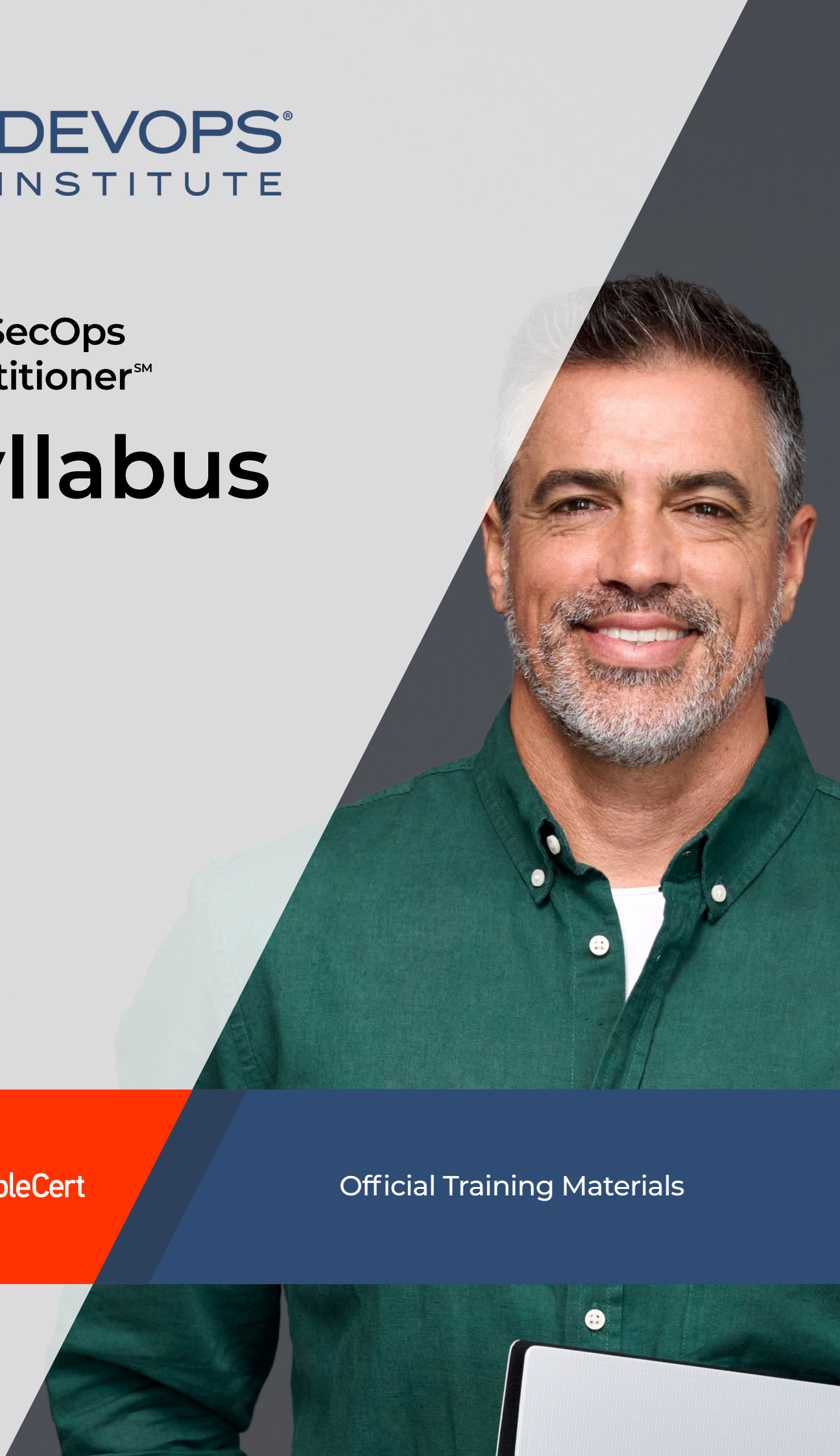
DEVOPS® INSTITUTE

DevSecOps Practitioner℠

Syllabus



PeopleCert

Official Training Materials

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1. Introduction

The purpose of the DevOps Institute®: DevSecOps Practitioner℠ certification and its associated course is to impart, test, and validate knowledge, comprehension, and application of advanced DevSecOps practices, methods, and tools. The DevSecOps Practitioner℠ certification is tailored for anyone who desires more depth when bringing DevSecOps to their organization. Each section covers practical maturity guides, and then discusses how people, processes and technology can be combined to improve outcomes. The certification prepares individuals to have deep technical discussions about creating and securing DevOps pipelines.

The following prerequisites must be met before sitting for the DevSecOps Practitioner℠ certification exam:

- It is highly recommended that candidates have successfully completed and earned the DevSecOps Foundation℠ certification.
- Although there are no formal prerequisites for the exam, PeopleCert highly recommends that candidates complete at least 24 contact hours (instruction and labs) as part of a formal, approved training course delivered by an Authorized Training Organization of PeopleCert to prepare candidates for the exam leading to the DevSecOps Practitioner℠ certification.

The DevSecOps Practitioner℠ examination is accredited, managed, and administered under the strict protocols and standards of PeopleCert.

2. Exam overview

Material allowed	Official Training Material	This is an 'open book' exam. Official Training Materials can be used for study and during the exam.
Exam duration	90 minutes	Candidates taking the exam in a language that is not their native or working language may be awarded 25% extra time, that is 113 minutes in total.
Number of marks	40 marks	There are 40 questions, each worth 1 mark. There is no negative marking.
Provisional pass mark	65%	Candidates need to answer 26 questions correctly to pass the exam.
Level of thinking	Bloom's levels 1, 2 and 3	"Bloom's level" describes the type of thinking needed to answer the question. For Bloom's level 1 questions, you need to **recall** information/knowledge about the advanced DevSecOps concepts and vocabulary terms. For Bloom's 2 questions, you need to show **understanding** of these concepts in context. For Bloom's 3 questions, you need to demonstrate **application** of these concepts, methods and principles in various contexts
Question types	Standard, Negative, Missing word(s), and List	The questions are all 'multiple choice'. 'Standard' questions have a stem and four answer options. 'Negative' questions are 'Standard' questions in which the stem is negatively worded. For the 'Missing word(s)' questions, there is a sentence with a word or more words missing, and candidates have to select the missing word from four options. For the 'List' questions, there is a list of four statements, and candidates have to select two correct statements from the list.
Delivery	Web-based	The exam is offered only as a computer/web-based exam.
Badge	Online badge	DevSecOps Practitioner℠ Certified

It is recommended that candidates complete the DevSecOps Practitioner℠ course from a PeopleCert Accredited Training Organization (ATO).

3. Question Types

All questions are Objective Test Questions (OTQs), which present four options from which one option is selected. Distractors (wrong answers) are options that candidates with incomplete knowledge or skill would be likely to choose. These are generally plausible responses relating to the syllabus area being examined. Question styles used within this type are: 'Standard', 'Missing word', 'List' (2 correct items), and, exceptionally, 'Negative' standard OTQ.

Example 'Standard' OTQ:

What does the 'C' stand for in CALMS?

A. Cooperation
B. Collaboration
C. Culture
D. Continuous Integration

Example 'List' OTQ:

When putting the 1st Way into action, which **TWO** of the following should be **INCLUDED**?

1. Passing a known defect downstream
2. Seeking an overview of the system
3. Decreasing flow and adding constraints
4. Allowing local optimization to cause global degradation

A. 1 and 3
B. 2 and 3
C. 2 and 4
D. 3 and 4

NOTE: Two of the list items are correct. List style questions are never negative.

Example 'Missing word' OTQ

Identify the missing word(s) in the following sentence.

According to Gartner, [?] is the most common challenge for organizations adopting DevOps principles.

A. People
B. Information
C. Process
D. Technology

Example 'Negative' standard OTQ:

Which of the following is **NOT** a goal of DevOps?

A. Improved productivity
B. Fewer but higher-quality software releases
C. Lower risk software deployments
D. Improved quality of code

NOTE: Negative questions are only used, as an exception, where part of the learning outcome is to know that something is not done or should not occur.

Please see the sample paper for an example of the exam format and content.

4. Syllabus

The DevSecOps Practitioner℠ exam requires knowledge of the topic areas specified below.

Note: The DevSecOps Practitioner℠ certification uses the Bloom Taxonomy of Educational Objectives in the construction of both the learning content and the examination.

- The DevSecOps Practitioner℠ exam contains Bloom 1 questions that test learners' **knowledge** of advanced DevSecOps terms and concepts.
- The DevSecOps Practitioner℠ exam contains Bloom 2 questions that test learners' **comprehension** of advanced DevSecOps terms and concepts.
- The exam also contains Bloom 3 questions that test learners' **application** of advanced DevSecOps concepts in various contexts.

Topic Area	Description	Marks
DSOP 1	DevSecOps basics	4
DSOP 2	DevSecOps metrics	5
DSOP 3	Architecting and planning for DevSecOps	5
DSOP 4	Creating a DevSecOps infrastructure	5
DSOP 5	Establishing a DevSecOps pipeline	5
DSOP 6	Observing DevSecOps outcomes	6
DSOP 7	Practical Third-Way DevSecOps applications	6
DSOP 8	The future of DevSecOps	4

The candidate is expected to understand and comprehend the following DevSecOps concepts and vocabulary at a Blooms Level 1 (Knowledge), 2 (Comprehension) and 3 (Application):

- Agile
- Architecture
- Architecture maturity
- Architecture Tradeoff Analysis
- Method (ATAM)
- Audits
- Bleeding edge
- Biodesign
- CALMS model
- CASE tools
- Chaos Engineering
- CI/CD pipeline
- Container security
- Continuous Delivery (CD)
- Continuous Integration (CI)
- Continuous monitoring
- Continuous security
- Cloud architects
- Cloud-native
- Conway's Law
- Continuous Delivery Architect
- Core Agile Concepts
- Culture
- Cultural pillars
- Cutting edge
- DevSecOps
- Dynamic analysis
- Event-Driven Architecture
- Expanded risk
- Harvard architecture
- Idempotent
- Infrastructure
- Kanban board
- Key Metrics
- Kubernetes
- LEAN
- Lift and Shift
- Log
- Logging
- Maturity levels
- Mean Time to Recover (MTTR)
- Merged architecture
- Microservices
- Model
- Monoliths
- Metrics
- Observability
- Open source
- Ops
- Priority
- Process
- Qualitative vs. Quantitative Analysis
- Quantum Computing
- RACI
- Release
- Release management
- Retrospective
- Resilience
- Risks
- Safety Culture
- Scaled Agile Framework (SAFe)
- Scrum Master
- Security as Code
- Security scans
- Simple risk
- Source control
- Static code analysis
- Strangler pattern
- SWIFT hacking
- Telemetry
- The Third Way applications
- The Three Ways
- The Unicorn Project
- Threat
- Tracing
- UI/UX Scales
- User
- Value Stream
- Von Neuman Architecture
- Velocity
- Vulnerability
- Vulnerability Scans
- Westrum (Organization Types)
- Work in Progress principles (WIP)
- Workflows

5. Exam specification

The examination has the following structure:

Topic Area	Weighting %
DevSecOps basics	10.0%
DevSecOps metrics	12.5%
Architecting and planning for DevSecOps	12.5%
Creating a DevSecOps infrastructure	12.5%
Establishing a DevSecOps pipeline	12.5%
Observing DevSecOps Outcomes	15.0%
Practical Third-Way DevSecOps applications	15.0%
The future of DevSecOps	10.0%
Total	**100%**


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