



Carnegie Mellon University
Master of
Software Engineering

17-632: Software Project Management

In Person: M, W 1:25pm – 2:45pm

A3, Spring 2022, 6 Units

Instructor

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Office Location & Hours

zoom, by appointment

zoom, by appointment

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zoom, Tuesdays 12pm-1pm

Course Description. Large scale software development requires the ability to manage resources — both human and computational — through control of the development process. This course is a breadth-oriented course, designed to help technically trained software engineers to acquire the knowledge and skills necessary to lead a project team, understand the relationship of software development to overall project engineering, estimate time and costs, and understand the software process. The nature of software development is sufficiently unique to require specialized management techniques, especially in the areas of the estimating and scheduling

Learning Objectives. After completing this course, you will be able to:

- Analyze elements of a software project to derive overarching project goals.
- Use inherent and derived items extracted from project artifacts to create effective project plans.
- Acquire the skill of applying various project management techniques in the context of a software project.

Learning Resources.

There are no required textbooks for this course. All readings are posted on canvas and are freely available to students.

Assessments. Students learn more by applying and explaining ideas to others, thus, the course requires the following activities:

- **In-Class Exercises** – roughly weekly instructor-led in-class group exercises designed to let students apply new skills. These will be accompanied with graded group write-ups.
- **Assignments** – individual assignments
- **Quizzes** – quizzes are short answer, multiple choice, or other selection type of answers taken on canvas

- **Peer Evaluations** – evaluations accompanying the in-class exercise writeups
- **Capstone** – final group presentation on the last day of class

Grade	Percentage Interval
A+	98-100%
A	93-97%
A-	90-92%
B+	88-89%
B	83-87%
B-	80-82%
C	70-79%
D	60-69%
R (F)	59% or below

Assessment	Final Grade %
Quizzes	20%
Exercise Writeups	40%
Assignments	25%
Peer Evaluation	10%
Capstone	5%

Course and Grading Policies

- **Late-work policy:** All work is expected to be handed in at the indicated due date and time. For fairness to the whole class, no late submissions will be accepted for any group work. In the first week of classes, you should receive a course schedule for each course; please use them to plan ahead.

Each student is allowed one late submission for the individual homework assignments. You should immediately notify the course TA(s) before the submission deadline that you will submit late. Late work must be submitted as soon as circumstances allow, ordinarily within 24 hours of the due date. If you have any questions, you should raise them immediately rather than waiting for conflicts to arise. Late work will be assessed a penalty daily, for three days, then assessed with a score of 0. I understand that conflicts happen, so please make arrangements to submit late assignments ahead of time if possible.

- **Participation policy.** Class participation will be graded by in-class engagement, including asking relevant questions based on a critical review of required readings, lectures, and comments made by your peers. The lack of attendance, and the use of mobile devices, including phones and laptops, will count against your participation grade.

Course Schedule. The following schedule provides a general overview of topics and assignments. Please refer to the syllabus online in Canvas for specific lecture topics, reading assignments and due dates. Schedule is subject to minor changes which will be updated on canvas when they occur as well as announced during class. Readings are listed in Canvas.

Class	Topics
1/19	Intro, High Level Goals, Milestones
1/24	Planning Process
1/26	In-Class Exercise 1 – Making Early Decisions

Class	Topics
1/31	Estimation Techniques
2/2	In-Class Exercise 2 – Estimating Techniques
2/7	Work Breakdown Structures, Critical Path
2/9	In-Class Exercise 3 – Work Breakdown Structures, Critical Path
2/14	Earned Value, Agile Tracking and Planning
2/16	Articulating the Plan to Stakeholders
2/21	In-Class Exercise 4 – Agile Planning
2/23	Risk Management
2/28	In-Class Exercise 5 - Risk
3/2	Capstone – Plan Brief to the class

Accommodations for Students Disabilities. If you have a disability and have an accommodations letter form the Disability Resources office, I encourage you to discuss your accommodations and needs with me as early in the semester as possible. I 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, I encourage you to contact them at access@andrew.cmu.edu.

Academic Integrity. Honesty and transparency are important to good scholarship. Plagiarism and cheating, however, are serious academic offenses with serious consequences. If you are discovered engaging in either behavior in this course, you will earn a failing grade on the assignment in question, and further disciplinary action may be taken.

For a clear description of what counts as plagiarism, cheating, and/or the use of unauthorized sources, please see the [University’s Policy on Academic Integrity](#).

If you have any questions regarding plagiarism or cheating, please ask me as soon as possible to avoid any misunderstandings. For more information about Carnegie Mellon’s standards with respect to academic integrity, you can also check out the [Office of Community Standards & Integrity](#) website.

Student Wellness. As a student, you may experience a range of challenges that can interfere with learning, such as strained relationships, increased anxiety, substance use, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may diminish your academic performance and/or reduce your ability to participate in daily activities. CMU services are available, and treatment does work. You can learn more about confidential mental health services available on campus at the [Counseling and Psychological](#)

[Services](#) website. Support is always available (24/7) from Counseling and Psychological Services: 412-268-2922.

Respect for Diversity. [Please refer to the [Eberly Center's page on Diversity Statements](#) for other examples, if this one does suit your needs.] It is my intent that students from all diverse backgrounds and perspective 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 my 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 me know if any of our class meetings conflict with your religious observations so that I can make alternate arrangements for you.