

Course: Agile Methods – 95-874, Units: 6

Instructor: John Davis (jadavis@andrew.cmu.edu)

Office Hours: Flexibility by phone; students encouraged to schedule appointments as needed.

Who This Course Is Designed For:

Businesses must compete in new ways for growth and relevancy, driven by the accelerated rate of digital innovation and inherent market complexity. As a result, organizations have become reliant upon an ability of their people and leaders to embrace continuous change for strategic gain while delivering continuous, incremental value to customers. No longer is it good enough to pursue internal efficiencies alone, rather organizations are challenged to become more effective in product and service delivery through customer demand for high involvement (and customization.) Companies in all industries seek to navigate their growing complexity using empirical process control, realizing predictive measures of cause and effect are not possible in much of the knowledge work we must engage in.

This reality explains why industries are making the shift to leverage lightweight organizational frameworks and agile methods that replace traditional approaches only suited for simple and complicated domains.

In this course we learn the history of agile methods, we explore Kanban, DevOps and, more deeply, the Scrum Framework, as it is the most popular around the globe, and sits at the root of most every enterprise framework used to “scale agility.”

- We teach what it means to be a modern Entrepreneurial Leader through effective

Product Ownership.

- We teach what it means to lead effective High-Performance Teaming through Self-Leadership, Values and Principles.

- We teach what kind of Leadership makes or breaks this in organizations big and small,

and offer many case studies, storytelling and deeper insights through in-class teaming

exercises.

Who this course benefits:

High paying, strategic jobs of Product Owner and Scrum Master top the high-pay job boards and are in high demand from all the major players and Fortune companies. Many students will find themselves becoming part of co-creative, cross-functional teams for strategic corporate initiatives.

Many are in pursuit of playing strategic Product Owner and Scrum Master roles, as well as supporting roles in Product management, development and delivery - if this is you, this is a course you really must consider - speak to your student network about the value this course will bring to your career goals.

Agile Methods is the perfect course for entrepreneurially-minded professionals having career aspirations within any departmental functions (such as Product Management, Product Development, Human Resources, Sales & Marketing, Finance, Supply Chain, etc.), and for those wanting to learn through practical application just how organizations deliver continuous value and lead continuous change.

Learning Objectives:

1. Students will gain hands-on skills and experience applying Agile Values and Principles, Agile Frameworks as they engage in using Scrum and Kanban during this course – both are popular agile methodologies in high demand with today's employers!
2. Students will be able to demonstrate critical thinking and applied problem solving against a complex holistic system of agile values, principles and practices, and challenges of scaling to the enterprise.
3. Students will learn the strategic business drivers and benefits of agile methods, and the inherent complexities companies experience while adopting and scaling agile to the enterprise.
4. Learning Scrum and Kanban by using Scrum and Kanban; through effective Teaming and Leading Teams we learn what is required for results, how to amplify and accelerate.

Required Course Materials:

- Each student will be provided a copy of the "Scrum Inc. - Scrum Master and Product Owner" courseware created by Dr. Jeff Sutherland (co-creator of Scrum and the founder of Scruminc.com); student accounts will be charged \$50 by CMU Administrators for payment of the (student discounted rate) licensing fee.
- This includes a free attempt at earning either the Scrum Inc. Product Owner - or – Scrum Inc. Scrum Master certification at the conclusion of the course depending on your career goals.

Course Assessment Approach:

The course is heavily focused on scenarios-based exercises that require practical application of what is being learned. The results students create and their ability to demonstrate principles through weekly practice proves to be largely subjective in nature, so this course is graded fundamentally differently compared to other courses.

Total possible points a student can earn during this course: one hundred (100) points.

40 Points: Demonstrate Core Values & Demonstrable Knowledge:

- **10 Points for Attendance (These Can Only Be Waived Or Made-Up Upon Request):**
 - Beyond week 1, attending all classes earns 10 points.
 - Beyond week 1, the student loses 2 points for each class missed.
 - NOTE: TAs will take attendance. You must be on the lists otherwise points will be deducted.
- **6 Points for Core Values:**
 - Scrum's 5 core values of Courage, Commitment, Focus, Respect and Openness serve as vital life-blood for a healthy classroom and teaming dynamic.
 - During Week 1, the professor will collaborate to establish our Team of Team's working agreement rooted in these 5 values, as living these out promotes trust. This agreement aims to elevate our thinking, deepen our learning, and inspire collaborative dynamics.
 - Each class, each team will be given ample opportunity to earn 1 point for demonstrably taking responsibility in the moment for raising and maintaining our standard of conduct within their own team and that of their sister-teams in the room with respect to those not honoring our working agreement.
- **24 Points for Demonstrable Knowledge:**
 - There are 4 tests that will be issued, each test worth 6 points.
 - Each test, points will be earned based on the resulting percentage score.
 - Students will have 1 chance to take the timed exam outside of class.

60 Teaming Points:

- Week 1 we will be forming teams that will work together for the duration of the course. Each team will earn points in the following two ways as they work for the length of the course to deliver products to fruition.
 - **30 Doing points:** Your team will invent a product idea, and work to move your team's idea from "vision to value." Week to week your team will evolve your idea, clarify and collaborate on what your team needs (and why) using the

means we learn in class each week - to see to it the product you desire is created. Your team will also be responsible to build and deliver the desired product, turning product backlog into reality.

- Up to 5 points are earned by each team, each week starting week 2.
 - Points will be earned by your team progressing through our backlog of learning objective(s) with quality:
 - Demonstrable teamwork during class
 - Quality work-product and deliverables
 - Critical Thinking as demonstrated in the level of questions being asked on the journey
 - Operate as a team outside of class to apply what has been learned as a means to “learn by doing”
- **30 Improving points:** Living out our culture of Continuous Improvement means we are demonstrably committed to offering one another productive, growth-oriented feedback as a strategic mean for professionals building world-class products.
- Up to 5 points are earned by each team, each week starting week 2.
 - During Sprint Review in class: An assigned “stakeholder team” will provide effective feedback to your team user feedback on the product you are building during Sprint Reviews we host in class, where your product owner and team must prove to be effective in engaging your stakeholders, and being effective in dealing with this feedback offered. Visualized in the Product Backlog, and ultimately (if applicable) finding its way into your final product if the business justification is there in the eyes of the Product Owner.
 - During Sprint Retrospective in class: Each week your team will host a team Sprint Retrospective, where your team will visualize improvement opportunities, collaborate as a team to determine one strategic improvement to the way your team is working and assessing the impact of prior improvement efforts. Moreso, visualizing in your Sprint Backlog, the improvement you are undertaking each Sprint.

Final Course Grade (Scale Using Possible Points Earned Out Of 100):

97-100: A+

93-96.99: A

90-92.99: A-

87-89.99: B+

83-86.99 B

80%-82.99% B-

77%-79.99%: C+

73%-76.99%: C

70%-72.99%: C-

Ethical Standards:

Students at Carnegie Mellon are engaged in preparation for professional activities of the highest standard. Each profession constrains its members with both ethical responsibilities and disciplinary limits. To assure the validity of the learning experience Carnegie Mellon establishes clear standards for student work. You are required to be familiar with related university policies on this subject. An extract of these policies is reproduced here: In any presentation, creative, artistic, or research, it is the ethical responsibility of each student to identify the conceptual sources of the work submitted. Failure to do so is dishonest and is the basis for a charge of cheating or plagiarism, which is subject to disciplinary action. Cheating includes but is not necessarily limited to:

- Plagiarism.
- Submission of work that is not the student's own for papers, assignments or exams.
- Submission or use of falsified data.
- Theft of or unauthorized access to an exam.
- Use of an alternate, stand-in or proxy during an examination.
- Use of unauthorized material including textbooks, notes or computer programs in the preparation of an assignment or during an examination.
- Supplying or communicating in any way unauthorized information to another student for the preparation of an assignment or during an examination.
- Collaboration in the preparation of an assignment.
- Unless specifically permitted or required by the instructor, collaboration will usually be viewed by the university as cheating. Each student, therefore, is responsible for understanding the policies of the department offering any course as they refer to the amount of help and collaboration permitted in preparation of assignments.
- Submission of the same work for credit in two courses without obtaining the permission of the instructors beforehand.

As a matter of policy, I will not tolerate cheating or plagiarism. If you are caught, you will automatically lose all marks for that exam/assignment. I will decide whether further disciplinary action should also be taken.