Module One

Learning Objectives

By the end of this module, you will meet these learning objectives:

- Explain the major development models and methodologies for developing software
- Identify the stages of the software development life cycle (SDLC)

Module Overview

Welcome to CS 250: Software Development Life Cycle (SDLC). This introduction module reviews the process that the information technologies industry uses to produce quality software. Many SDLC models are available and have similar phases. The phases within the SDLC include requirements analysis, system design, implementation, testing, deployment, and maintenance. The two most popular industry implementations of SDLC are the waterfall model and the Agile methodology. We will compare the differences between the two throughout the course.

For many years, the waterfall model was the preferred method for software development. However, that preference shifted to Agile methodology in the past decade. As you will observe throughout this course, Agile methodology is popular since it encourages faster product development and delivery. This course will focus on Agile design since it is the preferred methodology now and in the future. It has also proven to be effective at producing quality software rapidly. Agile design comprises a highly collaborative team of a Scrum Master, Product Owner, developers, and testers. In this course, you will be implementing an Agile methodology with the Scrum framework. At its core, Scrum consists of three roles, five events, and three artifacts. You will learn more about these roles, events, and artifacts in the next module.

This module will explore the basics of Agile, including the Agile Manifesto and the 12 principles that support teams in implementing and executing with agility. As you compare Agile to waterfall and other SDLC methodologies, the reasons for the rise of the Agile design will become clear.

In this module, you will begin to get acquainted with Agile and the SDLC through the readings, discussion, and quiz. You will also access the integrated development environment (IDE) used for your development in this course—Java with Eclipse. Finally, you will spend time reviewing the final project for the course.

Module at a Glance

This is the recommended plan for completing the reading assignments and activities within the module. Additional information can be found in the module Resources section and on the module table of contents page.

1. Review the Module One resources.
2. Post your initial response to this week's discussion.
3. Complete the tutorials to access the Eclipse IDE.
4. Complete the Module One quiz.
5. Review the final project for this course.
6. Post peer responses to the discussion.