Cultural Daily

Independent Voices, New Perspectives

5 DevOps Skills You Must Learn Before Enrolling in a DevOps Engineer Course

Our Friends · Tuesday, October 28th, 2025

The pace of the digital world is quick, and businesses are under constant pressure to deliver software faster, more reliably and more securely. And that's where this acronym 'DevOps' comes into play — a philosophy meant to help promote greater cooperation, automation and delivery across development and operations alike.

If you have been considering a tech career, chances are you've heard of the **DevOps engineer course** – one of the hottest courses for individuals on a mission to enter one of the most sought-after careers in IT today. But before you jump into such a program, there are certain technical and conceptual skills that should already be strong, so your learning goes more smoothly and you can advance faster in your career.

In this post, we will provide insight into 5 key DevOps skills that you need to learn before taking a DevOps engineer course and how combining them with **cloud computing courses** can help fast-track your journey towards a high-level career as a highly sought-after DevOps professional.

DevOps Handbook: Introducing the philosophy that is transforming IT

But before we get into the skillset, let's clear up what DevOps actually is.

DevOps is more than just tools and practices—it's a cultural transformation that aligns developers, operations staff, QA engineers, and in some cases business stakeholders to deliver software with greater speed and reliability. It includes automation, monitoring, and cooperation for a more streamlined software lifecycle.

This is where a DevOps engineer comes into the picture. They juggle infrastructure, automate deployment and verify code quality, performance monitoring, and system security.

"DevOps professionals are in demand across the board as enterprises continue to scale up their use of cloud technology," said Andrew Sim, CTO at AppOmni.

That's why a DevOps engineer course is a worthwhile investment—if you have the fundamental understanding of the skills covered below.

Skill 1: Know Linux and Scripting Basics

If you're into DevOps, Linux is the de facto language of infrastructure. Nearly all the servers — the deployment environment or automation tool you name — in the DevOps universe live on Linux and have roots in supporting it.

A few things to know before taking a course as a DevOps engineer:

- File systems and directory structures.
- Command-line operations.
- User permissions and process management.
- Basics in networking, such as IPs, ports, and routing.

You will also need exposure to scripting (Linux) for sure. If it's Bash, Python or Shell, scripting acts to automate routine tasks such as system monitoring, updating software or managing logs.

See, for instance, DevOps pipelines that use scripts to have builds created, updates deployed, and containers managed.

A very good start is to write simple automation scripts that deal with doing daily admin tasks—that way, you understand the logic and flow of the system.

You'll find taking your DevOps course so much easier once you've learned Linux and scripting because that's what most automation and CI/CD tools are based on.

Skill 2: Knowledge of Cloud Platforms Virtualisation

DevOps is nothing without the cloud. Today, pretty much every business in the world leverages cloud infrastructure to host applications and manage resources so they can scale their operations.

One of the reasons that, before taking a DevOps engineer course, it is good to become familiar with cloud computing courses is just this: by learning how cloud environments work, you better understand where and how DevOps sits within them.

Cloud platforms such as:

- Amazon Web Services (AWS
- Microsoft Azure
- Google Cloud Platform (GCP)

They are crucial to any modern DevOps workflow.

Cloud computing understanding will help you to shift infrastructure (IaaS) or platform (PaaS). You'll also cover techniques regarding cost-efficient resource management, serverless function invocation, and data security across distributed systems.

This set of skills also includes virtualisation tools, such as VMware and Vagrant, as well as containerization platforms, including Docker and Kubernetes. Knowing how to build isolated environments for testing and deployment is key in DevOps pipelines.

By that, in a nutshell, you could pair your learning with cloud computing training so you'd be able

to effortlessly build, deploy & scale applications the same way they work in the professional world.

Skill 3: Hands-On Experience with some CI / CD & Automation Tools

DevOps wouldn't be DevOps without automation—that key ability to automatically carry out processes that provide value and do so much more efficiently than a human could.

Before you pursue the DevOps engineer training, understand what are CI and CD. And those are the foundation of DevOps best practices that give you faster, reliable, and predictable software releases.

The following is a selection of tools and concepts you should investigate:

- Jenkins – Manages builds and deployment of applications.
- GitLab CI/CD – Combines code management and deployment automation in one.
- CircleCI and Travis CI – Mainstream choice of CI/CD for startups as well as open source.
- Ansible, Puppet and Chef – these are configuration management and infrastructure automation tools.

Comprehending CI/CD pipelines enables you to learn how code flows from development to production rapidly.

For example, a Jenkins pipeline can automatically test code, create container images and apply updates to a Kubernetes cluster—no fingers required.

Through first-hand experience of automation, you'll be less intimidated and better equipped to attack more advanced modules in a DevOps engineer course that covers areas like pipeline creation and deployment orchestration.

Skill 4: Get an Expert Understanding of Version Control with Git

Version control is something every developer and DevOps person needs to know because it's the backbone of collaborative software development.

Things like Git and platforms like GitHub, GitLab, Bitbucket that are helping teams efficiently manage code, track changes and rollback when shit goes down.

Before enrolling in a DevOps engineer training program, ensure that you know:

- How to clone, commit and push repositories.
- Branching and merging workflows.
- Working with pull requests and conflict resolution.
- Integrating Git with CI/CD automation pipelines.

In DevOps, version control is also applied to more than just source code: It's also used on infrastructure as code (IaC), in which configuration files are treated like code.

And the likes of Terraform & AWS CloudFormation are based on this Git-flow ideology to deploy infrastructure, ensuring that you can rebuild environments reliably and accurately.

You'll need strong Git skills to work well in a team when you're doing your DevOps engineer course or begin working in a DevOps role.

Skill 5: Establishing a Networking and Security Foundation

Networks and security are the heart of all IT systems. When operating in a DevOps reality, you need to know how apps talk to each other, how data moves, and how it all can be done safely.

Before enrolling in DevOps engineer training, you should know these and have a masters in:

- Network fundamentals (DNS, HTTP/HTTPS, TCP/IP).
- Load balancing and routing.
- Firewalls, VPNs, and reverse proxies.
- SSL/TLS encryption.
- Identity and access management (IAM).

AI is now a two-edged sword, fueling both attack and defence by unbroken capabilities. In DevOps, security is no longer its own department – it's part of the development process in DevSecOps. With this method, security testing is automated at all stages of deployment.

You may also consider going through the cloud computing training that specifically targets the security in cloud, IAM roles and access control policies. These will help you get a sense of how contemporary, cloud-based systems can manage compliance and data security–skills that are in high demand in the current job market.

Why These Are Valuable Skills Before a DevOps Engineer Course

You may be wondering: Why not just learn DevOps with a course?

The reason is straightforward — DevOps encompasses multiple areas: software development, IT operations, automation, cloud computing and security. If these areas are entirely foreign to you, starting with a DevOps engineer course might seem too much.

Once you master the above five skills first, you will:

- Gain practice and confidence with the basic tools and essential topics relating to DevOps.
- Learn how various parts work together in projects you find around the house or on eBay.
- Get ahead in those advanced modules such as Kubernetes Orchestration, CI/CD Design and Infrastructure as Code.
- For students who need more applied experience and less theoretical instruction.

What's more, pairing a DevOps engineer course with the appropriate cloud computing classes will give you a well-rounded skill set — one that covers everything from managing cloud infrastructure to automating pipelines — making you the kind of hire employers in every industry are after come 2025.

What will be the demand for DevOps practitioners in 2025

The need for talented DevOps designers is high.

“DevOps engineering is still in the top five most sought-after tech jobs globally, according to Gartner and LinkedIn job reports.

Enterprises are adopting DevOps because it enables them to:

- Deliver software updates faster.
- Improve collaboration between teams.
- Reduce system downtime.
- Enhance scalability and customer experience.

From startups automating deployments to large enterprises integrating cloud migration, DevOps has become a focal point for digital transformation initiatives.

The demand for DevOps engineers. You can explore a world of high-paying jobs worldwide upon completion of the DevOps engineer course, in sectors such as fintech, healthcare, retail and telecoms.

And when you stack DevOps skills with cloud computing courses, your knowledge becomes infinitely more valuable – as the majority of contemporary DevOps environments are hosted on platforms such as AWS, Azure or GCP.

How to Get Going With Your DevOps Roadmap

If you feel like you’re ready to embark on the journey of becoming a certified DevOps professional, here’s an in-depth roadmap:

- **Start with Fundamentals**
  Enroll in cloud computing courses for beginners to learn about how cloud infrastructure functions.
- **Learn Linux and Scripting**
  Work on automation scripts using Python or Bash for day-to-day DevOps-related activities.
- **Explore CI/CD Tools**
  Try creating a basic Jenkins pipeline for testing and deployment.
- **Understand Version Control (Git)**
  Work with GitHub repos to see how coding works on real teams.
- **Take a DevOps Engineer Course**
  Sign up for an advanced DevOps engineer program with hands-on labs, use cases, and prep to get certified.
- **Work on Real Projects**
  Contribute to open-source DevOps project(s) or develop automation on top of your own cloud.

This roadmap will get you from learning basics to a career in DevOps engineering in a clear, goal-focused manner!

Conclusion: You can’t automate your way out of the Hole You Dug Yourself Into

DevOps isn’t just a career—it becomes a way of thinking about continuous improvement, collaboration, and innovation. As businesses worldwide increasingly adopt a cloud-first approach and automate for greater efficiency, highly skilled DevOps professionals are moving to the heart of

technology-driven digital transformations.

But in this industry, success starts with the right foundation.

Before you take up the DevOps engineer course, make sure to learn important skills such as Linux, scripting, cloud computing, automation, version control and security. Not only will they make your learning journey a lot less bumpy, but it is these basics that will bring you to the forefront as an efficient, confident individual able to take on today's demands of IT challenges.

And don't forget—when you're learning DevOps in parallel with cloud computing, you'll be ready to manage actual infrastructure, not just on-premises servers but hybrid and multi-cloud environments as well.

So, start today. Build the base. Enter boldly into your DevOps adventure, because in the world of automation, pipeline constructors are architects.

Photo: Freepik via their website.
