

CS DIPLOMA IN DEVOPS

COURSE BROCHURE

Duration: 6 Months

Lecture sessions: 72 Hands on Assignments/projects Soft Skill Sessions



Empowering Tomorrow's High–Paying workforce with Internship–Driven Industry Experience





About Cyber Square Professional





Immerse yourself in a unique learning experience where the virtual meets the realworld. Our courses go beyond conventional training, simulating a dynamic working environment that mirrors a global software company. Interns, dispersed worldwide, collaborate seamlessly on real projects, bringing the virtual workspace to life.

This international exposure not only sharpens the technical skills but also instills the collaborative spirit needed in today's interconnected software development landscape. Soft skills sessions are also seamlessly integrated, ensuring a holistic learning experience. Get ready to thrive in a virtual company setting, acquiring invaluable experience that transcends geographical boundaries.







Conceptualizer & CEO

OUR CEO'S MESSAGE

Dear Future Software Engineers,

For over 12 years, CyberSquare Professional has been a leader in technology training, dedicated to producing quality software engineers. Our experience has enabled us to create a unique learning experience that bridges the gap between academic learning and real-world industry demands.

Introducing CS Pro, our state-of-the-art virtual company environment hosted in the cloud. Here, interns from around the globe collaborate on real-world products, gaining invaluable hands-on experience.

In CyberSquare Pro, you join a project team, receive daily lectures, and work under a Product Owner (PO) and Scrum Master in a real Agile environment. You will actively contribute to product development, enhancing features based on backlogs and roadmaps. We believe that working on actual projects in a real Agile environment is the best way to truly understand the role of a software engineer. This hands-on experience is unmatched and ensures you are well-prepared for your future job.

In addition to technical training, we focus on developing soft skills, human skills, and adhering to ethical standards in software development. This holistic approach ensures you are a wellrounded professional.

Join us at CyberSquare Pro and experience the most effective way to become a skilled software engineer. Let us help you build a successful career.

NP Haris

"Mastery in software development comes from hands-on experience. On-the-job training turns knowledge into skill and potential into excellence."

About the Course

The DevOps Course offers a comprehensive and practical journey into the world of DevOps, designed to equip students with the essential theoretical knowledge and handson skills necessary to automate, deploy, and manage modern software development workflows. The initial three months lay a strong foundation, starting with fundamental Linux and Git concepts, progressing through continuous integration and delivery with Jenkins and Docker, and culminating in an introduction to Kubernetes for container orchestration. This foundational phase also integrates basic AWS cloud deployment, ensuring students can build and deploy simple web applications within a CI/CD framework.



As students advance, the course delves into more specialized and intricate aspects of DevOps. This includes advanced Kubernetes such as StatefulSets concepts and DaemonSets, deeper exploration of configuration management with Ansible, and sophisticated cloud infrastructure provisioning using Terraform. A significant focus is placed on integrating security best practices into the development pipeline through DevSecOps, covering vital topics like image scanning and secrets management, comprehensive alongside logging and solutions monitorina usina tools like Prometheus, Grafana, and the ELK/EFK stack.



The final stages of the syllabus are dedicated to practical application and career readiness. Students will engage in substantial projects, building end-to-end CI/CD pipelines for both monolithic and microservices architectures, thereby solidifying their understanding of the complete DevOps lifecycle. The course concludes with dedicated sessions on resume building, optimizing online professional profiles, and intensive interview preparation, ensuring graduates are well-prepared to tackle real-world DevOps challenges and secure roles in the industry.

Who should take this course?

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Python for AI for whom?

The DevOps field presents a compelling and increasingly welcoming career path for indvituals, offering significant opportunities for those who are passionate about automation, system optimization, and fostering collaborative development environments. While historically male-dominated, a growing number of initiatives and communities are actively working to support and empower women in this dynamic sector, recognizing the invaluable contributions that diverse perspectives bring to technical teams and innovation. This evolving landscape makes DevOps an excellent choice for those who are seeking impactful roles that blend technical expertise with strategic problem-solving in the fast-paced world of software delivery.



IT Professionals seeking to automate workflows



Software Developers aiming for end-to-end responsibility



Operations Engineers focused on efficiency



Project Managers and Team Leads in tech



Quality Assurance (QA) and Testing Professionals



Individuals passionate about automation and problem-solving



Career Changers and Tech Enthusiasts

Student Intern Status -International Point System

Embark on a structured learning journey with our **International Point System**, an essential aspect of our internship placement process.

By integrating activities such as LinkedIn profile creation, StackOverflow participation, and project development, this system encourages a comprehensive development approach, preparing students for successful careers.

This system not only establishes a standardized evaluation process but also motivates students to excel in their internship, enhancing their preparedness for future professional endeavors. Embrace the International Point System and set yourself on the path to a rewarding placement experience.

Point Accumulation

Students earn points by successfully fulfilling the required tasks and objectives.



Mandatory Requirements

To be eligible for the placement process, students must complete a set of mandatory items outlined in our International Point System.

Minimum Required Points

Meeting the minimum required points is essential for students to qualify for the placement process. This ensures a fair and competitive environment.

Course content

<u>Sprint 1</u>

Linux, Git, and CI/CD Basics

- Linux fundamentals: File system, permissions, networking
- Common Linux commands
- Bash scripting basics
- Process management
- Git architecture, branching, merging
- GitHub workflow: Forks, PRs, collaboration
- Git hooks and Git tags
- DevOps lifecycle & culture (CI/CD, IaC, Monitoring)
- Agile & Scrum basics
- Software development lifecycle (SDLC)

<u>Sprint 2</u>

Jenkins, Docker, and Build Pipelines

- Installing Jenkins, pipeline as code
- Freestyle and declarative pipelines
- Jenkins plugins, credentials, environment variables
- Docker architecture & images
- Dockerfile creation, Volumes, Networks
- Docker Compose
- Jenkins + Git + Docker integration
- Automating builds, tests, and deployment
- Sample CI/CD pipeline for a simple web app
- EC2 provisioning
- Deploying Docker containers on EC2
- AWS IAM roles, security groups







Sprint 3

Kubernetes, Monitoring, and Final Project

- Pods, Services, Deployments, ReplicaSets
- Kubectl, YAML configurations
- Minikube or Docker Desktop for local testing
- Helm Charts
- Environment-based configuration
- ConfigMaps & Secrets
- Prometheus & Grafana basics
- ELK/EFK Stack Overview

Sprint 4

Project Development

 CI/CD Pipeline for a sample microservice application using: GitHub → Jenkins → Docker → K8s → Monitoring Hosted on AWS

Sprint 5

Tools and Automation

- Advanced Bash scripting
- Git advanced concepts (rebase, cherry-pick)
- Real-world use cases of Agile, CI/CD pipelines
- Jenkins: Shared Libraries, Distributed builds
- Ansible basics: YAML, Playbooks, Roles
- Docker: Cl integration, Docker Swarm



Sprint 6

Kubernetes and Cloud

- Kubernetes: StatefulSets, DaemonSets, Jobs, CronJobs
- Helm: Advanced templating, dependencies
- AWS Advanced (S3, VPC, Load Balancers)
- Terraform basics for Infrastructure as Code

Sprint 7

DevSecOps and Observability

- Security Best Practices
- Image scanning with Trivy, Docker Bench
- Secrets Management (HashiCorp Vault or AWS Secrets Manager)
- Logging with ELK/EFK stack
- Monitoring with Prometheus/Grafana

Sprint 8

Projects & Interview Preparation

- Project 1: CI/CD for a monolithic app with Docker & Jenkins
- Project 2: Microservices deployment with K8s, Helm, Monitoring
- Resume, GitHub, LinkedIn optimization
- Interview prep: DevOps scenario-based questions



CERTIFICATE





Cyber Square PROFESSIONAL ARTIFICIAL INTELLIGENCE | PUTHON | DATA SCIENCE | PULL STACK

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Cyber Square Pro

More Information About us?



Contact Us!

Cyber Square Pro is a learning platform and resource hub for professionals looking to learn cutting-edge digital skills, whether they're coding novices or programming pros.

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Thank You!



