

CPMT 1075 Course Syllabus

Name of Course

LPIC-1 Certification (Course 1)

Number of Hours

32 classroom hours

Course Description & Learning Objectives

This course gives students the information and framework to prepare to take the 101 exam of the LPI level 1 certification. The course is based upon the LPI Current Version (at time of this writing, March 2017): 4.0 (Exam codes 101-400 and 102-400). The [Linux Professional Institute](#) (LPI) is the go to certification body for vendor independent Linux certifications. The course learning objectives are listed below. The classroom environment includes multiple hands-on labs and practice exams.

NOTE! The LPIC-1 certification requires passing scores on two exams, the LPI 101 and the LPI 102. This course is intended to prepare the student for only the LPI 101 exam. A separate course offering provides preparation for the LPI 102 exam.

In a survey conducted by the ACC High Technology Institute, 50% of respondents listed Linux skills as important. Organizations benefit by having employees that can manage and administer computers that utilize the Linux operating system.

The LPIC-1 certification from the Linux Professional Institute is accepted as fulfilling in full or in part the requirements for several other certifications. CompTIA has made the LPI exams the foundations for its Linux+ certification. Those who pass the CompTIA versions of the exams are eligible to receive the LPIC-1 as well as the CompTIA Linux+.

Certification Exam Objectives

These objectives are taken from the [LPI Course Objectives](#), and reflects the content of the Guru Lab course book that will be provided in class.

Topic 101: System Architecture

- 101.1 Determine and configure hardware settings
- 101.2 Boot the system
- 101.3 Change runlevels / boot targets and shutdown or reboot system

Topic 102: Linux Installation and Package Management

- 102.1 Design hard disk layout
- 102.2 Install a boot manager
- 102.3 Manage shared libraries
- 102.4 Use Debian package management
- 102.5 Use RPM and YUM package management

Topic 103: GNU and Unix Commands

- 103.1 Work on the command line
- 103.2 Process text streams using filters
- 103.3 Perform basic file management
- 103.4 Use streams, pipes and redirects
- 103.5 Create, monitor and kill processes
- 103.6 Modify process execution priorities
- 103.7 Search text files using regular expressions
- 103.8 Perform basic file editing operations using vi

Topic 104: Devices, Linux Filesystems, Filesystem Hierarchy Standard

- 104.1 Create partitions and filesystems
- 104.2 Maintain the integrity of filesystems
- 104.3 Control mounting and unmounting of filesystems
- 104.4 Manage disk quotas
- 104.5 Manage file permissions and ownership
- 104.6 Create and change hard and symbolic links
- 104.7 Find system files and place files in the correct location

Prerequisites

This is an entry level Linux System Administration course.

- General computing knowledge and experience are required.
- No prior knowledge with Linux is required.
- This course will focus heavily on use of the command line and shell environment.

Optional but recommended

- Additional knowledge of computer hardware and operating systems, as well as TCP/IP networking basics, will be helpful in this course.
- Please note that this course is a focused study of Linux Administration procedures. Some students may have difficulty with the concepts offered and the pace of the course. Additional effort outside class may be necessary to fully realize the benefits of the information offered in the course.

Required textbook

The Guru Labs Exam Prep course book for this class is included with course registration, and will be issued on the first night of class.

Additional Resources

- In the interest of thoroughness and relativity, a second certification source is recommended. [LPIC Certification in a Nutshell](#) has proven to be an excellent resource.
- Additional web sources, such as [Penguin Tutor](#), have shown to be helpful and will be referenced in class.
- Additional information will be posted to the [instructor website](#).

Tangible Outcomes

Those who participate in class discussions and labs, and miss no more than 3 four-hour class sessions will earn 3.2 continuing education units. A certificate of completion will be issued on the last night of class to eligible students. ACC also offers job placement assistance to students who successfully complete the course as well as obtain the LPIC-1 certification.