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CRT 103.01: Computing Fundamentals

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College of Technology

Applied Computing and Electronics Department

Fall Semester 2005

CRT103 Computing Fundamentals

Prerequisites: CRT101 or demonstrated computing skills

Credits 3

Kent Nelson

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243-7877

Office hours by appointment

Section 1 10:10 -11:00 MWF

Section 3 1:10 – 2:00 MWF

COURSE DESCRIPTION:

A survey of computing concepts for students entering the information technology field. Topics include computer hardware, telecommunications, Internet technologies, productivity software, file management, disaster recovery, and system security.

STUDENT PERFORMANCE OBJECTIVES:

1. Students will be able to identify the basic internal and peripheral hardware components of a computer system and describe how each component functions.
2. Students will be able to identify common networking components and topologies in a telecommunications environment and describe how each functions.
3. Students will be able to utilize the Internet for research by using a web browser, search engines, file transfer protocol, and E-mail.
4. Students will be able to develop security procedures to prevent viruses and unauthorized access. Develop strategies for disaster recovery.
5. Students will be able to manage files into folders and organize folders into a hierarchical structure.
6. Students will be able to create web-based media using the hypertext markup language(HTML).
7. Students will be able to select the proper component in a productivity software suite and utilize the software to complete tasks in a business environment.
8. Students will be able to use the operating system and system utilities to effectively manage the computer.

DISABILITY ACCOMMODATIONS:

Eligible students with disabilities will receive appropriate accommodations in this course when requested in a timely way. Eligible students need to visit with their instructor after class and be prepared to provide a letter from their DSS coordinator.

TEXT:

Technology in Action , Complete Edition, Evans, Martin, and Poatsy, 2006 Pearson Prentice Hall

SUPPLIES:

Two 3.5 A diskettes, HD (high density) are required for saving student data.

Classroom Expectations:

1. Class structure will include lectures, hands on exercises, homework assignments, lab assignments, scheduled tests, and pop quizzes.
2. Class time is given for some projects; others will be outside of class
3. Assignments must be submitted by the due date. Late assignments will not be accepted.
4. In-class exercises cannot be made up.
5. Makeup tests are not offered. Emergency situations are handled privately on a case by case basis..
6. Working together is an excellent way to reinforce new concepts covered in class. However, everyone must turn in their own work.

STUDENT EVALUATION:

Final grade will be determined by total points received on assignments and quizzes in relationship to total points available.

GRADING SCALE:

- 90 - 100 A
- 80 - 89 B
- 75 - 79 C
- 70 - 74 D

FINAL SCHEDULE:

- Section 1 8:00 – 10:00 Friday, December 16**
- Section 3 1:10 – 3:10 Tuesday, December 13**

STUDENT CONDUCT CODE:

Students are expected to follow the University of Montana Student Code. The code includes the following:

Academic Misconduct:

... Academic misconduct is defined as all forms of academic dishonesty, including but not limited to:

Plagiarism: Representing another person's words, ideas, data or material as one's own.

Substituting or arranging substitution, for another student during an examination or other academic exercise: Knowingly allowing others to offer one's work as their own.

Student Code copies are available at Student Services or www.umd.edu/studentaffairs/

COURSE OUTLINE

- I. System Software
 - A. File Management
 - B. Operating System organization
 - C. Registry, Device Manager)
 - D. Troubleshooting
 - E. Utilities

- II. Internet Technologies
 - A. Web Browsers and the HTTP Protocol
 - B. Search Engines and Web-driven Databases
 - C. Electronic Mail
 - D. File Transfer Protocols
 - E. Web Page Components

- III. PC Architecture
 - A. System Unit, CPU, and Memory
 - B. Input Devices
 - C. Output Devices
 - D. Storage Devices

- IV. Telecommunications and Networking
 - A. Network Basics
 - B. Network Topologies
 - C. Telecommunication Devices
 - D. Transmission Protocols
 - E. Transmission Media

- V. System Security
 - A. Virus Protection
 - B. Access Control
 - C. Disaster Recovery Planning

- VI. FrontPage and HTML
 - A. Creating Web Pages using FrontPage

- B. Hypertext Markup Language
- C. Site Development
- D. Design Guidelines

VII. Productivity Software

- A. Word Processor
- B. Spreadsheet
- C. Database
- D. Presentation