

GSAW 2015 Tutorial F:

Agile Development: Myths, Monsters, and Fables

Length: Full day

Overview:

The tutorial will address common myths and misconceptions while providing a basic overview of what Agile is and is not. The course will consist of the following topics:

- Why do we need Agile or software methods anyway
 - Can software development be managed the same as hardware? Why? Why not?
 - Discussion of hardware “is a part of” versus software “is used by” constructs
- Key Components of Agile Development
 - Discussion of the Agile Manifesto and its associated 12 principles. Myths and misconceptions of these principles will be discussed and debunked.
- Traditional and Agile Acquisition Life Cycles
 - A short discussion and comparison of traditional methods versus agile methods will describe what’s similar and what’s different.
 - Some of the Myths discussed will include:
 - Agile is a fad
 - Agile is just spiral
 - Agile is just incremental
 - Agile is “cowboy programming”
 - Agile is only for small projects
- Common Agile Methods
 - A quick overview of the most popular Agile methods or those methods termed “Agile”.
- Scrum-The Most Adopted Agile Method
 - Discussion of the sweet spot for Scrum, key elements of scrum, and the scrum framework
- Challenges to Agile Adoption in DoD
 - “Agile can be adopted without changing your behavior.” Five cultural differences between Agile and traditional methods in highly regulated environments
- Suggestions for Successful Use of Agile Methods in DoD Acquisition
 - Attributes of Agile Success
 - Enabling Agile software development success
 - A short look at agile in the certification and accreditation process

Instructors: Mary Ann Lapham and Suzanne Miller, Software Engineering Institute

Biographies:

Mary Ann Lapham, a Principal Engineer at the Software Engineering Institute (SEI) of Carnegie Mellon University, is the technical lead for SEI’s agile in acquisition research, focused on identifying and addressing barriers to adopting Agile practices in DoD and other government settings. She is also the Space Sector lead within the Software Solutions Division, Client Technical Solutions Directorate. Prior to

her coming to the SEI in 2004, Ms. Lapham spent 30 years in technical and program management roles on programs of variable size and complexity. She also is a PMP and CSM.

Suzanne (SuZ) Miller is a Principal Researcher in the Client Technical Solutions Directorate at Carnegie Mellon University's Software Engineering Institute. Her current research focuses on the adoption barriers faced by highly regulated organizations (like US government organizations) that are taking up Agile and lean principles. While at the SEI, she has also researched systems of systems governance issues, technology transition, and process improvement--particularly development and implementation of CMM types of models-- and co-authored CMMI Survival Guide: Just Enough Process Improvement, which provides methods and decision approaches for organizational improvement. She spent 12 years before the SEI in multiple technology insertion, quality engineering, and improvement-related roles at Lockheed Missile and Space Co working both Navy missile programs and USAF satellite ground system programs.

Description of Intended Students and Prerequisites:

Attendees should be familiar with the software development lifecycle, had some exposure to Agile and have a curiosity about Agile – what it is, what it isn't.

What can Attendees Expect to Learn:

Agile myths, truths and issues will be exposed and examined. The tutorial will discuss how to apply Agile in the highly regulated environment of the Space industry.