ID 705D, Agile Software Development, Fall, 2021

- Instructor: Maggie Schoonover
- Department: Interdisciplinary Institute of Innovation
- Office Location: Devlin Hall, Rm 206
- Email: maggie.schoonover@wichita.edu
- Preferred Method of Contact: Email
- Office Hours: By appointment
- Classroom Day/Time: ONLINE, Wednesdays, 5:15pm – 7:45pm
- Prerequisites:

How to use this syllabus

This syllabus provides you with information specific to this course, and it also provides information about important university policies. This document should be viewed as a course overview; it is not a contract and is subject to change as the semester evolves. Any changes to the syllabus will be communicated in class and posted in Blackboard.

Academic Integrity

Students at Wichita State University are expected to uphold high academic standards. WSU will not tolerate a lack of academic integrity. Students are responsible for knowing and following the Student Code of Conduct http://webs.wichita.edu/inaudit/ch8_05.htm and the Student Academic Honesty policy http://webs.wichita.edu/inaudit/ch2_17.htm. When the faculty member determines sanctions are warranted for violations of academic integrity, regardless of severity, the faculty member must report the infraction to the Office of Student Conduct and Community Standards. If you need more information about the process or wish to appeal a decision, please visit https://www.wichita.edu/about/student_conduct/ai.php

Course Description

Don't just learn to code, learn to develop products. Use critical thinking tactics to explore how to use your set of coding skills to fit into various real-world applications.

This course is for anyone wanting to learn how to apply agile software development practices to solve complex problems. Emphasis will be placed on developing the individual technical skills necessary to excel in a cross-functional agile team environment.

Measurable Student Learning Outcomes

Upon successful completion of this course, students will be able to:

Undergraduate Outcomes:

- Operate a code editor/IDE
- Awareness of online self-help tools and software documentation
- Create a web application using modern software development techniques
- Awareness of distributed version control tools and semantic versioning
- Experience working in a pair-programming environment
- Evaluate software architecture decisions
- Discover and implement software solutions for complex, real-world challenges
- Describe agile software development best practices
- Classify individual strengths
- Evaluate individual and team cross-functionality

Graduate Outcomes:

- Operate a code editor/IDE
- Demonstrated ability to set up your own development environment
- Competence using online self-help tools and software documentation
- Create a web application using modern software development techniques
- Competence using distributed version control tools and semantic versioning best practices
- Manage working in a pair-programming environment
- Evaluate and propose software architecture decisions
- Discover and implement software solutions for complex, real-world challenges
- Describe and implement agile software development best practices
- Classify individual and team strengths
- Evaluate individual and team cross-functionality

Required Texts/Readings Textbook

1. *Clean Code: A Handbook of Agile Software Craftsmanship*. Robert C. Martin.
2. *The Pragmatic Programmer: Your Journey to Mastery*. David Thomas and Andrew Hunt.

Other Readings

1. The Agile Manifesto: https://agilemanifesto.org/
2. The Twelve Principles of Agile Software: https://agilemanifesto.org/principles.html
3. Stack Overflow - https://stackoverflow.com/

Other Equipment/Materials

Students are required to have full access to a functioning laptop or PC with internet capabilities and the following tools:

1. Web camera for video calls
2. Microphone/headset
3. Email address to use for web tool accounts
4. GitLab account - https://gitlab.com/
5. Integrated Development Environment (IDE). Suitable options include:
    a. Visual Studio Code** - https://code.visualstudio.com/
    b. Sublime Text - https://www.sublimetext.com/3
    c. Atom - https://flight-manual.atom.io/getting-started/sections/installing-atom/

Minimum specifications for your laptop/computer:

1. Intel i5 CPU, Intel i7 recommended
2. 8GB RAM, 16GB recommended
3. 1920 x 1080 resolution display
4. Dual monitors recommended

***Instructor will be using this IDE.*

Class Protocol

It is expected that you attend all classes, arrive on time, and participate.

"Participation" involves reading the assignments thoroughly, reading any handouts provided for the week, watching all videos (including videos I add throughout the semester), contributing to class discussions, and completing assignments. To be successful in this class, you should be checking your student email daily and logging in to Blackboard weekly to review class materials and updates.

If you are unable to attend class for any reason, it is expected that you will email the instructor **at least 24 hours in advance**, except in cases of emergency.

Contact Policy

Although you may attempt to reach me by phone, email communication is always preferred. Feel free to email me any questions or concerns following these guidelines:

- **Always** email me from your WSU email address. Email sent from personal email servers like Gmail, Yahoo, etc., have a tendency to end up in my spam folder, and I never see them. You may also email me through Blackboard via the Email My Instructor tab.
- You should NOT contact me for tech support.
    - Any technical problems involving your computer, or issues regarding file uploading or sharing, should go through the OneStop. You can contact them at 316-978-3909. You can also fill out a request for help form at their website.
    - However, if you have a problem with access or uploading assignments, you *should* let me know before your assignment is due. You will also have to accompany this notification with the file in question, so I can verify that it is completed by the due date/time.

Response Time

To Email and Ask My Instructor Questions: I will respond within one business day. In cases where I am travelling or have set an out of office responder, responses may be delayed until my return date.

Feedback on Assignments: Feedback will be given during class for in-class discussion and presentations. Project feedback will be provided through Blackboard.

Grading Scale

WSU uses a +/- grading scale for final grades and to calculate grade point averages. In this class, grades are assigned according to the following chart. (Other classes might assign grades differently: Be sure to understand the different grading scales in all of your classes.)

Points/Percentage	Letter Grade	Grade Points	Interpretation
	A	4.00	A range denotes excellent performance
	A-	3.70	
	B+	3.30	
	B	3.00	B range denotes good performance
	B-	2.70	
	C+	2.30	
	C	2.00	C range denotes satisfactory performance
	C-	1.70	
	D+	1.30	
	D	1.00	D range denotes unsatisfactory performance
	D-	0.70	
	F	0.00	

Assignments

Undergraduate:

1. Individual web application project
2. Team web application project**
3. Team mobile application project**

Graduate:

1. Individual web application project
2. Team web application project**

3. Team mobile application project**

****Note**: All team project participation will be graded by peer review.

Late Assignments

For each class period beyond the original due date, credit will be reduced by 10% of the overall points available. Assignments will not be accepted after two weeks beyond the original due date.

Missed Assignments and Exams

If you are unable to make an exam, it is expected that you will email the instructor **at least 5 days in advance**, except in cases of emergency. Arrangements can be made for a make-up exam.

Undergraduate vs. Graduate Credit

Undergraduate students enrolled in 700 level courses will receive undergraduate credit (not graduate credit) unless they have a previously approved senior rule application or dual/accelerated enrollment form on file in the Graduate School. Undergraduate credit earned in 700 level courses cannot later be counted toward a graduate degree.

Syllabus Policies and Student Resources

All students should familiarize themselves with the course-related policies and student resources that can be found at: **www.wichita.edu/syllabuspolicies**

These include, but may not be limited to:

Information on:

- COVID-19 conditions
- Important Academic Dates
- Academic Integrity
- Definition of a credit hour
- Video and Audio recording
- Shocker Alert System
- Intellectual Property
- CARE Team
- Counseling and Prevention Services
- Student Health Services
- Heskett Center and Campus Recreation
- Inclusive Excellence and Respect for Diversity
- First Generation Students
- Names and Pronouns
- Students with Disabilities
- Title IX

- Concealed Carry Policy

Tentative Schedule

Week	Date	Topics, Readings, Assignments, Deadlines
1		Cross-functionality, T-shape skills assessment
2		Pseudo Code
3		Basic Web Applications
4		Basic Web Applications
5		Version Control Basic Web Applications
6		Version Control Distributed Teams Workflow
7		Integrated Web Applications
8		Integrated Web Applications
9		Integrated Web Applications
10		Integrated Web Applications
11		Mobile Applications
12		Mobile Applications
13		Mobile Applications
14		Mobile Applications
15		Mobile Applications
Final		Product Review with Stakeholders

Last updated: December 17, 2020.