

Final project timeline

- Project proposal (meeting or email) by 3/13
- Data acquisition done (participation info submitted) by 4/29
- Code submitted to GitHub for review by 4/29
- Code review emailed to Jiefeng by 5/8

Final project (60%)

- Code functionality and clarity (15%):
 - The whole project must be programmed in Python.
 - Builder mode in PsychoPy not allowed.
 - Code should be reasonably encapsulated (i.e., has some functions).
 - The code must achieve what you plan to do.
 - Functions and variables should have meaningful names.
- Documentation (15%)
 - Document (i.e., write comments on) the purpose, input and output arguments for each function.
 - Explain using comment the meaning of each variable and each change of flow (e.g., loop, if statement).
 - You lose 1% for each missing argument/variable, etc.

Final project (60%), cont

- User cases for two major functions (one is your task: 10%, the other is a function of your choice **from your project**: 5%)
 - Task user case: similar to task description figure on journal articles
 - From the user's perspective, illustrate the flow
 - Try account for all scenarios
 - **Figure should cover the entire task**
 - Function: explain the purpose of the function. For each scenario, provide sample input and output of the function
- Presentation (15%)
 - 10 minutes long
 - Demonstrate a trial of the task by running the code on PsychoPy (5%)
 - Explain the findings/data using Jupyter notebook (5%)
 - Explain task design and answer questions (5%)

Code review (30%)

- Each student will review code from two other students (assignments out by Saturday)
- Written feedback (5% each review):
 - All functions have comments explaining input parameters, output parameters and the purpose for each if/for/while statement
 - If there is redundancy in code (e.g., modules imported/variables created but not used, unnecessary re-creation of variables, etc)
- Test cases for two major functions (5% per function per review):
 - A test case means you have some input and expected outputs.
 - Run the function given the input
 - Compare the output from the function to the expected output to decide if the function passes or fails the test.
 - One case should test if the results can give expected results if inputs are legal.
 - The other case should test if the function can handle illegal inputs (e.g., negative RTs) and provide related error information.

Code review (30%), cont

- How to review
 - For reviewer
 - 1. Contact the reviewee with your GitHub ID (or email associated with ID), which will be added as a collaborator.
 - 2. Download the code (e.g., using git clone)
 - 3. Review the code (detailed instructions on next slide).
 - 4. Email report to Jiefeng by 5/8
 - For reviewee
 - Once received reviewers' GitHub ID, add the ID as collaborator (<https://help.github.jp/enterprise/2.11/user/articles/inviting-collaborators-to-a-personal-repository/>)
 - Also add Jiefeng as collaborator using email address (Jiefeng-jiang@uiowa.edu)
 - **Make sure you upload everything (task stimuli etc) for the reviewers and me to run the task on our local machines.**

Code review (30%), cont

- Code review written feedback instructions
 - Functionality and clarity
 - Comment on encapsulation (e.g., are there signs of code repetition, which means it can be put in a function or a loop)
 - The code should be able to run on the reviewer's computer.
 - Check if functions and variables have meaningful names.
 - Documentation
 - Check documentation of the purpose, input and output arguments for each function.
 - Check documentation for each variable and each change of flow (e.g., loop, if statement).
 - User cases
 - Assess if the user case figure for the task is easy to understand and covers all scenarios.
 - Check if the user case for the function is meaningful and produces sample output when given the sample input.

Code review (30%), cont

- Because code review will not impact the reviewee's score, anonymous review is not necessary.

Participation (10%)

- Everyone gets full credit due to COVID-19.