CPE 464 Introduction to Computer Networks

1. CPE 464 Introduction to Computer Networks

2. credit units 4    contact hours 6

3. Course Coordinator: Hugh Smith

4. Textbook: (and/or other required material) An Introduction to Computer Networks by Peter Dordal (on-line)

5. a. Course Description: Computer network architectures; communications protocol standards; services provided by the network; historical and current examples presented.
   b. Prerequisite: CSC/CPE 357. Recommended: STAT 312 or STAT 321 or STAT 350.
   c. Required/Elective/Selective Elective for CPE, CSC, SE

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6. a. Course Goals/Outcomes
   The student will be able to:
   • Recite the history of communication technology;
   • Employ key terms in the discussion of communication technology;
   • Discuss the typical hardware and software architectures for networks;
   • Formulate a conceptual model of protocols and network architectures;
   • Analyze and evaluate communication system performance;
   • Apply the theoretical concepts of communication networks to the implementation of networking protocols.

   b. Level at which Student Outcomes are addressed
   ("B" = Basic level, "I" = Intermediate level, "A" = Advanced level)

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7. Major Topics Covered: (number of lecture hours each)
• Introduction and History of Communications Technology (1)
• OSI Reference Model (2)
• Physical Layer (2)
• Data Link Layer (2)
• Network Layer (4)
• Transport Layer (2)
• TCP/IP and the Internet (6)
• Routing (4)
• Network Management (2)
• Local Area Networks (2)
• Laboratory time (30)