



# BROWARD COMMUNITY COLLEGE COURSE OUTLINE

**LAST REVIEW:** 2008-2009

**NEXT REVIEW:** 2013-2014

**STATUS:** A

**COURSE TITLE:** A+ Essentials

**COMMON COURSE NUMBER:** CDA1403C

**CREDIT HOURS:** 3

**CONTACT HOUR BREAKDOWN**

**CLOCK HOURS:** 3

Lecture: 40

Lab: 8

Clinic: 0

Other: 0

**PREREQUISITE(S):** None

**COREQUISITE(S):**

**PRE/COREQUISITE(S):**

## **COURSE DESCRIPTION:**

This course provides students with the body of knowledge that is identified and accepted as the baseline or foundation of an entry-level IT professional. This knowledge includes, but is not limited to, installing, building, upgrading, repairing, configuring, troubleshooting, optimizing, diagnosing, and performing preventive maintenance of basic personal computer hardware and operating systems. The skills developed by students who complete this course will prepare them for the CompTIA A+ Essentials exam.

## **UNIT TITLES**

1. Personal Computer Components
2. Laptop and Portable Devices
3. Operating Systems
4. Printers and Scanners
5. Networks
6. Security
7. Safety and Environmental Issues
8. Communication and Professionalism



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## EVALUATION:

Please provide a brief description (250 characters maximum) that details how students will be assessed on the course outcomes.

Evaluation instruments will include written and/or skills-based examinations and individual in-class and/or take-home assignments. Evaluation methods may also include group in-class and/or take-home assignments.

*\*\*\* Complete the following only if course is seeking general education status \*\*\**

## GENERAL EDUCATION Competencies and Skills\*:

Please highlight in green font all Competencies/Skills from the list below that apply to this course. In the box to the right of the Competency/Skill, enter all specific learning outcome numbers (i.e. 1.1, 2.7, 5.12) that apply.

1. Read with critical comprehension	
2. Speak and listen effectively	
3. Write clearly and coherently	
4. Think creatively, logically, critically, and reflectively (analyze, synthesize, apply, and evaluate)	
5. Demonstrate and apply literacy in its various forms: (highlight in green ALL that apply) ( 1. technological, 2. informational, 3. mathematical, 4. scientific, 5. cultural, 6. historical, 7. aesthetic and/or 8. environmental )	
6. Apply problem solving techniques to real-world experiences	
7. Apply methods of scientific inquiry	
8. Demonstrate an understanding of the physical and biological environment and how it is impacted by human beings	
9. Demonstrate an understanding of and appreciation for human diversities and commonalities	
10. Collaborate with others to achieve common goals.	
11. Research, synthesize and produce original work	
12. Practice ethical behavior	
13. Demonstrate self-direction and self motivation	
14. Assume responsibility for and understand the impact of personal behaviors on self and society	
15. Contribute to the welfare of the community	

*\* General Education Competencies and Skills endorsed by '05-'06 General Education Task Force*



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Common Course Number: CDA1403C

## UNITS

### Unit 1

**General Outcome:** Personal Computer Components

**1.0 The student shall:** understand the basic operations of a personal computer and be able to identify, install, configure and troubleshoot personal computer components.

**Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 1.1 Identify the fundamental principles of using personal computers
- 1.2 Install, configure, optimize and upgrade personal computer components
- 1.3 Identify tools, diagnostic procedures and troubleshooting techniques for personal computer components
- 1.4 Perform preventive maintenance on personal computer components



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## **Unit 2**

**General Outcome:** Laptop and Portable Devices

**2.0 The student shall:** understand the basic operation of laptops and portable devices and be able to identify, install, configure and troubleshoot laptops and portable devices.

**Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 2.1** Identify the fundamental principles of using laptops and portable devices
- 2.2** Install, configure, optimize and upgrade laptops and portable devices
- 2.3** Identify tools, basic diagnostic procedures and troubleshooting techniques for laptops and portable devices
- 2.4** Perform preventive maintenance on laptops and portable devices



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## **Unit 3**

**General Outcome:** Operating Systems

**3.0 The student shall:** understand the basic purpose and use of an operating system and be able to install, configure, optimize, upgrade and troubleshoot an operating system.

**Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 3.1** Identify the fundamentals of using operating systems
- 3.2** Install, configure, optimize and upgrade operating systems – reference to upgrading from Windows 9x and NT may be made
- 3.3** Identify tools, diagnostic procedures and troubleshooting techniques for operating systems
- 3.4** Perform preventive maintenance on operating systems



**Common Course Number:** CDA1403C

**Unit 4**

**General Outcome:** Printers and Scanners

**4.0 The student shall:** have a base understanding of printers and scanners and be able to install, configure, optimize and upgrade printers and scanners.

**Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 4.1** Identify the fundamental principles of using printers and scanners
- 4.2** Identify basic concepts of installing, configuring, optimizing and upgrading printers and scanners
- 4.3** Identify tools, basic diagnostic procedures and troubleshooting techniques for printers and scanners



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## **Unit 5**

**General Outcome:** Networks

**5.0 The student shall:** have rudimentary knowledge of networking and be able to install configure, optimize and upgrade network components.

**Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 5.1** Identify the fundamental principles of networks
- 5.2** Install, configure, optimize and upgrade networks
- 5.3** Identify tools, diagnostic procedures and troubleshooting techniques for networks



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## **Unit 6**

**General Outcome:** Security

**6.0 The student shall:** have a base knowledge of security concepts and be able to implement basic security practices.

**Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 6.1** Identify the fundamental principles of security
- 6.2** Install, configure, upgrade, and optimize security
- 6.3** Identify tool, diagnostic procedures, and troubleshooting techniques for security
- 6.4** Perform preventive maintenance for computer security



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## **Unit 7**

**General Outcome:** Safety and Environmental Issues

**7.0 The student shall:** have an elementary understanding of safety and environmental issues and procedures and be able to identify potential hazards.

**Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 7.1** Describe the aspects and importance of safety and environmental issues
- 7.2** Identify potential hazards and implement proper safety procedures including ESD precautions and procedures, safe work environment and equipment handling
- 7.3** Identify proper disposal procedures for batteries, display devices, and chemical solvents and cans



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## **Unit 8**

**General Outcome:** Communication and Professionalism

**8.0 The student shall:** be able to communicate on a professional level and behave in a professional manner in regards to privacy, confidentiality and respect.

**Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 8.1** Use good communication skills including listening and tact/discretion, when communicating with customers and colleagues
- 8.2** Use job-related professional behavior including notation of privacy, confidentiality and respect for the customer and customers' property