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Instructor and Communication Information

Instructor	Dr. Warren D. MacEvoy
Office	WS 119F
Phone	970-248-1070 email is preferred.
Email	wmacevoy@coloradomesa.edu - have a clear subject line!
Office Hours	9:00 am -9:50 am Monday, Wednesday, Friday in Wubben 119F, 2:00 pm AM-2:50 pm Thursday at MIC
Communication s Policy	I check email daily. You must have a clear subject line or I will probably skip the email.
Assignment Grading and Feedback	The instructor will attempt to return grades and feedback on your assignments within two weeks after the due date. Since these assignments are large virtualized systems, your assignment will often come from a demonstration of the configured system(s).

Course Information

Course Title	Software Engineering - 44393 - CSCI 490 - 001 - Spring 2019
Class Time	Class 8:00 am - 9:15 am MWF
Classroom	Wubben Hall and Science Center 120
Prerequisites	CSCI 250 Data Structures and CSCI 330 Programming Languages
General Education Requirements	<i>None.</i>
Drop Date	March 27
Credit Hours	3 (45 contact hours)
Lecture Hours	3
Lab Hours	0
Other Hours	0

Course Catalog Description

Exploration of the philosophy of software engineering. Software project planning, requirement analysis, software system design and strategies, software design tools, program and system testing, system maintenance, and economics are examined. Prerequisites: CSCI 250 and CSCI 330.

Required Text and Supplies

You will have to set up version control (preferably github) for management of your development and add me as a collaborator (wmacevoy github user) so I can track your project progress.

Lesson/Instructional Materials

We will use a variety of online resources and you will have to be independently motivated to learn and build your final project. Most topics will be classroom discussions.

Learning Objectives

Our goal is to understand individual and team dynamics, engineering and software development principles, ethical, privacy and security concerns about software development, the landscape of intellectual property, software lifecycle, and typical tools for team management, automated testing and version control.

Concurrently you will be working with a team to deliver a software engineering product to a client using these ideas and demonstrating your professionalism to your client and within your team to deliver a product under the constraints of a timeline.

My principal role is a facilitator. It is your job to manage your team and strive to deal with the personal and technical issues which will arise, and will certainly involve a lot of independent learning. We use the projects

and teams you are on as a significant goal in themselves, but also as a reflection of the professional software development process.

Methods of Evaluation/Grading Policy

Grade Items	Percent (or points if not using weighted categories) of Final Grade
Final Project	70%
Summary Presentations	20%
Participation	10%

GRADING	SCALE
A	90 -100%
B	80 - 89%
C	70 -79%
D	60 - 69%
F	Under 60%

Assignments

Your team projects must be hosted on github or similar. I will track individual contributions to your projects through there. You must participate in the standup scrums and your team must make a presentation to the class on your final project. Your client will have a 50% contribution to your final project grade.

Many years I have students that have delayed their graduation because they did not satisfactorily complete this course. Don't be that student! Set aside enough time to make this a priority and choose your teammates and project well, and talk to me early if you are seeing a problem.

[Student Showcase](#)

[Projects Spreadsheet](#)

[Tom Wujec Build a Tower Build a Team](#)

[Dan Pink on Motivation](#)

[Contract Template](#)

[Presentation Rubric](#)

[Client Feedback Request](#)

[Git Started](#)

<https://github.com/wmacevoy/software-engineering-spring2018-public>

Testing Statement

We have no tests. You must deliver on your projects and participate to pass this class.

Supplemental Help

If you wish to discuss academic accommodations, please contact me as soon as possible. Specific information about Educational Access Services and the Tutorial Learning Center is included under General Student Services in this Syllabus.

Attendance Policy

Let me know ahead of time if you can't be here for a due date.

Course Correspondence

All communication in this course will be made via your CMU email account. Please include the title of the course and section number in the subject line (i.e, CSCI 490 - useful subject line) Check your email regularly throughout the semester. I will respond within 48 hours.

Course Schedule

Week	Tue	Thu
20-Jan	2019 22-Jan 1	2019 24-Jan 2
27-Jan	2019 29-Jan 3	2019 31-Jan 4
3-Feb	2019 05-Feb 5	2019 07-Feb 6
10-Feb	2019 12-Feb 7	2019 14-Feb 8
17-Feb	2019 19-Feb 9	2019 21-Feb 10
24-Feb	2019 26-Feb 11	2019 28-Feb 12
3-Mar	2019 05-Mar 13	2019 07-Mar 14
10-Mar	2019 12-Mar 15	2019 14-Mar 16
17-Mar	2019 19-Mar *Spring Break*	2019 21-Mar *Spring Break*
24-Mar	2019 26-Mar 17	2019 28-Mar 18
31-Mar	2019 02-Apr 19	2019 04-Apr 20
7-Apr	2019 09-Apr 21	2019 11-Apr 22
14-Apr	2019 16-Apr 23	2019 18-Apr 24
21-Apr	2019 23-Apr 25	2019 25-Apr 26
28-Apr	2019 30-Apr 27	2019 02-May 28
5-May	2019 07-May 29	2019 09-May 30
12-May	2019 14-May *Finals*	2019 16-May *Finals*

Our Final is Tuesday May 14 from 8:00 am - 9:50 am

Course Topics

1. Problem Solving
2. Version Control

3. Individuals
4. Teams
5. Management
6. Decisions
7. Lifecycle
8. Testing
9. Documentation
10. Deployment
11. Waterfall
12. Agile
13. Intellectual Property
14. Knowledge
15. Deployment
16. Security
17. Failure
18. Hiring
19. Firing
20. Presentations

Campus Wide Policies

See [Colorado Mesa University Campus Wide Policies](#)

Errata

Git:

Git Started: [[google doc](#)]

Udacity Git Class: <https://www.udacity.com/course/how-to-use-git-and-github--ud775>

Client

Contract: [[google doc](#)]

Feedback: [[google doc](#)]

Teamwork Tools:

Jira

Trello

http://www.ted.com/talks/dan_pink_on_motivation.html

agile (Juli Rasmussen):

<https://docs.google.com/presentation/d/1HoL20-6FfexnWH5oQIBYIEun3iGO8mBaYaCyPSHBpJw/edit?usp=sharing>

http://www.ted.com/talks/shawn_achor_the_happy_secret_to_better_work.html

<http://en.wikipedia.org/wiki/Happiness>

<http://content.time.com/time/magazine/article/0,9171,2019628,00.html>

<http://sams.scientificamerican.com/article/using-money-to-buy-happiness/>

http://en.wikipedia.org/wiki/The_Seven_Habits_of_Highly_Effective_People

<http://www.microsoft.com/business/en-us/resources/marketing/advertising-branding/5-tips-for-creating-an-elevator-pitch.aspx?fbid=Zpn78R03miE>

<http://www.chasedumont.com/when-to-cut-losses-the-guide/>

Team Management

<http://www.dummies.com/how-to/content/the-essentials-of-managing-a-project-team.html>

Beer - The Key Ingredient to Team Development

http://www.sans.org/reading_room/whitepapers/leadership/beer-key-ingredient-team-development_33104

<http://en.wikipedia.org/wiki/Teamwork>

http://en.wikipedia.org/wiki/Team_building

Medical imaging case study

<http://www.agilealliance.org/resources/learning-center/agile2012-keynote-dr-sunita-maheshwari>

CMMI overview

<http://www.tutorialspoint.com/cmmi/cmmi-maturity-levels.htm>

Scrum

[http://en.wikipedia.org/wiki/Scrum_\(development\)](http://en.wikipedia.org/wiki/Scrum_(development))

Agile

<http://agilemanifesto.org/>

<http://www.agile-process.org/>

A Brief Survey of the Team Software Process (TSP)

http://www.sei.cmu.edu/library/assets/presentations/SEITECHFORUM_JM.pdf

XP

<http://www.extremeprogramming.org/>

RUP

<http://www.ambysoft.com/downloads/managersIntroToRUP.pdf>

Working with other people's code

<http://www.natpryce.com/articles/000756.html>

Cowboy Coders

<http://gamesfromwithin.com/cowboy-coders-and-the-hero-programmer-culture>

Get Er Done

<http://blog.bootstraptoday.com/2011/10/14/5-tricks-to-getting-things-done/>

Mistakes

<http://www.stevemccconnell.com/rdenum.htm>

Software Development Mistakes

<http://www.techrepublic.com/blog/10things/10-classic-mistakes-that-plague-software-development-projects/3187>

Code of Ethics

<http://www.acm.org/about/se-code>

Business/Entrepreneurship

<https://www.coursera.org/course/startup>

IP

<http://www.nolo.com/legal-encyclopedia/how-protect-intellectual-property-rights-29913.html>

<http://www.shopify.com/blog/8437521-12-must-watch-non-ted-talks-for-entrepreneurs#axzz2tep2UhNp>

Useful tools:

Trello, Asana

Basecamp, Redboot, Pivotal Tracker, Assembla

GitHub, BitBucket

TortoiseSVN, TortoiseGit, SourceTree

Google+, Google Drive, Dropbox

Technical Presentations:

<https://www.hanselman.com/blog/11TopTipsForASuccessfulTechnicalPresentation.aspx>