Tech Prep in Computer Technology

A consortium of High School, Community College and University Departments

This document contains student competency requirements for the specialized area of:

CS130
Introduction to Networking
5 Credits

To receive college credit a student must complete all competencies with at least 80% proficiency. It is requested the high school instructor initial each competency area that is completed by the student. By initialing these competencies, the instructor is verifying the student has completed the required work at a level that merits college credit

Revised: January 2008

When articulating this course for Tech Prep, high schools are requested to coordinate with the WWCC Computer Technology Department Chair.

Note: Any A+ Certified curriculum is recommended.
# Introduction to Networking / CS 130

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Student Name: _______________________________________________________

High School: _____________________________________________________

Student WWCC Identification Number: _________________________________

_________________________________________________

(high school instructor signature)

High school instructor signature verifies student has successfully completed 100% of the competencies with 80% proficiency and has been awarded a local high school grade of A or B.

Date: __________________
Introduction to Networking / CS 130

Rating Scale for Performance Tasks:

This course prepares students to take the Comp TIAA+ and Microsoft Certified Professional examinations.

For individual competencies the following grading criteria will be observed.

4 - Highly Skilled/Proficient
   Student can complete the competency accurately.
   Student can direct others to do the competency.
   Student needs little supervision.
   Written tests, 90%

3 – Skilled/Performs with Minimum Supervision
   Student can perform all parts of the competency.
   Student needs only completed work spot-checked.
   A student meets speed and accuracy requirements (if any).
   Student needs minimum supervision.
   Written tests, 80%

2 - Limited Skills/Performs with Close Supervision
   Student can perform most parts of the competency.
   Student needs help with only the most difficult parts.
   Student needs close supervision.
   Written tests, 70%

1 – Exposure/Introductory
   Student can do simple basics of this competency with very close supervision.

0 - No exposure/Not Taught
   Student has had no exposure to this competency
UNIT 1: Historical Development of Computers.

1.1 The student must demonstrate knowledge of the historic development of computers, including:

1.1.1 Computers from pre-punched card to current advanced systems.

1.1.2 Vocabulary of computers, historic and current.

UNIT 2: Hardware Fundamentals

2.1 Student must demonstrate knowledge of how computers process and store data digitally (electronically).

2.2 Students must demonstrate the ability to recognize contemporary hardware components.

2.3 Student must demonstrate knowledge of component usage.

2.4 Students must demonstrate knowledge of component configuration and be able to critique component configurations.

2.5 Students must demonstrate knowledge of motherboards and their functions. Student must be knowledge of motherboards currently in use, the interaction between motherboards and CPU units and other limitations of various motherboards.

UNIT 3: Basic Computer Assembly

3.1 Student must demonstrate knowledge of basic computer assembly and demonstrate assembly and testing of basic computers including the following components:

3.1.1 Motherboard and components thereof.

3.1.2 Data storage devices such as, but not limited to, floppy disk drives, USB flash drives, CD & DVD drives and IDE, SCSI, SATA hard disks.
3.1.3 Communications devices such as modems and CSU/DSU.

3.1.4 Data transfer devices such as CD burners, flash drives and zip drives.

3.1.5 Peripheral devices such as printers, scanners and gaming devices.

3.1.6 Ports, to include a selection of options currently available.

3.1.7 Software, including installing operating system and application systems.

UNIT 4: Basic Trouble Shooting Skills

4.1 Given computers in need of repair, the student must demonstrate the use of a variety of skills and strategies used in repairing computer systems.

4.2 Student must demonstrate proficiency in the use of technical manuals and web tools.

4.3 Student must demonstrate an ability to set realistic goals, stay on tasks and maintain schedules.

4.4 Student must demonstrate an ability to communicate with customers, co-workers and supervisors verbally and in writing.

Student documentation submission requirements:

1) Instructor competency verification form.

2)