

# EEB 101: MARINE BOTANY – WINTER 2026

**Lecture:** Tues. & Thurs. @ 9:30AM – 10:45AM in LaKretz 120

**Lab 1A:** Tues. & Thurs. @ 11:00AM – 12:50PM in LS 1315

**Lab 1B:** Tues. & Thurs. @ 3:00PM – 4:50PM in LS 1315

**INSTRUCTOR:** Dr. Tonya Kane

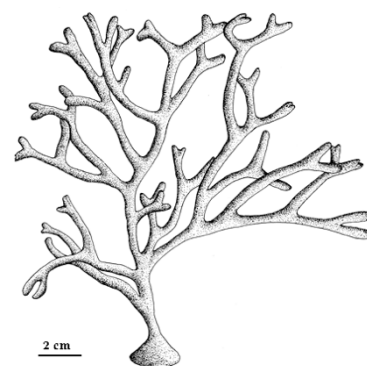
tkane@eeb.ucla.edu → Please write **EEB101** in the subject line!

Office Hours: Times and locations posted on our Bruin Learn site

**TEACHING ASSISTANT:** Katie Hannibal

khannibal@g.ucla.edu → Please write **EEB101** in the subject line!

Office Hours: Times and locations posted on our Bruin Learn site



**LECTURE:** Lectures will be a mix of traditional lecturing and active learning (i.e., I might ask you to do activities, answer question, and share ideas with your peers). Attendance in lecture is expected, though lectures will be recorded (audio only) via BruinCast for you to revisit as needed. In the past, students who have regularly attended have had a much easier time with the material and performed better in the course than those who skip lecture.

**LAB:** All lab sections will be taught by your TA. You will also have undergraduate assistants in the lab who have taken the course previously and can help you with the material. Attendance is required for all labs. Please plan accordingly. Attend the section in which you are enrolled unless you have made prior arrangements with your TA. For questions related to your lab section, please contact your TA directly.

**REQUIRED MATERIALS:** There is no textbook. Readings will be posted on Bruin Learn. I highly recommend all students to keep a scientific notebook to record all your observations in the field and laboratory. Your observations will help you to complete the herbarium project and be a valuable resource for studying course material.

**COURSE COMMUNICATION:** We will use Bruin Learn to provide all readings, assignments, videos, lecture slides, and other material you will need for the course. If you have content questions, please post to our discussion board on Bruin Learn so everyone can benefit from the conversation. If you have a question that pertains to a personal situation, an email is great. **Please write EEB101 in the subject line of all emails.** I will do my best to respond to emergency situations right away. If it's not an immediate concern, expect a response to take 24 to 48 hours (maybe longer over weekends). If it's been a few days and you haven't heard back, feel free to email me again.

**LEARNING OBJECTIVES:** By successfully completing the course, students will be able to...

- Describe the evolution, morphology, reproduction, life history, physiology, and systematics of major algal groups
- Identify how environmental factors affect macroalgal distribution, abundance, and ecological processes
- Explain the biotic interactions that affect macroalgal populations and communities
- Describe the roles of algae in temperate and tropical coastal habitats
- Predict how anthropogenic influences could affect marine algae
- Perform and record detailed field and laboratory observations
- Apply new skills to collect algae in the field and to maintain algal specimens in the lab
- Use dichotomous keys and microscopy to identify species of macroalgae, including identifying and documenting morphological and reproductive structures
- Preserve identified species of macroalgae to produce a museum-quality Algal Herbarium collection

**GRADING:** Throughout the course, scores for all assignments will be posted in the Bruin Learn Gradebook. Please check often to ensure the accuracy of your grade. Grading for this class is on a straight scale (not “curved”). Every student can earn an A by demonstrating thorough understanding of the material. Maximum learning will be achieved through collaboration. We encourage you to cooperate, NOT compete. Study together, discuss difficult concepts, support and encourage each other. Just remember that all assignments must be in your own words!

|                        |                   |
|------------------------|-------------------|
| Weekly Questions       | 100 points        |
| Midterm                | 100 points        |
| Final Exam             | 150 points        |
| Lab Assignments        | 170 points        |
| <u>Algal Herbarium</u> | <u>130 points</u> |
| <b>Total</b>           | <b>650 points</b> |

*Grading Scale:*

**A** ( $\geq 93\%$ ); **A-** (90-92.9%)

**B+** (87-89.9%); **B** (83-86.9%); **B-** (80-82.9%)

**C+** (77-79.9%); **C** (73-76.9%); **C-** (70-72.9%)

**D+** (67-69.9%); **D** (63-66.9%); **D-** (60-62.9%)

**F** ( $\leq 59.9\%$ )

**WEEKLY REVIEW QUESTIONS:** Weekly Review Questions will be posted Friday of each week on Bruin Learn, to be completed by the following **Tuesday night at 11:59 PM**. These questions are meant to help you to review concepts we have focused on in lectures throughout the week and provide feedback to both you and me on how things are going. They will be worth between 10-15 points each week, depending on the content we covered. You may turn them in late, though late submissions will lose 20% of earned points per day late.

**EXAMS:** There is one midterm on Tuesday of Week 6 and a cumulative final exam during Finals Week. All exams will be in person. Exam questions will be a combination of true/false, multiple choice, matching, and short answer questions. The learning objectives posted at the beginning of each lecture are a great study guide!

**LAB ASSIGNMENTS:** Lab sections meet twice per week and you are expected to **attend all lab meetings**. While some lab days are set aside for you to work on your independent project, there will be several meetings where you will work on assigned lab activities that you will complete during class and as homework. Details on the activities will be provided prior to and/or during lab. These activities will help you to better understand course content and providing experience with resources and the development of skills that you will use to complete your own herbarium project. If you have extenuating circumstances that make it impossible to attend a lab section, please reach out to both your TA and me **BEFORE** your section so we can work with you to stay on track with the material.

**FIELD TRIPS:** There are **three required field trips** for this course. These trips are essential to learning the course material and completing your individual herbarium collection. See course schedule below for dates. Note the locations may change depending on conditions. We can help to coordinate carpools and will have an option for transportation in UCLA vans as needed.

For each of the field trip weekends, you will select one date to attend. For each trip, we will meet at the site at the listed time and spend about 2 hours in the field. You should plan to climb on rocks and get wet. If you need alternative options due to physical limitations, please reach out and I will work with you on a plan. Additional details will be provided.



Image: E. Haeckel, Wikimedia commons

**ALGAL HERBARIUM PRESS & NOTEBOOK:** There is no better way to learn to recognize and identify marine algae than to jump in and begin! (And don't worry, we'll help you!) Although this might seem difficult initially, we can guarantee that you will find it a terrific way to learn the local marine flora and will most likely find it to be fun as well. During this quarter, you will work independently on collecting, preserving, identifying, properly mounting and cataloging 10 species of marine algae. Careful observation is a scientist's best tool. Therefore, you also will keep a detailed account of everything that you do related to your herbarium press in the lab, on field trips, on collecting trips, and in the identification of specimens. Additional details on this project will be provided. Most of this project will be up to you to complete and will require you to manage your time well. We will provide opportunities to collect algae during field trips, but you will need to get out in the field locally to collect your own algae during low tides. Plan ahead! Low tides will only permit good collecting opportunities a few times during the quarter. Several lab periods will be dedicated to this project, but it will likely take more than these lab periods to complete. *Plan to spend time in the lab in addition to class hours.*



**POLICY ON LATE HERBARIUM PRESSES AND NOTEBOOKS:** Your Herbarium Press and Notebook are both due on Thursday of Week 10 by the end of your enrolled lab section. Late presses and notebooks will lose 10% of their point value each day they are late, including weekends and holidays, and begins accruing *immediately* after they are due.

**RE-GRADE REQUESTS:** Please bring any mathematical error to the attention of your TA right away so it can be resolved. Any re-grading of content will be done by Dr. Kane. To request a re-grade of an assignment or exam, write a detailed rationale including specific reasons as to why you think more points should be awarded and turn it in attached to the assignment *within 1 week* of that assignment/exam being returned to you. Your regrade request will be considered at the end of the course, and only if it will affect your final letter grade.

**ACCESSIBLE EDUCATION:** If you need academic accommodations based on a documented reason, please contact the Center for Accessible Education (CAE) at 310-825-1501 within the first two weeks of the Quarter. CAE will assess all requested accommodations and communicate your approved accommodation with Dr. Kane. Please confirm that Dr. Kane received your CAE letter and has made the necessary adjustments. [www.cae.ucla.edu](http://www.cae.ucla.edu)

**COURSE ETIQUETTE:** Please **be respectful** of everyone – instructors, other students, and yourself! We are committed to creating and fostering a positive learning environment based on open communication, mutual respect, and inclusion. Diversity and individual differences are respected, appreciated, and recognized as sources of strength. We expect everyone associated with this course will respect each other's differences and demonstrate diligence in understanding how other peoples' perspectives, behaviors, and worldviews may be different from their own.

**STUDENT CODE OF CONDUCT:** Read the document about Academic Integrity posted on our course site. Note that plagiarism is when one person passes off the words or ideas of another person as their own, even if it is not a verbatim copy. (Learn more about plagiarism here: [guides.library.ucla.edu/citing/plagiarism](http://guides.library.ucla.edu/citing/plagiarism)) Often, a student who resorts to cheating feels unprepared and under pressure. If you are at a point where you are considering cheating, ***please come talk to me instead.*** I would much rather help you work through the situation than see you potentially destroy your academic career. I am typically very understanding and accommodating if you come to me for help, but once you cheat, it will be too late. Cases of suspected academic misconduct (e.g., cheating, plagiarism, etc.) will be referred to the Dean of Students Office for disciplinary action.

**MENTAL HEALTH & WELLNESS:**

If you find yourself in distress, please reach out for support! You can call Counseling and Psychological Services (CAPS) to speak directly with a counselor 24/7 at (310) 825-0768, or call 911 if you are in immediate distress. [www.counseling.ucla.edu](http://www.counseling.ucla.edu)

Please take care of yourself, both physically and mentally. Many resources are available to foster your well-being. Let me know if you need help locating additional resources.



- **Healthy Campus Initiative:** Promotes living well on campus through its seven areas: BeWell, BreatheWell, EatWell, EngageWell, MindWell, MoveWell, and ResearchWell. [healthy.ucla.edu/](http://healthy.ucla.edu/)
- **Recreation and FitWell:** Explores healthy lifestyle choices in fitness and exercise, nutrition and weight management, stress management, and general health education. [recreation.ucla.edu/](http://recreation.ucla.edu/)
- **RISE Center – Resilience in Your Student Experience:** Promotes resilience skills. Includes the Resilience Peer Network, collaboration with the UCLA Depression Grand Challenge (DGC), the DGC's STAND Program for Screening & Treatment for Anxiety and Depression, and Mindful UCLA. [www.resilience.ucla.edu/](http://www.resilience.ucla.edu/)
- **First to Go:** Support for First-Generation to College Bruins. [firsttogo.ucla.edu/](http://firsttogo.ucla.edu/)
- **UCLA Transfer Student Center:** Resources and support for transfer students.. [www.transfers.ucla.edu/](http://www.transfers.ucla.edu/)
- **Commuter Support & Programs:** Resources for commuters, including info on the Bruin Hub pods [campuslife.ucla.edu/commuter-support-programs](http://campuslife.ucla.edu/commuter-support-programs)
- **LGBTQ Resource Center:** Education and advocacy services supporting intersectional identity development as well as fostering unity, wellness, and an open, safe, and inclusive environment. [www.lgbt.ucla.edu/](http://www.lgbt.ucla.edu/)
- **Office of Equity, Diversity, and Inclusion:** Report an incident and access resources. [equity.ucla.edu/](http://equity.ucla.edu/)
- **Sexual Violence Prevention and Response:** Access FAQs, resources, information, and learn about how to report an incident. <http://sexualviolence.universityofcalifornia.edu/>
- **Bruin Resource Center:** Serves all UCLA students, with a focus on current and former foster youth, students with dependents, student veterans, and undocumented students. [www.brc.ucla.edu/](http://www.brc.ucla.edu/)
- **Food Security:** Resources for students who do not have the financial means to consistently purchase nutritious food. [eatwell.healthy.ucla.edu/2018/03/16/food-security-on-uclas-campus/](http://eatwell.healthy.ucla.edu/2018/03/16/food-security-on-uclas-campus/)

## COURSE SCHEDULE

|                                                                                                                                       | Lectures                                                                                                                   | Labs                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| <b>Week 1</b>                                                                                                                         | Tues. 1/6 – Course Logistics & Intro to Marine Algae<br>Thurs. 1/8 – Habitats & Biogeography                               | Tues. – <b>No labs meet</b><br>Thurs. – LAB #1: Intro to Algae & Algal Databases          |
| <b>Week 2</b>                                                                                                                         | Tues. 1/13 – Cell Biology & Physiology<br>Thurs. 1/15 – Evolution & Algal Structure<br>* Week1 Questions due Tuesday night | Tues. – LAB #2: Dichotomous Keys<br>Thurs. – LAB #3: Microscopy                           |
| <b>Week 3</b>                                                                                                                         | Tues. 1/20 – Green Algae<br>Thurs. 1/22 – Green Algae<br>* Week 2 Questions due Tuesday night                              | Tues. – LAB #4: Green algae<br>Thurs. – LAB #4: Green algae, cont.                        |
| <b>Week 4</b>                                                                                                                         | Tues. 1/27 – Brown Algae<br>Thurs. 1/29 – Brown Algae<br>* Week 3 Questions due Tuesday night                              | Tues. – LAB #5: Brown algae<br>Thurs. – LAB #5: Brown algae, cont.                        |
| <b>FIELD TRIP #1: Leo Carillo State Beach, Malibu – Select Sat. Jan 31<sup>st</sup> at ~1:30pm or Sun. Feb 1<sup>st</sup> at ~2pm</b> |                                                                                                                            |                                                                                           |
| <b>Week 5</b>                                                                                                                         | Tues. 2/3 – Red Algae<br>Thurs. 2/5 – Red Algae<br>* Week 4 Questions due Tuesday night                                    | Tues. – LAB #6: Red algae<br>Thurs. – LAB #6: Red algae, cont.                            |
| <b>Week 6</b>                                                                                                                         | Tues. 2/10 – <b>MIDTERM</b> (though Brown Algae)<br>Thurs. 2/12 – Red Algae                                                | Tues. – Tour UCLA Herbarium Collection<br>Thurs. – Planning for collecting                |
| <b>FIELD TRIP #2: Cabrillo Beach, San Pedro – Select Sat. Feb 14<sup>th</sup> at ~1pm or Sun. Feb 15<sup>th</sup> at ~1:30pm</b>      |                                                                                                                            |                                                                                           |
| <b>Week 7</b>                                                                                                                         | Tues. 2/17 – Kelp Forest Ecology<br>Thurs. 2/19 – Coral reef algae<br>* Week 6 Questions due Tuesday night                 | Tues. – Key your own collections<br>Thurs. – Key your own collections                     |
| <b>Week 8</b>                                                                                                                         | Tues. 2/24 – Seagrass & Mangroves<br>Thurs. 2/26 – Invasive algae<br>* Week 7 Questions due Tuesday night                  | Tues. – Key your own collections<br>Thurs. – Key your own collections                     |
| <b>FIELD TRIP #3: Bluff Cove, Palos Verdes – Select Sat. Feb 28<sup>th</sup> at ~12:30pm or Sun. March 1<sup>st</sup> at ~1pm</b>     |                                                                                                                            |                                                                                           |
| <b>Week 9</b>                                                                                                                         | Tues. 3/3 – Special Topics<br>Thurs. 3/5 – Special Topics<br>* Week 8 Questions due Tuesday night                          | Tues. – Key your own collections<br>Thurs. – Key your own collections                     |
| <b>Week 10</b>                                                                                                                        | Tues. 3/10 – Climate Impacts<br>Thurs. 3/12 – Wrap-up<br>* Week 9 Questions due Tuesday night                              | Tues. – Finalize your Algal Herbarium<br>Thurs. – <b>Turn in Herbarium + Lab Clean-up</b> |
| <b>FINAL EXAM (Cumulative) – Friday, March 20<sup>th</sup> 8am – 11am</b>                                                             |                                                                                                                            |                                                                                           |

*Information in this syllabus is accurate as of the updated date above and may change at any time during the quarter.  
Any updates will be communicated via our Bruin Learn website and announced during lecture.*