



Syllabus

ITCS1-0100

A+ Core 1 (Exam 220-1101)

Knox Technical Center

Program: IT-Computer Systems & Networking

Instructor: Blake Ward

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Preferred Method of Contact: bward@knoxcc.org

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School Phone: 740.393.2933

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Web Site: www.knoxtechnicalcenter.org

Office Hours: Mon-Thurs 7:30am – 7:00pm

I. GENERAL INFORMATION

A. Mission Statement: Our mission is to provide cutting-edge programs that prepare adults with career and lifelong learning skills.

B. Program Coordinator:
Lou Shultz
740.393.2933, ext. 1102
lshultz@knoxcc.org

Adult Education Director:
Kim Williams
740.393.2933, ext. 1106
kwilliams@knoxcc.org

C. Disability Accommodations. Any learner needing special accommodation on the basis of any disability must advise the instructor at the beginning of class. All necessary accommodations will be made upon presentation of relevant certification, presented in a timely manner. Learners are also responsible for making contact with the Program Coordinator prior to the start of class. For detailed KCCC Bylaws & Policies pertaining to Reasonable Accommodation, see Section 2260.01-Section 504 – ADA Prohibition Against Discrimination Based on Disability located on the website at www.knoxcc.org.

II. DESCRIPTION

This course is designed to prepare the student for the CompTIA Core 1 (220-1101) examination. Learners will gain an understanding of PC hardware, networking, laptops, printers, operational procedures, and customer service.

This course matches requirements as established by the Computing Technology Industry Association (CompTIA).

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- Prerequisites: ♦ None
- Classroom Hours: ♦ Classes will meet for Monday through Thursday, 5 pm to 9:30 pm
- Lab Hours: ♦ Labs will meet as assigned.
- Required Textbook(s):
- ♦ CompTIA Integrated CertMaster Learn + Labs for A+ Core 1 (Exam 220-1101 – Student Access Key, ISBN: 978-1-64274-428-6
 - ♦ The Official CompTIA A+ Core 1 Student Guide (Exam 220-1101), ISBN: 978-1-62474-407-1
- Recommended Tools, Materials, Supplies:
- ♦ Flash Drive

III. COURSE OBJECTIVES

At the completion of this course, learners will be able to:

Domain 1.0 Mobile Devices

1. Install and configure laptop hardware and components
2. Install components within the display of a laptop
3. Use appropriate laptop features
4. Contrast characteristics of various type of other mobile devices
5. Connect and configure accessories and ports of other mobile devices
6. Configure basic mobile device network connectivity and application support
7. Use methods to perform mobile device synchronization

Domain 2.0 Networking

1. Compare and contrast TCP and UDP ports, protocols, and their purposes
2. Compare and contrast common networking hardware devices
3. Install and configure a basic wired/wireless SOHO network
4. Compare and contrast wireless networking protocols
5. Summarize the properties and purposes of services provided by networked hosts
6. Explain common network configuration concepts
7. Compare and contrast internet connection types, network types, and their features
8. Use appropriate networking tools

Domain 3.0 Hardware

1. Explain basic cable types, features, and their purposes
2. Identify common connector types
3. Install RAM types
4. Select, install, and configure storage devices
5. Install and configure motherboards, CPU's, and add-on cards

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6. Explain the purposes and uses of various peripheral types
7. Summarize power supply types and features
8. Select and configure appropriate components for a custom PC configuration to meet customer specifications or needs
9. Install and configure common devices
10. Configure SOHO multifunction devices/printers and settings
11. Install and maintain various print technologies

Domain 4.0 Virtualization and Cloud Computing

1. Compare and contrast cloud computing concepts
2. Set up and configure client-side virtualization

Domain 5.0 Hardware and Network Troubleshooting

1. Use the best practice methodology to resolve problems
2. Troubleshoot problems related to motherboards, RAM, CPUs, and power
3. Troubleshoot hard drives and RAID arrays
4. Troubleshoot video, projector, and display issues
5. Troubleshoot common mobile device issues while adhering to the appropriate procedures
6. Troubleshoot printers
7. Troubleshoot common wired and wireless network problems

IV. SCHEDULE OF INSTRUCTION TOPICS (subject to change at Instructor's discretion)

Term I (155 hours)	Term II (155 hours)	Term III (155 hours)	Term IV (155 hours)
CompTIA A+ Core 1	CompTIA A+ Core 2	CompTIA Network +	CompTIA Security +
CompTIA A+ 220-1101	CompTIA A+ 220-1002	CompTIA Network+	CompTIA Security+
Certification Exam	Certification Exam	Certification Exam	Certification Exam

See **Lesson Plans** for detailed assignments/activities and evaluation methods for each topic.

V. ATTENDANCE

- A. Adult learners are expected to attend ALL assigned experiences. Attendance record is maintained by the instructor and front office.
- B. Attendance will be reviewed at the end of each term. If a learner's attendance falls below 90%, the learner will be placed on attendance probation. The learner is responsible for keeping record of his/her times tardy (late arrival/early dismissal) and absences. See Probation policy in *KTC Student Handbook*.
- C. Pre-arranged sick leave must be approved in writing by the instructor and coordinator.
- D. The learner who is absent is responsible for the material presented. The learner MUST contact the program office on the first day of return to school to turn in any assignment(s) that were due on the missed day(s) and/or to take any tests that were administered on the day(s) of absence. Failure to do so will result in a 10% reduction of test/homework grade per day not completed. All work must be completed and turned in. An incomplete will be issued on the term grade card until the work is done. An incomplete status will be maintained for up to 2

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weeks, and then the learner may be dismissed from the program. **Learners are responsible for obtaining all missed assignments and/or quizzes/tests upon return to school.**

VI. TEACHING STRATEGIES

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| ▪ Lecture | ▪ Workbook and Reading Assignments |
| ▪ Group Work | ▪ TestOut lab simulation |
| ▪ Online Resources | ▪ Skill Practice |
| ▪ Faculty Demonstrations | ▪ Certification Review |
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VII. EVALUATION METHOD

Course objectives/competencies will be evaluated and the course grade will be calculated using the following criteria:

Activity	Points	Description
Quizzes	By points	Quizzes are administered after theory covering each topic area
Exams	By points	Exams are presented at the conclusion of each topic area
Homework	By points	Homework is assigned daily and includes reading, workbook assignments, worksheets, competency practice, etc.
Attendance	By points	90% attendance required – see attendance policy
Term Final	By points	Term Final consists of a comprehensive evaluation of materials covered throughout the term
TestOut	By points	Assessment, lab simulation and certification materials

Grading will be reported on a numerical scale which can be converted to a letter grade as follows:

- Grade "A" the adult learner has mastered at minimum 93% of the work.
- Grade "B" the adult learner has mastered 85% to 92% of the work.
- Grade "C" the adult learner has mastered 75% to 84% of the work.
- Below 75% is failing.

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VIII. ACADEMIC HONESTY

The Knox Technical Center, regards personal integrity and academic honesty as fundamental to the educational process and the development of a professional. Honesty in all academic matters is expected of adult learners and actions contrary to such integrity will not be tolerated. Any attempt to cheat, misrepresent someone else's work as one's own, receive credit for work which is not one's own, obtain an unfair advantage over others or aid another adult learner to do the above will be considered a breach of integrity. Refer to *KTC Student Handbook* for more information.

IX. ELECTRONIC DEVICES AND CELL PHONES

Cell phones are not permitted to be used in the classroom/clinic area. These devices must be kept out of sight and powered off while in the classroom/clinic area/outside event. Unauthorized use of such devices disrupts the instructional program and distracts from the learning environment. Unauthorized use is grounds for disciplinary action up to and including program dismissal. If the learner is found to have a cell phone on their person or found to have a cell phone on (rings/vibrates) during testing, a "0" will be earned for that quiz/test.

Cell phones may be used at school in the entrance ways or outside of the building only during breaks and at lunch. As always, should someone need to contact you during class or clinical, they may call the school and you will be contacted as needed. Programs where adult learners are in class when the front office is closed may adjust emergency contact procedures as necessary.

X. CAVEAT EMPTOR CLAUSE

The learner is responsible for following all written guidelines as detailed in the *KTC Student Handbook*.