CSCE 416 - Introduction to Computer Networks
Credit Hours: 3 hours
Contact Hours: 3 lecture hours
Instructor: Dr. Nelakuditi

Required Textbooks: James F. Kurose and Keith R. Ross, *Computer Networking: A Top-Down Approach*, 6th edition, Addison-Wesley.
Bulletin Description: Concepts and components of computer networks and the Internet; network applications; network protocol stack.
Prerequisites: CSEC 311

Required Course in CE, CIS, and CS programs
Learning Outcomes: Students will be able to:

1. Demonstrate an understanding of the elements of a protocol and the concept of layering.
2. Describe how to control access to a shared channel by multiple stations
3. Explain the concepts of error control, flow control and congestion control.
4. Illustrate how a packet is routed over the Internet.
5. Design, build and describe a client-server application.

Student (Program) Outcomes addressed by course (Detailed mappings of these course outcomes to the Student Outcomes of the programs are in the detailed syllabus and the Assessment plan.)

Student Program Outcomes	SOs supported	SOs Moderately supported
Computer Engineering	a, b, c, e, g,	i, k
Computer Information Systems	a, b, c, f,	i
Computer Science	a, b, c, f, CS-j, CS-k	i

Topics covered:

1. Layered network architectures
2. Network programming interfaces (e.g., sockets)
3. Transport and data link protocols
4. Physical media
5. Local area networks
6. Network routing protocols