SYLLABUS

DATE OF LAST REVIEW: 02/2013

CIP CODE: 47.0101

SEMESTER: DEPARTMENTAL SYLLABUS

COURSE TITLE: Laptops and Portable Devices for PC Technicians

COURSE NUMBER: CRTE0108

CREDIT HOURS: 3

INSTRUCTOR: DEPARTMENTAL SYLLABUS

OFFICE LOCATION: DEPARTMENTAL SYLLABUS

OFFICE HOURS: DEPARTMENTAL SYLLABUS

TELEPHONE: DEPARTMENTAL SYLLABUS

EMAIL: KCKCC issued email accounts are the official means for electronically communicating with our students.

PREREQUISITE(S): CRTE0106 Operating Systems for PC Technicians

REQUIRED TEXT AND MATERIALS:

Please check with the KCKCC bookstore, http://www.kckccbookstore.com, for the required texts for your particular class.

COURSE DESCRIPTION:

Upon completion of this course students will be able to identify and describe laptops and other portable devices. Identify and describe the components of a laptop. Compare and contrast desktop and laptop components. Explain how to configure laptops. Compare the different mobile phone standards. Identify common preventive maintenance techniques for laptops and portable devices. Describe how to troubleshoot laptops and portable devices. With the increase in demand for mobility, the popularity of laptops and portable devices will continue to grow. During the course of your career, you will be expected to know how to configure, repair, and maintain these devices. The knowledge you acquire about desktop computers will help you service laptops and portable devices. However, there are important differences between the two technologies. To facilitate mobility, laptops and portable devices use wireless technologies more than desktops. All laptops use batteries when they are
disconnected from a power source. Docking stations are commonly used to connect a laptop to peripheral devices. As a computer technician, you will be required to configure, optimize, and troubleshoot these docking stations and accessories, as well as the laptop or portable device that they accompany. Many laptop components are proprietary, so some manufacturers require that you complete specialized certification training to perform laptop repairs. Servicing laptops can be very challenging. Mastering the skills necessary to work on laptops is important to your career advancement.

METHOD OF INSTRUCTION: A variety of instructional methods may be used depending on content area. These include but are not limited to: lecture, multimedia, cooperative/collaborative learning, labs and demonstrations, projects and presentations, speeches, debates, and panels, conferencing, performances, and learning experiences outside the classroom. Methodology will be selected to best meet student needs.

COURSE OUTLINE:
Fundamental Laptop and Portable Devices

I. Describe laptops and other portable devices
   A. Identify some common uses of laptops
   B. Identify some common uses of PDAs and Smart-phones

II. Identify and describe the components of a laptop
   A. Describe the components found on the outside of the laptop
   B. Describe the components found on the inside of the laptop
   C. Describe the components found on the laptop docking station

III. Compare and contrast desktop and laptop components
   A. Compare and contrast desktop and laptop motherboards
   B. Compare and contrast desktop and laptop processors
   C. Compare and contrast desktop and laptop power management
   D. Compare and contrast desktop and laptop expansion capabilities

IV. Explain how to configure laptops
   A. Describe how to configure power settings
   B. Describe the safe installation and removal of laptop components

V. Compare the different mobile phone standards

VI. Identify common preventive maintenance techniques for a laptops and portable devices
   A. Identify appropriate cleaning procedures
   B. Identify optimal operating environments

VII. Describe how to troubleshoot laptops and portable devices
   A. Review the troubleshooting process
   B. Identify common problems and solutions

VIII. Describe wireless communication methods for laptops and portable devices
   A. Describe Bluetooth Technology
   B. Describe Infrared Technology
   C. Describe Cellular WAN Technology
   D. Describe Wi-Fi Technology
   E. Describe Satellite Technology
IX. Describe repairs for laptops and portable devices

X. Selecting laptop components
   A.  Select batteries
   B.  Select a docking station or port replicator
   C.  Select storage devices
   D.  Select additional RAM

XI. Describe preventive maintenance procedures for laptops
   A.  Describe how to schedule and perform maintenance for laptops
   B.  Explain how to manage data version control between desktops and laptops

XII. Describe how to troubleshoot a laptop
   A.  Review the troubleshooting process
   B.  Identify common problems and solutions
   C.  Apply troubleshooting skills

EXPECTED LEARNER OUTCOMES:
A.  The learner will be able to describe laptops and other portable devices
B.  The learner will be able to identify and describe the internal and external components of a laptop
C.  The learner will be able to compare and contrast desktop and laptop components
D.  The learner will be able to explain how to configure laptops
E.  The learner will be able to compare the different mobile phone standards
F.  The learner will be able to identify common preventive maintenance techniques for laptops and portable devices
G.  The learner will be able to describe how to troubleshoot laptops and portable devices
H.  The learner will be able to describe wireless communications methods for laptops and portable devices
I.  The learner will be able to describe the repairs needed for a laptop
    The learner will be able to describe how to select laptop components
J.  The learner will be able to describe preventive maintenance procedures for a laptop
K.  The learner will be able to describe how to troubleshoot a laptop

COURSE COMPETENCIES:

*The learner will be able to describe laptops and other portable devices*

1.  The learner will be able to demonstrate the ability to identify some common uses of laptops
2.  The learner will be able to demonstrate the ability to identify some common uses of PDAs and Smart- phones.

*The learner will be able to identify and describe the internal and external components of a laptop*

3.  The learner will be able to demonstrate the ability to describe the components found on the outside of the laptop
4.  The learner will be able to demonstrate the ability to describe the components found on the inside of the laptop
5.  The learner will be able to demonstrate the ability to describe the components found on the laptop docking station
The learner will be able to compare and contrast desktop and laptop components
6. The learner will be able to demonstrate the ability to compare and contrast desktop and laptop motherboards
7. The learner will be able to demonstrate the ability to compare and contrast desktop and laptop processors
8. The learner will be able to demonstrate the ability to compare and contrast desktop and laptop power management
9. The learner will be able to demonstrate the ability to compare and contrast desktop and laptop expansion capabilities

The learner will be able to explain how to configure laptops
10. The learner will be able to demonstrate the ability to describe how to configure power settings
11. The learner will be able to demonstrate the ability to perform the safe installation and removal of laptop components

The learner will be able to compare the different mobile phone standards
12. The learner will be able to demonstrate the ability to compare and contrast different mobile phone standards.

The learner will be able to identify common preventive maintenance techniques for laptops and portable devices
13. The learner will be able to demonstrate the ability to identify appropriate cleaning procedures
14. The learner will be able to demonstrate the ability to identify optimal operating environments

The learner will be able to describe how to troubleshoot laptops and portable devices
15. The learner will be able to demonstrate the ability to Review the troubleshooting process
16. The learner will be able to demonstrate the ability to Identify common problems and solutions

The learner will be able to describe wireless communications methods for laptops and portable devices
17. The learner will be able to demonstrate the ability to describe Bluetooth Technology
18. The learner will be able to demonstrate the ability to describe Infrared Technology
19. The learner will be able to demonstrate the ability to describe Cellular WAN Technology
20. The learner will be able to demonstrate the ability to describe Wi-Fi Technology
21. The learner will be able to demonstrate the ability to describe Satellite Technology

The learner will be able to describe the repairs needed for a laptop
22. The learner will be able to accurately describe the repairs need for a laptop.

The learner will be able to describe how to select laptop components
23. The learner will be able to demonstrate the ability to select batteries
24. The learner will be able to demonstrate the ability to select a docking station or port replicator
25. The learner will be able to demonstrate the ability to select storage devices
26. The learner will be able to demonstrate the ability to select additional RAM
   *The learner will be able to describe preventive maintenance procedures for a laptop*
27. The learner will be able to demonstrate the ability to schedule and perform maintenance for laptops
28. The learner will be able to demonstrate the ability to explain how to manage data version control between desktops and laptops
   *The learner will be able to describe how to troubleshoot a laptop*
29. The learner will be able to demonstrate the ability to review the troubleshooting process
30. The learner will be able to demonstrate the ability to identify common problems and solutions
31. The learner will be able to demonstrate the ability to apply troubleshooting skills

**ASSESSMENT OF LEARNER OUTCOMES:**
Student progress is evaluated by means that include, but are not limited to, exams, written assignments, and class participation.

**SPECIAL NOTES:**
This syllabus is subject to change at the discretion of the instructor. Material included is intended to provide an outline of the course and rules that the instructor will adhere to in evaluating the student’s progress. However, this syllabus is not intended to be a legal contract. Questions regarding the syllabus are welcome any time.

Kansas City Kansas Community College is committed to an appreciation of diversity with respect for the differences among the diverse groups comprising our students, faculty, and staff that is free of bigotry and discrimination. Kansas City Kansas Community College is committed to providing a multicultural education and environment that reflects and respects diversity and that seeks to increase understanding.

Kansas City Kansas Community College offers equal educational opportunity to all students as well as serving as an equal opportunity employer for all personnel. Various laws, including Title IX of the Educational Amendments of 1972, require the college’s policy on non-discrimination be administered without regard to race, color, age, sex, religion, national origin, physical handicap, or veteran status and that such policy be made known.

Kansas City Kansas Community College complies with the Americans with Disabilities Act. If you need accommodations due to a documented disability, please contact the Director of the Academic Resource Center in Rm. 3354 or call (913) 288-7670.