CS 1000 : UNDERSTANDING COMPUTERS

Semester Hours: 3.0   *Contact Hours:* 3

Coordinator: Tianyi Song

Text: Cirrus for COMPUTER Concepts and Microsoft Office 365/2019

Author(s):   VARIOUS

Year: Various

SPECIFIC COURSE INFORMATION

Catalog Description:

Computer technology and related social issues. Hardware, software, applications in diverse areas. Problems concerning computerized services, data banks, governmental controls. Problem solving using software packages (such as hypertext, spreadsheets, word processing, database, presentation graphics, etc.). Credit not applicable toward a major in computer science. Approved for Distance Ed.

Course type: **ELECTIVE**

SPECIFIC COURSE GOALS

- I can demonstrate a general understanding of hardware and software systems and their development.

- I can create documents and manipulate text data using Microsoft Word, incorporating advanced features such as graphics, tables and a bibliography.

- I can organize and manipulate numeric data and present data in an effective and professional manner (for example, in charts) using Microsoft Excel.

- I can create and manipulate simple presentation materials using Microsoft PowerPoint.

- I can create and manipulate simple databases using Microsoft Access.

- I can critically evaluate the impact of computer and Internet technology on culture and society, for example on ethics, privacy, copyright, and crime.

- I can demonstrate safe and responsible use of computer and Internet technology: safeguard digital data and critically evaluate online information.

- I can demonstrate a basic understanding of the digital representation of data used by computers, including alphanumeric character codes and the binary numbering system.

LIST OF TOPICS COVERED

- Functional Literacy (50% of the course)
  - Operating System Navigation (User Interface, File Hierarchy,..etc)
  - Applications Software
  - Word processing
  - Spreadsheets
  - Database
  - Graphics and/or Integration
  - Internet - Usenet, E-mail, and WWW
- Conceptual Literacy (30 – 35% of the course)
  - Hardware concepts - CPU, RAM, ROM, Secondary Storage, I/O
  - Computer Types - Size, Cost, Processing Power
  - History
  - Telecommunications and Networks
  - Operating Systems
  - User Interface (Command, Menu, Form Filling, and Graphical)
  - Binary Representation and ASCII
  - Reliability and Interpretation of Computer-Generated Data
  - Artificial Intelligence
  - Virtual Reality
  - Shopping for a Microcomputer
  - Ergonomics
  - Multimedia
- Societal Issue (5% - 10% of the course)
  - Personal Privacy Issues
  - Computer Crime
  - Impact Upon Employment
  - Computer Ethics

- o Computer Viruses
- o Ways Computers are used in Our Society
- Instructor's discretion (10% of the course)