

Las Positas College  
3000 Campus Hill Drive  
Livermore, CA 94551-7650  
(925) 424-1000  
(925) 443-0742 (Fax)

### Course Outline for CNT 51B

#### COMPTIA'S A+ PRACTICAL APPLICATION CERTIFICATION

Effective: Spring 2016

#### I. CATALOG DESCRIPTION:

CNT 51B — COMPTIA'S A+ PRACTICAL APPLICATION CERTIFICATION — 2.00 units

This class covers the objectives for the CompTIA A+ Practical Application certification exam, the second of the two exams for the CompTIA A+ certification. It is an extension of the knowledge and skills identified in CompTIA A+ Essentials certification, with more of a hands-on orientation focused on scenarios in which troubleshooting and tools must be applied to resolve problems. Students learn to install, configure, upgrade, and maintain PC workstations, the Windows OS and SOHO networks. Students utilize troubleshooting techniques and tools to effectively and efficiently resolve PC, OS, and network connectivity issues and implement security practices.

2.00 Units Lecture

#### **Strongly Recommended**

CNT 51 - CompTIA's A+ Certification Computer Technician

#### **Grading Methods:**

Letter or P/NP

#### **Discipline:**

	<b>MIN</b>
<b>Lecture Hours:</b>	36.00
<b>No Unit Value Lab</b>	18.00
<b>Total Hours:</b>	54.00

#### II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

#### III. PREREQUISITE AND/OR ADVISORY SKILLS:

**Before entering this course, it is strongly recommended that the student should be able to:**

A. CNT51

#### IV. MEASURABLE OBJECTIVES:

**Upon completion of this course, the student should be able to:**

- A. measure correct voltages in power systems and troubleshoot power suppliers
- B. identify CPUs and motherboards; install and troubleshoot CPUs and motherboards
- C. determine memory systems and install RAM and troubleshoot memories
- D. identify Expansion cards; install expansion cards installation
- E. locate and configure ports, cables, and connectors
- F. install and configure data storage devices: hard drives, optical drives, removable storage devices;
- G. install, maintain and troubleshoot printers and scanners;
- H. configure mobile computing, including component replacement and troubleshooting;
  - I. manage files and perform remote desktop connections; manage computers remotely
- J. maintain and monitor Windows; schedule tasks;
- K. install a wireless network for SOHO networking
- L. troubleshoot the network;
- M. implement and troubleshoot security and identify common security threats.

#### V. CONTENT:

- A. Power systems
- B. CPUs and motherboards
- C. Memory systems
- D. Expansion cards
- E. Data storage devices
- F. Printers and scanners
- G. Mobile computing
- H. Windows management
  - I. Windows maintenance
- J. SOHO networking

- K. Network troubleshooting
- L. Security

#### VI. METHODS OF INSTRUCTION:

- A. **Lecture** -
- B. **Discussion** -
- C. A+ Exam practice questions
- D. **Lab** - Laboratory assignments
- E. Internet assignments

#### VII. TYPICAL ASSIGNMENTS:

- A. Reading
  - 1. Read Chapter 3, "Features and characteristics of Windows", in A+ Certification Exam Guide by Michael Myers, and be prepared to compare the performance characteristics of different operating systems.
  - 2. Select and read a recent technical article from PC World or PC Magazine. Report on the article to the class.
- B. Internet
  - 1. Look up the specifications of the processor in your home computer, using the Internet search engines and manufacturer's site.
  - 2. Research the technical jobs and required skills for your next job on the Internet.
  - 3. Download drivers for your computer network adapter.
- C. Problem solving/critical thinking
  - 1. Run the System Information Tool and explore some of the features.
  - 2. Run the Windows Update utility and decide which updates to install.

#### VIII. EVALUATION:

- A. **Methods**
  - 1. Other:
    - a. Quizzes and a final examination
    - b. Hands-on laboratory assignments
    - c. Internet quizzes
- B. **Frequency**
  - 1. Six to eight quizzes, laboratory
  - 2. Weekly Hands-on assignments
  - 3. Internet quizzes

#### IX. TYPICAL TEXTS:

- 1. Meyers, Michael *Mike Meyers' CompTIA A+ Guide to Managing and Troubleshooting PCs Lab Manual*. 4th ed., McGraw-Hill Osborne Media, 2012.
- 2. TestOut.com LabSims Student Online Access, TestOut PC Pro 2014 ed. Provo: TestOut.com, 2014

#### X. OTHER MATERIALS REQUIRED OF STUDENTS:

- A. Portable storage device; such as a flash drive or external USB drive Inexpensive Small Tool Kit