

CSE120
Software Engineering
Lecture Session 1

Aug 24th, 2022
Santosh Chandrasekhar

Who Are We?

- Instructor
 - Santosh Chandrasekhar
 - schandrasekhar@ucmerced.edu
 - Office Hours (in-person or via Zoom):
 - » **Posted in Syllabus**
 - » By appointment
- Director of Innovation (co-Instructor)
 - Stefano Foresti: stefano.foresti@ucmerced.edu
- TAs
 - Aditya Ranganathan: aranganath@ucmerced.edu
 - Azar Alizadeh: aalizadeh@ucmerced.edu

Email Policies

- All email inquiries received before 5pm during school days will be replied within 48 hours
- I may not be able to answer emails received after 5:00pm on weekdays, or during weekend/holidays. Please plan accordingly
- IMPORTANT!
 - You **must** follow the guidelines listed in the email etiquette document available in CatCourses for ALL email communications in this course

Course Guidelines

- Your success is my success
 - This course is only successful when you understand the material being presented, and you successfully complete your project
- Please ask questions during meetings
 - Raise your hand, or just speak up when prompted
 - Don't be shy, you are not being graded for raising a point or asking for clarifications
- Please bring your comments, suggestions, interesting points, or even disagreements to my attention during meetings
 - I/We can learn from you too
 - New ideas and discussions make the class livelier and more interesting

Course Overview

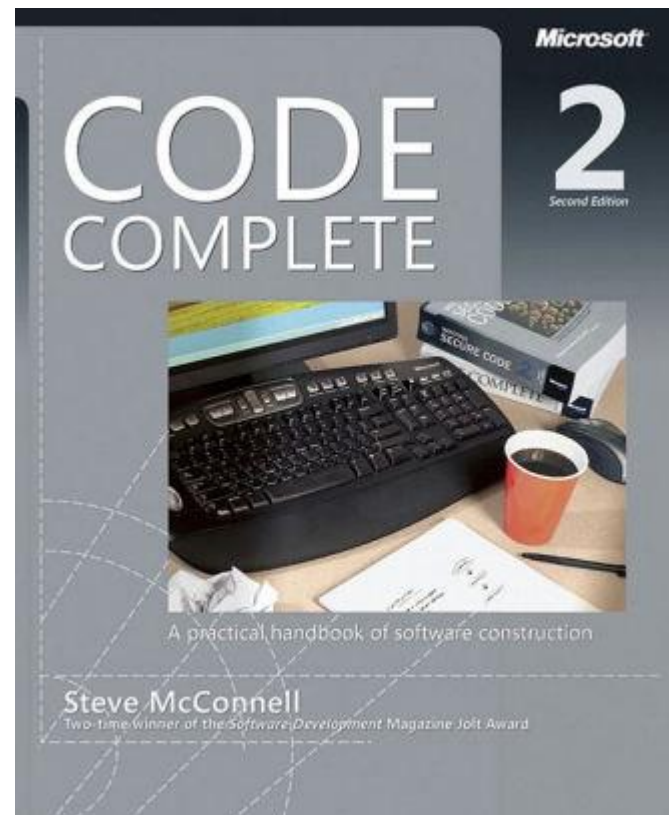
- CatCourses
 - Check **regularly** (that means daily!) for announcements.
 - Labs, Projects, and Reading Assignments will be posted and submitted there.
 - Grades for assignments will also be found there (secure).
- 2 Lectures and 1 Lab per week
- 1 **(BIG)** Class project
- 1 Midterm exam (Week 11, tentative)
- Final exam (Presentation/Demo of project)
- 5 lab assignments
- Reading assignments

Grading

- Participation 5%
- Reading assignments: 8%
- Lab assignments (group): 15%
- Mid-term: 12%
- Weekly meeting minutes 10%
- Project (group): 30%
- Project (individual contributions): 20%
 - Your project score includes scores from presentations.
- Grading scheme (tentative):
 - $\geq 90\%$ scores at least an A
 - $\geq 80\%$ scores at least a B
 - $\geq 70\%$ scores at least a C

Course Material

- Textbooks:
 - Code Complete 2nd edition by Steve McConnell
 - ISBN: 9780735619678



Prerequisites

- CSE100: Algorithm Design and Analysis
- Senior Standing
- Everything you have learned from your previous CSE classes
 - The more the better!

Course Objectives

- What you will learn:
 - Software Engineering
 - » Design
 - » Implement
 - » Test
 - » Teamwork
 - Software development tools
 - » Depend on what you will use in project
 - » You will learn it on your own

Course Objectives

- Labs:
 - Attendance is mandatory (see details on CatCourses posted by tonight)
 - Each lab provides you a guideline to plan for your project in different phases.
 - This is the main period of time for your team to discuss how to execute your plan for each phase.
 - You are required to submit meeting minutes at the end of each week.

Announcements

- Today: Introductory Material, Course Details
- Lab sessions start on Week 3 (9/4 – 9/10)

Class project

- A BIG project
 - You will work on one sponsored project
 - » Rank your interest of all the projects online
 - » Link will be out soon
- Teamwork
 - You will be grouped into teams of 3+ students
 - You do everything
 - » Requirements inquiries, design, code, test
 - Grades are given partly according to teams and partly to individual effort
 - Fail to attend group meetings, fulfill assigned tasks, or participate presentations will receive an 'F' as final grade
- Don't take it lightly
 - Just having a good idea without a final product won't help!
 - Presenting a working application does not guarantee a 100% score
 - Work done in each phase counts
- Have fun!

Why a BIG project?

- Good software engineering can be learned
 - But it is hard to teach
 - Most people learn through experience (i.e., mainly from mistakes)
- How can you get that experience?
 - Do a project, in a team
 - Make your own mistakes
 - Hear from other projects
 - Each team will make presentations in class
 - Code review and demos

Phases (Project timeline)

- Project selection, team assignments
- Meeting with your sponsors
- Requirements and specification
- Project design & plan
- Design review (done by other teams)***
- Revised design & plan***
- Testing / code review
- Final presentation (to class, sponsors, I2G judges and attendees)

Policies

- Don't copy someone else's code
- Don't give your code away
- Don't outsource your assignments
- **No Cheating!**
 - Communicating information to another student during examination.
 - Knowingly allowing another student to copy one's work.
 - Offering another person's work as one's own.
 - Penalties are harsh!

Academic Integrity

- Academic integrity is the foundation of an academic community. Academic integrity applies to research as well as undergraduate and graduate coursework.
- Academic misconduct includes, but is not limited to cheating, fabrication, plagiarism, altering graded examinations for additional credit, having another person take an examination for you, or facilitating academic dishonesty or as further specified in this policy or other campus regulations.
- For more information, please visit <http://osrr.ucmerced.edu/> and review the following documents
 - » UCM Code of Student Conduct
 - » UCM Academic Honesty Policy

Academic Integrity

- **Cheating** is the unauthorized use of information in any academic exercise, or other attempts to obtain credit for work or a more positive academic evaluation of work through deception or dishonesty.
- **Plagiarism** refers to the use of another's ideas or words without proper attribution, or credit.
- **Collusion** is when any student knowingly or intentionally helps another student to perform any of the above acts of cheating or plagiarism.
 - Students who collude are subject to discipline for academic dishonesty.
 - No distinction is made between those who cheat or plagiarize and those who willingly facilitate cheating or plagiarism

Academic Integrity

- Please note that with respect to the programming assignments we run your code through a system to detect similarity with other projects submitted by your classmates, online solutions, and a database of previous year's submissions.
- The algorithm analyses the structure and flow of the code, so simply changing the variable names and introducing minor changes will not be effective to defeat it.
- You would have to modify the code so much, that you are better off writing the code on your own.
- So **caveat emptor**.

Academic Integrity

- **Cheating vs. Collaboration:** So how do you draw the line between collaboration and cheating? Here's a reasonable set of ground rules. Failure to understand and follow these rules will constitute cheating and will be dealt with as per university guidelines.
 - **The Simpson's Rule:** This rule says that you are free to meet with fellow student(s) and discuss assignments with them. Writing on a board or shared piece of paper is acceptable during the meeting; however, you should not take any written (electronic or otherwise) record away from the meeting. This applies when the assignment is supposed to be an individual effort or whenever two teams discuss common problems they are each encountering (inter-group collaboration). After the meeting, engage in a half hour of mind-numbing activity (like watching an episode of the Simpsons), before starting to work on the assignment. This will assure that you are able to reconstruct what you learned from the meeting, by yourself, using your own brain.
 - **The Freedom of Information Rule:** To assure that all collaboration is on the level, you must always write the name(s) of your collaborators on your assignment.

Computer Science Department Policy on Academic Honesty

- Effective Fall 2019: how Academic Honesty Policy (AHP) will be implemented when students enrolled in classes offered by CSE
- For more details, see [Computer Science Department Policy On Academic Honesty - Fall 2019](#)
- First Infraction
 - Student receives a 0 (or equivalent grade) for the assignment
 - Reported to the Dean of the School of Engineering
 - Reported to Office of Student Conduct for review of possible violations of the Code of Student Conduct
- Additional Infractions
 - If one or more prior violations of the AHP (**in the same or another course**), student receives a failing grade (F) for the course WITHOUT THE ABILITY TO WITHDRAW FROM CLASS

Hints for success

- Attend lecture, lab and office hour sessions
- Watch the lecture videos
- Read the textbook and take notes while reading
- Start working on your project EARLY
- Communicate with your teammates frequently
- Create a portfolio to save all your work (GitHub, private)
- Manage your time – reserve time to complete assigned/planned tasks each week
- Use the Internet for valuable learning resources
- Ask questions!!!

Next Steps

- Project Registration (Qualtrics Survey)
 - Available by week 2 – part of lab 1 assignment
 - Fill out by next week (deadline will be posted in the announcement and lab 1 handout)
- Lab sessions start during Week 3
 - Lab 1 *assignment* out by 11:59pm on Tuesday, 30-AUG
 - Due Friday, 9/16 (Week 4)
 - » 1st week (Week 2): individual work involving readings and survey completion
 - » 2nd week (Week 3): group work involving team role formation, platform/IDE/SDK selection and database choice
 - » Only one submission of Lab 1 report per team
- Reading assignment 1 out next week
 - Due in one week (Monday of Week 3)

Welcome to the Class!