Undergraduate Record Description:
Intended as a first course in communication networks for upper-level undergraduate students. Topics include network applications, transport layer, network layer, local area networks, wireless networks, and network security. Basic techniques for error control, flow control, multiplexing, switching, routing, encryption, and digital signatures will be taught. Students will also learn practical aspects, such as protocols used in the Internet.

Prerequisite:
CS 3330: Computer architecture or ECE 3430: Intro Embedded Computing Systems

Course Objectives: (concrete and measurable relatable to degree program outcomes.)
1. Principles: The students will learn different general techniques for networking tasks, such as error control, flow control, switching and routing.
2. Practice: The students will gain an understanding of how existing and next-generation communication networks work.
3. Enhance emotional quotient (EQ) through teamwork

Course Objectives and Program Outcomes Map: (list the degree program outcomes to which the course is intended to contribute most significantly. These will be addressed in the End-of-Course Memo)

Course Objectives 1&2: CpE Program Outcomes: 2.e
Course Objectives 1&2: CS Program Outcomes: Life-long learning
Course Objectives 1&2: EE Program Outcomes: 2.f

Course Objective 1: achieved at the "Familiarity" level
Course Objective 2: achieved at the "In Depth" level

Outcome 2.e. an understanding of computer and networked system organization and architecture and knowledge of recent advances, current practices and trends in computer systems.
Outcome 2.f. specialized knowledge in topical areas of electrical engineering and computer science.

Familiarity – some work in this area; maybe related to a coursework problem or an important theme in the class; simulation techniques in circuits class, for example.
In Depth – a major area of emphasis in the class, possibly covered in coursework, labs, exams. For example, Program Outcome m (advanced mathematics) may be an important in depth objective in a signals or fields class.

Assessment Scheme
What form will the student work take to cover the Outcomes listed above.
2.e and 2.f: Ten homeworks, ten quizzes, and three examinations.