

# EDS 411B: MEDS Capstone

## Week 1

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# Today in 411B

- **1:00 - 1:15:** Course intro & logistics
- **1:15 - 1:45:** Spring Quarter deliverables overview
- **1:45 - 3:40:** Dedicated work time
- **3:40 - 4:00:** One (not-so) cool thing

# Course Intro & Logistics

# 411B Essentials

- **Class:** Wednesdays 1pm - 4pm at NCEAS
- EDS 411B [Syllabus](#)
- **Office Hours:** [Sign-up](#) for 20-minute appointments on Friday afternoon (1 - 3pm), or email me
- **Communication:** #eds-411 on Slack
- **Course website:** [ryoliver.github.io/EDS\\_411B/](https://ryoliver.github.io/EDS_411B/)
- **Capstone timeline & guidelines:** [ucsb-meds.github.io/capstones.html](https://ucsb-meds.github.io/capstones.html)

# Major Capstone Requirements

## **For MEDS Degree:**

- Design and Implementation Plan (Winter)
- Technical Documentation (Spring)
- Project Repo
- Public Presentation
- Pass 411A/B

## **For Client:**

- Deliverable (product) and Documentation (Spring)

# This quarter

<b><i>Deadline</i></b>	<b><i>Item</i></b>
<b>April 14 (Week 2)</b>	Technical Documentation Outline
<b>May 5 (Week 5)</b>	Technical Documentation Draft & Repo Draft
<b>June 2 (Week 9)</b>	Public Presentations (at Bren)
<b>June 9 (Week 10)</b>	Final Project Materials due

# This course

**Logistics & reminders**

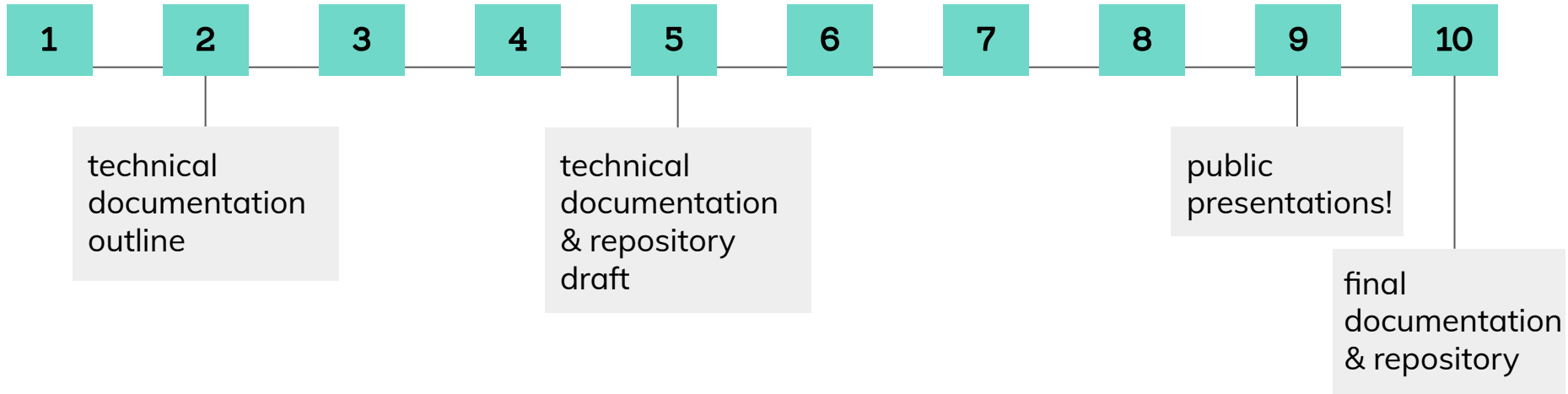
**Overview/tutorial**

**Activity**

**Group work time**

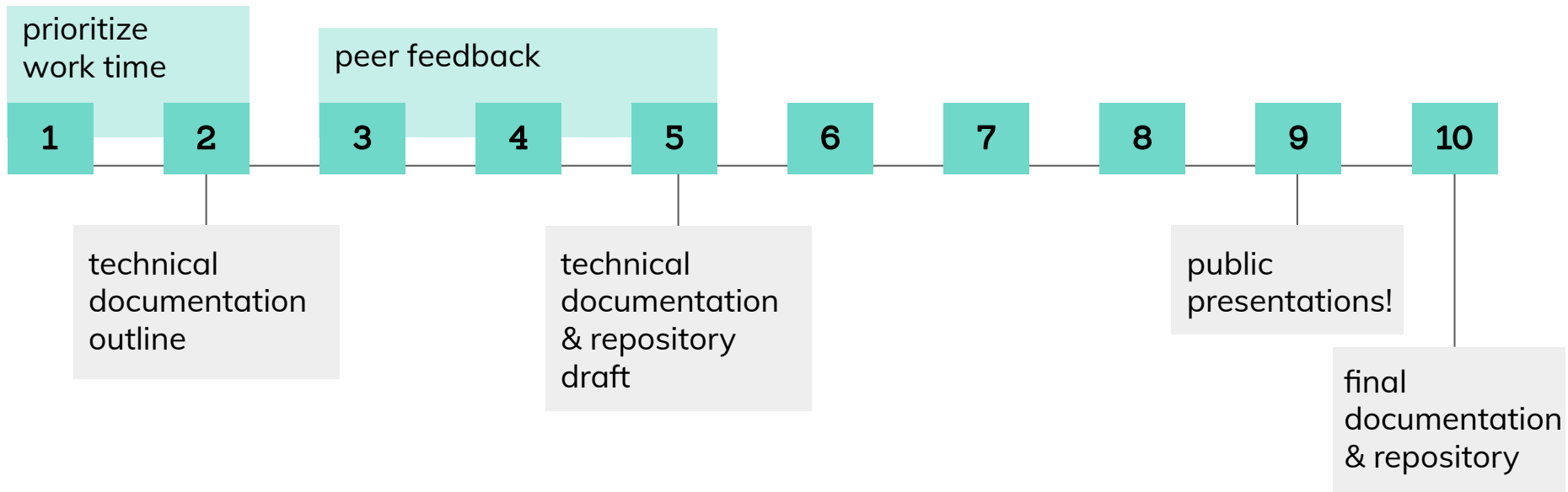
**One (not-so-) cool thing**

# This course

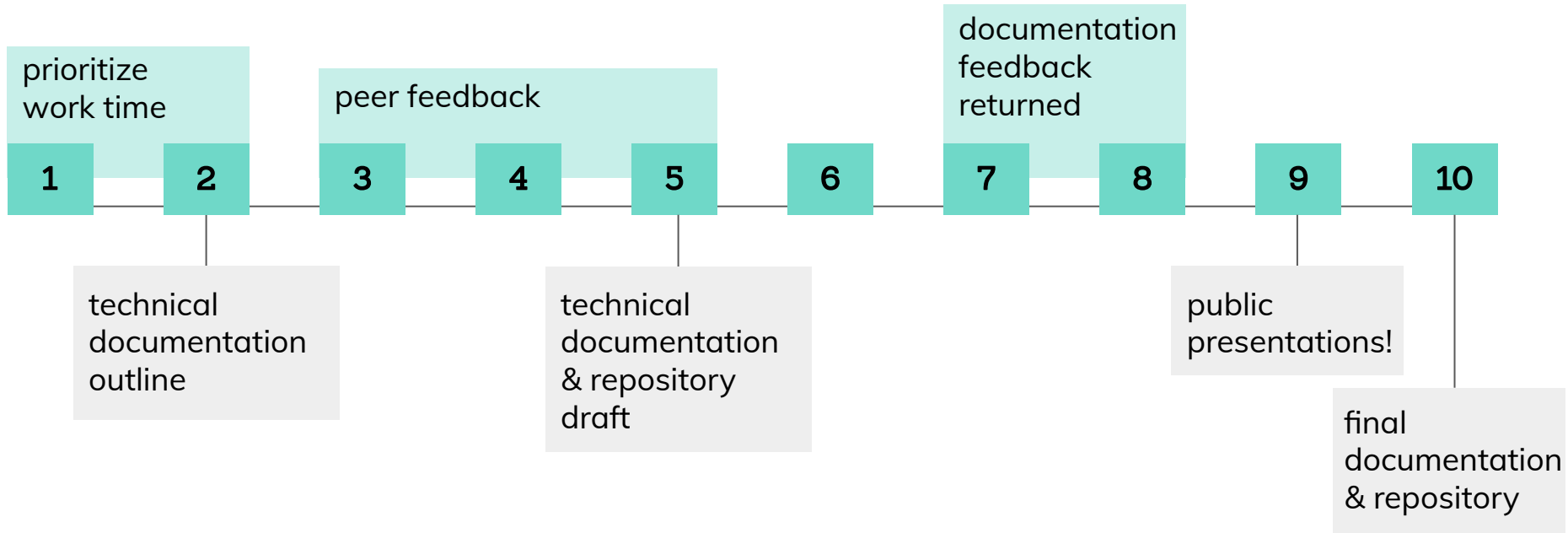




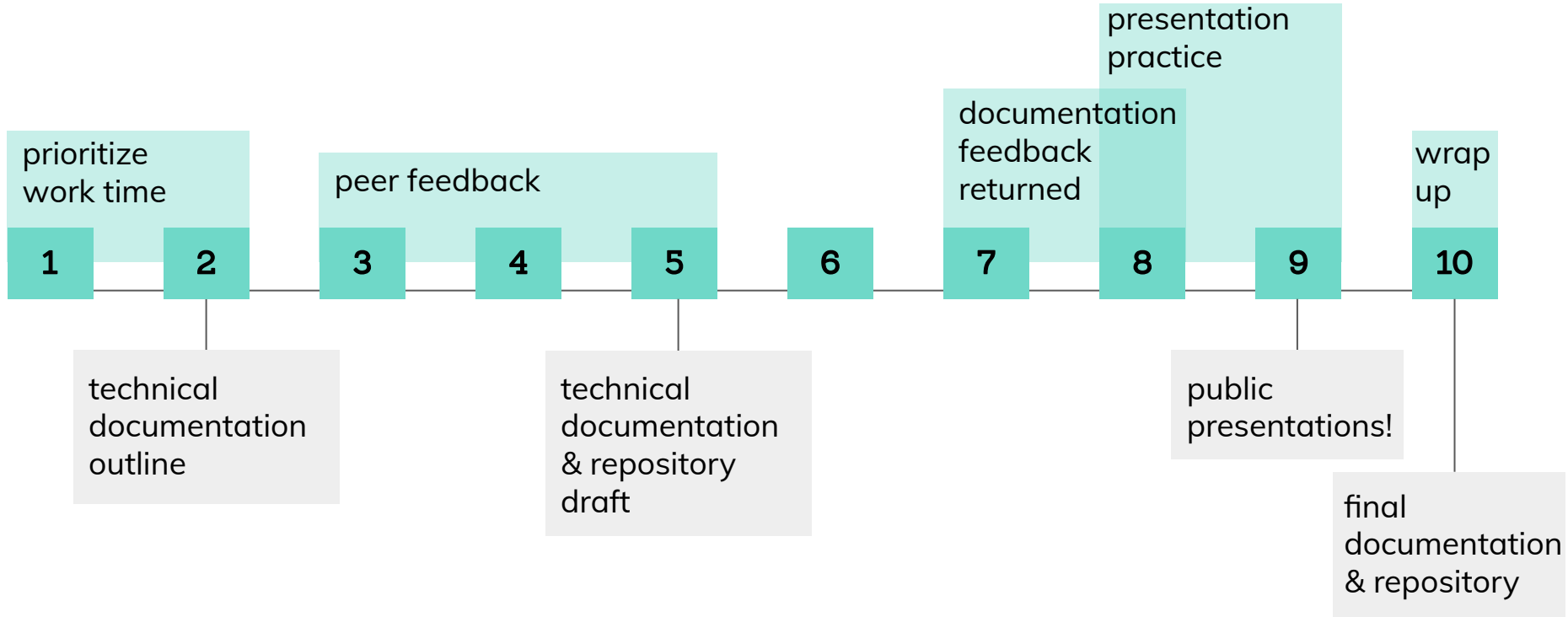
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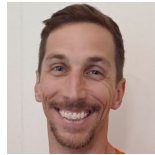
# This course



# This course



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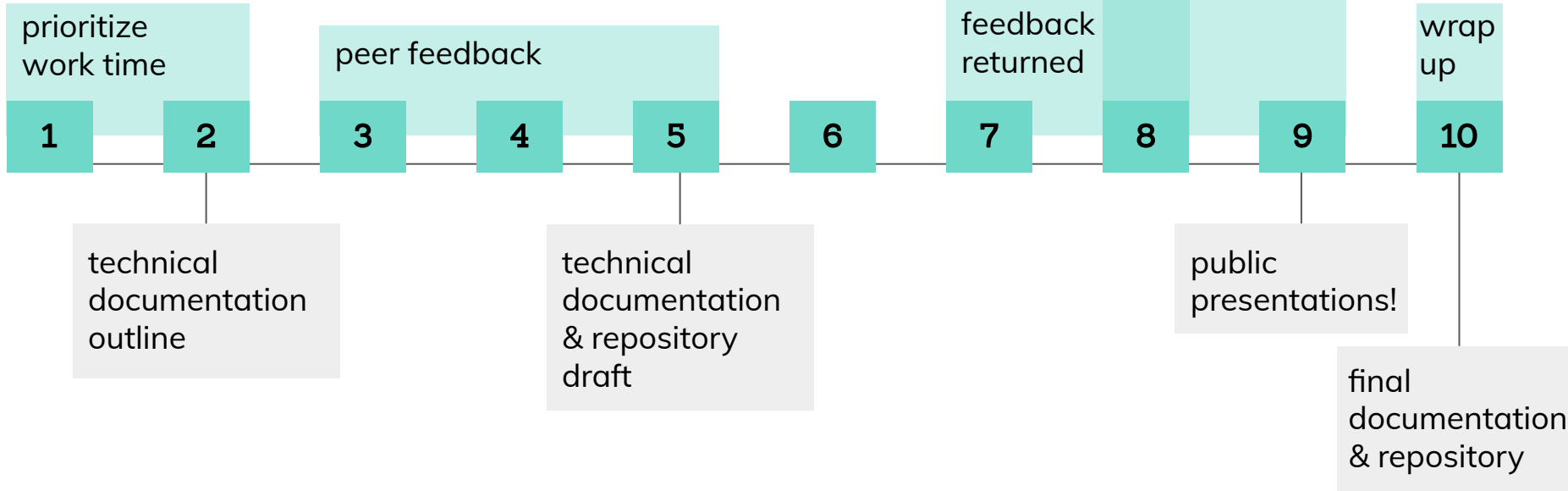


**Nate Emery**  
ChatGPT  
tutorial

**Alex Phillips**  
presentation  
clinic



**Sam Csik**



# All quarter

- Maintain professionalism in all communications (emails, meetings, classes, client discussions, Slack w/ stakeholders, etc.)
- Practice efficient delegation & coworking. Do all 4 of you need to be working on the same thing at the same time?
- Be clear on essential contributions and flare for your project - get the former done first.

# What are these pieces?

## Technical Documentation:

“The Technical Documentation should reflect the group’s ability to articulate in writing the 1) problem and objectives, 2) summarized solution design, 3) description of products, 4) testing approach and results, and 5) user manual or instructions. The documentation must demonstrate that the group has the ability to develop data science solutions that are robust, reproducible, reliable, and quality-assured. In the event that project data is restricted by an NDA, the group should include sufficient information in the user manual section so that potential users are aware of the data and could contact the issuer of the NDA for access.

The goal of the Technical Documentation is not to simply repeat information from the Design and Implementation Plan, but rather to communicate critical information so that a user may understand the product development and reproduce results.”

# Technical documentation

- Title Page
- Signature Page
- Abstract (not to exceed 200 words)
- Executive Summary (not to exceed 4 pages)
- Table of Contents
- Problem Statement
- Specific Objectives
- Summary of Solution Design
- Products and Deliverables
- Summary of Testing
- User Documentation
- Archive Access
- References

I recommend brainstorming here today



# User documentation

- Not just “how to use this app.”
- User may include: client, maintainer, new hire who needs to contribute, actual user. In outline - do you want to specify content for different people? E.g. for “public user” versus “maintainer”? Propose, draft, then review with your other advisor and/or client about what would be most useful.
- Infrastructure: where lives what?
- Code: what would someone need to know to make updates?
- Data & metadata: access, information
- **Brainstorm:** what are things specific to your project that you think should be included in the documentation?



# What are these pieces?

## **Project repo:**

“This repository must be accessible by the EDS 411B instructor, secondary faculty advisor, and the client. This may include multiple source code files, data, as well as other resources used by the project. The User Documentation section from the Technical Documentation should be included, at minimum.

A working draft of the Project Repository must be submitted by the end of Week 5; it is not expected that students submit a complete repository at this point. The completed repository is due at the end of Spring Quarter (see timeline for dates). The deadline for the final Project Repository is firm.”

# What are these pieces?

## **Public presentation:**

In Week 9 of the Spring Quarter (see timeline for dates), each group presents its final project. By this point, the project should be nearing completion. Groups will prepare a 14-minute presentation with a product-oriented focus; groups must include a demonstration of their product interface or data visualization. Following the presentation, students will engage in 5 minutes of questions and discussion with the audience. It is recommended that no more than two group members present, since speaker transitions are disruptive and generally reduce the effectiveness of the presentation, especially when there is limited time. However, three group members can present if the group works on seamless transitions between the speakers to reduce disruption. All members of the group must be in attendance and will be part of a panel seated in front of the audience. The entire group will participate in answering questions, as appropriate; groups should discuss in advance who will present at these events.

# What are these pieces?

## Client Deliverables:

- Confirm early on with your client what you're producing (in writing)
- If they're wishy-washy, you need to help them know what you're producing as a deliverable
- The Technical Documentation is also a document for the client - how they can use, update, contribute to, maintain the product you're delivering

# Today

- **All:** Read Pages 21 - 25 of Capstone Guidelines
- Check in about project management
- Draft Technical documentation outline
  - Specific to your project
  - 4 people should not be simultaneously working on this draft
- Continue work on your project (again, efficiency)
- Recommended for ideas re: what might be in Technical documentation (see links!):  
<https://www.datascience-pm.com/documentation-best-practices/>
- One cool thing!

Work time until 3:40pm