DevOps Foundation® Certification eLearning
Course Description

Learn about DevOps to support organizational efforts in reducing costs while increasing agility, quality and customer service in this online foundation-level course to support digital transformation.

DURATION: approx 4-5 hours
ACCESS: Learners will have 90 days access to the online course

OVERVIEW

As organizations are facing new entrants in their respective markets, they need to stay competitive and release new and updated products on a regular basis rather than one or two times a year.

The DevOps Foundation certification eLearning course provides a baseline understanding of key DevOps terminology to ensure everyone is talking the same language and highlights the benefits of DevOps to support organizational success.

The online course includes the latest thinking, principles and practices from the DevOps community. Learners will gain an understanding of DevOps, the cultural and professional movement that stresses communication, collaboration, integration, and automation to improve the flow of work between software developers and IT operations professionals.

The online course is designed for a broad audience, enabling those on the business side to obtain an understanding of microservices and containers. Those on the technical side will obtain an understanding as to the business value of DevOps to reduce cost (15-25% overall IT cost reduction) with increased quality (50-70% reduction in change failure rate) and agility (up to 90% reduction in provision and deployment time) to support business objectives in support of digital transformation initiatives.

Sample exams, value added resources, and DevOps glossary will also be provided for learners to download.
This course positions learners to successfully complete the DevOps Foundation certification examination.

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COURSE OBJECTIVES

The learning objectives for DevOps Foundation include an understanding of:

- DevOps objectives and vocabulary
- Benefits to the business and IT
- Principles and practices including Continuous Integration, Continuous Delivery, testing, security and the Three Ways
- DevOps relationship to Agile, Lean and ITSM
- Improved workflows, communication and feedback loops

- Automation practices including deployment pipelines and DevOps toolchains
- Scaling DevOps for the enterprise
- Critical success factors and key performance indicators

AUDIENCE

The target audience for the DevOps Foundation certification eLearning course includes Management, Operations, Developers, QA and Testing professionals such as:

- Individuals involved in IT development, IT operations or IT service management
- Individuals who require an understanding of DevOps principles
- IT professionals working within, or about to enter, an Agile Service Design Environment
- The following IT roles: Automation Architects, Application Developers, Business Analysts, Business Managers, Business Stakeholders, Change Agents, Consultants, DevOps Consultants, DevOps Engineers, Infrastructure Architects, Integration Specialists, IT Directors, IT Managers, IT Operations, IT Team Leaders, Lean Coaches, Network Administrators, Operations Managers, Project Managers, Release Engineers, Software Developers, Software Testers/QA, System Administrators, Systems Engineers, System Integrators, Tool Providers

LEARNER MATERIALS

- Approximately 4-5 hours of learning videos
- Sample exams
- DevOps glossary
- Access to additional value-added resources and communities

PREREQUISITES

Familiarity with IT terminology and IT related work experience are recommended.

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CERTIFICATION EXAM

Successfully passing (65%) the 60-minute examination, consisting of 40 multiple-choice questions, leads to the DevOps Foundation Certificate. The certification is governed and maintained by the DevOps Institute.

COURSE OUTLINE

- Course Introduction (4 min)
  - Course Goals
  - Course Agenda
- Module 1: Exploring DevOps (30 min)
  - Defining DevOps
  - Why Does DevOps Matter?
- Module 2: Core DevOps Principles (15 min)
  - The Three Ways

  - The First Way
  - The Theory of Constraints
  - The Second Way
  - The Third Way
  - Chaos Engineering
  - Learning Organizations
- Module 3: Key DevOps Practices (23 min)
  - Continuous Delivery
  - Site Reliability & Resilience Engineering
  - DevSecOps
  - ChatOps
  - Kanban
- Module 4: Business and Technology Frameworks (35 min)
  - Agile
  - ITSM
  - Lean
  - Safety Culture
  - Learning Organizations
  - Sociocracy/Holacracy
  - Continuous Funding
- Module 5: Culture, Behaviors & Operating Models (28 min)
  - Defining Culture
  - Behavioral Models
  - Organizational maturity models
  - Target Operating Models

- Module 6: Automation & Architecting DevOps Toolchains (21 min)
  - CI/CD
  - Cloud
  - Containers
  - Kubernetes
  - DevOps Toolchain
- Module 7: Measurement, Metrics, and Reporting (20 min)
  - The Importance of Metrics
  - Technical Metrics
  - Business Metrics
  - Measuring & Reporting Metrics
- Module 8: Sharing, Shadowing and Evolving (39 min)
  - Collaborative Platforms
  - Immersive, Experiential Learning
  - DevOps Leadership
  - Evolving Change
- Additional Sources of Information
- Exam Preparation Materials
  - Exam Requirements, Question Weighting, and Terminology List
  - Sample Exam Review