

MARE 201L: Oceanography Lab Spring 2021

Section 001 Instructor: Lisa Parr

Class meets: Thursdays 1:00 pm – 4:50 pm (1300-1650)

Office: MSB 105 email: lparr@hawaii.edu

Class zoom link: <https://hawaii.zoom.us/j/93731577258>

Meeting ID: 937 3157 7258 Passcode: Parr201L

Office Hours: By appointment on Zoom, plus I'll schedule a weekly session that fits everyone's schedule

Required Text: None

Required Supplies: You need to have these by the 3rd class meeting. If yours are delayed, let me know ASAP, and you can borrow supplies until yours arrive. You'll be using the charts almost weekly over the course of the semester.

1. A [paper chart of Hilo Bay](#) – best price we've found = approx. \$20 on Amazon, free shipping with Prime (*NOT the waterproof one, and not the small format one* – the regular paper ones are better / easier to erase and reuse)
2. Either a pair of dividers (about \$20-\$30) or a pencil compass for drawing/Geometry (\$5-\$10)

Like [these](#) – better than some because they don't get loose over time

Or [like this, if a pencil compass](#) (any pencil compass will do)

3. A plastic triangle 45/90 – either [one made for navigation](#) (\$15-\$25) or [one made for drafting/drawing](#) (\$4-\$12) – can be clear or opaque or colored – I like the 10" size, but the 8" will work fine too. MUST be 45/90 (not 30/60)

4. A 12" ruler (plastic or wood or metal).

No link – just a regular old ruler that isn't too flimsy

The Course:

This course covers the basic techniques of oceanography including marine charts and navigation; bathymetry; marine sediments; techniques for measuring salinity, temperature, dissolved oxygen, and surface and deep circulation; light and gas in seawater; wave dynamics; tides; and plankton sampling and identification.

Course Format:

This course is designated as a hybrid, so we will be meeting either over zoom, in the quad between the Marine Science Building and Wentworth, or on the boat. **You need to be in Hilo to take this course;** we won't be able to accommodate remote students. For weeks we are on the boat, we will be meeting at Suisan Fish Market and getting on the boat there. **You will be responsible for getting yourself to the Suisan boat dock** located at 93 Lihiwai St, Hilo, HI 96720. Class labs will meet via Zoom for approximately 30 minutes, and then students will come to lab to collect data in 2 shifts. Boat labs will be explained in advance, and students will meet at Suisan in 3 shifts.

Student Learning Outcomes: By the end of the course students will be able to:

1. Locate and use oceanographic information from reliable resources.
2. Using marine charts to plot geographic positions (latitude and longitude) and courses using standard navigational practices.
3. Use standard sampling methods and oceanographic equipment, in the field and in the lab, to collect oceanographic data on temperature, salinity, density, light, dissolved gases, currents, sediments, waves, and tides
4. Organize, analyze, and interpret collected oceanographic data
5. Carry out measurements and calculations typically used in oceanographic research, including conversions, distance calculations, population growth rates of marine organisms, measures of central tendency, percentages and cumulative percentages, current and drogue speeds, values related to secchi data
6. Form logical conclusions from oceanographic data and present the conclusions in writing, and in the form of graphs and tables

Grading:

- **Lab exercises/assignments** – which will mostly be submitted in hard copy form, and **Pre-labs**, which will be assessed in quiz form on Lulima. Together, these will be worth 85% of your grade
- **Final** - completed via the Tests and Quizzes function on Lulima. This will be worth 15% of your grade.

Grading Scale – cut offs

92% A	88% B+	78% C+	60% D
90% A-	82% B	72% C	< 60 F
	80% B-	70% C-	

Course Policies

You are expected to attend all labs and to be in class on time. You must attend the lab section in which you are enrolled. Lab make-ups are difficult to arrange, and will only be considered for illness/emergencies, with **PRIOR** notice. **Contact me in advance of the class if you are sick/think you will need to miss.** You will receive a “0” for any missed labs.

All lab **homework** due dates will be posted and will usually be due by the beginning of the following week’s lab period. Homework/labs are due at the beginning of class for on-time credit, unless otherwise noted in the assignment. Some exercises will be completed in class.

The assignments tab in Lulima will have all the information you need to complete each lab.

Pre-labs will be due via Lulima by 10 minutes before your scheduled lab period.

Lab Assignment Submission Policy:

For Parr’s section – The majority of lab assignments will be submitted as hard copies, to MSB 105. If I’m not there, slide your assignment under my door before the start of class. Pre-labs will be done via the Tests and Quizzes tab on Lulima. A few assignments may require electronic submission. For any assignments approved to be submitted electronically, **they must follow three guidelines in order to receive credit:**

- 1) Be in PDF format
- 2) Be a single document (not multiple pdf pages)
- 3) Follow the naming convention, Lastname_firstname_labtitle.pdf, e.g.,
"Parr_Lisa_Tides.pdf"

www.camscanner.com is a free app you can download to turn your assignments into a single document. On iPhone, you can use the scanning function in the Notes app.

Late Policy:

Pre-labs will not be accepted past the due date.

For lab assignments:

- On time (start of class): up to 100%
- Submitted late (after start of class) on the day due: -10%
- Each additional day an additional 10% is subtracted.
- One week late (following class period): -60%

No assignments will be accepted later than 1 week past the due date.

Some lab exercises may be carried out as "team exercises"; however, your work is your own! Do not just copy the data or interpretation of your teammates.

Identical lab write-ups will receive zeroes. Copied assignments will receive zeroes. Students who allow someone to copy an assignment will receive a zero on that assignment. Students will be referred to the Administration under the UH Hilo Student Conduct Code.

In the long run, your character will be more important than your grades.

Other considerations

Successfully working together on a ship or in the field requires that the scientists and technicians work together effectively and efficiently. Punctuality and seamanship will be taken into account in assigning grades to labs.

- **Electronics use during class hours should be restricted to relevant class activities**
- **Closed-toes shoes must be worn during all labs, both on the boat and in class**
- **Government approved photo ID is required on all boat labs**

Student support

UH Hilo has many resources for students. Please go to the following link for information and resources regarding these topics:

- Disability services
- Academic advising
- Academic integrity
- Kilohana tutoring
- Mental health and suicide prevention
- Student conduct
- Title IX

Short link: <http://go.hawaii.edu/zAf>

Mobile friendly link: <http://go.hawaii.edu/GQe>

MARE 201L Oceanography Lab Spring 2021

Instructors:

Lisa Parr - Thursdays 1:00pm – 4:50pm

Dawn McSwain – Fridays 8:00am – 11:50am & 1:00pm – 4:50pm

All classes meet on zoom. **In person sessions will be in bold, boat labs will be noted as such. Boat labs meet at Suisan; On campus labs meet outside W4.**

Week 1 January	14/15	Intro, safety, tides, graphing activity
Week 2 January	21/22	Bathymetric mapping and contouring
Week 3 January	28/29	Charting and navigation
Week 4 February	04/05	Applied navigation (Thursday class - map and compass lab Lili'uokalani Park) (Friday classes - boat lab)
Week 5 February	11/12	Applied bathymetry (boat lab)
Week 6 February	18/19	Sediments
Week 7 February	25/26	TSD relationships
Week 8 March	04/05	Applied TSD & Circulation (boat lab)
Week 9 March	11/12	Productivity
<i>Week 10 March</i>	<i>18/19</i>	<i>No class – Spring break</i>
<i>Week 11 March</i>	<i>25/26</i>	Thursday class - Boat lab <i>Friday classes - No class - Prince Kuhio Day</i>
<i>Week 12 April</i>	<i>01/02</i>	<i>Good Friday – no class all sections</i>
Week 13 April	08/09	Light, gas, & plankton collection part 1 (boat lab)
Week 14 April	15/16	Plankton collection plankton part 2 (boat lab)
Week 15 April	22/23	Plankton ID
Week 16 April	29/30	Final