CSCI 233 Syllabus Programming Projects Seminar for Minors Fall 2023

Department of Computer Science, Hunter College, CUNY Instructor: Daniel Mallia (Adjunct Lecturer) Wednesdays, 12:30 PM - 2:20 PM ET Location: HN C004 Contact: Daniel.Mallia21@login.cuny.edu

1 Prerequisites

Per the Computer Science Department's website¹, CSCI 133 (Programming for Everyone) and CSCI 232 (Relational Databases and SQL Programming, with Lab) are **required prerequisites** for this course. In addition, you **must** have declared a Computer Science minor. If you have not taken those courses or you have not declared the minor, please speak to me immediately at the beginning of the semester so I can see what, if anything, can be done.

2 Learning Outcomes

This course specifically targets the middle two learning outcomes outlined on the Department website². This means by the end of this course you will have demonstrated that you are:

- 2. "able to implement the solution to a computing problem in a high-level programming language with a program of non-trivial size"
- 3. "able to manipulate and query data using a relational database system"

3 Course Description

As the the title of this course and the above learning objectives suggest, this is a projectbased course. You will work in groups, of your own choosing, of 3-4 students to develop significant projects which include three major components:

- 1. A relational database
- 2. An interface to that database
- 3. A user interface for your application

¹https://www.hunter.cuny.edu/csci/for-students/minoring-in-computer-science ²https://www.hunter.cuny.edu/csci/for-students/minoring-in-computer-science

These requirements are general enough so as to accommodate the diversity of student backgrounds and skill-sets, but require that you are making use of your database knowledge, you are adhering to good software engineering principles of abstraction in how you communicate with that database, and you having a nice user-friendly product that can be useful for your team and others.

To be explicit in requirements, your project should make use of (a) at least one database, AND (b) at least one high level programming language (Python, R, JavaScript, etc.). The source code for your project should be developed in a consistent and professional manner beginning after your proposal document is submitted. You must employ a version control system (Git) and have your work hosted on a version-controlled code repository platform (Github, Gitlab, etc.). Your repository should be private until submission; however, you should share snippets of your work in your presentations. To be absolutely clear, your final project should demonstrate, via the Git commit history, participation of all group members in the technical development of the project, working from late September/early October until project submission.

The ideas and motivation for these projects will come from you: your academic major, your interests, your hobbies, etc. By developing a large project as a group, you will be better prepared for the professional environment, where you will need to work well with others, adhere to good practices, maintain a timeline, and produce results. Your project will hopefully be a great showpiece for your resume!

Working as a group is not a license to avoid responsibility. Your group-mates will ultimately review your contribution and this will be taken into consideration in grading.

4 Required Course Materials

None. To the extent that it is helpful, the instructor will share slides on Blackboard regarding certain tools, sources of data, or programming languages.

5 Grading

| Item | Due Date, if any | Percentage |
|--------------------------------------|------------------|------------|
| Attendance and Participation | - | 10% |
| Project Proposal Presentation | 9/20 | 10% |
| Project Proposal Document | 9/27 | 10% |
| Progress Presentation $\# 1$ | 10/18 | 10% |
| Progress Presentation $\# 2$ | 11/15 | 10% |
| Final Presentation | 12/20 | 10% |
| Final Project Paper and Peer Reviews | 12/20 | 15% |
| Final Application | 12/20 | 25% |

5.1 Grade Distribution

Table 1: CSCI 233 grade distribution

5.2 Grade Descriptions

5.2.1 Attendance and Participation

You **must** attend all class sessions and participate. Class is an opportunity for you to generate ideas, get feedback from others, as well as help others, with your own feedback. Note that ALL members of each group must attend and equally participate in each of their presentations just as they must attend each class.

5.2.2 Project Proposal Presentation

10-15 minute presentation, with slides, spelling out the ideas, "deliverables" and anticipated tools and data of your project. Feedback on this presentation from fellow students and the instructor should aid in developing the proposal document. Slides must be made available to the instructor.

5.2.3 Project Proposal Document

A 3-4 page double-spaced paper giving specifics on what problem or need you are addressing, what is the minimal viable product of your project, what are some extra features you would like to include if you have time, and what tools and data you expect to use. This should build upon the project proposal presentation.

5.2.4 Progress Presentations

10-15 minute presentation, with slides, on your progress to date. Slides must be made available to the instructor.

5.2.5 Final Presentation

A 15 minute presentation, with slides and **application demonstration**, of your final application.

5.2.6 Final Project Paper and Peer Reviews

A 6-8 page double-spaced paper giving specifics on what you accomplished, what you used to accomplish it, and what challenges you faced. This report should be submitted once for the whole group. In addition, each student will be required to submit a summary of their group-mates' efforts: it is OK if everything worked out well and you have nothing but praise (that's the ideal scenario), but this is your chance to share with the instructor if the burden was not equally distributed.

5.2.7 Final Application

The actual final application source code. This **must** be made available for public review (at the time of submission) via a version-controlled code repository platform (Github, Gitlab, etc.). Remember this is your final product: it should be a working, useful application which includes a clear description of its purpose and instructions for use. Again, a working and well-documented project looks great on your resume.

6 Lateness and Makeup Policy

In general no lateness will be accepted for assignments, as these are mostly presentations and your final submission materials. You will have a couple of extra days leeway for your project proposal document, but know that you are only punishing yourself in delaying your work. If a medical or family emergency arises, preventing submission of an assignment or attending class or a presentation, you must: (a) notify the instructor **in advance** of the submission/class/presentation time; (b) provide appropriate documentation; and (c) discuss what can be done to accommodate the emergency in terms of grading with the instructor.

7 Provisional Timeline

The following is a provisional timeline for the course. All efforts will be made to adhere to it, but changes may be made as necessary. Observe that the Fall 2023 semester boils down to 15 class sessions, some of which will consist of presentations. This means that procrastination or leaving your work to only class sessions, will be a bad idea!

All sessions with the exception of the final exam session will include time for group work. Be aware that this may be as little as 30 minutes on days with presentations; during presentations everyone is expected to be respectful and give other groups their attention and feedback. In addition and as needed/requested, the instructor will spend some time to provide introductory material on languages, tools, etc.

| Week | Class Date | Items |
|------|------------|---|
| 1 | 8/30 | Course intro: syllabus, student skills and intros; Note: 8/31 |
| | | is the last day to drop without a W |
| 2 | 9/6 | Team formation |
| 3 | 9/13 | |
| 4 | 9/20 | Project Proposal Presentation |
| 5 | 9/27 | Project Proposal Document |
| 6 | 10/4 | |
| 7 | 10/11 | |
| 8 | 10/18 | Progress Presentation # 1 |
| 9 | 10/25 | |
| 10 | 11/1 | |
| 11 | 11/8 | |
| 12 | 11/15 | Progress Presentation # 2 |
| 13 | 11/22 | No classes scheduled |
| 14 | 11/29 | |
| 15 | 12/6 | 10 minutes for teacher evaluation |
| 16 | 12/13 | Reading day, no class |
| 17 | 12/20 | "Final exam" date: final presentations; project paper, |
| | | peer reviews and final application due |

 Table 2: Provisional CSCI 233 timeline

8 Logistics

8.1 Course Format

This is an in-person course.

8.2 Course Communications

All communication for this course will be conducted via Blackboard and Hunter email. All student submissions will be made via Blackboard, and all materials and announcements will be conveyed via Blackboard. If you need to reach the instructor, you **must** email using your **Hunter** email. To adhere to the requirements under FERPA, emails sent from any other domain will not be answered, as the sender cannot be verified and the communication may not be secure. In addition, please **note the course designation in the email subject line** (e.g. "CSCI 233 - Help Needed") as this will greatly help in efficient and timely communication.

8.3 Office Hours

The instructor will be available (a) for two hours every week on Monday from 2PM to 4PM, in person (Room 1001L) and via Zoom (link via Blackboard), and (b) by appointment via Zoom. There are two exceptions:

- 1. For the first week of this course **only**, this office time will be held on Thursday, August 31, from 3:30PM to 5:30PM (Room 1001L); thereafter it will follow the above Monday schedule.
- 2. For days on which the college is closed, the office hour will be ONLY via Zoom.

9 Syllabus Change Policy

This syllabus represents the best possible description of the course and its timeline that can be offered prior to the start of the semester. It is subject to revision with advance notice, via Blackboard, should need arise. Changes will not be made to the grade distribution.

10 Academic Integrity

The Computer Science Department takes academic integrity very seriously, and any violation will result in sanctions in accordance with Hunter College's procedures. Hunter College regards acts of academic dishonesty (e.g., plagiarism, cheating on examinations, obtaining unfair advantage, and falsification of records and official documents) as serious offenses against the values of intellectual honesty. The College is committed to enforcing the CUNY Policy on Academic Integrity and will pursue cases of academic dishonesty according to the Hunter College Academic Integrity Procedures.

11 Bullying and Intimidation

Bullying, cyberbullying, online hate, intimidation, threats, harassment, and pressure to share schoolwork are all forms of violence. CUNY holds a zero-tolerance stance towards all such acts. The University is committed to the prevention of any form of bullying, will respond promptly to threats and/or acts, and will protect victims of bullying from retaliation. As a criminal matter, the New York Attorney General defines cyberbullying as the use of email, websites, instant messaging, chat rooms, text messaging, and digital cameras to antagonize and intimidate others.

12 Accommodations for Students with Disabilities

In compliance with the American Disability Act of 1990 (ADA) and with Section 504 of the Rehabilitation Act of 1973, Hunter College is committed to ensuring educational parity and accommodations for all students with documented disabilities and/or medical conditions. It is recommended that all students with documented disabilities (Emotional, Medical, Physical, and/or Learning) consult the Office of AccessABILITY, located in Room E1214B, to secure necessary academic accommodations. For further information and assistance, please call: (212) 772-4857 or (212) 650-3230.

13 Hunter College Policy on Sexual Misconduct

In compliance with the CUNY Policy on Sexual Misconduct, Hunter College reaffirms the prohibition of any sexual misconduct, which includes sexual violence, domestic violence, sexual harassment, and gender-based harassment, and intimate relationships between Faculty (or staff) with students for who they have professional responsibility. In addition, CUNY prohibits retaliation against students, employees, or visitors, for reporting an incident or participating in an investigation. Students who have experienced any form of sexual misconduct on or off campus (including CUNY-sponsored trips and events) are entitled to the rights outlined in the Bill of Rights for Hunter College, which can be found on the Diversity & Compliance webpage on Hunter's website.

a. Sexual Violence: Students are strongly encouraged to immediately report the incident by calling 911, contacting NYPD Special Victims Division Hotline (646-610-7272) or their local police precinct, or contacting the College's Public Safety Office (212-772-4444).

b. All Other Forms of Sexual Misconduct: Students are also encouraged to contact the College's Title IX Campus Coordinator, Dean John Rose jtrose@hunter.cuny.edu or 212-650-3262) or Colleen Barry colleen.barry@hunter.cuny.edu or 212-772-4534) and seek complimentary services through the Counseling and Wellness Services Office, Hunter East 1123. To learn more, please view the CUNY Policy on Sexual Misconduct.

For further information please contact the Office for Diversity & Compliance or the Title IX Team at TitleIX@hunter.cuny.edu. More information can be found by visiting the Diversity and Compliance website.