ILLINOIS VALLEY COMMUNITY COLLEGE

COURSE OUTLINE

DIVISION: Workforce Development

COURSE: CSP 2230; A+ Certification

Date: Spring 2014

Credit Hours: 1

Prerequisite(s): CSP 2200 and CSN 1225

Delivery Method:

☐	**Lecture**	**1 Contact Hours (1 contact = 1 credit hour)**
☐	**Seminar**	**0 Contact Hours (1 contact = 1 credit hour)**
☐	**Lab**	**0 Contact Hours (2 contact = 1 credit hour)**
☐	**Clinical**	**0 Contact Hours (3 contact = 1 credit hour)**
☒	**Online**	
☐	**Blended**	

Offered: ☒ **Fall** ☐ **Spring** ☐ **Summer**

IAI Equivalent –***Only for Transfer Courses***-go to *http://www.itransfer.org*:

CATALOG DESCRIPTION:
This course covers the major areas on the CompTIA A+ certification exam and helps prepare the student to take the A+ certification exam.

GENERAL EDUCATION GOALS ADDRESSED

[See the last page of this form for more information.]

Upon completion of the course, the student will be able:

[Choose those goals that apply to this course.]

☒ To apply analytical and problem solving skills to personal, social and professional issues and situations.
☐ To communicate orally and in writing, socially and interpersonally.
☐ To develop an awareness of the contributions made to civilization by the diverse cultures of the world.
☒ To understand and use contemporary technology effectively and to understand its impact on the individual and society.
☐ To work and study effectively both individually and in collaboration with others.
☐ To understand what it means to act ethically and responsibly as an individual in one's career and as a member of society.
☐ To develop and maintain a healthy lifestyle physically, mentally, and spiritually.
☒ To appreciate the ongoing values of learning, self-improvement, and career planning.

EXPECTED LEARNING OUTCOMES AND RELATED COMPETENCIES:

[Outcomes related to course specific goals.]

Upon completion of the course, the student will be able to:

1. Correctly answer certification questions on installation, configuration and upgrading personal computers
2. Correctly answer certification questions about diagnosing and troubleshooting personal computers.
3. Answer certification questions about preventive maintenance
4. Answer certification questions about motherboards, processors, and memory.
5. Answer certification questions about printers
6. Answer certification questions about basic networking
7. Answer certification questions about operating systems, installation and upgrading.

Outcome 1 - Students will be able to correctly answer certification questions on installation, configuration and upgrading personal computers.

Competency 1.1 - Students will understand motherboards, ports, firmware, power supplies, CPUs, memory, and drivers.

Competency 1.2 – Students will understand the latest removable and non-removable storage devices.

Competency 1.3 – Students will understand the latest peripheral devices.

Outcome 2 - Students will be able to answer certification questions about diagnosing and troubleshooting personal computers.

Competency 2.1 – Students will understand how to diagnose motherboards, ports, firmware, power supplies, CPU's, memory, and drivers that are functioning incorrectly.

Competency 2.2 – Students will understand how to diagnose the latest removable and non-removable storage devices.

Competence 2.3 – Students will understand how to diagnose the latest peripheral devices.

Outcome 3 - Students will be able to answer certification questions about preventive maintenance.

Competency 3.1 – Students will be able to identify the various preventive maintenance measures, products and procedures and when and how to use them.

Outcome 4 - Students will be able to answer certification questions about motherboards, processors, and memory.

Competency 4.1 – Students will be able to distinguish between the popular CPU chips in terms of their basic characteristics.

Competency 4.2 – Students will be able to identify types of RAM, and determine banking and speed requirements under given scenarios.

Competency 4.3 – Students will be able to identify the most popular types of motherboards, their components, and their architecture.

Competency 4.4 – Students will be able to identify the purpose of CMOS and given a scenario involving CMOS, choose the appropriate course of action.

Outcome 5 - Students will be able to answer certification questions about printers.

Competency 5.1 – Students will be able to identify printer technologies, interfaces, and options/upgrades.

Competency 5.2 – Students will be able to recognize common printer problems and techniques used to resolve them.

Outcome 6 - Students will be able to answer certification questions about basic networking.

Competency 6.1 – Students will be able to identify the common types of network cables, their characteristics, and connectors.

Competency 6.2 – Students will be able to identify common technologies for establishing Internet connectivity and given a scenario, troubleshoot connectivity issues.

Outcome 7 - Students will be able to answer certification questions about operating systems, installation and upgrading.

Competency 7.1 – Students will be able differentiate between the various Microsoft operating systems and their characteristics.

Competency 7.2 – Students will be able to identify the names, locations, purposes, and contents of major system files.

Competency 7.3 – Students will be able to identify basic concepts for creating, viewing and managing disks, directories, and files.

Competency 7.4 – Students will be able to identify the procedures for installing and upgrading Microsoft operating systems.

COURSE TOPICS AND CONTENT REQUIREMENTS:

INSTRUCTIONAL METHODS:

Online instructional methods including webcasts and podcasts
Practice tests
Testing
Case study analysis

INSTRUCTIONAL MATERIALS:
Online course management software such as Blackboard
A+ Certification by M. Meyers

STUDENT REQUIREMENTS AND METHODS OF EVALUATION:
Develop an understanding and/or a comprehensive knowledge of the items listed as course content.

1. Read required material on the topic
2. Review material that was covered in the prerequisite courses
3. Attend discussion threads on subject
4. Complete all practice tests
5. Complete all tests
6. Ask questions about any misunderstood area
7. Join in discussion threads and case studies analyses

Grading Scale

A	90-100%
B	80-89%
C	70-79%
D	60-69%

OTHER REFERENCES
Sample testing software such as TestOut!
A+ CoursePrep Exam Guide, by Andrews

Course Competency/Assessment Methods Matrix

CSP 2230; A+ Certification	**Assessment Options**																																
For each competency/outcome place an "X" below the method of assessment to be used.	**Assessment of Student Learning**	Article Review	Case Studies	Group Projects	Lab Work	Oral Presentations	Pre-Post Tests	Quizzes	Written Exams	Artifact Self Reflection of Growth	Capstone Projects	Comprehensive Written Exit Exam	Course Embedded Questions	Multi-Media Projects	Observation	Writing Samples	Portfolio Evaluation	Real World Projects	Reflective Journals	Applied Application (skills) Test	Oral Exit Interviews	Accreditation Reviews/Reports	Advisory Council Feedback	Employer Surveys	Graduate Surveys	Internship/Practicum /Site Supervisor Evaluation	Licensing Exam	In Class Feedback	Simulation	Interview	Written Report	Assignment
Assessment Measures – Are direct or indirect as indicated. List competencies/outcomes below.	**Direct/ Indirect**	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	I	I	I	I	D	D							
Outcome 1 - Students will be able to correctly answer certification questions on installation, configuration and upgrading personal computers.								X	X			X																					
Outcome 2 - Students will be able to answer certification questions about diagnosing and troubleshooting personal computers.								X	X			X																					
Outcome 3 - Students will be able to answer certification questions about preventive maintenance.								X	X			X																					
Outcome 4 - Students will be able to answer certification questions about motherboards, processors, and memory.								X	X			X																					
Outcome 5 - Students will be able to answer certification questions about printers.								X	X			X																					
Outcome 6 - Students will be able to answer certification questions about basic networking.								X	X																								

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Assessment Measures – Are direct or indirect as indicated. List competencies/outcomes below.	**Direct/ Indirect**	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	I	I	I	I	D	D					
Outcome 7 - Students will be able to answer certification questions about operating systems, installation and upgrading.								X	X																						