, it is your responsibility to obtain information and materials dispensed in that class period. Attendance and participation will be the first criteria considered when determining "borderline" grades. In my experience, those students who do not attend class are the students who do not fulfill their potential regardless of their level of understanding. I'm telling you, if you don't come to class, you are really only hurting you and I hate to see people in pain, so come to class!!! Disruptive behavior will not be permitted in lecture. **Basically, be nice to and respectful to everyone!** Here are some general rules that will help you be successful in the course and limit distractions to other students and me:

- Arrive to class on time, and do not leave early.
- No use of cell phones, MP3 players, text messaging, or pagers during lecture.
- Do not converse with your classmates (or yourself!) while the instructor or other presenter is addressing the class. If you have a question or discussion item, please raise your hand.

**I WELCOME AND ENCOURAGE YOU TO ASK ME QUESTIONS DURING LECTURE!!! IF I DON'T KNOW THE ANSWER, I WILL FIND YOU THE ANSWER!**

<u>ASSIGNMENTS</u>	<u>DATE</u>	<u>POINTS</u>
Three Lecture Exams:	Oct. 20, Nov. 17, Dec. 13	100 pts. each
(non-cumulative, high score is counted twice) 400 points total for lecture exams!!!		
Two Lab Exams:	Oct. 25/27, Dec. 6/8	75 pts. each
Chapter Quizzes (on Catalyst) various dates		up to 50 pts. (up to 5 pts. each quiz)
Lab Participation:		40 pts. (5 pts. for each lab)
Group Project Presentations:	Nov. 29/Dec. 1	30 pts.
<b>670 TOTAL POINTS POSSIBLE!!!</b>		

## EXTRA CREDIT POINTS

Day Field Trips (2 offered in the quarter) 10 pts. per field trip

Camping Trip up to 20 pts.

Participation up to 20 pts.

Paper (turn it in as an Attachment via e-mail) up to 20 pts.

CCP Program (opportunity will be presented early in the quarter) up to 20 pts.

<http://deanza.edu/ccpartners/>

**Note: Students who exceed 4 absences (LECTURE & LAB) are not eligible for the Participation extra credit. YOU CANNOT EXCEED 60 PTS. OF EXTRA CREDIT FOR THE QUARTER!!!**

**GRADING:** Final letter grades shall be assigned in accordance with the following percentages:

<b>A+</b>	=	95% or higher	637 points or higher
<b>A</b>	=	91-94.9%	610-636
<b>A-</b>	=	88-90.9%	590-609
<b>B+</b>	=	85-87.9%	570-589
<b>B</b>	=	80-84.9%	536-569
<b>B-</b>	=	76-79.9%	509-535
<b>C+</b>	=	71-75.9%	476-508
<b>C</b>	=	63-70.9%	422-475
<b>D</b>	=	53-62.9%	355-421
<b>F</b>	=	52.9% and below	354 points or lower

I do not curve the grades for the course. IT IS IN YOUR BEST INTEREST NOT TO SETTLE ON A GRADE!!! EACH OF YOU DESERVES THE BEST GRADE THAT YOU CAN ACHIEVE!!! DO NOT HESITATE TO TALK TO ME IF YOU ARE FINDING YOURSELF LOST, CONFUSED, OVERWHELMED, BORED OR SCARED ABOUT YOUR GRADE OR ANY OF THE INFORMATION PRESENTED AT THE EARLIEST POSSIBLE SIGN THAT YOU ARE HAVING DIFFICULTY.

**EXAMS:** Each of the exams will consist of a combination of multiple choice, short answer, matching, and fill-in-the-blank questions.

1. The lecture exams will only cover the material within that time period (i.e. the 2<sup>nd</sup> lecture exam will only cover the material presented AFTER the 1<sup>st</sup> exam).
2. I will be providing reviews for the lecture exams for you to study from, but in no way are they substitutes for coming to class!!!
3. You CANNOT make up an exam!!! This is not fair to the other students.
  - a. It is my experience that certain students always seem to have emergencies come up on exam days. I have found that when I'm "nice"

to students, they abuse the privilege. Please be a responsible individual!

- b. In saying all this, if an uncontrollable emergency or personal crisis arises, I occasionally will allow make-ups for **responsible** individuals, but they are few and far between. If something does happen, let me know the situation as soon as you can, and I will be more flexible.

i. IF THIS HAPPENS, IT CAN ONLY HAPPEN ONCE! IF IT HAPPENS MORE THAN ONCE, YOU HAVE MORE IMPORTANT THINGS TO WORRY ABOUT THAN THIS COURSE!!!

- 4. For the lab exams, seating will be assigned.

**IMPORTANT NOTES REGARDING THE PROJECT PRESENTATION:** This will be a group project, and you will receive a group grade. You are required to orally present (as a group) a 4-6 minute seminar based on a topic in marine biology. A video/other creative activity may be done in lieu of the presentation. This project will be gone over in class around the middle of the quarter. As this is a group presentation, anyone who doesn't participate equally in their group will receive a 0. It is the group's responsibility to let me know if this occurs.

#### **Project Presentation rubric**

	Great	Okay	Doesn't do it
Does the group structure their presentation effectively?	6	4	1
Does the group seem to understand what they are presenting?	6	4	1
Does the group effectively use visual aids? (i.e. Powerpoint)	6	4	1
Does the group have good content?	6	4	1
Does the group provide three usable questions for lab exam?	6	4	1
(must be multiple choice with at least 3 choices)			

#### **IMPORTANT NOTES REGARDING THE LABORATORY ASSIGNMENTS AND THE LAB ITSELF:**

1. No eating, drinking, smoking, or sewing (especially no sewing!) allowed in the laboratory!
2. You are expected to attend all labs. If more than two labs are missed without a reasonable excuse, you may be dropped from the course!
3. If you miss a lab, you are responsible for finding out what you missed. If you don't, your lab test grade will most likely suffer tremendously! You **MUST** attend the lab that you are signed up for unless you clear it with me beforehand. If you miss the Tuesday lab for example, you cannot make up the lab by attending the Thursday lab **UNLESS** you have cleared it with me in advance. If you do show up for the wrong lab, you **WILL NOT** get credit for attending **UNLESS** you have cleared it

with me in advance. I've had too many Tuesday lab students "magically" start coming to the Thursday lab on exam weeks.

4. Grading: You are responsible for attending lab and completing all the work required in lab. Your attendance in the lab won't be recorded until the end of class and you show me that you have completed your work.
5. The lab tests will be based solely on the labs that we do during class time, so it's definitely in your best interest to be there!!!
6. Like the lecture exams, the lab exams are non-cumulative. Woo hoo!

**SCHEDULE:** The following schedule may be modified during the course at my discretion. Check Catalyst for field trip date updates!!!

<b>DATE</b>	<b>LECTURE TOPIC</b>	<b>LAB</b>
9/27	Intro/The Science of Marine Bio. (Chapt. 1)	Lab #1 -The Scientific Method/Metrics
9/29	The Science of Marine Bio. (Chapt. 1)	Lab #1 -The Scientific Method/Metrics
10/4	The Sea Floor (Chapt. 2)	Lab #2 - Microscopes/Plankton
10/6	Ocean Chemistry (Chapt. 3)	Lab #2 - Microscopes/Plankton
10/11	Ocean Chemistry (Chapt. 3)	Lab #3 - Seaweeds + Osmosis
10/13	The Microbial World (Chapt. 5)	Lab #3 - Seaweeds + Osmosis
10/18	Seaweeds (Chapt. 6)	Lab #4 - Invertebrate Diversity & Kelp Beads/Lab Exam Review
10/20	<b>LECTURE EXAM #1</b> (includes material covered 9/27 - 10/18)	
		Lab #4 - Invertebrate Diversity & Kelp Beads/Lab Exam Review
10/25	Marine Invertebrates (Chapt. 7)	<b>Lab Exam #1 (Labs 1-4)</b> Lab #5- Invertebrate Dissections
10/27	Marine Fishes (Chapt. 8)	<b>Lab Exam #1 (Labs 1-4)</b> Lab #5 - Invertebrate Dissections
<b>Friday, October 28<sup>th</sup> - October 30<sup>th</sup> Camping Trip (Intertidal, Sandy Beach, Elephant Seals) - Be at site 3:00 pm or later.</b>		
<b>Sunday, October 30<sup>th</sup> - Monterey Bay Aquarium Trip - Be at Aquarium by 12:00 pm</b>		
11/1	Reptiles, Birds, Mammals (Chapt. 9)	Lab #6 - Beach Hoppers/Natural Selection
11/3	Marine Ecology (Chapt. 10)	Lab #6 - Beach Hoppers/Natural Selection
11/8	Marine Ecology (Chapt. 10)	Lab #7 - Estuary Field Trip
11/10	Between the Tides (Chapt. 11)	Lab #7 - Estuary Field Trip
<b>Sunday, November 13<sup>th</sup> - Pigeon Point Intertidal Trip - Be at site by 3:00 pm!!!</b>		
11/15	Estuaries (Chapt. 12)	Lab #8 - Vertebrate Diversity/Dissections
11/17	<b>LECTURE EXAM #2</b> (includes material covered 10/25 - 11/15)	
		Lab #8 - Vertebrate Diversity/Dissections
11/22	The Shelf (Chapt. 13)	Study Session/Project Presentation Time
11/24	<b>NO LECTURE - THANKSGIVING!!!</b>	<b>NO LAB! GO HUG A TURKEY!</b>
11/29	Coral Reefs (Chapt. 14)	Project Presentations/Lab Exam Review
12/1	The Surface (Chapt. 15)	Project Presentations/Lab Exam Review
12/6	The Ocean Depths (Chapt. 16)	<b>Lab Exam #2 (Labs 5-8, Presentations)</b>
12/8	The Ocean Depths (Chapt. 16)	<b>Lab Exam #2 (Labs 5-8, Presentations)</b>
<b>Tuesday December 13<sup>th</sup> FINAL EXAM (9:15 am - 11:15 am) IN THE LECTURE HALL!!!</b> (includes material covered 11/22 - 12/8)		

**ALL ASSIGNMENTS/EXTRA CREDIT/EVERYTHING MUST BE SUBMITTED VIA E-MAIL BY 11:59 PM ON DECEMBER 13<sup>TH</sup>!!!**

**EXTRA CREDIT:** THIS IS NOT REQUIRED!!! However, I highly suggest doing all of the extra credit or you really only have yourself to blame for not receiving the grade that you want to get in this course!

You can earn up to 60 points by doing the following:

1. Participation (20 points maximum): These are my subjective points and are based on attitude, completed assignments, effort, and all around being a positive addition to the class. If you do this, you can safely assume that you will receive all of these points. These points are designed to bump deserving students up to the next highest grade as well as to eliminate "begging" at the end of the quarter. These points WILL NOT be posted to Catalyst, as many students will not need "bumping" up or that "bump" won't push the student to the next highest grade. Please note that these points can be adversely affected by anything that doesn't show responsibility as a student.
2. Scientific paper summary & opinion paper (20 points maximum):
  - a. Write a 2-3 pg. double-spaced summary of a provided scientific paper (papers will be posted to Catalyst) (up to 10 points)
  - b. Write a 1-2 pg. double-spaced opinion of the paper or the issue that the paper brings up. (up to 10 points).
  - c. The paper **MUST** be in either Microsoft Word, Open Office, Google doc (make sure you give me permission!) or PDF format. I won't be able to open them otherwise.

**IF YOU DO NOT FOLLOW THE INSTRUCTIONS ABOVE, POINTS WILL BE DEDUCTED FROM YOUR PAPER.**

3. By signing up for the CCP Program (someone will be coming by to describe this opportunity) - up to 20 points.
4. By attending the extra credit field trips. Each day field trip (Monterey Bay Aquarium, Pigeon Point Intertidal) will give you 10 points of extra credit. The overnight camping trip will give you up to 20 points of extra credit.

**YOU CANNOT EXCEED 60 PTS. OF EXTRA CREDIT FOR THE QUARTER!!!**

**Students who exceed 4 unexcused absences (LECTURE & LAB) are not eligible for the Participation extra credit.**

**CHEATING:** Absolutely no form of academic dishonesty or plagiarism will be tolerated. It is unethical, unfair, and a violation of your own intelligence as well as being lame, slimy, vile, and pathetic. **Anyone caught cheating will be subjected to the most severe academic penalties. And you'll really feel guilty, so don't do it!**

**ESSENTIAL STUDENT MATERIALS:** Scantrons, #2 pencils, e-mail, textbook, and the labs (either printed out or on your tablet/laptop).

**WITHDRAWAL AND YOUR CONCERNS ABOUT YOUR GRADE:** Sunday, October 9<sup>th</sup> is the last day to drop the course and receive a refund. The last day to withdraw from the course (without a "W") is also Sunday, October 9<sup>th</sup>. The last day to withdraw from the course (with a "W") is Friday, November 18<sup>th</sup>. IF YOU ARE CONCERNED ABOUT YOUR GRADE, PLEASE COME TALK TO ME AT THE EARLIEST POSSIBLE TIME SO THAT WE CAN DISCUSS YOUR OPTIONS. It is to your great advantage to discuss with me (I don't bite!) any problems you are having early in the quarter so that I can try and assist you as much as possible. **IT IS YOUR RESPONSIBILITY TO OFFICIALLY WITHDRAW SO THAT YOUR TRANSCRIPT RECORD WILL NOT BE ADVERSELY AFFECTED.**

**Note to students with disabilities:** If you have a disability-related need for reasonable academic accommodations or services in this course, provide (name of Instructor) with a **Test Accommodation Verification Form (also known as a TAV form)** from Disability Support Services (DSS) or the Educational Diagnostic Center (EDC). Students are expected to give five days notice of the need for accommodations. Students with disabilities can obtain a TAV form from their DSS counselor (864-8753 DSS main number) or EDC advisor (864-8839 EDC main number).

**PLEASE NOTE:** I keep exams for 1 year and other work for 1 quarter.

**A NOTE FROM THE BHES DIVISION:**

The BHES Division is very pleased to announce that we have a BHES dedicated Counselor - Tom Nguyen. Tom can help you set up an education plan and answer questions you may have.

Tom is located in KC218 and can be reached by email at [nguyentom@fhda.edu](mailto:nguyentom@fhda.edu) or via phone - 408.864.8971.

You are required to comply with all rules and regulations as outlined in the Biological, Health and Environmental Sciences Division Student Handbook as well as those of De Anza College (see the De Anza College Catalog) and the FHDA Community College District. The BHES Division Student Handbook is available on-line at: <http://www.deanza.edu/bhes/StudentHandbook.pdf> as well as in the Science Center and Kirsch Center for Environmental Studies Resource Centers in hard copy. All information in the Student Handbook applies in this course and students will be held accountable for this

information. In addition to outlining expectations of classroom behavior, this handbook contains many helpful resources for students as well as ideas to help students succeed in the sciences!

### **STUDENT LEARNING OBJECTIVES:**

1. Appraise the physical and chemical properties of the ocean and investigate their impact on marine life.
2. Compare and contrast the anatomy, behavior, reproduction, and ecology of selected marine invertebrates, vertebrates, plants, and protists.
3. Examine marine biology as a branch of the biological sciences and its relation to the scientific field and how the scientific method is used.

### **SOME EXTRA NOTES AND HINTS TO BE A SUCCESSFUL COLLEGE STUDENT (from my own experience)!**

1. **SHOW ME THAT YOU CARE ABOUT YOUR GRADE MORE THAN I CARE ABOUT YOUR GRADE!**
2. **ATTEND CLASS!!!**
3. If you miss a class, get the notes from another student. If it's still unclear, then ask your professor!!!
4. Don't be afraid of a professor's office hours!
5. Don't be afraid of your professor! We are generally reasonable people! Talk to me! Ask me questions, no matter how stupid you may think they are!!!
6. Make your professor respect you! (see #1)
7. Don't procrastinate!
8. Remember that in the end, it is your responsibility to understand the assignment, not for your professor to explain it better!
9. Feel free to change your major!
10. Don't give your professor attitude. Remember that even if they're the biggest jerk ever, they have the power. Think of them as your boss. If you have a disagreement, bring it up after class/in office hours. (See #5)
11. Remember that there is some subjectivity in determining your grade.
12. Don't let up!
13. Being a student should be your #1 priority (if possible). **BEING A STUDENT IS YOUR EMPLOYMENT.** This of the college as the place that you work. Unfortunately, you don't get any wages except for the grades you receive, but in the end, those grades can lead to a much better future than a few bucks can!
14. Don't be in a hurry - what's another quarter/semester?
15. Study in a way that's best for you, whether that be in groups, at Starbucks, in a library, cramming, whatever!!!
16. Take advantage of extra credit!
17. Take advantage of opportunities presented (i.e. review sessions/study guides)!
18. A W is better than a D or F!!!
19. It's a competitive world. Be competitive in college! Don't settle!!!