WELCOME TO ANS 198

PROFESSIONAL DEVELOPMENT IN MARINE SCIENCE
NOTE TO PRIYA:
RECORD LECTURE &
TURN ON CLOSED
CAPTIONING
WELCOME TO ANS 198

PROFESSIONAL DEVELOPMENT IN MARINE SCIENCE
TERRITORIAL ACKNOWLEDGEMENT

This acknowledgement was made possible by native-land.ca and yochadehe.org.
BOOKMARK THE COURSE WEBSITE!

https://ucdcmsi.github.io/mcs-resources/Fall2020_ProfDev.html
WHAT IS THIS COURSE?

A professional development seminar for students interested in a career in the marine sciences.
WHAT IS THIS COURSE?

You will learn …

how science works

skills that will make you a successful student

how to find career experiences that will prepare you for life after undergrad
NUTS & BOLTS OF THIS COURSE

CRN: 21626

2 units

Graded P/NP
INSTRUCTOR OF RECORD

Anne Todgham
todgham@ucdavis.edu
INSTRUCTOR OF THIS COURSE

Priya Shukla
pshukla@ucdavis.edu
ABOUT PRIYA

Effects of an eelgrass bed (*Zostera marina*) on seawater pH and alkalinity

Priya Shukla
University of California, Davis
Bodega Marine Laboratory
BIS 124
27 July 2011
Elevated $p\text{CO}_2$ is less detrimental than increased temperature to early development of the giant kelp, *Macrocystis pyrifera* (Phaeophyceae, Laminariales)

Priya Shukla*† and Matthew S. Edwards

Coastal and Marine Institute Laboratory, San Diego State University, 5500 Campanile Drive, San Diego, California 92182, USA
ABOUT PRIYA

PHD STUDENT

WRITER

CMSI LEAD MENTOR
ACTIVITY – ABOUT YOU!

From pre-class survey

43% of you think icebreakers are “Painfully Awkward”
AN OVERT COURSE GOAL

COMMUNITY BUILDING
ACTIVITY – ABOUT YOU!

In breakout sessions of 3 people each ...

One of your first ocean memories

An ocean class / lecture / research experience you’ve had in college
ACTIVITY – ABOUT YOU!

In breakout sessions of 3 people each ... 

SHARE SOMEONE ELSE’S OCEAN MEMORY

SHARE SOMEONE ELSE’S COLLEGE OCEAN EXPERIENCE
GRADING

Based on class participation & short, weekly questionnaires.

Graded P/NP

To receive a passing grade ...

You must attend 7/10 classes. All assignments must be turned in.
GRADING

If you will not be able to attend 7/10 classes OR submit all assignments, please let me know so that we can discuss alternate arrangements.
ASSIGNMENTS

due 12:00pm the day of class

You will be expected to find resources yourselves & then share them with your peers during a subsequent meeting
ASSIGNMENTS

A key goal of this course is to share and collect resources

This can be a book, a peer-reviewed article, a blog post, an Instagram post, a Facebook Group, a Twitter thread, an infographic, advice a professor gave you, something you learned from a lunch with a seminar speaker, etc.).
ASSIGNMENTS

Ultimately, there is no single class you can take that will teach you everything you need to know, so learning how to search for and share the information you need is a good skill to hone.
Are you an #undergraduate interested in a two year scholarship and paid summer #internship with NOAA? If so, the Hollings or EPP/MSI #scholarship may be for you! Applications are now open! #NOAScholars

For more information and how to apply:
CODES OF CONDUCT

ACADEMIC

Read the syllabus:
Don’t plagiarize, don’t cheat.
CODES OF CONDUCT

WORKING TOGETHER

Read the syllabus:
Lots of examples of acceptable & unacceptable behavior.
1 Introduction
2 Academic Science + Lab Culture
3 Writing in Science
4 Finding & Reading Scientific Papers
5 Applying to Jobs / Internships
6 Applying for Grants & Fellowships
7 Applying to Graduate School
8 Science Communication
9 Science Ethics & Advocacy
10 Wild Card: Class Choice!
Diversity

Equity

Inclusion
Diversity

Used to describe policies / practices that attempt to include previously excluded groups
Diversity

Equity

Used to describe policies / practices that attempt to include previously excluded groups

Equality = sameness

Fairness & Justice (considers a person/community’s context)
Equality v. Equity

As Project: Human City points out - "equality seeks to make everyone equal, equity, on the other hand, seeks to address the underlying and systemic differences of opportunity and access to social resources."
Diversity

Equity

Inclusion

Used to describe policies / practices that attempt to include previously excluded groups.

Equality = sameness

Fairness & Justice (considers a person/community’s context)

Brings previously excluded groups into positions where they can make decisions and impact.
JUSTICE

all people should have equal access to wealth, health, well-being, justice, privileges, and opportunity regardless of their legal, political, economic, or other circumstances
Justice
Equity
Diversity
Inclusion

JEDI MIND TRICKS
MARGINALIZED MARINE SCIENTISTS
MARGINALIZED MARINE SCIENTISTS

#BLACKINMARINESCIENCE

Save the Week!!
November 29th - December 5th
CODES OF CONDUCT

WORKING TOGETHER
Let’s Develop Our Own Principles of Community!
RULES OF ENGAGEMENT

From pre-class survey

43% of you have used Google Jamboard
TO GOOGLE JAMBOARD!

https://jamboard.google.com/d/1cQuBb3pZzlFAJH0-DS4PnJv1ZpPDX51mve27WPf_GGs/edit?usp=sharing
COURSE SCHEDULE

1 Introduction
2 Academic Science + Lab Culture
3 Writing in Science
4 Finding & Reading Scientific Papers
5 Applying for Grants & Fellowships
6 Applying to Jobs / Internships
7 Applying to Graduate School
8 Science Communication
9 Science Ethics & Advocacy
10 *Wild Card: Class Choice!*
Lab Culture

Principal Investigator
- head of lab

Post-Doc
- has Ph.D.
- temporary position lasts between 2-10 yrs.

Lab manager / Staff scientist
- often has Ph.D.

Graduate students
- have Bachelor’s degree
- working on Ph.D. or Master’s degree

Lab technicians
- carry out experiments for the PI
- sometimes works for post-docs and grad students

Programmer
- works for PI
- often works with post-docs & grad students

Undergraduates
- work with post docs, grad students

Dishwasher
THE ANATOMY OF A SCIENTIFIC PAPER

1. INTRODUCTION: What is known? (Our understanding of the world)
2. What is unknown? What's the gap we want to fill?
3. How and why should we fill the gap? Your rationale and purpose/hypothesis
4. METHODS: What did you do?
5. RESULTS: What results did you get?
6. DISCUSSION: How do the results fill the gap?
7. CONCLUSION: What does this mean for us going forward?

Learn more at wordvice.com
# Finding & Reading Scientific Papers

## Science Articles: A Guide

<table>
<thead>
<tr>
<th>Subject Matter Is Complex</th>
<th>Average Sentence Is Easy To Understand</th>
<th>Average Sentence Is Hard To Understand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great Writing</td>
<td></td>
<td>Typical Writing</td>
</tr>
<tr>
<td>Honest Writing</td>
<td></td>
<td>Probably Just Bullshit</td>
</tr>
</tbody>
</table>

Subject Matter Is Simple

Honest Writing

Probably Just Bullshit

Source: [smbc-comics.com](http://smbc-comics.com)
Applying to Jobs / Internships
Applying for Grants / Fellowships
Applying to Graduate School
Science Ethics, Advocacy & Activism
Wild Card Class – Your Choice!
Class Activity: Scavenger Hunt!
NEXT WEEK

ACADEMIC SCIENCE
+ LAB CULTURE
BEFORE CLASS NEXT WEEK

Complete pre-class survey

Complete Assignment 1
Marine Science Club
QUESTIONS?