Time, Location and Course Website
M-W-F 10:30-11:20pm // OTB 201
The course materials will be posted through UW Canvas.

Instructor Contact Information and Office Hours
Randie Bundy (she/her/hers), Assistant Professor of Chemical Oceanography
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Office hours are by appointment, and I appreciate an email to set up a time to chat. I am happy to make myself available to you when you need it!

Course Overview
This course is intended for graduate students in oceanography and other graduate students at the University of Washington who are interested in marine chemistry. The course content of OCEAN 520 consists of lectures, paper readings and discussions, problem sets, and a midterm and final.

Learning Goals
We will emphasize concepts, thinking skills and chemical oceanography tools. The most important things you should get from this class are tools you can apply to problems and an appreciation of current hot topics that drive research in chemical oceanography. By the end of this class you will able to:

- Apply fundamental knowledge of marine chemistry to quantitative problems.
- Solve simple box models of major nutrient and carbon cycling in the global ocean.
- Communicate and synthesize findings from recent published scientific literature.
- Relate marine chemistry to your field of study, and incorporate marine chemistry knowledge into your research area.

Required Readings
The text book is Emerson and Hedges (2008) Chemical Oceanography and the Marine Carbon Cycle. Cambridge University Press. Specific pages are given for each lecture in the lecture schedule. The book is not required, but may help you to gain additional insight on the topics discussed. Additional readings (the papers we will be discussing in class) are available on Canvas.

Grading
In this class students are peer learners and not grade competitors. This means that if everyone earns a 4.0 everyone can have one; there will be no grade curving. Students will be expected to perform at their highest level. Assessment will take multiple forms.

- 40% for the 4 problem sets (4 x 10%)
- 10% for the in-class paper discussions
• 25% for the take-home Midterm
• 25% for the take-home Final Exam

Exams
The mid-term and final exams will cover material that was presented in lectures and assignments in class. The types of questions in the problem sets and those done in class, will prepare you for the mid-term and final. The mid-term and final may also include questions about the paper discussions that were held in class. Both the midterm and final will be completed in class. There will be six questions for each, and the best five will be graded.

Problem Sets and Readings
Problem Sets will be posted on Canvas and are generally due one week later. They are to be turned in as a word document (.doc or .docx) or pdf and uploaded on Canvas.

This class has a strong quantitative orientation, which is an important skill in chemical oceanography. Grading will evaluate your understanding of the method as well as the correct numerical result. Students are encouraged to work together on problem sets, but everyone needs to write their own answers in their own words. Form a homework team!

There will be some paper Readings in class. The goal is to study examples of how the themes for the course are covered in the literature. The pdf versions of the papers will be available on Canvas. Your assignment is to read the papers and each week someone will be assigned to lead the paper discussion in class on the topic we are covering that week. These discussions can be organized however the student lead would like, but often the paper discussion leader will prepare a short (5-10 minute) intro to the paper and then will lead the discussion. Grading for the discussions will be based on your participation in the discussion and how well you lead during your discussion day. There will be questions on the mid-term and final about the papers we cover in our discussions.

Inclusivity in the Classroom
In this classroom, all students will be included, heard and valued. In this classroom, we recognize DIVERSITY, EQUITY, INCLUSION and INTERSECTIONALITY. We are free to engage and discuss issues of social justice and equity as they relate to marginalized groups. We will promote a safe, healthy and fair learning environment for all students and instructors. We will include and engage all learners in our learning space. We will do our best to recognize overlapping and interdependent factors related to discrimination and/or racism, and call them out if we see them so that we can learn and improve, while always respecting each other and our backgrounds. Diversity, equity, inclusion and intersectionality has a place in every classroom, just as it has a place in the study of marine chemistry.

Students with Disabilities
At the University of Washington, it is the policy and practice to create inclusive and accessible learning environments consistent with federal and state law. If you anticipate or experience barriers to your learning or full participation in this course based on a physical, learning, or mental health disability, please immediately contact the instructor to discuss possible accommodation(s). Please
Religious Accommodations
Washington state law requires that UW develop a policy for accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities.

The UW’s policy, including more information about how to request an accommodation, is available at Religious Accommodations Policy (https://registrar.washington.edu/staffandfaculty/religious-accommodations-policy/). Accommodations must be requested within the first two weeks of this course using the Religious Accommodations Request form (https://registrar.washington.edu/students/religious-accommodations-request/).

Academic Honesty
At the University level, passing anyone else’s scholarly work (which can include written material, exam answers, graphics or other images, and even ideas) as your own, without proper attribution, is considered academic misconduct. Plagiarism, cheating, and other misconduct are serious violations of the University of Washington Student Conduct Code (WAC 478-120). You are expected to know and follow university policies on cheating and plagiarism. Any suspected cases of academic misconduct will be handled according to university regulations. For more information, see the College of the Environment’s Academic Misconduct Policy and the Community Standards and Student Conduct website.

Campus Safety
Call SafeCampus at 206-685-7233 anytime – no matter where you work or study – to anonymously discuss safety and well-being concerns for yourself or others. SafeCampus’s team of caring professionals will provide individualized support, while discussing short- and long-term solutions and connecting you with additional resources when requested.