



Accredited Africa Training Institute for Capacity Development

Unit FO409, Hatfield Plaza · 1122 Burnett St, Hatfield 0028 · Pretoria, Gauteng · South Africa

Tel: +27 12 004 8389 · Mobile: +27 65 077 6310

Email: apply@aaticd.co.za · Website: www.aaticd.co.za

COURSE BROCHURE

Web Server Implementation And Management Principles Training

Physical, Mathematical, Computer and Life Sciences / Information Technology and Computer Sciences

Unit Standard 115376 · NQF Level 5 · 10 Credits · 7 Days

COURSE OVERVIEW

This course equips learners with the skills to plan, implement, and manage web servers in a corporate environment. Participants will gain practical knowledge of server configuration, security, performance monitoring, and troubleshooting to ensure reliable web services.

Category	Physical, Mathematical, Computer and Life Sciences
Subfield	Information Technology and Computer Sciences
Unit Standard	115376
Accreditation	SAQA Accredited · NQF Level 5 · 10 Credits
Duration	7 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Plan and design web server architecture to meet organizational requirements.
- Implement and configure web server software (e.g., Apache, Nginx) on a chosen operating system.
- Apply security measures to protect web servers from common threats and vulnerabilities.
- Monitor web server performance and optimize resource utilization.
- Troubleshoot and resolve common web server issues using diagnostic tools.
- Demonstrate compliance with relevant standards and best practices for web server management.

WHO SHOULD ATTEND

- IT professionals, system administrators, and network technicians responsible for deploying and maintaining web servers in an organization.

COURSE OUTLINE

Day 1: Introduction to Web Servers and HTTP Fundamentals

- Overview of web servers: definition, history, and importance.
- Client-server architecture and how web servers handle requests.
- HTTP/HTTPS fundamentals: methods, headers, status codes, and cookies.
- Types of web servers: Apache, Nginx, IIS, LiteSpeed.
- Web server installation and basic configuration.
- Testing server response using browser and curl.

Day 2: Web Server Installation and Configuration

- Step-by-step installation of Apache and Nginx on Ubuntu/CentOS.
- Configuration file syntax: main config, sites-available, sites-enabled.
- Virtual hosting: name-based and IP-based, with examples.
- Directory indexing, aliases, and redirects.
- Securing the server: file permissions, .htaccess, and disabling unnecessary modules.
- Logging: access logs, error logs, and log rotation.

Day 3: Web Server Security and SSL/TLS Implementation

- SSL/TLS fundamentals: certificates, CAs, and encryption.
- Obtaining and installing SSL certificates (self-signed, Let's Encrypt).
- Configuring HTTPS on Apache and Nginx.
- HTTP Strict Transport Security (HSTS) and secure headers.
- Firewall configuration with iptables/ufw.
- Fail2ban for brute-force protection.
- Regular security updates and patch management.

Day 4: Performance Tuning and Caching

- Caching strategies: browser caching, server-side caching, and reverse proxy caching.
- Enabling gzip/deflate compression.
- Apache modules: mod_cache, mod_expires.
- Nginx caching: fastcgi_cache, proxy_cache.
- Performance tuning: KeepAlive, worker processes, connection limits.
- Load balancing basics: round-robin, least connections.
- Monitoring tools: top, htop, netstat, and server-status.

Day 5: Web Server Logging, Monitoring, and Troubleshooting

- Log formats: Common Log Format, Combined Log Format.
- Log analysis: grep, awk, and tools like GoAccess.
- Monitoring: Nagios, Prometheus, Grafana.
- Troubleshooting: 404, 500 errors, connection timeouts.
- Performance bottlenecks: CPU, memory, I/O.
- Log rotation with logrotate.
- Debugging with strace and tcpdump.

Day 6: Virtual Hosting, Reverse Proxying, and Application Integration

- Advanced virtual hosting: multiple SSL certificates, SNI.
- Reverse proxy configuration: proxy_pass, load balancing.

- Integrating with PHP-FPM for dynamic content.
- URL rewriting with mod_rewrite and Nginx rewrite.
- Redirects: permanent vs temporary.
- Web application firewall (ModSecurity) basics.
- Deploying a sample web application.

Day 7: Automation, Backup, and Disaster Recovery

- Automation with shell scripts and Ansible.
- Configuration management: version control for config files.
- Backup strategies: full, incremental, differential.
- Backup tools: rsync, tar, mysqldump.
- Disaster recovery: restoration procedures, redundancy.
- High availability: clustering and failover.
- Final review: SAQA unit standard 115376 requirements.
- Assessment preparation and Q&A.;

ASSESSMENT & CERTIFICATION

Delegates are assessed through exercises and a final test. A mark of **50% or above** earns an **AATICD Certificate of Completion**, issued digitally with a unique verification code. This course carries **10 NQF credits** at **NQF Level 5**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 29,600.00	R 29,600.00
1	In-House	R 38,500.00	R 38,500.00
1	On-Campus (Pretoria)	R 44,400.00	R 44,400.00

UPCOMING SESSIONS

Start	End	Method	Venue
04 Aug 2026	12 Aug 2026	On-Campus	Dubai, UAE
05 Aug 2026	13 Aug 2026	On-Campus	Pretoria, South Africa
05 Aug 2026	13 Aug 2026	On-Campus	Lagos, Nigeria
06 Aug 2026	14 Aug 2026	On-Campus	Johannesburg, South Africa
07 Aug 2026	17 Aug 2026	On-Campus	Mauritius
10 Aug 2026	18 Aug 2026	On-Campus	Dubai, UAE
11 Aug 2026	19 Aug 2026	On-Campus	Pretoria, South Africa
12 Aug 2026	20 Aug 2026	On-Campus	Abu Dhabi, UAE

Contact us if no suitable date is listed — on-demand sessions can be arranged for groups.

HOW TO GET A QUOTE OR APPLY

1. **Get an instant quotation online:** visit www.aaticd.co.za, open the page for this course (Unit Standard 115376) and click **Get A Quote / Apply**. Select your training method and number of delegates – your quotation is generated immediately and emailed to you with the course brochure attached.
2. **Apply by email:** send the course title, your preferred training method (Online, In-House or On-Campus Pretoria), the number of delegates and your preferred dates to apply@aaticd.co.za – our team will reply with a formal quotation.
3. **Apply by phone or WhatsApp:** call **+27 12 004 8389** or WhatsApp **+27 65 077 6310** and we will prepare your quotation and reserve your seats.
4. **Confirm your booking:** accept the quotation and settle the invoice. As soon as payment is confirmed your delegates are enrolled and receive their AATICD LMS login details by email, along with joining instructions for their chosen training method.

Group discounts apply automatically – the more delegates you enrol, the lower the price per delegate. No payment is required to request a quotation.

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