

Oracle Data Center Technician – Learning Objectives

June 10, 2025

Pre-Requisites

College Algebra transcripts
or
Math placement test available online

Outcomes

- Foundations of Hardware and System Administration
- Data Center Networking
- Inventory and Logistics Management
- Technical Troubleshooting
- Operational Prioritization & Incidence Response

Certification Opportunities*



* Two certification exam vouchers are included in lab fees. WAV2T reserves the right to change which certifications are included under the voucher program.

CSC 395: ST: Server Hardware Management

- ❑ Identify and compare different RAID levels (e.g., RAID 0, 1, 5, 6, 10) and their use cases in data center environments
- ❑ Configure and maintain RAID arrays to ensure data redundancy and optimize performance
- ❑ Explain the fundamental architecture and components of SAN solutions and their business requirements
- ❑ Optimize server hardware settings in x86-based environments services
- ❑ Fundamentals of cable communication and testing of copper-wire, coaxial, and fiber-optical cables.
- ❑ Understand disaster recovery and management
- ❑ Troubleshoot network device and IT equipment
- ❑ Inventory management knowledge to order, receive and ship server parts

CSC 160: Computing Technologies (Introduction to Computer Science)

- ❑ Introduce the OSI Model
- ❑ Perform Operations using Data Type and Operators
- ❑ Introduction to Python programming language
- ❑ Control Flow with Decisions and Loops
- ❑ Document and Structure Code
- ❑ Perform Troubleshooting and Error Handling
- ❑ Perform Operations using Modules and Tools
- ❑ Understand and manage prioritization based on business needs and urgency

CompTIA Tech+ Exam Preparation

CSC 330: Networking and Server Fundamentals

- ❑ Understanding; LAN, Wired & Wireless Networks, IP, & WAN, SANS
- ❑ Apply network device configuration
- ❑ Defining Network Infrastructure & security
- ❑ Install and configure DNS servers
- ❑ Create and configure DNS zones & records
- ❑ Install, configure and manage DHCP
- ❑ Implement: Network VPN connectivity solution
- ❑ IPv4/IPv6 addressing solutions, VLSM, subnetting
- ❑ Configure and manage network devices in Linux/Unix environments
- ❑ Apply network security best practices in system configurations

CSC 235: Introduction to Linux & Linux Administration

CompTIA Linux+ Exam Preparation

- ❑ Understand File Systems; provision and maintain Linux infrastructure
- ❑ Describe the steps involved in the Linux/Unix boot process and identify where failures can occur
- ❑ Gain an understanding of Linux commands and architecture, GRUB/LILO
- ❑ Work at the command line to install, update, and configure system components
- ❑ Learn standards and management for user and file permissions & fundamentals of system security, performance, and maintenance
- ❑ Perform basic system administration tasks, including well organized user management, process monitoring, and file system navigation

CSC 332: Configuring Advanced Server Services

- ❑ Install/config. domain controllers, AD CS, AD FS, & AD RMS
- ❑ Create/manage AD users, groups, OUs, & computers
- ❑ Configure service authentication & account policies
- ❑ Maintain Active Directory
- ❑ Explain the stages of the boot process in Linux/Unix systems;
- ❑ Configure and troubleshoot GRUB/LILO bootloaders
- ❑ Config Group Policy processing, settings & preferences
- ❑ Manage certificates & Implement WAP
- ❑ Understand the core components of the x86 (32-bit & 64-bit) CPU architecture, including memory management, instruction sets, and processor functionality
- ❑ Understand SAN software and LUN configuration and management
- ❑ Understand disaster recovery and management

CSC 456: Configuring and Deploying Cloud Technologies

- ❑ Create and scale virtual machines
- ❑ Understand cloud & virtualization technologies, containerization & management
- ❑ Implement storage solutions
- ❑ Configure virtual networking
- ❑ Back up & share data using Data Services
- ❑ Connect to the cloud & on-premises sites
- ❑ Identity and Access Management
- ❑ Monitor infrastructure
- ❑ Manage network traffic
- ❑ Secure identities