Final Project: Deliverables
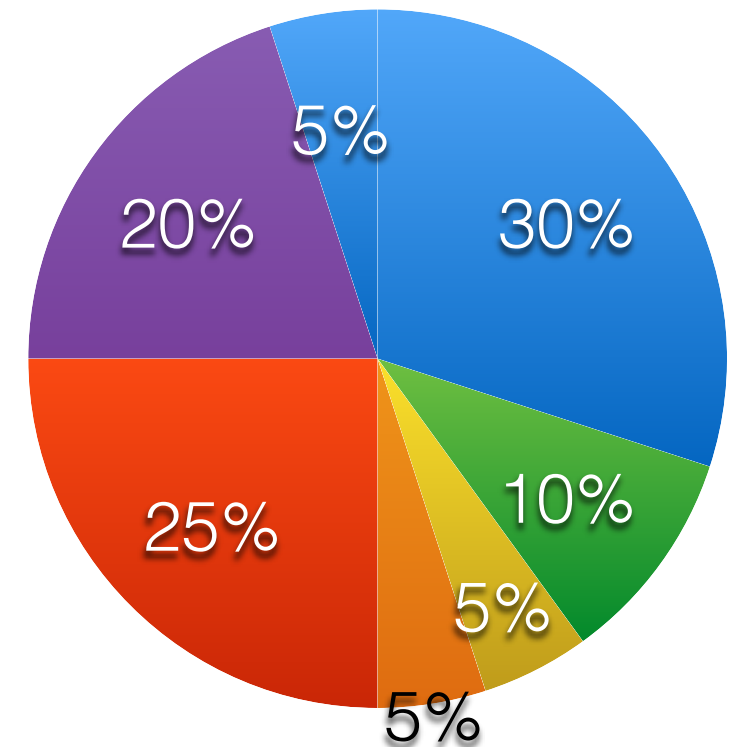
PHY432 Computational Methods in Physics (2025)

Requirements
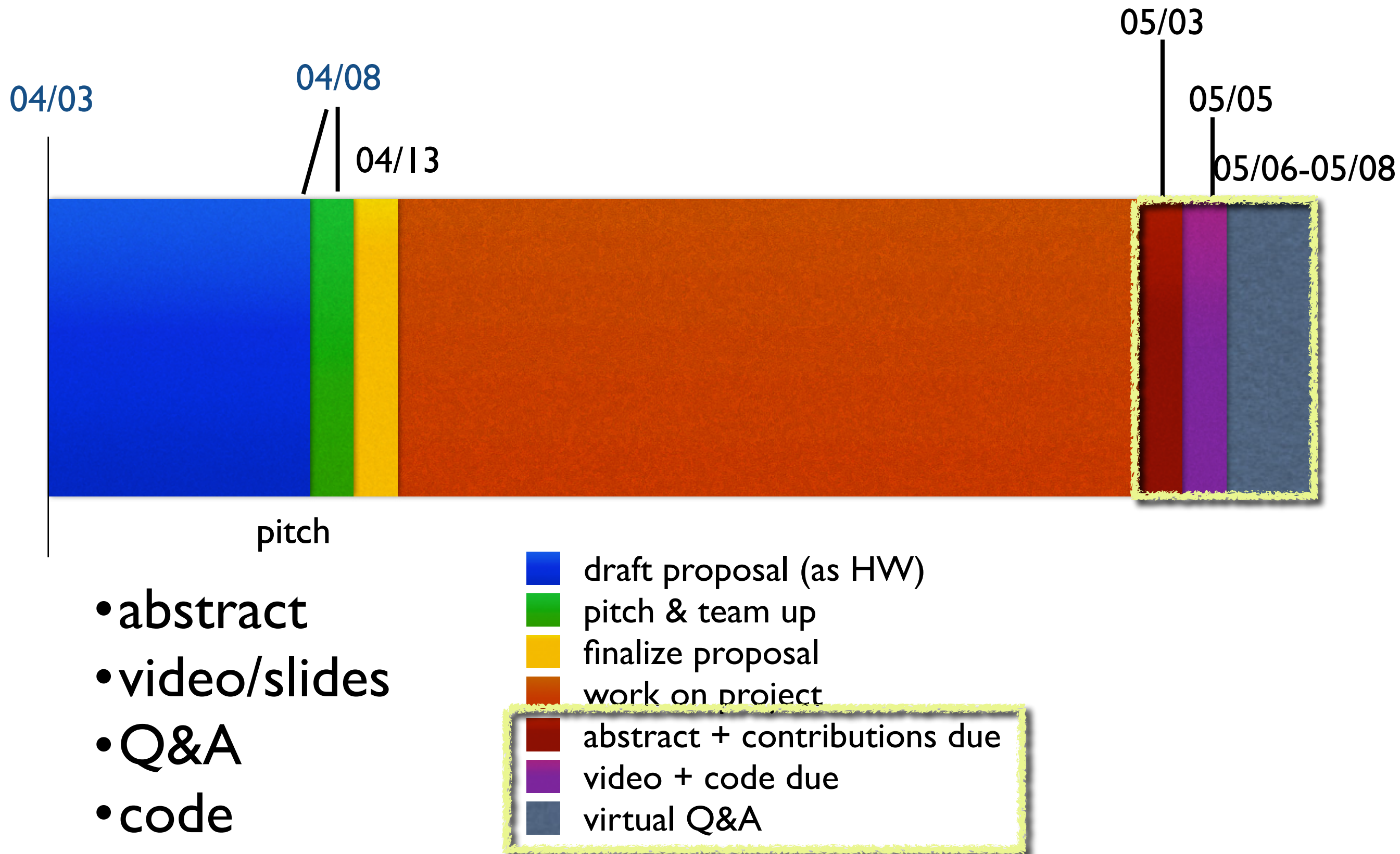
- team (2 or 3 students)

- GitHub repository

- keep "lab notebook" on wiki page

- final video presentation

  - abstract as PDF

  - description of contributions (PDF)

  - video (slides + narration): mp4

  - individual Q&A (Zoom)

Grading

- individual proposal (HW) (5%)

- code, achieves objectives (30%)

- teamwork (contributions, commits, evidence of communication) (10%)

- keep "lab notebook" on wiki page (5%)

- final video **presentation**

  - abstract (5%)

  - video (25%)

  - individual Q&A (20%)

- objectives
- teamwork
- wiki
- abstract
- video
- Q&A
- proposal (HW)

Deliverables

05/03

05/05

04/08

05/06-05/08

04/03

04/13

pitch

- abstract
- video/slides
- Q&A
- code

■ draft proposal (as HW)
■ pitch & team up
■ finalize proposal
■ work on project
■ abstract + contributions due
■ video + code due
■ virtual Q&A

Deliverables

1. submit abstract

2. create video presentation (slides, code demo)

3. Virtual Final Symposium (videos will be shared with all groups)

4. individual Q&A via Zoom

Abstract

- 1 abstract per team

- include title, authors, text

- maximum 200 words

- use the template in docs/ `abstract_TEMPLATE.txt` and git mv it to `abstract/abstract.txt`

- due 5/3/2025 11:59pm (submit through repo)

Abstract

- What was the problem to be solved? Background and why is it interesting? What are the major hurdles? What was your goal?

- How did you approach the problem, what methods did you use (keep high level, don't list code or function names)?

- What are the results and what do they mean? Was the goal achieved?

- Conclusions/future work (1 sentence)

Abstract

- How to get the code?

  - "Code is available at <GitHub URL>"

- Optional: License your code (see http://choosealicense.com/):

  - "under the <LICENSE>."

Contributions

- summarize individual team members' contributions in file `abstract/CONTRIBUTIONS.txt`

- edit the `abstract/CONTRIBUTIONS.txt` file that's already in the repo

- submit with your code

Presentation

- create **slides** as if you were to give a talk

- **record** a presentation

  - use **Zoom** + record locally (screen share desktop, start presentation & record)

  - or e.g., **ScreenPal** https://screenpal.com/ (free version can record, 30-day trial also has a video editor)

- create video in **mp4** format

- share with me via Google Drive or Dropbox (I need the file, not a YouTube video link)

Presentation

- maximum 12 minutes length

- minimum 9 minutes

- all team members should contribute

  - making slides

  - narrating (I want to hear the voice of each team member)

- I like seeing your faces but *adding face video is optional.*

Presentation: **Required** Slides

- title slide with

  - names of authors

  - name of team

  - repository url

- acknowledgement slide at the end for any help (except me or TA) – *if* you had outside help

Presentation: *Recommended Structure*

1. **Title** (required)

2. **Background (WHY?)**: problem, equations to be solved, motivation

3. **Methods (HOW?):** algorithms, parameters, code snippets, flow diagrams, object diagrams, libraries used, …

4. **Results (WHAT?)**: focus on graphs, images, tables, movies: show data (only little text to annotate data)

Presentation: *Recommended Structure*

5. **Conclusions**: Summarize the work, what is the take home message? Did you fulfill your objectives?

6. **(Acknowledgements)** – see requirements

Individual Q&A

- Zoom meeting with team

- individual discussion with each team member

  - max. 10 minutes

  - questions about presentation and project

- To be scheduled for *finals week*

- link for sign-up Google Sheet on Canvas