Syllabus for Stats 404: Statistical Computing and Programming (Winter 2021)

Happy new year and welcome to the class! I'm looking forward to meeting you soon and teaching you best practices for implementing Data Science/Machine Learning Engineering projects. Please note: the Syllabus is subject to change.

Winter 2021 / Lecture 1

Location: Zoom 1

Time: Wednesdays 6-8:50PM Pacific

Resources:

- Course website: here
- Github repositories: lectures and assignment submissions

Instructor: Dr. Irina Kukuyeva

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Office Hours: Tuesdays, 6-7PM Pacific on Zoom 3

TA: Stella Huang

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Office Hours:

- Wednesday 5-5:50PM Pacific (discussion): Zoom 2
- Office hours: Tuesdays, 5-6PM Pacific on Zoom 4

Course Overview

Course Description

Lecture, three hours; discussion, one hour. Limited to Master of Applied Statistics students. Fundamentals of statistical programming using Python and SQL. Python is currently state-of-the-art for analysis of data, statistical computing, and software development. Performance of analysis of real datasets using Python. Fundamental principles and techniques for programming in these languages. How to use and interpret the results of important functions in Python packages. Statistical applications involve regression methods

and classification, numerical optimization, and analyzing big data. Graphics and real examples used to illustrate techniques. Analyses of both real and simulated data. S/U or letter grading.

Course Learning Objectives

The goal of this course is to prepare students for Data Scientist or Machine Learning Engineering roles in industry, by learning marketable skills and best practices for collaborating with technical *and* non-technical stakeholders, and developing statistical or Machine Learning software via Python, SQL and Git.

By the end of the course, students should be able to:

- Explain how their work contributes to the business;
- Learn about and implement iterative model development;
- Write production-ready code, that runs not just on their computer;
- Prepare for interviews, by having (an additional) project to showcase in their portfolio and a template for performing data analysis in Python for any interview take-home homework assignments.

Course Material

1. Prerequisites and Software Set-up guide
2. References:
    - **Automate the Boring Stuff with Python** by Al Sweigart
    - **Python for Data Analysis** by Wes McKinney
    - **Introduction for Statistical Learning**, by Gareth James, Daniela Witten, Trevor Hastie and Rob Tibshirani
    - **Elements of Statistical Learning**, by Trevor Hastie, Robert Tibshirani and Jerome Friedman
    - **Python Testing with pytest: Simple, Rapid, Effective, and Scalable**, by Brian Okken
3. Computer with Anaconda, Jupyter Notebook/Lab, SourceTree + Git, SQLite, and PyCharm.
    - NOTE: We will be installing the software throughout the class, as outlined in the guide.

- NOTE: Computer is required for this class. Please borrow one from the CLICC lab, if you don't have one.

Course Website

All important information pertaining to the course will be posted on CCLE. Course announcements, syllabus, schedule changes, homework, lab data, lecture notes, recordings (when available), and any other miscellaneous information will be posted on the site and is subject to change. Please be sure to check it on a regular basis to make sure you do not miss any important information.

Course Schedule

Before Class Starts

- Review required prerequisites, set-up software and create GitHub accounts, per instructions here.

Part I: Machine Learning in Python

- Week 1: Business use case, setting up reproducible ML environment, introduction to Git
- Weeks 2-3: Introduction to Python and pandas
  - HW 1 due: Wednesday, January 13
    i. *Branch name*: feature/HW1
      - *Format*: README.md, requirements.txt
    ii. *Branch name*: feature/syllabus
      - Format: Syllabus-signed.pdf
  - Extra Credit 1 (15 points): Wednesday, January 20
    i. *Branch name*: feature/EC1
    ii. *Format*: tic-tac-toe.py or tic-tac-toe.ipynb
  - Lab 1: Scientific Review of HW 1
    i. Format: Google Form
  - Lab 2: SQL Practice
    i. *Branch name*: feature/LAB1
    ii. *Format*: lab2.ipynb
  - HW 2 due: EDA

        i. *Branch name*: feature/HW2
        ii. *Format*: .ipynb
    - Extra Credit 2 (30 points): SQL Alchemy
        i. *Branch name*: feature/EC2
        ii. *Format*: ec2.ipynb
- Weeks 4-5: Regression methods + numerical optimization + loss functions
    - Lab 2 due (15 points): Code Review
        i. Format: Google Form
    - HW 3 due: ML model
        i. *Branch name*: feature/HW3
        ii. *Format*: .ipynb
- Week 6: Python and Big Data
    - HW 4 due: Computational improvements
        i. *Branch name*: feature/HW4
        ii. *Format*: .ipynb

Part II: Software Development in Python

- Week 7-8: Introduction to Software Development

Part III: Final Project

- Weeks 9 & 10: Final Project Presentations
    - Week 9: Presentations are due: March 3
        i. *Branch name*: feature/presentation
        ii. *Format*: PDF/.html
    - Week 10: Wednesday, March 10:
        i. HW 5 (parts I and II) due (worth 2 HW assignments)
        ii. *Branch name*: feature/HW5
        iii. *Format*: README.md + .py file(s)
- Week 11/Finals' Week: Final project, Extra Credit 4, and Extra Credit 5 are due
    - Final Project: due by EOD (Pacific Time). Friday, March 19:
        i. Write-up and code
        ii. *Branch name*: feature/final
        iii. *Format*: README.md + .py file(s) + requirements.txt
    - Extra Credit 4: due by EOD (Pacific Time). Friday, March 19:

        i. *Branch name*: feature/EC4
        ii. *Format*: README.md + Dockerfile
    - Extra Credit 5: due by EOD (Pacific Time). Friday, March 19:
        i. *Branch name*: feature/EC5
        ii. *Format*: README.md + .py file(s) + requirements.txt
- Please see the Registrar's website for important dates for UCLA, including for the last day to drop the class.
    - Please note that the UCLA Graduate Division policy is that you can't drop a course if that's the only course you're taking in a given quarter, because it would place you in 0 units which means you won't be in student status — which would result in a retroactive withdrawal petition along with your needing to reapply to the program.
    - Friday, March 19 is the end of the quarter.

Providing feedback to me and to your TA

I encourage your feedback at any time throughout the quarter about things that are helping you learn, or things that aren't helping. Please let me or with your TA know if there are ways that we can improve the course to better support student learning.

Course Components

Lectures

- We'll aim to record every lecture. As you'll learn in this class, software doesn't always work as expected. You are responsible for what's said in class, even if you don't attend or if the recording is not available.
    - Recordings should typically be available within 24 hours of lecture on CCLE, barring bugs with Zoom recordings.
    - Per UCLA guidelines: This class is being conducted over Zoom. As the host, I will be recording this session. The recording feature for others is disabled so that no one else will be able to record this session through Zoom. No recording by other means is permitted. This session will be posted at the CCLE class website unless otherwise notified. If you have privacy concerns and do not wish

to appear in the recording, do not turn on your video. If you also prefer to use a pseudonym instead of your name, please let me know what name you will be using so that I know who you are during the session. ... If you have questions or concerns about this, please contact me. Pursuant to the terms of the agreement between the vendor and UCLA, the data is used solely for this purpose and the vendor is prohibited from re-disclosing this information. UCLA also does not use the data for any other purpose. Recordings will be deleted when no longer necessary. However, the recording may become part of an administrative disciplinary record if misconduct occurs during a videoconference.

    - Please see this etiquette guide for remote instruction

- Class attendance is optional:
    - For the last 2 days of in-class oral presentations, if you are not planning to come to class, you are required to submit a recording (".mp4" file) giving your talk before March 3 or receive a 0 on the final project. You will have one week to complete the in-class worksheet.
    - Among remaining lectures, there will be some that will include a lab component with group work. You will have one week to complete the lab. Partners will be assigned based on who's in class that day *and* who submitted the assignment required for the lab. *If you are not in class that day, or if you did not do the required assignment*, you are responsible for finding a partner and completing the assignment before the deadline -- or get a 0 on the lab.
- Your camera is not required to be on during lecture. I do encourage you to turn it on during breakout sessions and oral presentations, but do understand that everyone's work from home set-up is different.
- Please do not speak out of turn during the lecture portion of the class. Please raise your hand to ask a question -- or use the chat.
    - Policy on talking during lecture, when the professor is talking:
        1. Warning
        2. Asked to leave class
        3. 0 on HW/Lab assignment
    - Policy on talking during someone else's oral presentation: 0 on presentation portion of final project.

    - Here are more Zoom etiquette tips

Discussion Sections and Office Hours

- Discussion sections will run as extra office hours -- and will not be recorded.
- Office hours will not be recorded.
- Attendance is optional but highly encouraged.
- Questions will be answered round-robin.
- We will be holding a discussion section on January 6th -- and an office hour finals' week.

Homework and Labs

- There will be 5-6 homework assignments and 2-4 labs, which will be posted on the course website.
- You will have at least one week to submit all assignments, so if you start early, you will have plenty of time to iron out any technical glitches.
- If a lab includes group work, where partners are assigned based on who's in class that day, *and* who submitted the assignment required for the lab. *If you are not in class that day, or if you did not do the required assignment*, you are responsible for finding a partner and completing the assignment before the deadline -- or get a 0 on the lab.
- The lowest HW or Lab (worth up to 30 points) will be dropped.
- Extensions for assignments will NOT be granted.

Extra Credit

- There will be at least 2 *optional* extra credit assignments (worth up to 30 points each), which will be posted on the course website.
- Any points earned for extra credit work count towards your homework grade.
- Requests for additional extra credit assignments will NOT be granted.
- Extensions for assignments will NOT be granted.

Final Project

- There is no final exam. You are responsible for completing a final project that is composed of an in-class presentation, a writing portion and a code submission.

Components are not optional and you must submit ***all*** three components ***in required submission format***; failure to do so will result in a 0 for the final project, which is worth 40% of your grade.

- The last 2 class lectures are reserved for final project oral presentations; attendance is optional. If you are not planning to come to class, you are required to submit a recording (".mp4" file) giving your talk before March 3 or receive a 0 on the final project. You will have one week to complete the in-class worksheet.

If you are unable to submit the final project components by the specified dates, please drop the course.

Final project presentations:

- **(Part I): Wednesday, March 3, 2020 6pm–8:50pm Pacific (Week 9 in class)**
- **(Part 2): Wednesday, March 10, 2020 6pm–8:50pm Pacific (Week 10 in class)**

Final project (write-up + code) submission:

- **Wednesday, March 20, 2020 EOD Pacific Time (Final's Week)**

Policies on Graded Assignments

Every homework, lab, final project, or other assessment that you turn in MUST be submitted online, in required submission file and branch name format, to class code repository as a PR, assigning instructor and TA as reviewers. If any of this information is missing, misspelled, incorrect, or not executable you will receive a zero grade for that assessment. It is your responsibility to ensure your work is correct and executable.

A student who has entered the course late and missed assignments, will receive 0 on those assignments.

*For every graded assignment (including but not limited to the final project), there is a **one week grace** period (until the end of quarter) to ask questions regarding grades and requesting re-grades. When requesting a re-grade, clearly explain why you require a regrade and: for HW/Lab -- email the TA and copy (cc) the instructor; for final project -- email the instructor. After one week, ALL GRADES ARE FINAL. We reserve the right to re-grade assignment in its entirety, which may result in a lower grade.* Please note: The request of a

regrade can only be based on the content, not on the fact that you were marked down for not following submission guidelines.

Submission Format

Assignments need to be submitted online, in required submission file format AND:

- *Branch name, to class code repository as a Pull Request (PR) on GitHub, assigning instructor as reviewer on final project only and TA as reviewer otherwise.*
- *Any assignments in Jupyter notebooks need to show cells numbered in increasing order, starting from [1], and show output (where appropriate).*

Assignments not in required submission format will not be accepted and will result in a 0 for each assignment; this also applies to submitting the final project. In addition:

- No hard copies or e-mails of any work will be accepted. Excel spreadsheets, R scripts, etc. will not be accepted.
- Late submissions will NOT be accepted and will receive a 0.
- Submissions after the deadline will NOT be accepted.
- **Assignments that are late due to technical glitches will not be accepted.**
    - NOTE: If you did not receive a GitHub notification email (from notifications@github.com) confirming your PR, your assignment was not submitted.
    - NOTE: If paths in your code include your user name (or similar), it will not run on anyone else's machine.
    - NOTE: Email confirmations of assignments -- other than from notifications@github.com -- will not be provided.

Grading

- Homework and labs: 60%, with 1 lowest HW or Lab (worth up to 30 points) dropped
- Final project and presentation (requirements and guidelines here): 40%
    - Communication: presentation + write-up + attendance: 15%
    - Statistical/machine learning methodology: 15%
    - Software Development: 10%
    - NOTE: Instructor will provide the laptop and presentation clicker for your presenting the work in class.
- Submissions are due:

    - HW, Labs, Google Forms and any Extra Credit assignments are *due before class (by 6PM)*.
    - Final presentation is due before class, by March 3rd (by 6PM).
    - Final project write-up + script(s) are *due by the end of day (Pacific Time) on Friday of Finals' Week, March 19.*
- It is **your responsibility** to make sure you get access to the class repository **BEFORE** HW 1 is due (January 13).
    - *Prerequisite*: GitHub username shared on Google form.
- There are no extensions.
- All grades will be finalized on my.ucla.edu.
- It is **your responsibility** to get permission (or license) to use any proprietary data not owned by you for this class.

Final Grades

- Class has to be taken for a letter grade.
- Final letter grades will be assigned according to the following percentages:
    - A+: >= 97
    - A: [93, 97)
    - A-: [90, 93)
    - B+: [87, 90)
    - B: [83, 87)
    - B-: [80, 83)
    - C+: [77, 80)
    - C: [73, 77)
    - C-: [70, 73)
    - F: < 70
- Percentages will not be rounded.
- Because there will be at least 2 extra credit assignments and because research's shown that curves create a competitive environment and disadvantage groups of students, there is no curve for the class.

In Case of Emergency

I understand that sometimes life makes it difficult to focus on schoolwork. For that reason, I drop 1 lowest HW/Lab (up to 30 points), no questions asked. What follows has been adapted from Common Syllabus to remote teaching and this class.

Your final project components are due at the specified times (above). There are a few exceptions to this rule, and if you are requesting one of these exceptions you must email documentation to the course instructor *within 48 hours* of the event occuring *and before* the final project deadline. If a student cannot produce such evidence, the missed final project grade will be 0.

The exceptions, detailed below, are unanticipated and serious medical emergencies, death in your immediate family, and qualified disabilities. There are no other exceptions. Since the exceptions are narrow and well defined, your email request for an exception should be short and to the point.

- Unanticipated and serious medical emergencies are when you are in the hospital or clinic during the time they're giving the in-class presentation (March 3 or 10) or the day of the final project deadline (March 19). Verifiable documentation from the health care facility must follow your email. Any such documentation should clearly state that the student was admitted to a hospital or clinic for in-patient services for a serious health condition and was therefore unable to give the presentation or submit the final project.

- Death of an immediate family member: your parents, siblings, spouse, significant other, and children. Acceptable evidence includes (i) the death certificate of the deceased and the documentation that confirms the relationship between the deceased and the student; or (ii) the obituary that includes the relationship between the deceased and the student. The passing or funeral service must have taken place on one of 6 days: (i) the day of your in-class presentation or final project deadline, (ii) the day prior to your in-class presentation or final project deadline, (iii) the day following your in-class presentation or final project deadline.

- Students with a qualified disability who require academic adjustments (relating to exams or others) Section 504 of the Rehabilitation Act of 1973, (29 USC Section 794) (ADA) must register with the Center for Accessible Education (CAE) – formerly called the Office for Students with Disabilities (OSD) – before receiving any academic

accommodation(s). The CAE will communicate all proposed academic accommodations, including any modification to examination attendance requirements, directly to the instructor and the department. When possible, students should register with the CAE within the first week of classes (and before the end of the quarter) so that a timely request for accommodation can be made. Whenever possible, the CAE will proctor examinations for eligible students seeking this type of academic accommodation. For additional information and the qualification conditions, please visit the CAE website: www.cae.ucla.edu.

UCLA recommends that, if you've "tested positive for COVID-19 in the last 14 days, have symptoms of COVID-19, or had close contact with someone diagnosed with COVID-19, [please] call the Ashe COVID-19 Hotline at (310) 206-6217 to speak to a medical provider about the need for testing and quarantine/isolation."

If you're experiencing a financial crisis, please see here for additional resources that may be available to you.

Policies on Email

Before emailing the instructor and/or the TA, please do the following steps:

- Did you try finding your answer online?
- Did you try asking your colleague (your contact from Class 0)?
- If that didn't answer your question:
    - Is it an installation/permission/It question? Please come to office hours.
    - Otherwise, please email us (see tips here for writing emails and for asking coding questions), copy your colleague, and provide the following:
        - What the problem/error is, and
        - What you did to get there -- or when it last stopped working, and
        - What solution(s) you tried, and
        - Provide screenshots.

During the quarter, the instructor and TA will aim for a response time of 2 business days.

University Policies

As a student and member of the University community, you are here to get an education and are, therefore, expected to demonstrate integrity in your academic endeavors. All students must uphold UCLA Student Code of Conduct as administered by the Office of the Dean of Students. Students are subject to disciplinary action for several types of misconduct, including but not limited to: cheating, multiple submissions, plagiarism, prohibited collaboration, facilitating academic dishonesty, knowingly furnishing false information, or harassment.

Academic Integrity

You may have assignments or projects in which you work with a partner or with a group. For example, you are welcome, and even encouraged, to work with others to solve homework problems. Even though you are working together, the assignment you submit for a grade must be IN YOUR OWN WORDS, unless you receive specific instructions to the contrary. For more information about academic integrity, please go to http://www.deanofstudents.ucla.edu.

Because all learning is remote this term, you should be aware that unauthorized sharing of answers or solutions may be a violation of these policies. For example, posting a (partial) solution to the public (including email, Slack and your public GitHub) for a lab or extra credit problem is a violation, as is Googling for solutions and copy-and-pasting the solution into your own work without attribution. Accessing the instructors' edition or any set of solutions for assignments is a violation of the academic integrity policy. When in doubt... ask.

Message about Academic Integrity to all UCLA Students from UCLA Dean of Students

UCLA is a community of scholars. In this community, all members including faculty, staff and students alike are responsible for maintaining standards of academic honesty. As a student and member of the University community, you are here to get an education and are, therefore, expected to demonstrate integrity in your academic endeavors. You are evaluated on your own merits. Cheating, plagiarism, collaborative work, multiple submissions without the permission of the professor, or other kinds of academic dishonesty are considered

unacceptable behavior and will result in formal disciplinary proceedings usually resulting in **suspension** or **dismissal**.

Forms of Academic Dishonesty: As specified in the UCLA Student Conduct Code, violations or attempted violations of academic dishonesty include, but are not limited to, cheating, fabrication, plagiarism, multiple submissions or facilitating academic dishonesty:

- **Cheating:** Unauthorized acquiring of knowledge of an examination or part of an examination
    - Allowing another person to take a quiz, exam, or similar evaluation for you
    - Using unauthorized material, information, or study aids in any academic exercise or examination – textbook, notes, formula list, calculator, etc.
    - Unauthorized collaboration in providing or requesting assistance, such as sharing information
    - Unauthorized use of someone else's data in completing a computer exercise
    - Altering a graded exam or assignment and requesting that it be regraded

- **Plagiarism**: Presenting another's words or ideas as if they were one's own
    - Submitting as your own through purchase or otherwise, part of or an entire work produced verbatim by someone else
    - Paraphrasing ideas, data or writing without properly acknowledging the source
    - Unauthorized transfer and use of someone else's computer file as your own
    - Unauthorized use of someone else's data in completing a computer exercise

- **Multiple Submissions**: Submitting the same work (with exact or similar content) in more than one class without permission from the instructor to do so. This includes courses you are currently taking, as well as courses you might take in another quarter

- **Facilitating Academic Dishonesty**: Participating in any action that compromises the integrity if the academic standards of the University; assisting another to commit an act of academic dishonesty
    - Taking a quiz, exam, or similar evaluation in place of another person
    - Allowing another student to copy from you
    - Providing material or other information to another student with knowledge that such assistance could be used in any of the violations stated above (e.g., giving test information to students in other discussion sections of the same course)

- **Fabrication**: Falsification or invention of any information in an academic exercise
    - Altering data to support research
    - Presenting results from research that was not performed
    - Crediting source material that was not used for research

While you are here at UCLA, you may find yourself in a situation where cheating seems like a viable choice. You may rationalize to yourself that "Everyone else does it"...Well, they don't. And will that matter when YOU get caught? NO! If you are unsure whether what you are considering doing is cheating, just ask yourself ...how would you feel if your actions were public, for anyone to see? Would you feel embarrassed or ashamed? If the answer is yes, that's a good indicator that you are taking a risk and rationalizing it to yourself.

If after reviewing the information above, you are still unclear about any of the items – **don't take chances**, don't just take your well-intentioned friend's advice – ASK your TA or your Professor. Know the rules - Ignorance is NO defense. In addition, avoid placing yourself in situations which might lead your TA or Professor to **suspect you of cheating**. For example, during an exam don't sit next to someone with whom you studied in case your answers end up looking "too similar."

Alternatives to Academic Dishonesty (adopted for this class)

- **Seek out help** – come to office hours, meet with your TA or Professor.
- **Drop the course** – can you take it next year when you might feel more prepared and less pressured?
- **See a counselor** at Student Psychological Services, and/or your school, college or department – UCLA has many resources for students who are feeling the stresses of academic and personal pressures.

Remember, getting caught cheating affects more than just your GPA. How will you explain to your parents, family and friends that you have been suspended or dismissed? How will it affect your financial aid award and/or scholarship money? Will you be required to, and be able to pay back that money if you are no longer a student? If you live in the residence halls, where will you go if you are told you can no longer live there?

You have worked very hard to get here, so don't cheat! If you would like more information, please come see us at the Dean of Students' Office in 1206 Murphy Hall, call us at (310) 825-3871 or visit their website at www.deanofstudents.ucla.edu.

Academic Integrity Related to Collaboration

What follows has been adopted from Bowdoin's Computer Science guide and Stats 20 for remote learning and this class.

This class employs two "levels" of collaboration, where each level defines a set of allowed (and disallowed) behaviors. Higher levels are more restrictive, while lower levels are more permissive. Assignments in a course will typically employ a range of different levels. Our goal is to provide you with extensive opportunities for collaboration (as is the norm in "the real world") while still ensuring that you become an independent programmer capable of doing significant work on your own.

In the interest of fairness to all students, violations of the collaboration policy are grounds to initiate an action that would come before the Dean of Students. Remember that you are responsible for reading, understanding, and adhering to the policy. If you have any questions about any aspects of the policy, please do not hesitate to ask for clarification. If you do not agree with the policy, please drop the class.

- ***Homeworks, Labs and Final project (including presentation) are subject to policy Level 1***
- ***Extra credit assignments are subject to policy Level 3***

Level 1: Verbal collaboration without code sharing

At this level, you are allowed and encouraged to discuss ideas and approaches with other class members, but such collaboration should not involve any written medium, including (but not limited to) computers, chalkboards, and paper. However, drawing pictures is permitted, *except for* discussions of architecture diagrams.

You may receive general programming and debugging advice, but ***you are required to write and debug all your own code, and at no time should you look at or receive another student's code in any form*** (on a computer, via email, printout, verbally, over messaging platforms (such as Slack, Discord, etc.), etc). Similarly, you should not share your code with others or allow it to be shared (except with teaching staff), including asking questions in online forums (such as StackOverflow) or sharing with future students after you have completed the course yourself.

Please note: To complete the code review lab assignment, you can share your screen to get code reviewed; you should not be sharing code (including scripts or notebooks) to complete this or any other assignment.

Providing help beyond what is allowed is as much of a violation of the Student Conduct Code as receiving help.

External resources

It is ***never*** permitted to view partial or completed assignments, projects, or exams from the current or previous iterations of the course, regardless of their source, this includes asking questions in online forums (such as StackOverflow). Otherwise, proper use of books or help files for reference purposes is permitted, such as looking up the use of a particular programming function. However, copying sections of code found online or anywhere else (including Kaggle and Stack Overflow) *without attribution* is not allowed. You absolutely should never submit code that you do not understand or would not be able to clearly explain.

Crediting sources

When you use other sources to complete your work, you must credit the source of the ideas. This includes crediting other people (e.g., your classmates) or a website. Anyone or anything that contributed to the completion of your assignment should be credited with the following:

- **Author**: The person who contributed the work should be clearly identified as the author. Note that by implication, you should learn the names of the people you work with. Not knowing someone's name is not an excuse for not giving them credit.
- **Borrowed/Shared Ideas**: If you discuss ideas with others, and the discussion has an impact on the work you submit, you must credit whomever you talked with and note their contribution. This might be either that you had a group discussion with everyone contributing ideas, or that someone had a great idea that you incorporated. Whenever you talk to someone about a problem in this class, you should document it so you do not forget later.
- **Outside Sources**: Soliciting help from any source where not all potential respondents are subject to the UCLA Student Conduct Code is strictly forbidden. For instance, if you enlist a tutor for help in this class, the tutor must be a person who is associated with the university in some meaningful way. If you use a tutor, you must credit that

tutor on your assignment with their name, University ID, and identify which parts of the submitted work they assisted with. Online tutors are explicitly forbidden under this policy.

Other materials used as sources should be referenced using a standard style. If you have questions about using and citing references, please ask your professor and/or look at examples in the readings for this class.

You may credit your sources using the comments in your program, in a note in a writeup, or in any other readily apparent way.

Level 3: Professor clarifications only

At this level, the only help you are allowed is asking a professor (who will likely not offer much help beyond basic clarifications) or checking external resources that are either (online) books, tutorials or reference guides. The same rules for using external resources and crediting sources apply, as specified in Level 1.

Posting of Work Online

I recognize that students often wish to post completed work online for professional purposes, including: a public GitHub repository, a personal website, social media, etc. However, such work is readily found by web searches, and therefore may be problematic for future iterations of a course that may reuse prior assignments or parts thereof.

As a general rule, **you must not publicly post any work online that could be inappropriately reused by future students, *even after the quarter is over***. Such work would include recordings of lectures as well as labs, homeworks, extra credit questions or solutions, etc. Note that an exception exists for projects that are primarily self-designed, e.g., a final project. You are welcome to host your final project on your public repository after the end of the quarter and after the final grades are assigned.

Note that alternatives to public posting are readily available. For example, GitHub provides private repositories that can be shared only with desired parties (such as prospective employers). You are not prohibited from posting work to GitHub or the web entirely, but merely from doing so in a way that is globally accessible.

If a student is found to have submitted work substantially similar to work that you have publicly posted online, you will be considered a party to any resulting Dean of Students action and subject to sanctions, regardless of whether you knowingly shared your work with other students.

Code of Conduct

(Adopted from Vanderbilt's Center for Teaching and Learning website.) In this class I will work to promote an anti-discriminatory environment where everyone feels safe and welcome. I recognize that discrimination can be direct or indirect and take place at both institutional and personal levels. I believe that such discrimination is unacceptable and I am committed to providing equality of opportunity for all by eliminating any and all discrimination, harassment, bullying, or victimization. The success of this policy relies on the support and understanding of everyone in this class. We all have a responsibility not to be offensive to each other, or to participate in, or condone harassment or discrimination of any kind and will also abide by the UCLA Student Code of Conduct. This extends (but is not limited to) your conduct in-class, in discussion, in office hours, on social media, messaging platforms and internal or external forums or websites.

UCLA's Office for Equity, Diversity, and Inclusion provides resources, events, and information about current initiatives at UCLA to support equality for all members of the UCLA community. I hope that you will communicate with me or your TA if you experience anything in this course that does not support an inclusive environment, and you can also report any incidents you may witness or experience on campus to the Office of Equity, Diversity, and Inclusion on their website.

Accessible Education

Students needing academic accommodations based on a disability must contact the Center for Accessible Education (CAE) at (310) 825-1501 or present in person at Murphy Hall A255. As the professionals delegated authority from the campus to determine reasonable disability accommodations, CAE will assess all requested accommodations and communicate appropriately with faculty. In the event that a student has approval for proctoring arrangements during exams, please inform your respective professors and/or Teaching Assistant(s) before the date of exam(s). When possible, students should contact the CAE

within the first two weeks of the term (and before the end of the quarter) as reasonable notice is needed to coordinate accommodations. For more information visit www.cae.ucla.edu.

Title IX

Title IX prohibits gender discrimination, including sexual harassment, domestic and dating violence, sexual assault, and stalking. If you have experienced sexual harassment or sexual violence, you can receive confidential support and advocacy at the CARE Advocacy Office for Sexual and Gender-Based Violence, 1st Floor Wooden Center West, CAREadvocate@caps.ucla.edu, (310) 206-2465. In addition, Counseling and Psychological Services (CAPS) provides confidential counseling to all students and can be reached 24/7 at (310) 825-0768. You can also report sexual violence or sexual harassment directly to the University's Title IX Coordinator, 2241 Murphy Hall, titleix@conet.ucla.edu, (310) 206-3417. Reports to law enforcement can be made to UCPD at (310) 825-1491.

Faculty and TAs are required under the UC Policy on Sexual Violence and Sexual Harassment to inform the Title IX Coordinator should they become aware that you or any other student has experienced sexual violence or sexual harassment.

Sanctions

Misconduct, including but not limited to: cheating, multiple submissions, plagiarism, prohibited collaboration, facilitating academic dishonesty, knowingly furnishing false information, or harassment will not be tolerated. In the interest of fairness to all students, violations of the collaboration policy are also grounds to initiate an action that would come before the Dean of Students.

Violations of the policies set in the Syllabus and/or the UCLA Student Conduct Code will result in two levels of penalties.

In-Class Sanctions

If you are found to have violated the policies set in the Course Syllabus and/or the UCLA Student Conduct Code, you will receive a score of zero (0) on **ALL** graded assessments for the entire course (homework, labs, final project, etc.), regardless of the magnitude or type of incident.

University Sanctions

All suspected academic dishonesty is reported to the Dean of Students, without exception. You will not receive a warning when this happens, nor will you have an opportunity to explain yourself. The decision to refer a student to the Dean of Students for disciplinary action is not taken lightly. The evidence for each case is reviewed by multiple people prior to a referral, and will be sufficient to meet the standard used by the Student Conduct Committee: whether it is more likely than not that a violation of the UCLA Student Conduct Code has occurred.

Depending on the scope and nature of the offense and if you have been referred in the past, typical penalties range from Disciplinary Probation, Suspension for one or more terms, Dismissal from the University altogether, and even Revocation of your degree if the academic dishonesty is discovered after you graduate.

(Signature page on the following page)

Signature

Please read and initial the following statements of understanding:

I have read and understand the Course Syllabus **Initial:** NC

I have read and understand the UCLA Student Conduct Code: **Initial:** NC

I understand that I will receive a 0 on each assignment (homework, lab, extra credit, or final project), that's not submitted in required submission format. **Initial:** NC

I understand if I am found to have violated the Course Syllabus and/or the UCLA Student Conduct Code, with **ANY** of my actions related to this course I will receive a **score of zero (0)** on **ALL** submitted work for this course and I will be referred to the Dean of Students for further disciplinary action. **Initial:** NC

I understand possible sanctions for an Academic Integrity violation include suspension for one or more quarters and dismissal from UCLA altogether. **Initial:** NC

You **must** sign and return this agreement to participate in this class. No work will be accepted or graded until this completed form is committed to your GitHub repository on branch "feature/syllabus" as file "Syllabus-signed.pdf". By signing this form you acknowledge you have read, understood, and agree to adhere to the course syllabus, and the UCLA Student Conduct Code.

Full Name (print): Nicholas Carbone

University ID: 005644878

Signature: NC

Date: 1/12/2021