



# RH300 RHCE Rapid Track Course + RHCE Exam

## Course Description

The Red Hat Certified Engineer™ course is designed for UNIX- and Linux-experienced users, networking specialists, and system administrators. This 5-day course provides intensive hands-on training on Red Hat Enterprise Linux 5, and includes the RHCE Certification Lab Exam on day 5. Those who are interested in taking the rapid track course, but who would prefer to defer taking the exam until the later date, or who are not interested in certification may wish to consider [RH301](#).

## Audience:

UNIX or Linux system administrators who have significant real-world experience with UNIX or Linux systems administration and some experience setting up key networking services such as HTTP, DNS, NIS, DHCP, and who want a fast-track course to prepare for the RHCE Exam.

## Prerequisites:

- RH033 [Red Hat Linux Essentials](#)
- RH131 [Red Hat Linux System Administration](#)
- or RH133 [Red Hat Linux System Administration \(and RHCT Exam\)](#)
- RH253 [Red Hat Linux Networking and Security Administration](#)
- or equivalent experience with UNIX; LAN/WAN fundamentals Internetworking with TCP/IP, knowledge or experience setting up NFS, HTTP, DNS, FTP, NIS, DHCP, and other networking services, and security

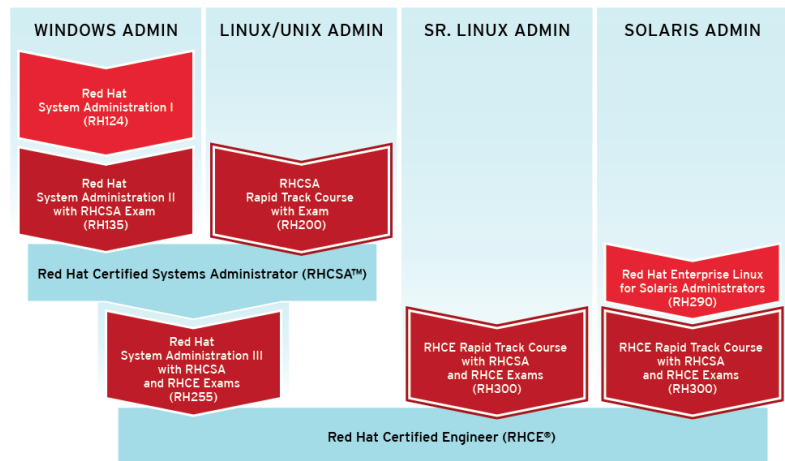
## Important:

In order to ensure that the prerequisites for RH300 are met, you should expect to receive a high score for RH033 (36 points or more) and moderate scores for RH133 and RH253 (24 points or more each).

The prerequisites are important! Participants arriving without a large portion of these prerequisites will make less than optimal progress in the training and will be unlikely to pass the certification exam. **Please do not sign up for RH300 unless you are experienced with systems administration or are a power user in UNIX / Linux environments.** If you need training on the above prerequisites, please see Skills Courses.

## Goal:

A Red Hat Enterprise Linux system administrator who has been trained then tested by means of the RHCE Exam, a realistic performance-based lab exam that tests his/her actual ability to: install and configure Red Hat Enterprise Linux; understand limitations of hardware; configure networking and file systems; configure the X Window System;



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configure security, set up common network (IP) services, carry out diagnostics and troubleshooting, and perform essential Red Hat Enterprise Linux system administration.

## RH300\_Outline : RHCE Rapid Track Course and Exam

### Course Outline

The following is an outline of the skills and knowledge represented in the training elements (four days) and in the Certification Lab Exam (one day) of the Red Hat Certified Engineer (RHCE™) course.

The RHCE training elements and Certification Lab Exam will also review and test on certain prerequisites for the course. The prerequisites for the RHCE course are outlined in a separate document, which should be carefully reviewed by anyone planning to attend an RHCE course.

It is highly recommended that all prospective RHCE participants review the [exam study guide](#) in preparation for the course and exam.

Note: Technical content subject to change without notice. Significant changes in course content will generally be available in posted outlines at least two months prior to being implemented in scheduled courses, to allow enrolled students adequate prep time. Reload this page regularly to insure up-to-date information.

### Unit 1 - Package Management

- Manage software on system using yum, Red Hat Network, and rpm.

### Unit 2 - System Initialization and Kernel Services

- Define boot process, recover system, and manage service startup.
- Explore kernel modules and variants, tune kernel parameters, and manage devices.

### Unit 3 - System Services and Security

- Configure and access various consoles to manage system logging, printers, and task automation.
- Manage local system security utilizing Pluggable Authentication Modules (PAM) and Security Enhanced Linux (SELinux).

### Unit 4 - Filesystem Management

- Expand storage by adding new filesystems and swap space. Configure autofs for on-demand network storage.
- Manage filesystems using Software RAID and Logical Volume Management.

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## Unit 5 - User Administration

- Create, modify and delete users, groups, and policy. Escalate privileges. Establish collaborative group directories.
- Protect users and groups through ACLs and quotas.

## Unit 6 - Installation and Virtualization

- Perform both interactive and automated installations of Red Hat Enterprise Linux.
- Install the xen environment and create a para-virtualized user domain running Red Hat Enterprise Linux.

## Unit 7 - Network Configuration

- Configure dynamic and static network settings for both IPv4 and IPv6.
- Secure OpenSSH service with keys.
- Revisit user administration by connecting to network directory services like NIS and LDAP.

## Unit 8 - Network Security

- Protecting services using TCP Wrappers.
- Protecting the system using a packet filtering host-based firewall.

## Unit 9 - Network Infrastructure Services

- Centralize logging.
- Distribute network addresses with a DHCP server.
- Maintain time synchronization with NTP.
- Establish name resolution through caching and slave DNS server utilizing BIND.

## Unit 10 - Web Services

- Configure the Apache web server.
- Extend web server utilizing virtual hosting.
- Configure the Squid web proxy cache.

## Unit 11 - Network File Sharing Services

- Set up an FTP server with vsftpd.
- Share files with an NFS server.
- Network with Windows systems utilizing Samba.



## Unit 12 - Mail Services

- Switch MTAs.
- Configure an MTA with sendmail and postfix.
- Implement mail retrieval using POP3/POP3S/IMAP/IMAPS through dovecot.

## Unit 13 - Troubleshooting

- Explore troubleshooting methodologies while defining standard things to check. Maintain system from different runlevels. Utilize the rescue environment of anaconda.

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