

KCMS 0189

Prerequisites

KCMS 0159 or Instructor Approval

Required material

You will be using a training course titled TestOut, which combines interactive online labs, instructional videos, and practice exams to complement your classroom instruction. You can purchase your material in the following ways:

1. Students purchase their activation codes from your bookstore for the products they need in class.
2. Direct Purchase from TestOut/com <http://www.testout.com/>

Note: Do not purchase your product directly from TestOut until your instructor has supplied you with a promotion code.

In addition to the TestOut material, students are required to bring paper, pencil, highlighter, USB flash drive (1GB or larger) and earphones or headset to view videos.

Course Description

A+ (A Plus) is an entry-level computer certification for PC computer service technicians. The exam is designed to certify the competency of entry-level PC computer service professionals in installing, maintaining, customizing, and operating personal computers and prepare the student for the CompTia A+ Certification Exams.

This is the fourth and last of four courses for A+ certification. The KCMS-0189 course covers chapters 10 through 13 of the Testout material.

Course Competencies for these chapters are:

- Component Selection
- Windows Pre-installation and Installation. Post Installation
- Virtualization
- Managing Files and locations in Windows
- NTFS Permissions, Shared Folders and Linux File Management
- Best Practices for Security, Physical Security, and Incident Response
- Social Engineering, BIOS/UEFI Security, and Malware Protection
- Authentication, File encryption, Network Security, and Firewalls
- Proxy Servers, VPN, and Security Troubleshooting
- Build a computer, Troubleshoot System Startup and Malfunctions
- Home Office Network and Windows Operating system Configuration

- Troubleshoot Mobile devices and Configure Linux

CompTIA A+ certification

Gaining [CompTIA™ A+ certification](#) assures employers and computer owners that a PC repair technician has the requisite knowledge to build, upgrade, optimize, troubleshoot, and repair personal computer (PC) systems. This program will prepare you to take your A+ exams, but the exams or exam vouchers are not

offered as a part of this program. It will be your responsibility to set up exam dates and pay for exam fees independent of this online program. For more information on this certification please visit the CompTIA site at www.comptia.org.

Class Directions

Overview & Purpose

You must read this directions and apply them as you progress on the content.

Program and Course Standards

1. You must be in the classroom at least once a week to take exams or complete hands on labs(if needed) or to fulfill the minimum in person contact requirement to discuss your progress.
2. If you go for two weeks without coming to the classroom or having at least another type of contact with your instructors, in which your progress and current standing in the course/ program is discussed, you will be terminated from the program.
3. Always start your work from Canvas. After logging into your course, go to modules and click on the assignment links to access TestOut from there. This will ensure the score/completion date for such assignment is recorded into Canvas.
4. After completing an assignment in Testout, make sure to go back to Canvas to start the next activity.
5. Check your Canvas gradebook frequently. If you notice grades missing, DON'T PANIC, you don't need to redo your work for those either. Just repeat steps 3 and 4 above, making sure to get into the assignment in test out and then clicking on the right pointing arrow on that window, close TestOut, then go back to Canvas, refresh your grades page and your grade most likely will be updated there. If it does not work that way, give it some time and check again later.

General Stuff

1. You are enrolled in the Competency Based Education Model (CBE).
2. This model allows you to cover the materials provided at a faster pace compared to a traditional lecture type class. If you come to a lesson in TestOut and because of your previous experience or knowledge, you realize you know it's content, and could demonstrate how to do what is being explained, you could skip it. We still recommend you cover the lesson just to make sure.
3. We track your progress by the scores TestOut sends back to Canvas, if you decide to skip a lesson, we will have no way to tell you did it, therefore, your progress will show below standard.
4. People normally do not know what they don't know, so we recommend you go over all the lessons and complete them, instead of skipping content, that way you will be covered and we will have a way to track your progress accurately.

5. The CBE model affords you the option to complete your courses faster (\$\$\$ savings!!) provided you demonstrate your knowledge.

Verification

1. When you start this and any of the following courses, plan to be in the classrooms for at least a couple of days for you to get used on how things work.
2. Classrooms are available in the following schedules:
 - o Instruction: Mon-Thu 8am-9pm SHARP.
 - o Open study, labs, exams: as above and Fridays 8am-2pm SHARP.
3. After completing a module exam, make sure you submit a picture of the “**passing**” score using the blue submit button on the top right of the exam page in Canvas.
4. In the Modules component in Canvas, you will find some activities with a number enclosed in < > marks, at the very end of the activity name. You will see this normally at the end of the final exam link for the module. These numbers are the number of hours accounted by the time you complete such activity in that unit. Use them as a way to assess how many hours you have completed or should complete in the week, so you keep your standing of at least 24 hours/week of completion. These assignments with the brackets are the ones used to track your progress, **MAKE SURE**, they have a score after you complete them.
5. Exams are to be taken in the classroom.
6. No exam or lab will be started in the last hour of the day.
7. Exams are **CLOSED BOOKS**, no notes, reference material, or any other type of electronic or digital material is allowed while testing.
8. All exam scores with a passing grade (Normally 70% or higher), need to be submitted in Canvas. To do that, before you close the exam page, take a snip of the exam results page like the sample below.
9. Save it to a file and then go to the Canvas exam page and Submit it for grading. The grade **WILL NOT** appear in Canvas right away, in fact, it may take a while for it to appear, because a person needs to go and check it, and post the grade for you. This is not an automatic process.

TestOut

1. TestOut, is the content delivery system we use for these courses. Always check with your instructor before you purchase your TestOut license, this way you could get a discount in the price you pay for it.
2. To start TestOut, go to Canvas>Modules>
3. The first item on the list normally states (Launch TestOut), click on it.
4. On the top of the screen you will see this: The Home button is where you go when you need to take exams. Ask your instructor before you want to take a test.
5. Use the Menu button to check the course content and use the green check marks to tell what has been done and where you need to restart work on the next day. All activities listed are recommended, we suggest you complete them all, again, if you feel you know the content, we recommend you watch the video and or complete the labs associated, just to make sure.

Grades/Progress

1. Grades and progress are two different things. Grades come from the scores in the unit exams and determine your passing status for the course. Progress in the other hand, is the rate at which you complete the course

material. The only way to tell a student's rate of progress is by you making sure Canvas shows grades for the activities marked with these symbols <>. Use these tools to make sure you stay in the required 24 hours work/week requirement.

10.1.1 - Component Selection (Launch TestOut)

10.6-Final Exam Section 10 0189 <10>

Chapter Exam

Ask your instructor to schedule you for the TestOut Exam for this section. If this is your second attempt for this section, **be sure to mention it to your instructor.**

No books, notes, web sites, electronic devices or any support material is allowed during the test.

Exams will contain questions from the Fact Sheets, Simulations and Quiz questions from the section you just completed. Make sure that you are comfortable with them to ensure success.

Multiple-choice questions with ROUND selections have ONE choice.

Multiple-choice questions with SQUARE boxes indicate the possibility/probability of multiple answers.

Students must score 70% to pass. Scoring less than 65% means you will be required to review the material and wait at least until the next day to test.

Submit your score if it is 70% or better.

Just after completing the assignment in TestOut, upload a snip like the sample below, and enter your score in the text box tab.

11.1.1 - System File Locations (Launch TestOut)

11.2.9.B Assignment: Command Line Fun

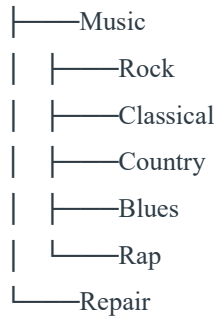
Objective: Explore the Command Line Interface.

Equipment: A computer with Windows XP or 7 (32bit for edit).

Instructions: Follow the steps below.

1. This assignment must be done in the lab. Inform your instructor or lab aid that you are beginning the command line assignment.
2. At the root of your thumb drive, use the command line to create the following structure. Make a directory at the root called myfiles but preceded with your first and last initials (KHmyfiles)
3. Using your first and last initials, create the Mydocs, Music, and Repair directories preceded with your first and last initials.
4. Do the same for all subdirectories listed below.

```
|—Mydocs
| |—Assignments
| |—Junk
| |—LoveLetters
```



Have an instructor confirm your work is correct before proceeding further.

5. Now make a file called Dog.txt and place it in the Rap subdirectory.
6. Do the same by making a file called Cat.txt and placing it in the Country directory.
7. Have an instructor confirm your work is correct before proceeding further.
8. Rename the Cat.txt file to Rat.txt. Show your instructor your syntax before proceeding.
9. Rename the Dog.txt to Frog.txt. Show your instructor your syntax before proceeding.
10. Copy the Frog.txt to the Rock subdirectory. Show your instructor your syntax before proceeding.
11. Delete the Rat.txt file. Show your instructor your syntax before proceeding.
12. Remove the entire structure, including files. Show your instructor your syntax before proceeding.
13. At the root of the C:\> drive, type: Dir
14. Write down the number of files at the root of the C:\> drive.
15. At the root of the C:\> drive, type: attrib
16. Count the files. How many files?
17. Why is this different than when you typed dir?
18. Go to the Documents directory on this computer.
19. Using notepad create a file and save it in this directory.
20. Using the command line, hide the file you just created.
21. Confirm your work with your instructor.
22. Un-hide the file, and give it a Read only attribute.
23. Open the file and add a few lines.
24. Now try to save the file using the same name as your gave it previously.
25. What happened?

Submit the answers to 16, 17, and 25 to me along with the questions for those numbers and the name of the person who verified your work.

11.6-Final Exam Section 11 0189 <27>

Chapter Exam

Ask your instructor to schedule you for the TestOut Exam for this section. If this is your second attempt for this section, **be sure to mention it to your instructor.**

No books, notes, web sites, electronic devices or any support material is allowed during the test.

Exams will contain questions from the Fact Sheets, Simulations and Quiz questions from the section you just completed. Make sure that you are comfortable with them to ensure success.

Multiple-choice questions with ROUND selections have ONE choice.

Multiple-choice questions with SQUARE boxes indicate the possibility/probability of multiple answers.

Students must score 70% to pass. Scoring less than 65% means you will be required to review the material and wait at least until the next day to test.

Submit your score if it is 70% or better.

Just after completing the assignment in TestOut, upload a snip like the sample below, and enter your score in the text box tab.

11.7 Take Certification Exam 98-349 Windows OS Fundamentals

MTA Certification Exam 98-349

Windows Operating System Fundamentals

Talk to your instructor to take this exam in the classroom.

After completing the test, submit a picture of the grade.

This assignment is not part of your grade and you are required to submit the result even if you failed.

12.1.1 - Best Practices for Securing Workstations (Launch TestOut)

12.6.1 - Malware 0189 <40>

12.9.4.A Configuring Ports on a Wireless Router - IN CLASS

Objective: Configure Ports and Firewall Settings on a wireless router.

Equipment: A Linksys wireless router. A patch cable. Another computer with an internet browser.

Instructions: Complete and submit the following. Use all resources available to you, use Google search as needed.

Copy and paste both questions and answers with your submission.

1. Reset the router as directed by the instructor/aid.
2. Snip only the setting that prevents your router from responding to ping requests from the public interface.
3. Copy to Word.
4. Which category and setting would you enable to block all Web cookies?
5. According to the video, which ports would you need to enable for Remote Desktop?
6. When should you enable Port Forwarding?

7. What is Port Range Triggering used for?
8. Using the internet find the port number(s) that need Port Forwarding for an XBOX360 Halo 3 on the router provided for this lab (if applicable).
9. Submit the document.

12.14-Final Exam Section 12 0189 <56>

Chapter Exam

Ask your instructor to schedule you for the TestOut Exam for this section. If this is your second attempt for this section, **be sure to mention it to your instructor.**

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Exams will contain questions from the Fact Sheets, Simulations and Quiz questions from the section you just completed. Make sure that you are comfortable with them to ensure success.

Multiple-choice questions with ROUND selections have ONE choice.

Multiple-choice questions with SQUARE boxes indicate the possibility/probability of multiple answers.

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Submit your score if it is 70% or better.

Just after completing the assignment in TestOut, upload a snip like the sample below, and enter your score in the text box tab.

13.00.A: Assignment Read: Vouchers for the A+ Industry Test

As you near the end of this course, there are a few things to keep in mind and plan for if you plan on taking the CompTIA A+ certification exam.

You must go to the www.vue.com ([Links to an external site.](#))[Links to an external site.](#) and create an account. This is the same place you will schedule your industry exam. Locations for testing are available at Salt Lake Community College and various locations throughout the valley. Vouchers are obtained by going to the Comptia Website and purchase it by credit card. These are available in only a few hours. To buy vouchers go to <http://academic.comptiastore.com/Articles.asp?ID=269&category=vouchers> ([Links to an external site.](#))[Links to an external site.](#) . Use your Bruinmail email account.

13.1 - Build a Computer From Scratch

13.1.1 Assignment: Troubleshoot a PC IN CLASS

Objective: Using your knowledge, the internet, and troubleshooting strategies, resolve issues on PC's.

Equipment: Internet. Various PC's.

Instructions: Ask the instructor to bug several computers in the lab for you to troubleshoot.

1. You will be troubleshooting 3-4 problem computers.
2. Take a piece of paper with you. **You will be submitting the symptoms, your findings, and how you resolved each computer.**
3. After completing the assignment, send me:

- Which of the websites you felt was most beneficial for troubleshooting.
- Your findings for each machine. I am looking for complete work, and you will not receive a pass if you are not thorough.
- You can use the Text Entry for this assignment.
- The following websites may be used for troubleshooting.
- <http://www.score.org/resources/hp/pc-troubleshooting-checklist> (Links to an external site.)Links to an external site.
- <http://www.fonerbooks.com/video.htm>Links to an external site.
- <http://fixingmycomputer.com/> (Links to an external site.)Links to an external site.

13.1.4 Assignment: Build Up and Tear Down IN CLASS

Objective: Build and configure a computer.

Equipment: Computer and peripherals from the lab (see below) and computer documentation.

Instructions: Build a computer under the direction of the instructor/lab aide following the instructions below.

1. Inform the instructor that you need to build and configure a computer.
2. Follow the instructions given to you.
3. Upon completion, the computer must boot to Windows.
4. Submit a paragraph to me on what you found easy and hard for the assignment.
5. Include the name of the person who assisted you.

Module 14.0 Capstone – TESTOUT - [Build up and Tear Down](#)

Click on the following link to print out the instructions shown below: [Capstone-1.docx](#)

Capstone – Build Up and Tear Down

(PLEASE READ EVERYTHING BELOW PRIOR TO BEGINNING YOUR PROJECT)

Congratulations on completing the Testout PC Pro Certification Program. Now it is time to test the skills you have acquired through this training and measure your confidence in applying those skills as you would in a real world environment.

In a real world environment today, rarely would you build a computer from scratch. Most likely you would troubleshoot and repair a system by swapping (FRUs) Field Replaceable Units, re-installing an application or re-imaging a drive. Beyond that today most likely the entire system would be swapped out and the old one sent back to the vendor for repair.

Please follow the guidelines below to complete assembling the computer by installing the remaining FRUs, then complete the installation by installing a system image on the drive from a remote server, or NAS. The CPU case already has installed in it the motherboard, CPU, CPU cooling fan, and power supply. All necessary cable connections to the motherboard between the case and the power supply have already been established. You may need to use the loose connections that may be required to connect to other FRUs .

It is important that you retain all original packaging for all components so that they can be repackaged for use by another student.

1. **You have three hours to complete this exercise.**

2. As a desktop technician you have been instructed to complete the installation of the components or FRUs listed below and then install the necessary software to complete the installation and make it ready for use on the network. You are expected to follow all safety precautions using the electrostatic matt and wrist grounding strap.
3. Please install the following FRUs in the case provided by your instructor:
 - 4 GB Ram
 - CD/DVD drive
 - SATA hard drive
 - Minimum 1 GB DDR3 Video Card
 - Complete all necessary power and cable connections for the above FRUs including mouse, keyboard, monitor and network connections.
 - Once you have completed installing and connecting the above items then install an image on the system. Follow the instructions provided to “**Install System Image**” that are found below.
 - Once the installation is completed, remove the image installation software disc from the system.
4. Once you have finished let your instructor know so that your performance can be evaluated. If at any time if you have a questions or concerns about this exercise, please ask your instructor.
5. Once completed, remove all the FRUs that you installed, return them to their packages and place everything back inside the kit and boxes.
6. **DO NOT** disconnect any of the cables to the motherboard, case, or power supply that were already connected.

Install System Image

Place the Acronis Disc in the CD/DVD drive on the system

Reboot the system and select to boot from the CD/DVD drive.

Allow Acronis to Load

Click on Acronis True Image 64 bit – Wait for it to load

Click on Recovery

Then click on Browse Backup

Select computers Near Me, Select Workgroup, Select KCMS-NAS

Select Student

Select Capstone_Asrock_fullb1_s1.tib then click OK

Select Yes on Remote Resource

Click the Recovery Menu at the top of the page

Select Disk Partition Recovery, then click Next

Select Capstone_Asrock_fullb1_s1.tib and click Next

Select Recover whole disk and partition and click Next

Select Disk 1 check box and click Next

If window pops up regarding image already on the hard drive click OK

Click Proceed

Select Restart computer when completed.

Once the computer has restarted in Windows, return to the “**Capstone – Build Up and Tear Down**” instructions and pick up at instruction number 4.

13.2 - Troubleshoot a Malfunctioning Computer

13.3 - Troubleshoot System Startup

13.5 - Configure the Windows Operating System

13.4 - Create a Home Office Network

13.6 - Troubleshoot a Mobile Device

13.7 - Configure Linux

13.8 - Lab Sandbox

Course Survey

Please take the course and instructor evaluation survey.

This evaluation is anonymous and the data will be used to help improve classroom instruction.

https://slccir.az1.qualtrics.com/jfe/form/SV_bf68cLwM1MWqFEN (Links to an external site.)Links to an external site.

13.18-Final Exam Section 13 0189 <60>

Chapter Exam

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