



## Red Hat RHCE Administration III - RH254 Course

Duration: 4 Days

Language: English

Course Delivery: Classroom

### Course Description

Red Hat System Administration III (RH254) is designed for experienced Linux administrators who require networking and security administration skills. With a heavy emphasis on practical, hands-on labs, this course is tightly aligned with experienced Linux administrators' job tasks and the skills required for advancement. Focus is placed on enhancing the students' automation skills to securely configure, deploy and manage network services including DNS, Apache, SMTP, and network file sharing. In addition, this course emphasizes security, including monitoring, packet filtering, access controls, and SELinux. At the completion of this course, students already familiar with the RHCT/RHCSA administration skills will have exposure to all competencies tested by the RHCSA and RHCE exams.

### Audience:

- Senior Linux system administrators who require networking and security administration skills
- Linux IT professionals who currently have RHCT/RHCSA certification, and are interested in earning an RHCE certification
- Linux IT professionals that can demonstrate the competencies needed to earn an RHCT/RHCSA, but have not passed the RHCSA exam.

### Prerequisites:

- RHCSA Rapid Track Course (RH200)

or

Red Hat System Administration I - RH124

Red Hat System Administration II - RH134

- Equivalent experience to the RHCSA Rapid Track Course
- Skills required to earn an RHCT/RHCSA certification
- Confirmation of the correct skill set required for this course can be obtained by passing the online pre-assessment quiz at <http://www.redhat.com/explore/pre-assessment>

### Course Outline

#### Unit 1: Getting Started with the Classroom Environment

Objective: Given a virtualized environment, begin to administrate multiple systems using prerequisite skills

#### Unit 2: Enhance User Security

Objective: Configure system to use Kerberos to verify credentials and grant privileges via sudo

#### Unit 3: Bash Scripting and Tools

Objective: Automate system administration tasks utilizing Bash scripts and text-based tools



#### **Unit 4: File Security with GnuPG**

Objective: Secure files with GnuPG

#### **Unit 5: Software Management**

Objective: Use yum plugins to manage packages; understand the design of packages; build a simple package

#### **Unit 6: Network Monitoring**

Objective: Profile running services, then capture and analyze network traffic

#### **Unit 7: Route Network Traffic**

Objective: Configure system to route traffic and customize network parameters with sysctl

#### **Unit 8: Secure Network Traffic**

Objective: Secure network traffic through SSH port forwarding and iptables filtering/network address translation (NAT)

#### **Unit 9: NTP Server Configuration**

Objective: Configure an NTP server

#### **Unit 10: System Monitoring and Logs**

Objective: Manage local filesystem integrity; monitor systems over time and system logging

#### **Unit 11: Centralized and Secure Storage**

Objective: Access centralized storage (iSCSI) and encrypt filesystems

#### **Unit 12: SSL-encapsulated Web Services**

Objective: Understand SSL certificates and deploy an SSL-encapsulated web service

#### **Unit 13: Web Server Additional Configuration**

Objective: Configure a web server with virtual hosts, dynamic content, and authenticated directories

#### **Unit 14: Basic SMTP Configuration**

Objective: Configure an SMTP server for basic operation (null client, receiving mail, smarthost relay)

#### **Unit 15: Caching-Only DNS Server**

Objective: Understand DNS resource records and configure a caching-only name server

#### **Unit 16: File Sharing with NFS**

Objective: Configure file sharing between hosts with NFS

#### **Unit 17: File Sharing with CIFS**

Objective: Configure file and print sharing between hosts with CIFS



### **Unit 18: File Sharing with FTP**

Objective: Configure file sharing with anonymous FTP

### **Unit 19: Troubleshooting Boot Process**

Objective: Understand the boot process and recover unbootable systems with rescue mode