

Real Training. Real Practice. Real Results.



DevOps



Prerequisites

It is not required that students have specific expertise with regards to DevOps, however, a four year degree from an accredited university is preferred.



Program Goals

This program provides an introduction to DevOps – the cultural and professional movement that stresses communication, collaboration, integration and automation in order to improve the flow of work between software developers and IT operations professionals. Improved workflows will result in an improved ability to design, develop, deploy and operate software and services faster for the benefit of the business. Students will learn the latest automation tools to examine the functionality for source code control, automated build, automated test, and automated deployment, to deliver an operational rhythm of Continuous Integration (CI) and Continuous Deployment (CD).

This program discusses the basic concepts of DevOps, including its philosophy, workflow, monitoring methods, and tools. Topics include: concepts and vision for DevOps, release/deployment pipelines, automated testing, monitoring production, task evaluation, skills assessment, and tool selection. Students will apply these concepts to see how they can be best implemented to automate development, test, and release practices. Students will work in teams to build functional working models of realized DevOps.



Professional Objectives

This program is designed to provide the necessary education and hands-on expertise needed to build the DevOps vocabulary and to understand its principles and practices. During the course of the program, students will be able to:

- Gain an in depth understanding of DevOps objectives and vocabulary.
- Identify valuable benefits to the business and IT lifecycle.
- Formulate principles for continuous integration, continuous delivery, testing, security and the ThreeWays.
- Improve workflows, communication and feedback loops by following best practices.
- Automate tasks by using deployment pipelines and DevOps toolchains.
- Assess requirements and construct scaling of DevOps for the enterprise.
- Illustrate critical success factors and key performance indicators.



Core Courses

- DEV 1001 Introduction to DevOps | 16 hours
- DEV 1002 Introduction to Python Programming | 24 hours
- DEV 1003 Big Data and Splunk Analytics | 40 hours
- PMP 1001 ITIL Foundation | 24 hours
- PMP 1002 Introduction to Scrum and Agile | 16 hours
- ISA 1001 Secure Computer User | 16 hours
- ISA 1002 Introduction to Cyber Security | 48 hours
- CLO 1001 Introduction to Cloud Computing | 40 hours
- **Total Program Clock Hours | 224**



Learning Outcomes

Upon completion of the program, graduates will be able to:

- Harness the relationship of DevOps to Agile, Lean and ITSM.
- Compose test strategy and implementation within a CI/CD context.
- Perform infrastructure automation with tools such as Jenkins, Selenium, AWS and Splunk.
- Automate quality gates for incremental build and delivery of the product.
- Execute functions and implement frequent Python code commits to repositories.
- Structure code with classes, functions, modules and OO features.
- Develop dynamic, platform-independent GUIs for data-driven web applications.