NWAT 2675: Network Design & Analysis

A. COURSE DESCRIPTION

Credits: 2
Lecture Hours/Week: 1
Lab Hours/Week: 2
OJT Hours/Week: *.*
Prerequisites: None
Corequisites: None
MnTC Goals: None

This course provides a survey of techniques and procedures followed in the development of business computer information systems. Topics include structured approaches to needs assessment, specification, design, system development, documentation development and implementation of new systems. Students will be introduced to various CASE tools and their uses in system analysis and design. The student will use these tools to plan and create systems based on different network scenarios. (Prerequisites: NWAT1642, NWAT1650) (2 credits: 1 lecture/1 lab)

B. COURSE EFFECTIVE DATES: 10/07/2003 - Present

C. OUTLINE OF MAJOR CONTENT AREAS
D. LEARNING OUTCOMES (General)
   1. Explain how major wireless technologies are used
   2. Describe applications used in wireless technology
   3. Explain advantages/disadvantages of wireless
   4. Explain how network data is represented using binary notation
   5. Configure a wireless access point
   6. Explain types of wireless transmission
   7. Configure a wireless adaptor
   8. List components of a radio system
   9. Explain radio frequency spectrum
  10. Describe features of IrDA
  11. Explain Bluetooth technology
  12. Describe different ways data can be transmitted by radio wave
  13. Describe applications used on digital cellular technology
  14. Explain satellite transmission
  15. Explain steps in designing wireless infrastructure
  16. Explain steps in designing wired infrastructure
  17. Design and document a network design project
  18. List components of a wired network
  19. Compare low/high speed WLANs
  20. Describe IEEE 802.11b
  21. Describe IEEE 802.11g
  22. Describe IEEE 802.11a
  23. Explain remote wireless bridges
  24. Explain issues surrounding 3G implementation
  25. Describe cost/benefit analysis documentation
  26. Describe business analysis documentation
  27. Describe resource placement
  28. Design LAN topology
  29. Design WAN topology
  30. Design WAN/LAN topology
  31. Design Frame Relay implementation
  32. Design ISDN implementation
  33. Display professionalism
  34. Display teamwork attitude
  35. Display interpersonal communication

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies
   None

F. LEARNER OUTCOMES ASSESSMENT
   As noted on course syllabus

G. SPECIAL INFORMATION
   None noted