Course Syllabus

Wayne County Community College District

CT 211 Computer Networking I

CREDIT HOURS: 4.00

CONTACT HOURS: 60.00

COURSE DESCRIPTION:

Prereq: CT 209
This course covers introduction to Microsoft Windows applications. Topics include: DNS and DHCP installation and configuration, TCP/IP, WINS, IP routing, remote installation servers, network security and events.

EXPECTED COMPETENCIES

Upon completion of the course the student should be able to do the following:
1. Define the terms "microcomputer" and "microprocessor"
2. Describe the function components of a typical microprocessor
3. Define the data and instruction registers usually found within a microprocessor
4. Convert numbers in the binary, octal, or hexadecimal systems to their decimal equivalents and vice versa
5. Add, subtract, multiply, and divide binary, octal, or hexadecimal numbers
6. Perform arithmetic operations using complement systems
7. Distinguish between the various flags used in the status register, their function, and applications
8. Describe how a micro program controls the sequence of events to be executed
9. Define the requirements for double-precision arithmetic
10. List the steps necessary to write a program
11. Discuss the functions of the ALU
12. Explain the control and timing of the microprocessor by use of timing diagrams
13. Describe the interface between the microprocessor and either ROM or RAM and the methods of address mapping
14. Describe the operation of all jump instructions and their applications
15. Explain shift and rotate instructions and their applications
16. Describe architecture, configuring, addressing, and programming PIA
17. Explain different types of loops and their applications
18. Show how loops can be combined by nesting
19. Describe subroutine construction and referencing
20. Describe conditional subroutine calls and returns
21. Discuss the use of the stack in initiating and terminating subroutines
22. Show how subroutines can be nested
23. Describe the process of parameter passing by means of registers or memory
24. Explain the function of the I/O instructions
25. Explain Interrupts schemes and discuss the use of interrupts in information exchanges
26. Analyze the operation of a priority interrupt control unit
27. Decide whether a given family of interfacing logic is suitable for a particular microprocessor's applications based on fanout considerations
28. Distinguish between fully decoded and linear selection address decoding of device addresses
29. Explain the purpose of a three-state buffer on the data bus
30. Describe the way in which an I/O port can be used for either input or output
31. Write programs in machine language, assembly language, and convert assembly program to machine program and vice versa

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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