COURSE INFORMATION FORM

DISCIPLINE
Computer Science and Information Systems

COURSE TITLE
Microsoft Operating System Concepts

CR. HR. 3  LECT HR. 2  LAB HR. 2  CLIN/INTERN HR.  _______  CLOCK HR.  _______

CATALOG DESCRIPTION
This course introduces the student to maintenance, upgrading, setup, and expansion of personal computer hardware. Students will explore microcomputer architecture, functions, and components as well as methods and procedures for installation, troubleshooting, and modifications of computer systems. This course helps students prepare for the second of two tests required for the current CompTIA A+ Certification.

PREREQUISITES
CSIS 110 with a grade of C or better

EXPECTED STUDENT OUTCOMES IN THE COURSE (ESO)

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

1. Explain the purpose of an operating system and list its components.
2. Configure various Windows operating systems for optimal performance.
3. Install Windows operating systems and device drivers.
4. Evaluate hardware requirements for the various operating systems.
5. Differentiate between command line and graphical user interface shells.
6. Describe and apply Windows operating system troubleshooting techniques.
7. Describe and apply operating system security techniques.
8. Compare and contrast operating system concepts between desktop environments and mobile devices.
9. Describe and apply client side virtualization fundamentals.

GENERAL EDUCATION OUTCOMES (ESO)

Specify which general education outcomes, if any, are substantially addressed by the course. Numbers in parentheses identify the Expected Student Outcomes linked to the specific General Education Outcome.

Outcomes  ESO
PROGRAM-LEVEL OUTCOMES

CAREER AND TECHNICAL EDUCATION PROGRAM OUTCOMES
Specify which Career and Technical program outcomes, if any, are substantially addressed by the course by completing the “Career and Technical Education template” to show the relationship between course and program outcomes to assessment measures.

1. Use industry specific software and/or apply troubleshooting skills to solve problems.

CLASS-LEVEL ASSESSMENT MEASURES
Student accomplishment of expected student outcomes may be assessed using the following measures. (Identify which measures are used to assess which outcomes.)

1. Examination/Quizzes (1-9)
2. Class Discussion/Participation (1-9)
3. Exercises/Projects (1-9)
4. Written/Oral Reports (1-9)
Individual instructors may order this outline as fits the needs of their individual courses. In addition, they may place more emphasis on some areas than on others. What is assured is that this particular list is covered in the course. Other topics may be added to a course as the instructor sees fit, and as time and interest allow. An *asterisk can be used to mark an item as optional.

I. Operating Systems
   A. Microsoft operating system features and requirements
      B. Installation and configuration
      C. Command line tools
      D. OS features and tools
      E. Control Panel utilities
      F. Windows networking on a client/desktop
      G. Preventative maintenance
      H. Basic OS security settings
      I. Basic client-side virtualization

II. Security
   A. Common prevention methods
      B. Common security threats
      C. Security best practices to secure a workstation
      D. Data destruction/disposal methods
      E. SOHO wireless network security
      F. SOHO wired network security
III. Mobile Devices
   A. Basic features of mobile operating systems
   B. Basic network connectivity and email configuration *
   C. Securing mobile devices
   D. Mobile device comparison
   E. Mobile device synchronization *

IV. Troubleshooting
   A. Troubleshooting theory
   B. Hardware and OS troubleshooting and appropriate tools
   C. Basic security troubleshooting and appropriate tools