Course Syllabus

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17-632: Software Project Management

Remote: M, W 5:00pm – 6:20pm

Link to Google Form for submitting E-mail Address (must be done by Friday, January 13, 2023 in order for you to have seamless access to the classroom by the first day of class: https://docs.google.com/forms/d/1fcOMNn4BMNwv46bu5-y0fxhwtwRd6kOlHC15fjhOnDA/edit?ts=63b866b9
Link to VR Classroom for use during class:
https://workrooms.workplace.com/workrooms/1131417847566095

D3, Spring 2023, 6 Units

Instructor	**Email**	**Office Location & Hours**
Tim Chick	tchick@andrew.cmu.edu	zoom, by appointment

Teaching Assistant	**Email**	**Office Location & Hours**
Palak Sarawagi	psarawag@andrew.cmu.edu	Every Friday, 1 pm to 2 pm.

https://cmu.zoom.us/j/96767876158?pwd=eVYwTDBzVVpJcUZrYWYwUGVEUDFBdz09

Meeting ID: 967 6787 6158
Passcode: 276424

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:

- Create a master project plan and organize project source materials to support management activities.
- Assess decision making characteristics for common project management problems within the context of prior course work in Agile Methods, Requirements Management, and Statistics.
- Be able to create planning artifacts such as work breakdown structures, milestone plans, activity plans, estimates, risk registers and earned value charts.

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**

Grading Scale

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

Grade Percentages

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.

Course Schedule

Class	**Topics**
1/18	Intro, High Level Goals, Milestones
1/23	Planning Process
1/25	In-Class Exercise 1 – Making Early Decisions
1/30	Estimation Techniques
2/1	In-Class Exercise 2 – Estimating Techniques
2/6	Work Breakdown Structures, Critical Path
2/8	In-Class Exercise 3 – Work Breakdown Structures, Critical Path
2/13	Earned Value, Agile Tracking and Planning
2/15	Articulating the Plan to Stakeholders
2/20	In-Class Exercise 4 – Agile Planning
2/22	Risk Management
2/27	In-Class Exercise 5 - Risk
3/1	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 S ervices 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.

Research. For this class, Tim Chick is conducting research on the use of various cause delivery technologies. This research will involve a few discussions and questionnaires. You will not be asked to do anything above and beyond the normal learning activities and assignments that are part of this course. You are free not to participate in this research, and your participation will have no influence on your grade for this course or your academic career at CMU. If you do not wish to participate or if you are under 18 years of age, please send an email to Chad Hershock (hershock@andrew.cmu.edu), and then your data will not be included. Participants will not receive any compensation. The data collected as part of this research will include student grades. All analyses of data from participants' coursework will be conducted after the course is over and final grades are submitted. The Eberly Center may provide support on this research project regarding data analysis and interpretation. The Eberly Center for Teaching Excellence & Educational Innovation is located on the CMU-Pittsburgh Campus and its mission is to support the professional development of all CMU instructors regarding teaching and learning. To minimize the risk of breach of confidentiality, the Eberly Center will never have access to data from this course containing your personal identifiers. All data will be analyzed in de-identified form and presented in the aggregate, without any personal identifiers. If you have questions pertaining to your rights as a research participant, or to report concerns to this study, please contact Chad Hershock (hershock@andrew.cmu.edu).

Course Summary:

Date	Details	Due
Wed Jan 19, 2022	Software Project Management	1:25pm to 2:55pm
Mon Jan 24, 2022	Software Project Management	1:25pm to 2:55pm
Wed Jan 26, 2022	Software Project Management	1:25pm to 2:55pm
Mon Jan 31, 2022	Software Project Management	1:25pm to 2:55pm
Wed Feb 2, 2022	Software Project Management	1:25pm to 2:55pm
Mon Feb 7, 2022	Software Project Management	1:25pm to 2:55pm
Wed Feb 9, 2022	Software Project Management	1:25pm to 2:55pm
Mon Feb 14, 2022	Software Project Management	1:25pm to 2:55pm
Wed Feb 16, 2022	Software Project Management	1:25pm to 2:55pm
Mon Feb 21, 2022	Software Project Management	1:25pm to 2:55pm
Wed Feb 23, 2022	Software Project Management	1:25pm to 2:55pm
Mon Feb 28, 2022	Software Project Management	1:25pm to 2:55pm
Wed Mar 2, 2022	Software Project Management	1:25pm to 2:55pm
Thu Jan 26, 2023	Assignment 1 - Early Planning	due by 11:59pm
Fri Jan 27, 2023	Quiz 1 - Early Decisions	due by 11:59pm
Sat Jan 28, 2023	PeerEvaluation-A1	due by 11:59pm
	Exercise 1 - Early Planning	due by 11:59pm
Thu Feb 2, 2023	Assignment 2 - Estimating	due by 11:59pm
Fri Feb 3, 2023	Quiz 2 - Estimation	due by 11:59pm
Sat Feb 4, 2023	PeerEvaluation-A2	due by 11:59pm
	Exercise 2 - Estimating	due by 11:59pm
Thu Feb 9, 2023	Assignment 3 - Scheduling	due by 11:59pm
Fri Feb 10, 2023	Quiz 3 - Scheduling	due by 11:59pm
Sat Feb 11, 2023	PeerEvaluation-A3	due by 11:59pm
	Exercise 3 - Scheduling	due by 11:59pm
Thu Feb 16, 2023	Assignment 4 - Tracking	due by 11:59pm
Fri Feb 17, 2023	Quiz 4 - Tracking	due by 11:59pm
Sun Feb 19, 2023	Assignment 5 - Rogue Pilot	due by 11:59pm
Sat Feb 25, 2023	PeerEvaluation-A4	due by 11:59pm
	Exercise 4 - Agile Planning and Tracking	due by 11:59pm
Tue Feb 28, 2023	Quiz 5 - Risk Management	due by 11:59pm
	Capstone Exercise	due by 11:59pm
Fri Mar 3, 2023	PeerEvaluation-A5	due by 11:59pm
	Exercise 5 - Risk Management	due by 11:59pm

January 2023

25	26	27	28	29	30	31
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4

Course assignments are not weighted.