

Course Syllabus



Course logistics

Section 1: Lecture: Monday/Wednesday

Time: 10:10 – 11:30 a.m. ET

Location: 3SC 265 (300 South Craig St.)

Zoom URL: TBD

Section 2: Lecture: Tuesday/Thursday

Time: 10:10 – 11:30 a.m. ET

Location: 3SC 265 (300 South Craig St.)

Zoom URL: None. This section is not live streamed or recorded.

Distance Section : Monday

Time: 6:00 – 6:50 p.m. ET

Location: Zoom

People

Instructor: Jeff Gennari

Zoom Office Hours: Friday at 10:00 a.m. ET ([ZOOM Link](https://cmu.zoom.us/j/96290117756?pwd=R1R0V1I00XJhb0t5OVdIVEs2SGZZZz09) [_ \(https://cmu.zoom.us/j/96290117756?pwd=R1R0V1I00XJhb0t5OVdIVEs2SGZZZz09\)_](https://cmu.zoom.us/j/96290117756?pwd=R1R0V1I00XJhb0t5OVdIVEs2SGZZZz09))

Email: jgennari@andrew.cmu.edu
(<mailto:jgennari@andrew.cmu.edu>)

Instructor: Dr. Eduardo Miranda

Email: mirandae@andrew.cmu.edu
(<mailto:mirandae@andrew.cmu.edu>)

Teaching Assistants:

- Sakshi Verma (sakshiv@andrew.cmu.edu
(<mailto:sakshiv@andrew.cmu.edu>)
 - Office Hours: TBD
- Niket Arun Parekh (niketarp@andrew.cmu.edu
(<mailto:niketarn@andrew.cmu.edu>)

<mailto:sechever@andrew.cmu.edu>


- Office Hours: TBD
- Ami Vipin Kotia (akotia@andrew.cmu.edu)
(<mailto:akotia@andrew.cmu.edu>)
 - Office Hours: Mon 9 am -10 am -
<https://cmu.zoom.us/j/7846900265>

<mailto:sechever@andrew.cmu.edu>

This course uses Canvas for grading, discussion, questions, announcements, and supplementary documents; homework submissions will happen to Canvas, to Gradescope and/or GitHub as instructed. Slides will be posted here. Please verify that you have access to the Canvas site and promptly contact us if you do not.

Piazza

We will use Piazza for discussions and questions. Please sign up for the course Piazza site here:

- <https://piazza.com/cmu/spring2022/17643> 
(<https://piazza.com/cmu/spring2022/17643>)

Distance section

The Zoom link for the lectures intended for the distance section of our course is:

- [https://cmu.zoom.us/j/92953521839?
pwd=U09iNGFkL0V6d05RT0JiR2oyRUtOUT09](https://cmu.zoom.us/j/92953521839?pwd=U09iNGFkL0V6d05RT0JiR2oyRUtOUT09)
 [_ \(https://cmu.zoom.us/j/92953521839?
pwd=U09iNGFkL0V6d05RT0JiR2oyRUtOUT09\)](https://cmu.zoom.us/j/92953521839?pwd=U09iNGFkL0V6d05RT0JiR2oyRUtOUT09)

Distance students are encouraged to attend synchronously if possible. If not, then recordings of the class will be made available. The zoom link is intended for students in the distance section only. Viewing the lecture is not a substitute for students not in the distance section of the course.

The distance section of the course also has a

weekly meeting set for Monday from 7:00 – 7:50 PM ET. This meeting is designed to promote learning and discussion and, in consequence, attendance will be factored into class participation. Distance meeting will be on Zoom:

- <https://cmu.zoom.us/j/99609146903?pwd=YTNSTjNWY1c2SINDR2dGSzJSbjFsdz09>
[_ \(https://cmu.zoom.us/j/99609146903?pwd=YTNSTjNWY1c2SINDR2dGSzJSbjFsdz09\)_](https://cmu.zoom.us/j/99609146903?pwd=YTNSTjNWY1c2SINDR2dGSzJSbjFsdz09).

Pandemic guidelines

Our class is designated as **in-person expectation**. This means that attendance in the classroom on a regular basis is expected. In order to attend class in person, we expect that all students will abide by all behaviors indicated on CMU's [Covid-19 Updates](https://www.cmu.edu/coronavirus/index.html) [_ \(https://www.cmu.edu/coronavirus/index.html\)](https://www.cmu.edu/coronavirus/index.html) webpage.

Course description


Managing software quality is a critical part of all software projects. Software engineers must consider quality during every phase of a project from inception to delivery and beyond. This class will introduce students to the managerial challenges of developing high quality software systems.

The key learning objectives of this course include:

1. Define a quality management process in the context of a software project.
2. Understand the costs associated with achieving quality goals and not achieving them
3. Understand the tradeoffs required to implement quality assurance techniques.
4. Gain experience using collected quality metrics to inform project-level decisions.

5. Learn to handle the practical considerations of quality when executing a software project.

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Grading and assignments

Your grade will be based on the following distribution:

- 50% Individual assignments
- 10% Reading quizzes.

- 10% Participation
- 30% Quality plan

Class Grading Scale

The overall grading scale for this class is as follows:

- A+: 98+
- A: 93-97
- A-: 92-90
- B+: 89-87
- B: 86-84
- B-: 83-81
- C+: 80-78
- C: 77-75
- C-: 74 and below

Please note that this grading scale is **firm**; we will not add or deduct points individually to move students between letter grades at the end of the semester. The grade that you earn is the grade that you receive without exception

you receive without exception.

Individual assignments

The course includes individual assignments that are due on more or less a weekly basis. These assignments are intended to complement and integrate the material we cover in class and readings. Students will be expected to install and use various software quality tools and then analyze your results. Some individual assignments ask you to reflect upon your own development experience in the context of specific course material. Good reflections are specific and concrete and go beyond mere recitation of facts to draw insight from past experiences.

Readings and quizzes

Various readings throughout the course will be assigned and made available online on Canvas or through the CMU library. We will have regular

through the course history. We will have regular quizzes, posted on Canvas, to accompany these readings. These are to be completed **before** the associated class begins. We will teach class assuming you have read the material. These quizzes are to be completed (and will be graded) individually. There are no late days for readings; late submissions will receive feedback but no credit. Students can expect a reading quiz to be assigned before every lecture.

Assignment guidelines

On all assignments, failure to follow the submission guidelines will result in a 10% penalty. All assignments must be submitted to Canvas by the time and date stipulated in the syllabus before class begins that day. There is no late submittal permitted of either group work or reading quizzes.

For non-quiz individual assignments, for up to two days, each day late reduces your maximum possible grade 10%. After two days submitted

possible grade to 70%. After two days, submitted assignments will receive no credit.

Late work

On all assignments, failure to follow the submission guidelines will result in a 10% penalty. There is no late submittal permitted for reading quizzes. For non-quiz individual assignments, for up to two days, each day late reduces your maximum possible grade 10%. After two days, submitted assignments will receive no credit.

Participation

The participation component is 10% of your grade, and note that we use the full scale (it can make a letter-grade difference in your overall grade). We will note participation throughout the semester, and reach consensus between the instructors/TA for overall grading. We will provide feedback at mid-semester so you can check in on how you're doing

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Class participation will be assessed by in-class engagement, including asking relevant questions based on a critical review of required readings, lectures, and comments made by your peers.

This semester involves regular use of technology during class. Research has shown that divided attention is detrimental to learning, so I encourage you to close any windows not directly related to what we are doing while you are in class. Please turn off your phone notifications and limit other likely sources of technology disruption, so that you can fully engage with the material, each other, and me. This will create a better learning environment for everyone.

Course Project: Quality Plan

The capstone project for this course is to develop an actionable quality plan for a software project.

This will be an individual project. More information

... This will be an individual project. More information on the quality plan will be available on Canvas.

Academic honesty and collaboration

We have zero tolerance for academic integrity violations, and especially at the graduate level, the University does too. We encourage you to read and understand the [University Policy on Academic Integrity](https://www.cmu.edu/policies/student-and-student-life/academic-integrity.html) [↗] (<https://www.cmu.edu/policies/student-and-student-life/academic-integrity.html>) to help guide your choices.

The high-level definition of academic integrity is as follows: You may not copy any part of a solution to a problem that was written by another student. You may not develop a solution with another student. You may not copy from any other unauthorized source, including those found on the Internet. You may not look at another student's solution even if

may not look at another student's solution, even if you have completed your own. You may not give or show your solution to another student, nor knowingly leave your solution where another student could see it. That is: helping another student cheat *is also cheating*.

To illustrate, here are some examples of inappropriate behavior:

- Copying, retyping, or referring to, files or parts of files (e.g., source code, written text, or unit tests) from another person or source (whether in final or draft form, regardless of the permissions on the associated files) while producing your own. This is true even if your version includes modifications.
- Getting help that you do not fully understand, and from someone whom you do not acknowledge on your solution.
- Coaching or providing help to another step-by-step without them understanding your help

stop without them understanding your help.

- Writing, using, or submitting a program that attempts to alter or erase grading information or otherwise compromise security of course resources.
- Lying to course staff.
- Giving copies of your work to others, or allowing someone else to copy or refer to your code or written assignment to produce their own, either in draft or final form. *This includes making your work publicly available in a way that other students (current or future) can access your solutions, even by accident.* Beware the privacy settings on your open source accounts!

If any of your work contains any statement that was not written by you, you must put it in quotes and cite the source. If you are paraphrasing an idea you read elsewhere, you must acknowledge the source. Using existing material without proper citation is

Using existing material without proper citation is plagiarism, a form of cheating. If there is any question about whether the material is permitted, you must get permission in advance. It is *not* considered cheating to discuss and clarify vague points in the assignments, lectures, lecture notes; to give help or receive help in using the computer tools, systems, compilers, debuggers, profilers, or other facilities; or to discuss ideas at a very high level, without referring to or producing code.

Any violation of this policy is cheating. The *absolute minimum* penalty for cheating (including plagiarism) will be a zero grade for the whole assignment.

Cheating incidents will also be reported through

University channels, with possible additional disciplinary action (see the above-linked University Policy on Academic Integrity).

If you have any question about how this policy

applies in a particular situation, ask the instructors or TAs for clarification. Note that the instructors respect honesty in these (and indeed most!) situations.

Writing

Describing tradeoffs among decisions and communication with stakeholders from other backgrounds are key aspects of this class. Many homework assignments have a component that requires discussing issues in written form or reflecting about experiences. To practice writing skills, the Global Communications Center (GCC) offers one-on-one help for students, along with

workshops. The instructors are also happy to provide additional guidance if requested.

Accommodations for students


with disabilities

WITH DISABILITIES

If you have a disability and have an accommodations letter from the Disability Resources office, we encourage you to discuss your accommodations and needs with us as early in the semester as possible. We will work with you to ensure that accommodations are provided as appropriate. If you suspect that you may have a disability and would benefit from accommodations but are not yet registered with the Office of Disability Resources, we encourage you to contact them at access@andrew.cmu.edu (<mailto:access@andrew.cmu.edu>).

A note on self care

Please take care of yourself. Do your best to maintain a healthy lifestyle this semester by eating well, exercising, avoiding drugs and alcohol, getting enough sleep and taking some time to relax. This will help you achieve your goals and come with

will help you achieve your goals and cope with stress. All of us benefit from support during times of struggle. You are not alone. There are many helpful resources available on campus and an important part of the college experience is learning how to ask for help. Asking for support sooner rather than later is often helpful. If you or anyone you know experiences any academic stress, difficult life events, or feelings like anxiety or depression, we strongly encourage you to seek support. Counseling and Psychological Services (CaPS) is here to help: call 412-268-2922 and visit their website at <http://www.cmu.edu/counseling/>  (<http://www.cmu.edu/counseling/>). Consider reaching out to a friend, faculty or family member you trust for help getting connected to the support that can help.

This semester is unlike any other. We are all under a lot of stress and uncertainty at this time. Attending

Zoom classes all day can take its toll on our mental health. Make sure to move regularly, eat well, and reach out to your support system or class staff if you need to. We can all benefit from support in times of stress, and this semester is no exception.

Respect for diversity

It is our intent that students from all diverse backgrounds and perspectives be well served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength, and benefit. It is our intent to present materials and activities that are respectful of diversity: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture. Your suggestions are encouraged and appreciated. Please let us know if any of our class meetings conflict with your religious observations so that we can make alternate arrangements for you.

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Lecture plan

The plan is preliminary and will be adjusted throughout the semester.

