

COURSE OUTLINE**Course:** 71214 COMPUTER REPAIR**Total Course Hours:** 270.00**CBEDS Title:** INFORMATION PROCESSING**CBEDS #:** 4615**Job Title(s):**

PC Technician, Desktop Support Technician, Field Technician, IT Technician, PC Support Technician, Field Service Call.

Prerequisites:**Course Description:**

Using current technology, this course prepares students to operate, maintain and repair computers. This program will also prepare students to take the Computer Industry COMPTIA A+ certification test. Course includes complete hands-on training in the use, repair, upgrading, and configuring of computers, as well as an overview of the computer industry. Course will concentrate on effective troubleshooting and maintenance techniques. Integrated throughout the course are career preparation standards, which include communication, interpersonal skills, problem solving, safety, technology, and other employment skills.

Hours	
Class	OJT

Occupational Competencies

1-7 on the Course Outline are generic to all BVROP courses and include the BVROP Student Outcomes

3.00		1	<u>ORIENTATION</u>	<ul style="list-style-type: none"> A Identifies and discusses course objectives and competencies. B Discusses ROP Student Outcomes. C Explains class attendance and behavior objectives.
3.00		2	<u>HEALTH, SAFETY AND ENVIRONMENTAL MANAGEMENT</u>	<ul style="list-style-type: none"> A Describes accident procedure. B Demonstrates appropriate safety practices (e.g. bending, lifting, etc.). C Demonstrates knowledge of classroom procedures and drills (e.g. earthquake, fire and emergency).
3.00		3	<u>ETHICS AND LEGAL RESPONSIBILITIES</u>	<ul style="list-style-type: none"> A Defines sexual harassment and discusses tactics for handling harassment situations. B Applies appropriate workplace behavior and standards.
3.00		4	<u>LEADERSHIP AND TEAMWORK</u>	<ul style="list-style-type: none"> A Describes the characteristics and benefits of teamwork and leadership. B Demonstrates ability to make appropriate decisions. C Works well with others and gives/takes constructive criticism.
15.00		5	<u>CAREER PLANNING</u>	<ul style="list-style-type: none"> A Prepares a finished, professional portfolio showing the best work that has been completed during the class. B Locates job opportunities through the use of want-ads and placement agencies. C Visits at least one facility related to area of training and observes jobs performed. D Completes a job application correctly. E Prepares for and critiques a simulated employment interview. F Discusses employee benefits and rights as related to the specific occupational job area including gender equity and equal opportunity. G Identifies acceptable procedures to leave a job. H Applies for a scholarship. I Completes a professional resume. J Demonstrates appropriate personal grooming and dress.

Hours	
Class	OJT

3.00		6 <u>COMMUNICATION</u> A Uses effective workplace conversation. B Reads and interprets written information and directions. C Practices various forms of written communication appropriate to the occupation.
5.00		7 <u>STUDENT OUTCOMES</u> A Demonstrates Occupational Specific, Communication and Critical Thinking Skills B Demonstrates Responsible Work Ethics C Demonstrates Career/Employment Literacy D Demonstrates Effective Use of Technology
10.00		8 <u>INTRODUCTION TO PERSONAL COMPUTERS</u> A Demonstrates knowledge of and proficiency in background and history of PCs. B Demonstrates knowledge of and proficiency in hardware overview. C Demonstrates knowledge of and proficiency in software overview.
5.00		9 <u>COMPUTER CASE</u> A Demonstrates knowledge of and proficiency in form factor. B Demonstrates knowledge of and proficiency in AT vs. ATX form factor. C Demonstrates knowledge of and proficiency in radio frequency interference. D Demonstrates knowledge of and proficiency in assembly/disassembly.
5.00		10 <u>POWER SUPPLY</u> A Identifies and recognizes AC power input. B Identifies and recognizes DC power outputs. C Identifies and recognizes DC power cable color code. D Identifies and recognizes disk drive power. E Identifies and recognizes motherboard power. F Identifies and recognizes AT vs. ATX form factors.
10.00		11 <u>MOTHERBOARD</u> A Identifies and recognizes power connections. B Identifies and recognizes expansion slots. C Identifies and recognizes on-board ports and connectors. D Identifies and recognizes BIOS ROM. E Identifies and recognizes CMOS RAM and battery. F Identifies and recognizes CPU socket. G Identifies and recognizes RAM. H Identifies and recognizes system clock. I Identifies and recognizes headers, jumpers and switches. J Identifies and recognizes configuration. K Identifies and recognizes RAM installation and upgrade. L Identifies and recognizes CPU and cooling fan installation. M Identifies and recognizes installing motherboards. N Identifies and recognizes static electricity precautions. O Identifies and recognizes testing the installation.
5.00		12 <u>VIDEO DISPLAY SYSTEM</u> A Identifies and recognizes video card. B Identifies and recognizes number of colors. C Identifies and recognizes video card installation. D Identifies and recognizes display monitor. E Identifies and recognizes testing and configuring video system.

Hours	
Class	OJT

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| 1.00 | | 13 <u>KEYBOARD</u> |
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- A Identifies and recognizes overview.
 - B Identifies and recognizes DIN keyboards.
 - C Identifies and recognizes PS2 keyboards.
 - D Identifies and recognizes installation.
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| 6.00 | | 14 <u>CMOS SET-UP</u> |
|------|--|------------------------------|
- A Identifies and recognizes overview.
 - B Identifies and recognizes main menu.
 - C Identifies and recognizes BIOS screens.
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| 10.00 | | 15 <u>IDE AND I/O INTERFACING</u> |
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- A Identifies and recognizes floppy drives.
 - B Identifies and recognizes primary and secondary hard drives.
 - C Identifies and recognizes serial ports.
 - D Identifies and recognizes parallel port.
 - E Identifies and recognizes game port.
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| 5.00 | | 16 <u>FLOPPY DISK DRIVE</u> |
|------|--|------------------------------------|
- A Identifies and recognizes overview.
 - B Identifies and recognizes installation.
 - C Identifies and recognizes CMOS setup.
 - D Identifies and recognizes floppy disks.
 - E Identifies and recognizes testing of drive.
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| 5.00 | | 17 <u>CD-ROM DRIVE</u> |
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- A Identifies and recognizes overview.
 - B Identifies and recognizes installation.
 - C Identifies and recognizes CMOS setup.
 - D Identifies and recognizes testing.
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| 10.00 | | 18 <u>HARD DISK DRIVE</u> |
|-------|--|----------------------------------|
- A Identifies and recognizes overview.
 - B Identifies and recognizes configuration.
 - C Identifies and recognizes installation.
 - D Identifies and recognizes CMOS setup.
 - E Identifies and recognizes testing.
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| 5.00 | | 19 <u>SOUND CARD</u> |
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- A Identifies and recognizes overview.
 - B Identifies and recognizes transfer rate and sound formats.
 - C Identifies and recognizes standards and compatibility.
 - D Identifies and recognizes configuration, installation and testing.
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| 25.00 | | 20 <u>WINDOWS</u> |
|-------|--|--------------------------|
- A Identifies and recognizes overview.
 - B Identifies and recognizes installation.
 - C Identifies and recognizes Windows 98 and 2000.
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| 10.00 | | 21 <u>INSTALLING HARDWARE DRIVERS</u> |
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- A Identifies and recognizes overview.
 - B Identifies and recognizes video card driver.
 - C Identifies and recognizes sound card driver.

Hours	
Class	OJT

25.00

22 USING DOS

- A Identifies and recognizes overview.
- B Identifies and recognizes commands.
- C Identifies and recognizes disks.
- D Identifies and recognizes files, filenames and directories.
- E Identifies and recognizes copying and formatting disks.

35.00

23 MAINTAINING WINDOWS 2000/XP

- A Installs and manages hardware and applications using Windows 2000/XP
- B Protects and maintains Windows 2000/XP system files
- C Learns about the Windows 2000/XP registry
- D Optimizes the Windows 2000/XP environment for best performance

10.00

24 CONNECTING ACCESSORIES

- A Identifies and recognizes overview.
- B Identifies and recognizes dot-matrix printers, inkjet printers, laser printers, 6 steps for EP processing.
- C Identifies and recognizes internal modems.

5.00

25 OPERATION AND CARE OF PC

- A Identifies and recognizes power requirements and location.
- B Identifies and recognizes DOs and DONTs for safe use.
- C Identifies and recognizes care & maintenance and cleaning & servicing.
- D Identifies and recognizes troubleshooting and safety.
- E Identifies and recognizes electrical connections and AC power.
- F Identifies and recognizes radio frequency interference.
- G Identifies and recognizes viruses.

2.00

26 NUMBERING SYSTEMS

- A Identifies and recognizes decimal.
- B Identifies and recognizes binary.
- C Identifies and recognizes hexadecimal.
- D Identifies and recognizes conversions.

20.00

27 INTRODUCTION TO NETWORKING

- A Identifies and recognizes purpose for networking.
- B Identifies and recognizes network classifications (types).
- C Identifies and recognizes servers, operating systems, cabling, interconnecting devices.
- D Identifies and recognizes software.
- E Identifies and recognizes data transmission and messaging.
- F Identifies and recognizes topologies, standards, protocols.
- G Identifies and recognizes OSI model.

10.00

28 INTERNET OVERVIEW

- A Demonstrates accessing web sites.
- B Demonstrates using search engines.
- C Demonstrates downloading files.

8.00

29 SECURING YOUR PC AND LAN

- A Understands how to secure a desktop or notebook computer
- B Learns how to secure a local wired or wireless network
- C Learns how malicious software works and how to clean an infected system

Hours	
Class	OJT

8.00	
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30 WINDOWS 2000

- A Shows knowledge of overview.
- B Shows knowledge of professional/server.
- C Shows knowledge of administrating.
- D Shows knowledge of user accounts.
- E Shows knowledge of security.

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31 NOTEBOOKS, TABLET PC's AND PDA's

- A Learns how to select, support and add peripheral devices to notebooks
- B Learn about technologies relating to tablet PCs
- C Demonstrates knowledge of personal digital assistants (PDA's)

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32 SUPPORTING PRINTERS AND SCANNERS

- A Learns how printers and scanners work
- B Installs printers and scanners and how to share a printer over a local area network
- C Develops a routine maintenance task necessary to support printers and scanners
- D Troubleshoots printer and scanner problems

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33 THE PROFESSIONAL PC TECHNICIAN

- A Understands job roles and responsibilities of those who sell, fix or support personal computers
- B Interacts with customers when servicing and supporting personal computers
- C Learns about software copyrights and your responsibilities under the law

Additional Course Information

This course articulates with Chaffey College and Mt. San Antonio College

TOTAL HOURS

Class	OJT	Course
270.00	0.00	270.00