Course Syllabus
Wayne County Community College District
CIS 110 Intro Computer Info Systems

CREDIT HOURS: 4.00

CONTACT HOURS: 60.00

COURSE DESCRIPTION:

Designed as a first course for Computer Information Systems majors which will introduce the vocabulary and concepts of computer hardware and software. The computer information industry, career paths, systems, concepts, societal impacts and ethical issues will be discussed.

EXPECTED COMPETENCIES

Upon successful completion of this course, the student will:

1.0 Describe the various types of computers, their generations, units of data, and identify some common applications
1.1 Name and describe the four classifications of computers
1.2 State common computer applications in business, arts and entertainment, education, government, and medicine
1.3 Describe how data are grouped for processing, naming and giving examples of the 6 units of data measure
1.4 List the chief characteristics of each of the four generations of computers

2.0 Define a system, and explain input, processing, output, and feedback; describe the components in a CPU; use a computer code and binary numbers
2.1 Define a system and explain how input, processing, output, and feedback relate to a system
2.2 Name the components of the CPU and describe the functions of each
2.3 Identify the types of memory
2.4 Recognize the bit structure of letters and numbers in a computer code such as EBCDIC or ASCII
2.5 Convert binary numbers to decimal, and decimal numbers to binary
2.6 Describe the functions of input and output devices as they relate to RAM

3.0 Name the more common input output devices; explain their functions and describe sequential, index-sequential, and direct access processing.
3.1 Name the primary devices for computer input.
3.2 Describe two of each: impact printers and non-impact printers.
3.3 Explain the difference between memory and storage.
3.4 List the advantages and disadvantages of both tape and disk storage.
3.5 Describe the relationship between disk, disk pack, disk drive, disk drive access mechanism, and disk address.
3.6 Explain the process and list the characteristics of sequential, index-sequential, and direct access processing.
3.7 Explain the advantages and disadvantages of sequential, index-sequential, and direct-access processing.
3.8 Name and describe four data structures.

4.0 Discuss microcomputers and their graphical and character interfaces; discuss computer networks.
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4.1 Define operating system and tell the difference between graphic user interfaces and command-line user interfaces
4.2 Describe the characteristics and limitations of three major classifications of micro portables
4.3 Describe the differences between the kinds of disk used with micros
4.4 List at least three types of media used as data communication channels
4.5 Explain the use of modems; explain modulation and demodulation
4.6 List six or more types of single and multiple-CPU networks
4.7 Define LAN
4.8 List three or more Commercial Information Services, and explain how they differ from Bulletin Board Systems

5.0 Explain the functions of a mainframe operating system
5.1 Explain the difference between Systems Programs and Applications Programs
5.2 Define an operating system and describe some of its functions
5.3 Explain multiprogramming and the use of virtual memory

6.0 Explain the process and tools used in software development, and describe the difference between low-level languages, high-level languages, fourth generation languages, and productivity tools
6.1 Identify and explain the four steps in the software development process
6.2 Identify and explain the four basic logic patterns
6.3 Distinguish a syntax error from a logic error
6.4 Explain what happens as a language is translated into machine language
6.5 Distinguish between high-level and low-level languages and give examples of each
6.6 List advantages and disadvantages of commercial application software

7.0 Explain in detail the process of systems analysis and design; explain MIS and modeling; discuss the new computer literacy
7.1 Name the five stages of systems analysis and design, and explain the purpose of each stage
7.2 Name and explain the three major reports to management
7.3 Explain systems implementation and the types of conversion
7.4 List and describe the types of reports produced by an MIS
7.5 Explain the importance of manager involvement while an MIS is being developed
7.6 Explain a model and simulation
7.7 Discuss computer phobia and computer literacy
7.8 Describe office automation, including word processing, e-mail, teleconferencing, and telecomputing

OTHER GENERAL COURSE OBJECTIVES: Approximately 25% of the course time will be devoted to helping students be able to:

1.0 Use the Unix/Bull computer system to perform the following:
1.1. Sign on, change password, signoff
1.2 Send and receive mail via E-mail
1.3 Create and edit files using the Unix vi text editor. Use the append, insert, change, delete, and substitute commands.
1.4 Use the read, write, print, and quit commands.
1.5 Use the main help files.

2.0 Use IBM and IBM-compatible microcomputers to perform tasks using the following application software packages (or equivalent):
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2.1 Windows
2.2 Three or more applications from MS Office

ASSESSMENT METHODS

Student performance may be assessed by examination, quizzes, case studies, oral reports, group discussion, written reports or presentations. The instructor reserves the option to employ one or more of these assessment methods during the course.

GRADING SCALE

90%-100% = A
80%-89.9% = B
70%-79.9% = C
60%-69.9% = D
<60% = E