

Summer 2019  
**GS 108: Oceanography Syllabus**  
4 Credits  
MTWR 1:00 PM – 3:30 PM, MH 114  
CRN 15881

Instructor name: Katharine Solada  
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Office hours: Email appointments  
Office number: Madrone Hall, MH-111

End of Week 4 – Week 5 will be taught by Ben Stanley: [stanleb@linnbenton.edu](mailto:stanleb@linnbenton.edu)

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### **Course Description**

Introductory lab science course that examines the four major categories of oceanographic study: geological, physical, chemical and biological. Emphasizes the geological and geophysical aspects of the sea floor; physical and chemical properties of sea water, waves, tides, ocean circulation and currents; marine ecosystems; and ocean utilization. Prerequisite: Math 75. Counts as Physical Science Perspective for AS/OSU and Science with Lab for AAOT. The course articulates to OSU as OC 201 and counts *as a Physical Science Perspective at OSU and the Science/Math requirement for AAOT.*

### **Course Materials**

- Textbook (OPTIONAL): Essentials of Oceanography by Trujillo and Thurman, 12<sup>th</sup> ed., ISBN 978-0-134-07354-5, Pearson Publishing (older versions OK, just contact me)
- GS108 Lab Manual
- Access to Moodle

### **Student Learning Outcomes**

1. Describe key events in the history of science, with particular emphasis on oceanography, and their impact on society
2. Describe and apply the process of scientific inquiry
3. Solve scientific problems using quantitative methods
4. Describe the geological characteristics of the seafloor
5. Explain interactions between the physical, chemical, and biological ocean systems

### **Behavior and Expectations**

You are held accountable to the [Student Code of Conduct](#), which outlines expectations pertaining to academic honesty (including cheating and plagiarism), classroom conduct, and general conduct.

## **Attendance**

Coming to class is essential, please prearrange any absences you may have with me. Missing class will affect your participation grade and overall grade. You are allowed to miss two unexcused classes, after that your overall grade will be reduced by 10% for each unexcused class missed. If you miss more than 3 labs, you will fail the course.

## **Use of cell phones and laptops**

Please put phones on silence and put away during class. If you need to use your phone, please step out of the classroom. You are allowed to take notes on laptop or tablet, but if I catch you using it for non-classroom activities you will lose that privilege.

## **Concerning cheating and plagiarism**

I encourage group work on labs and activities, however, your answers must be expressed in your own words, numbers, etc. Exams and quizzes will generally be closed book, closed note, and taken individually. Any copying or cheating will result in a zero on that assignment and possible recommendation to LBCC administration for further consequences.

## **Exams and Assignments**

There will be 3 major exams, with occasional quizzes and worksheets that will be completed in class. Study guides will be provided for all exams. Quizzes and worksheets will cover recent readings and lectures.

## **Due Dates**

### **Labs**

Each week there will be a lab. Make sure to bring your lab manual to class. Labs are due the following Tuesday, although you will most likely finish in class. Late lab reports are subject to a 15% per day past due grade reduction. Labs cannot be made up, but your lowest score will be dropped. If you miss more than 3 labs you will fail the course.

### **Homework and Quizzes**

There will be 10 Moodle assignments. You will complete these assignments on Moodle. These are always due on Sunday at 11:59 pm. Late work cannot be accepted, but your lowest HW score will be dropped. If you believe Moodle miscalculated your homework grade, please contact me and I will review your assignment. Quizzes will be given at random during class.

### **Exams**

If you know you will be absent on a test day, please contact me at least a week in advance to schedule a make-up in the Student Assessment Center in RCH-111. Once tests are returned to the class they cannot be made up. The final exam can only be taken during finals week.

## **Grading**

Grades will be posted on Moodle. Coursework will be graded as follows:

Exam 1 & 2	20 %
Labs (lowest dropped)	30 %
Homework & Quizzes (lowest HW dropped)	20 %
Final Exam	20 %
In-class participation/activities	10 %
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Total	100%

Final letter grades will be assigned as follows (I do not round grades up):

A	= 90 - 100 %
B	= 80 – 89.9 %
C	= 70 – 79.9 %
D	= 60 – 69.9 %
F	= Below 59.9 %

### **Exams 1 & 2**

Exam 1 covers weeks 1-3. Exam 2 covers weeks 4-6.

### **Final Exam**

This exam is comprehensive and covers the entire 10 week course. Early finals can only be taken during finals week.

### **Participation Grade**

To earn participation points, make sure to attend class, complete in-class activities, and participate in classroom discussions.

### **Incomplete grades**

(IN) will only be considered if a student has talked to me in advance, and a signed agreement between the student and myself is completed. IN grade are assigned only if the student has a good reason for making the request, has only the minority of coursework to complete, and has scored a C or better on work that has been submitted.

## **Changes to the Syllabus**

I may have to change the contents of this syllabus due to unforeseen circumstances. You will be given notice of relevant changes in class, through a Moodle Announcement or through LBCC e-mail.

## **College Policies**

### **LBCC Email and Course Communications**

You are responsible for all communications sent via Moodle and to your LBCC email account. You are required to use your LBCC provided email account for all email communications at the College. You may access your LBCC student email account through Student Email and your Moodle account through Moodle.

### **Disability and Access Statement**

LBCC is committed to inclusiveness and equal access to higher education. If you have approved accommodations through the Center for Accessibility Resources (CFAR) and would like to use your accommodations in this class, please talk to your instructor as soon as possible to discuss your needs. If you believe you may need accommodation but are not yet registered with CFAR, please visit the CFAR website at [www.linnbenton.edu/cfar](http://www.linnbenton.edu/cfar) for steps on how to apply for services or call 541-917-4789.

### **Statement of Inclusion**

To promote academic excellence and learning environments that encourage multiple perspectives and the free exchange of ideas, all courses at LBCC will provide students the opportunity to interact with values, opinions, and/or beliefs different than their own in safe, positive and nurturing learning environments. LBCC is committed to producing culturally literate individuals capable of interacting, collaborating and problem-solving in an ever-changing community and diverse workforce.

### **Title IX Reporting Policy**

If you or another student are the victim of any form of sexual misconduct (including dating/domestic violence, stalking, sexual harassment), or any form of gender discrimination, LBCC can assist you. You can [report](#) a violation of our sexual misconduct policy directly to our Title IX Coordinator. You may also report the issue to a faculty member, who is required to notify the Coordinator, or you may make an appointment to speak confidentially to our Advising and Career Center by calling 541-917-4780.

### **Campus Police/Emergency Resources**

You may review emergency services and resources at the LBCC [Public Safety website](#). Campus Safety can be reached using the 'Code 2' button on any campus phone or by dialing x411 on campus or (541) 917-4440 off campus. Dial 911 for off campus emergencies.

## **Campus Resources**

### **Learning Center**

The Learning Center provides academic support and a comfortable place to study. It is located on the second floor above the Library. It also provides free tutoring services for all classes.

### **Library**

Computers and printing available

**Science Help Desk**

Is located in the atrium on the first floor of Madrone Hall and is manned 20 hours per week.

**A FINAL NOTE:** I want all my students to succeed in this course. Do not hesitate to ask me or your peers questions, this class is a safe environment that encourages all learning. I hope you all enjoy this course! 😊

## Class Schedule

**Remember: Moodle HW due Sundays at 11:59 pm**

**Labs are due the following Monday**

**Videos are located on Moodle**

Date	Class Topic	Readings/Videos Due
<b>Week 1</b>		
24-Jun	Class Intro/Navigation	Chapter 1 <u>OR</u> Earth Formation <u>and</u> Water Planet
25-Jun	<b>Lab 1:</b> Navigation and Marine Charts	Latitude and Longitude
26-Jun	Plate Tectonics	Chapter 2 <u>OR</u> Earth's layers and isostasy <u>and</u> Plate tectonic basics
27-Jun	Evidence for Plate Tectonics <b>Lab 2:</b> Geology of the Seafloor	Paleomagnetism
<b>Week 2</b>		
1-Jul	Marine Features and Sediment	Chapter 3 & 4 <u>OR</u> Seafloor features <u>and</u> Ocean Sediments
2-Jul	<b>Lab 3:</b> Marine Sediment	
3-Jul	<b>EXAM 1</b>	
4-Jul	NO CLASS	
<b>Week 3</b>		
8-Jul	Water and Seawater <b>Lab 4:</b> Seawater Properties	Chapter 5 <u>OR</u> Water Molecule Shape <u>and</u> Salty Seas
9-Jul	Salinity and Air-Sea Interactions	Chapter 6 <u>OR</u> Atmospheric gases, heat and pressure <u>and</u> Atmospheric circulation
10-Jul	<b>Lab 5:</b> Coriolis Effect	
11-Jul	Ocean Circulation and Wave Dynamics	Chapter 7 & 8 <u>OR</u> Surface currents <u>and</u> Thermohaline currents <u>and</u> Wave Basics

<b>Week 4</b>		
15-Jul	<b>Lab 6:</b> Ocean Circulation	
16-Jul	<b>EXAM 2</b>	
17-Jul	Tides <b>Lab 7:</b> Tsumani	Chapter 9 <u>OR</u> Tide causes <u>and</u> Big Waves
18-Jul	Classifying Marine Life	Chapter 12 & 13 <u>OR</u> Nekton, benthos, plankton <u>and</u> Marine productivity and plankton
<b>Week 5</b>		
22-Jul	Climate Change <b>Lab 8:</b> Primary Productivity	Chapter 16 <u>OR</u> marine environmental challenges <u>and</u> climate change and sea level rise
23-Jul	<b>Lab 9:</b> Field Trip to OSU Marine Repository	
24-Jul	Final Exam Review <b>Lab 10:</b> Ocean Acidification	marine oxygen and CO2 cycles <u>and</u> carbonated oceans
25-Jul	<b>FINAL EXAM</b>	