

# Computer Repair Syllabus Fall 20

*Credit Hour : 3 Days M-T*

Time: 12:40-1:40 Session 3

## Course Title: PC Hardware and OS Architecture

Course Number: ITE 221-10QD

Mr. Coates

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**Textbook:** Mike Meyers' CompTIA A+ Guide to Managing and Troubleshooting PCs, Fourth Edition (Exams 220-901 & 220-902)

### Course Objectives

This course maps fully to CompTIA's new Strata and A+ Exam objectives. The course is designed to be a complete, step-by-step approach for learning the fundamentals of supporting and troubleshooting computer hardware and software.

### Specific chapters include: may not be covered in order

<b>Chapter 1:</b> Safety and Professionalism	1-18	Total Pages 18
<b>Chapter 2:</b> The Visible Computer	24-55	Total Pages 21
<b>Chapter 3:</b> CPUs	60-99	Total Pages 39
<b>Chapter 4:</b> RAM	102-126	Total Pages 24
<b>Chapter 5:</b> Firmware	132-157	Total Pages 25
<b>Chapter 6:</b> Motherboards	164-193	Total Pages 31
<b>Chapter 7:</b> Power Supplies	200-226	Total Pages 26
<b>Chapter 8:</b> Mass Storage Technologies	234-255	Total Pages 21
<b>Chapter 9:</b> Implementing Mass Storage	263-310	Total Pages 47
<b>Chapter 10:</b> Essential Peripherals	318-351	Total Pages 33
<b>Chapter 11:</b> Building a PC	358-390	Total Pages 32
<b>Chapter 12:</b> Windows Under the Hood	396-422	Total Pages 26
<b>Chapter 13:</b> Users, Groups, and Permissions	428-463	Total Pages 31
<b>Chapter 14:</b> Maintaining and Optimizing Operating Systems	470-509	Total Pages 39
<b>Chapter 15:</b> Working with the Command-Line Interface	516-560	Total Pages 44
<b>Chapter 16:</b> Troubleshooting Operating Systems	568-609	Total Pages 41
<b>Chapter 17:</b> Display Technologies	616-658	Total Pages 42
<b>Chapter 18:</b> Essentials of Networking	666-688	Total Pages 22
<b>Chapter 19:</b> Local Area Networking	694-735	Total Pages 41

**Chapter 20:** Wireless Networking 742-769 Total Pages 27  
**Chapter 21:** The Internet 778-823 Total Pages 41  
**Chapter 22:** Virtualization 830-857 Total Pages 27  
**Chapter 23:** Portable Computing 864-900 Total Pages 36  
**Chapter 24:** Understanding Mobile Devices 908-939 Total Pages 31  
**Chapter 25:** Care and Feeding of Mobile Devices 946-976 Total Pages 30  
**Chapter 26:** Printers and Multifunction Devices 984-1026 Total Pages 42  
**Chapter 27:** Securing Computers 1036-1084 Total Pages 48  
**Chapter 28:** Operational Procedures 1094-1107 Total Pages 13  
**Appendix A:** Mapping to the CompTIA A+ Objectives

**Glossary**

**Course Requirements:**

*All Students Must:*

- Do regular homework assignments when not completed in class.
- Take Chapter quizzes and unit exams on dates scheduled with instructor
- Complete group projects when required
- Complete all lab assignments in the time given
- Clean up after completing assignments in lab area each day

**Attendance Policy:**

Please see the instructor regarding absences or class conflicts. Attendance at all examinations on the assigned date is mandatory. Anyone missing a test with an unexcused absence will receive a grade of zero on the test. The instructor must be notified prior to the test for an excuse to be granted in order to arrange for an alternate exam and date.

Attendance is necessary in order to successfully meet the objectives of this course. Students are reminded that all businesses operate according to deadlines and timelines. This course will follow that model, thus students are required to hand-in assignments on or before the due date and be present for exams.

**Grading**

Test	200
Quizzes from instructor	100
Assignments (Worksheets, Lab work)	75
Employability	150
Weekly Reflection	75
Projects	100

### ***Test for each section***

Test will be given for each Chapter. The instructor will have a baseline that a student must pass before going on the next Chapter. If a student fails the test he or she may retake it with the instructor's approval. However, after each failed attempt the student must meet with the instructor to figure out why he or she did not pass the benchmark.

### ***Quizzes from Instructor***

Before each chapter the instructor will give students a Pre Assessment to determine how much knowledge the student knows about the topic. After learning about the chapter the instructor will give a Post Assessment to determine how much knowledge was learned and what areas from the chapter need to be worked on before taking the test.

### ***Assignments (Worksheets, Lab work)***

Daily assignments will be given to students to stimulate the learning process. Lab work should be completed and presented to instructor for a grade.

### ***Employability***

#### **(Areas that are included in Employability)**

- 1. Uses time wisely**
  - a. stays on task, doesn't waste time, prioritizes effectively**
- 2. Attends regularly**
  - a. unexcused absence = 0, Tardy = 1**
- 3. Follows instructions**
  - a. follows safety rules, classroom rules, obeys teacher and classroom procedure**
- 4. Appropriate energy level/production**
  - a. no sleeping, energetic, performs task readily**
- 5. Proper conduct/ attitude**
  - a. uses manners/ polite, positive attitude**
- 6. Avoids disturbing others**
  - a. works quietly, avoids distraction others, includes noises or distracting actions**

**7. Communicates Well**

- a. talks at appropriate times, communicates clearly, listens well

**8. Works well with others**

- a. Solves disagreements well , able to set aside personal differences during class

**9. Takes care of equipment/ classroom clean up**

- a. throws away trash, leaves area as found, report damage, breakage

**10. Completes assignments/ hands work in on time**

- a. Completes all work or at least makes a good attempt

***Weekly Reflection***

Each student will type ten sentences about what they learned this week in class related to the material in class.

***Class Projects***

Each six weeks students will have an individual or group project that needs to be done.

***Differentiated Instruction***

Mr. Coates will be using techniques of Differentiated Instruction in his class to help students achieve the goals of being able to pass the Certification Exam in May of school year.

***Mastery Learning***

Students will be required to pass certain skills with mastery before they can go onto the next section. This is essential if students want to pass the certification exam.

***Notes:***

- Each week students will be given a list of task that must be completed before the end of the week. Students will receive a weekly grade with the percentage of the assignments completed on Friday.

***Competencies***

Competencies will be rated with the following rating to show mastery.

4	<b>- Can teach others</b>
3	<b>Can perform without supervision</b>

2	<b>Can perform with limited supervision</b>
1	<b>Can perform with supervision</b>
0	<b>Cannot perform</b>

#### Grading Scale

A	100-90
B	89-80
C	79-70
D	69-65
F	64-0

Grading scale is the same scale provided by Campbell County Schools

#### CVCC Schedule

**Fall Semester:**

First day of Semester: 8. 8.20  
 Last day of Semester: 1.22.20  
 Add/Drop: 9.18.20  
 Withdraw: 10.26.20

**Spring Semester:**

First day of Semester: 1.23.21  
 Last day of Semester: 6.11.21  
 Add/Drop: 1.30.21  
 Withdraw: 3.19.21

It is CVCC's policy to provide reasonable accommodations to qualified students with documented disabilities. Our goal is to help students succeed in this course. If you have a documented physical, mental, or learning disability and you need a reasonable accommodation to help you achieve success, please contact Student Support Services, in the Counseling Center, Room 2119, phone (434) 832-7802 or (434) 832-7299 or email [ADA@cvcc.vccs.edu](mailto:ADA@cvcc.vccs.edu). To best provide the accommodation you need, make this request as soon as possible, since accommodations cannot be made to change a grade you have received for course work already completed. For further information, please link to the following website.

<http://www.cvcc.vccs.edu/Student%20Services/Disabilities/default.asp>

**HONOR STATEMENT IN COLLEGE CATALOG ON PAGE 144  
 (Online on CVCC's home page @ CVCC.VCCS.EDU)**

1. Upon admission to the College, the following statement shall be accepted and signed by all students:  
 The Honor Code is based on the principle that the student will not

cheat, lie or steal. An application for admission to CVCC implies that a student, if admitted, will read the Honor Code in the Catalog/ Handbook, will uphold the honor of the College by observing the Code, and will report any violation witnessed.

2. The Honor Pledge shall read “I have neither given nor received unauthorized assistance on this assignment (paper, quiz, test, etc.). Neither have I observed cheating.”

*Indicate your acceptance of this responsibility by signing your name below.*

*Signature* \_\_\_\_\_

3. Reports of suspected Honor Code violations and requests for investigation are available from the Office of the Dean of Student Services. The form shall read as follows: *Report of Suspected Student Academic Misconduct.*