Course Number
CSCI 1114

Course Title
IT Essentials 1

Course Description
The IT Essentials: PC Hardware and Software curriculum provides an introduction to the computer hardware and software skills needed to help meet the growing demand for entry-level information and communication technology (ICT) professionals. The curriculum covers the fundamentals of PC technology.

College Mission
South Arkansas Community College promotes excellence in learning, teaching, and service; provides lifelong educational opportunities; and serves as a cultural, intellectual, and economic resource for the community.

College Wide Student Learner Outcomes
☒ Critical Thinking
☐ Responsibility
☐ Communication

ACTS Course☐ Program Course ☒

ACTS Outcomes

Program Outcomes

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*Learning outcomes are based on U.S. Department of Labor IT 2012 Competency Model and Association of Computing Machinery Committee for Computing Education in Community Colleges.

Course Outcomes
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<td>CLO1</td>
<td>Describe the internal components of a computer</td>
<td>1, 3, 14, 15</td>
<td>PO3</td>
<td>PO1</td>
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<td>CLO2</td>
<td>Describe the aspects and importance of safety and environmental issues including potential hazards and proper safety procedures with respect to computer maintenance.</td>
<td>2, 14, 15</td>
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<td>CLO3</td>
<td>Assemble a computer system - including installing and configuring the motherboard, adding hard disks and optical drives, adding memory, adding and configuring I/O devices and display adapters</td>
<td>3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 15</td>
<td>PO3</td>
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<td>CLO4</td>
<td>Troubleshoot hardware and software problems using system tools and diagnostic software</td>
<td>13, 14, 15</td>
<td>PO1</td>
<td>PO3</td>
<td>TSO3</td>
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<td>CLO5</td>
<td>Respond to customer inquiries and assist with the resolution of technical issues</td>
<td>2, 14, 15</td>
<td>PO1</td>
<td>PO2</td>
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<td>CLO6</td>
<td>Use job-related professional behavior including communication skills, tact, notation of privacy, confidentiality and respect for the customer and customers’ property</td>
<td>2, 12, 14, 15</td>
<td>PO1</td>
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**Unit Outcomes/ Competencies**

**IT Essentials Unit Objectives**

Module 1 – Computing Overview
This module introduces the students to the PC Pro and the basic skills a student should have before taking this course, and the content of the PC Pro course. Students will learn how to use the simulator to complete the lab exercises. This module also provides an overview of the basic elements and functions of computer hardware and operating systems.

Module 2 – PC Technician
This module examines the roles of the PC technician: protection and safety of users and computers, acting in a professional manner, maintaining computer systems, troubleshooting systems, and utilizing Windows tools and utilities to view configuration information and manage computers.

Module 3 – System Components
In this module students will learn concepts about the components that make up computer systems. Students will explore the basics of cases, form factors, power supplies, motherboards, PC expansion buses, processors, memory, BIOS, video, and cooling devices.

Module 4 – Peripheral Devices
This module teaches the students about the following peripheral devices: IO interfaces, USB devices, IEEE 1394-based products, display devices, and sound devices. Students will also receive guidelines for installing devices.

Module 5 – Storage
This module discusses concepts about the storage of digital data. Students will become familiar with storage devices, storage device interfaces, optical media, and file systems. They will also learn details about managing files, using RAID arrays, and optimizing hard disk performance.
Module 6 – Networking
This module examines the fundamentals of networking. Students will learn about the components that make up a network. They will learn about network addressing, networking media (cabling), IP configuration settings, 802.11 wireless networks, Infrared (IrDA) and Bluetooth.

Module 7 – Printing
In this module, students will learn concepts about selecting, installing, configuring, and managing printers. They will learn about different types of printers, printer languages, and the components that make up network printing.

Module 8 – Mobile Devices
This module discusses portable computing devices. Topics covered include classifications for portable devices, components in a notebook system, PC cards, batteries, and power management.

Module 9 – Windows System Management
This module discusses basic concepts of system management which include installing and managing applications, updating Windows and non-Microsoft software, protecting a system through backups, managing virtual memory, handling system errors, and providing system recovery for a system that does not work properly.

Module 10 – System Implementation
This module discusses the elements of pre-installation, installation, and post installation of the Windows Operating Systems.

Module 11 – File Management
This module examines the location of system files, file extensions and file attributes, and the commands to manage files. Students will also learn how to configure NTFS permissions, change file ownership, share a file, and work with offline files.

Module 12 – Security
In this module, students will learn the basics of securing a computer system. Concepts covered include: protecting against malware and social engineering attacks, authenticating to validate a user, configuring BIOS security, utilizing encryption technologies, physically securing computer systems, and employing firewalls.

Module 13 – Troubleshooting
This module discusses troubleshooting of hardware devices, operating systems, networks, notebooks, and printer devices.

Module 14 – Capstone Exercises
This module contains 2 exercises that allow the students to practice all the skills they have acquired during this course.

Module 15 – Practice Exams
In Practice Exams students will have the opportunity to test themselves and verify that they understand the concepts and are ready to take the certification exam. The practice exams are divided into three separate areas and will contain examples of the types of questions that a student will find on the actual exam:

**Assessment Description(s)**
TestOut PC Pro Certification Exam

**Materials and Technological Requirements**
TestOut PC Pro English 4.1.0
ISBN: 978-1-935080-42-8

**Browser Compatibility**
- Supported 
- Partially Supported 
- Not Supported

Access to the Internet
Earbuds or headphones

**Class Attendance Policy**
Students are expected to attend all classes in which they are enrolled. If a student is absent from a class session, it is the student’s responsibility to make arrangements to complete or make up any work missed. No make-up work for missed classes will be allowed without the approval of the instructor. Students who enroll late must assume all responsibility for work missed. Classes not attended as a result of late enrollment may be counted toward excessive absences. Students not attending the entire class period may be counted absent for that period. An instructor may
drop students with a grade of "WE" if students have been absent for an excessive number of days. Warning letters will be sent to the students advising them of the consequences of nonattendance and urging them to contact their instructors immediately. Excessive absences are defined as follows:

**Regular Semester**
- Courses which meet once a week ................................................................. 2 absences
- Courses that meet twice per week ................................................................. 3 absences
- Courses that meet four times per week ......................................................... 5 absences

**Summer Session**
- Courses that meet four times per week in a five week session .................... 3 absences
- Courses which meet two evenings per week in a 10 week session ................... 3 absences

Students enrolled in special programs or individualized instruction should contact their program director/instructor regarding specific attendance requirements for the program/course. Some of the selective-admission, health-science programs have specific criteria regarding attendance. Students are encouraged to refer to program policies in these matters.

**Jury Duty/Military/Official School Function**
Scheduled absences are those that occur due to college-related activities or as a result of summons to jury duty or military duty. Classes missed as a result of scheduled absences will not be counted as excessive absences if the instructor is notified and provided documentation prior to the absence(s). Make-up work for scheduled absences will be at the discretion of the instructor.

In all instances, documentation must be provided to the instructor within 24 hours of receipt. Documentation should come from an appropriate party on letterhead or other official stationery with a signature and contact information. Documentation should list the corresponding dates of the leave.

**Medical leave**
For medical-related absences, documentation must include written notice from the treating medical professional documenting time needed off related to medical reasons and time student may resume classes. The medical reason does not need to be listed on the documentation; the documentation must include only that there is a medical reason, the amount of time the student needs to be absent, and the time the student should be able to return to classes. Students who elect to work at home while on excused leave must meet with their instructors to make arrangements to do so. Working on coursework while on medical leave is not a requirement but can be requested by students. If students request that they be allowed to work at home while on an excused leave, the instructor will make every reasonable effort to ensure that the student is able to do so.

For students who have a medical condition necessitating time off or accommodation:

1) They may work at home on assignments if they choose to if on medical leave approved by a medical professional
2) Receive appropriate accommodations related to coursework (i.e., excused from labs with potentially harmful chemicals, have a larger desk, etc.)
3) Resume their studies where they left off once they return to classes
4) Be allowed to make up any missed work related to medical leave
5) Receive incompletes on their transcripts until coursework is completed, according to the incomplete grade contract.
6) Be given a reasonable time frame in which to complete missed coursework

**Academic Honesty Policy**
Students enrolled at South Arkansas Community College are expected at all times to uphold standards of integrity. Students are expected to perform honestly and to work in every way possible to eliminate academic dishonesty. Academic dishonesty includes cheating and plagiarism, which are defined as follows:

- **Cheating** is an attempt to deceive the instructor in his/her effort to evaluate fairly an academic exercise. Cheating includes copying another student’s homework, class work, or required project (in whole or in part) and/or presenting another’s work as the student’s own. Cheating also includes giving, receiving, offering, and/or soliciting information on a quiz, test, or examination.

- **Plagiarism** is the copying of any published work such as books, magazines, audiovisual programs, electronic media, and films or copying the theme or manuscript of another student. It is plagiarism when one uses direct quotations without proper credit or when one uses the ideas of another without giving proper credit. When three or more consecutive words are borrowed, the borrowing should be recognized by the use of quotation marks and proper parenthetical and bibliographic notations.
If, upon investigation, the instructor determines that the student is guilty of cheating or plagiarism, the following penalties will apply:

- The student will receive a penalty of no less than a zero on the work in question.
- The instructor will submit a written report of the incident to the Vice President for Learning.
- The Vice President for Learning will determine whether further disciplinary action will be taken.
- All decisions may be appealed for review through the college’s Academic Appeals procedure.

Equal Opportunity-Affirmative Action Statement
South Arkansas Community College does not discriminate on the basis of age, race, color, creed, gender, religion, marital status, veteran’s status, national origin, disability, or sexual orientation in making decisions regarding employment, student admission, or other functions, operations, or activities.

Library Services
Library Homepage: http://southark.libguides.com/homepage Library Contact: LibraryStaff@southark.edu or 870.864.7115

Procedures to Accommodate Students with Disabilities:
If you need reasonable accommodations because of a disability, please report this to the Vice President of Student Services with proper documentation. VPSS Contact: 870.875.7262

The Early Alert System
In an effort to ensure student retention and success, South Arkansas Community College employs an Early Alert System to identify and support at-risk students as soon as possible in a given semester. The intent of Early Alert is to provide this assistance while there is still time to address behaviors or issues that have the potential of preventing students from completing their courses and degree plans. Students referred through the Early Alert System will be required to work on a corrective action plan with their student advising coach and to include attendance accountability and mandatory academic tutoring either in the academic division or in the Testing and Learning Center (TLC).

Once the Student Advising Coach has met with the referred student, and again when the student has met the prescribed corrective actions, the coach will update the Early Alert System so that the instructor is kept informed of the progress in resolving issues.

Behavioral Review Team
At South Arkansas Community College (SouthArk), we are committed to proactive leadership in student wellbeing and campus safety. By focusing on prevention and early intervention with campus situations that involve any person experiencing distress or engaging in harmful or disruptive behaviors, the BRT will serve as the coordinating hub of existing resources to develop intervention and support strategies and offer case management. Students, faculty, staff, and campus guests are encouraged to report any person on campus who is a concern. BRT Contact: 870.875.7262 BRT@southark.edu

Date of Revision: 8/25/2016