DATE OF LAST REVIEW: 02/2013

CIP CODE: 47.0104

SEMESTER: Departmental Syllabus

COURSE TITLE: Introduction to the Personal Computer, Safety and Tool Usage for PC Technicians

COURSE NUMBER: CRTE0102

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): Basic Computer Skills are required for enrollment.

REQUIRED TEXT AND MATERIALS:

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

COURSE DESCRIPTION:

Students will gain a understanding of what IT Industry Certifications are available. Students will be introduced to what a computer system is. Students will identify the names, purposes, and characteristics of cases and power supplies. Identify the names, purposes, and characteristics of internal components. Identify the names, purposes, and characteristics of ports and cables. Identify the names, purposes, and characteristics of input devices. Identify the names, purposes, and characteristics of output devices. Explain system resources and their purposes. Basic safety practices for the computer repair workplace including: hardware and software tools, and the disposal of hazardous materials and MSDS sheets. Safe use of Digital Multi-Meters and basic electricity. Students will be introduced to Surge Suppressors, UPS and SPS.
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:

Introduction to the Personal Computer
I. Explain IT industry Certifications
   A. Identify Education and Certification
   B. Describe the A+ Certification
   C. Describe the EUCIP Certification
II. Describe a computer system
III. Identify the names, purposes, and characteristics of cases and power supplies
   A. Introduction to computer cases
   B. Introduction to computer power supplies
IV. Identify the names, purposes and characteristics of internal components
   A. Identify the names, purposes, and characteristics of motherboards
   B. Explain the names, purposes and characteristics of CPU's
   C. Identify the names, purposes and characteristics of cooling systems
   D. Identify the names, purposes and characteristics of ROM and RAM
   E. Identify the names, purposes and characteristics of adapter cards
   F. Identify the names, purposes and characteristics of storage drives
   G. Identify the names, purposes and characteristics of internal cables
V. Identify the names, purposes, and characteristics of ports and cables
VI. Identify the names, purposes and characteristics of input devices
VII. Identify the names, purposes and characteristics of output devices
VIII. Explain system resources and their purposes
IX. Explain the purpose of safe working conditions and procedures
   A. Identify safety procedures and potential hazards for users and technicians
   B. Identify safety procedures to protect equipment from damage and loss of data
   C. Identify safety procedures to protect the environment from contamination
X. Identify tools and software used with PC components and their purposes
   A. Identify hardware tools and their purpose
   B. Identify software tools and their purpose
   C. Identify organizational tools and their purpose
XI. Implement Proper tool use
   A. Demonstrate proper use of an anti-static wrist strap
   B. Demonstrate proper use of an anti-static mat
   C. Demonstrate proper use of various hand tools
   D. Identify the proper use of cleaning materials

EXPECTED LEARNER OUTCOMES:
A. The learner will be able to explain IT industry certifications

B. The learner will be able to describe a computer system

C. The learner will be able to identify the names, purposes, and characteristics of cases and power supplies

D. The learner will be able to identify the names, purposes, and characteristics of internal components

E. The learner will be able to identify the names, purposes, and characteristics of ports and cables

F. The learner will be able to identify the names, purposes, and characteristics of input devices

G. The learner will be able to identify the names, purposes, and characteristics of output devices

H. The learner will be able to explain system resources and their purposes

I. The learner will be able to explain the purpose of safe working conditions and procedures.

K. The learner will be able to identify the appropriate tools and software used on a PC.

L. The learner will be able to identify the appropriate method of attaching ESD wrist straps.

M. The learner will be able to identify the appropriate software tools needed to boot a PC.

N. The learner will be able to demonstrate proper tool usage inside the PC.

COURSE COMPETENCIES:
Upon successful completion of this course:

The learner will be able to explain IT industry certifications

1. The learner will be able to describe the different certifications and education required for each of them.

2. The learner will be able to describe the CompTIA A+ certification process and certification paths.

3. The learner will be able to describe the EUCIP Certification as it relates to the A+ certification

The learner will be able to describe a computer system.

4. The learner will be able to describe the parts that make up a computer system.

The learner will be able to identify the names, purposes, and characteristics of cases and power supplies.

5. The learner will be able to describe the different types of cases.

6. The learner will be able to describe the different parts of a case.

7. The learner will be able to describe the different types of power supplies.

The learner will be able to identify the names, purposes, and characteristics of internal components.

9. The learner will be able to identify the names, purposes, and characteristics of motherboards.

10. The learner will be able to explain the names, purposes and characteristics of CPU’s

11. The learner will be able to identify the names, purposes and characteristics of cooling
12. The learner will be able to identify the names, purposes and characteristics of ROM and RAM
13. The learner will be able to identify the names, purposes and characteristics of adapter cards
14. The learner will be able to identify the names, purposes and characteristics of storage drives
15. The learner will be able to identify the names, purposes and characteristics of internal cables

The learner will be able to identify the names, purposes, and characteristics of ports and external cables
16. The learner will be able to describe the different external ports their names, use and characteristics.
17. The learner will be able to describe the different types of external cables.

The learner will be able to identify the names, purposes, and characteristics of input devices
18. The learner will be able to identify and describe the different types of input devices.

The learner will be able to identify the names, purposes, and characteristics of output devices
19. The learner will be able to identify and describe the different types of output devices.

The learner will be able to explain system resources and their purposes
20. The learner will be able to describe what system resources and their purpose.

The learner will be able to explain the purpose of safe working conditions.
22. The learner will be able to identify appropriate safety procedures and potential hazards for users and technicians
23. The learner will be able to identify safety procedures to protect equipment from damage and loss of data
24. The learner will be able to identify safety procedures to protect the environment from contamination

The learner will be able to identify the appropriate tools and software used on a PC
25. The learner will be able to identify hardware tools and their purpose
26. The learner will be able to identify software tools and their purpose
28. The learner will be able to identify organizational tools and their purpose

The learner will be able to demonstrate proper tool usage while working inside the PC
29. The learner will be able to demonstrate proper use of an anti-static wrist strap
30. The learner will be able to demonstrate proper use of an anti-static mat
31. The learner will be able to demonstrate proper use of various hand tools
32. The learner will be able to identify the proper use of cleaning materials

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.