

SM-DOIDEVOPSF DOI DEVOPS FOUNDATION (INCLUDING EXAM VOUCHER)



DURATION	LEVEL	TECHNOLOGY	DELIVERY METHOD	TRAINING CREDITS
2 Days	Foundation	DevOps	Instructor Led	None

INTRODUCTION

As organizations face new entrants in their respective markets, they must stay competitive and release new and updated products regularly rather than once or two times a year.

DevOps Institute's DevOps Foundation® is a freestanding certification from PeopleCert. The purpose of the certification and its associated course is to impart, test and validate knowledge of DevOps basic vocabulary, principles and practices. The vocabulary terms, concepts and practices are documented in the course learner materials. DevOps Foundation® is intended to provide individuals with an understanding of basic DevOps concepts and how DevOps may be used to improve communication, collaboration and integration between software developers and IT operations professionals.

The course includes the latest thinking, principles, and practices from the DevOps community including real-world case studies from high performing organizations including ING Bank, Ticketmaster, Capital One, Alaska Air, Target, Fannie Mae, Societe Generale, and Disney that engage and inspire learners, leveraging multimedia and interactive exercises that bring the learning experience to life, including the Three Ways as highlighted in the Phoenix Project by Gene Kim and the latest from the State of DevOps and DevOps Institute Upskilling reports.

Learners will understand 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 course is designed for a broad audience, enabling those on the business side to understand 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.

Unique and exciting exercises will be used to apply the concepts covered in the course and sample documents; templates, tools, and techniques will be provided to use after the class.

The course was developed by leveraging key DevOps leadership sources to extract real-life best practices in leading DevOps initiatives and has been designed to teach the key differences and emerging practices for DevOps ways of working through leadership in a fast-paced DevOps and Agile environment.

AUDIENCE PROFILE

The target audience for the DevOps Foundation® course includes Management, Operations, Developers, QA, and Security 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, Testers.

PREREQUISITES

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

COURSE OBJECTIVES

The learning objectives include a practical 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, AIOps, Generative AI, Lean, ITSM, VSM, SRE and Platform Engineering
- Improved workflows, communication and feedback loops
- Automation practices including deployment pipelines and DevOps toolchains, AIOps and

- Scaling DevOps for large organizations

- Critical success factors and key performance indicators
- AI Use cases
- Real-life examples and results

COURSE CONTENT

Module 1: Exploring DevOps

- Defining DevOps
- Why Does DevOps Matter?
- The Business Perspective
- The IT Perspective

Module 2: Core DevOps Principles

- The Three Ways
- The Theory of Constraints
- Chaos Engineering
- Learning Organizations

Module 3: Key DevOps Practices

- Continuous Testing, Integration, Delivery, Deployment
- Site Reliability & Resilience Engineering
- DevSecOps
- ChatOps
- Monitoring & Observability
- Value Stream Management
- Platform Engineering

Module 4: Business and Technology Frameworks

- Agile
- ITSM
- Lean
- VSM
- SRE
- Safety Culture
- Learning Organizations
- Continuous Funding

Module 5: Culture, Behaviors & Operating Models

- Defining Culture
- Cultural Debt
- Behavioral Models
- Organizational models

Module 6: Automation, Lean & Architecting DevOps Toolchains

- CI/CD
- Infrastructure as Code
- Cloud, Containers, and Microservices
- Machine Learning

- DevOps Toolchains
- Value Stream Management Platforms
- Platform Engineering
- Generative AI Use Cases

Module 7: Measurement, Metrics, and Reporting

- The Importance of Measurement
- DevOps Metrics - Speed, Quality, Stability, Culture
- Change lead/cycle time
- Value Flow Metrics
- DevOps Dashboards
- AIOps

Module 8: Sharing, Shadowing and Evolving

- DevOps Days
- DevOps in the Enterprise
- Roles
- DevOps
- Organizational Considerations

ASSOCIATED CERTIFICATIONS & EXAM

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