Course Description:
This course introduces students to the fundamentals of the communications between two end systems connected across the networks. It provides students with the understanding of the layered architecture that underlies computer networks and the Internet, and the comprehension of the protocols that implement the functionality of each layer. Topics include:

- Overview of computer networks and the Internet
- Application layer: HTTP, FTP, SMTP
- Transport layer: UDP, TCP
- Network layer: routing algorithms and protocols
- Data link layer: error control and ARQ protocols
- MAC layer: multiple access control (MAC) protocols
- Physical layer: data transmission, coding, modulation
- Advanced topics: wireless and mobile networks, multimedia networking, network security.

Prerequisite:
This course assumes prior knowledge of computer systems and the Internet. An understanding of programming is a plus.

Textbook:

Reading Materials:

Expectations:
Students are expected to attend each lecture and read the reading assignments. All homework assignments, projects, and exams should be worked independently.

Laptop Policy:
No laptop use in the classroom!

Grading:
- Homework ........................................ 20%
- Project ............................................. 20%
- Midterm Exam .............................. 20%
- Final Exam ................................. 40%

Homework:
There are 5 homework assignments which will be posted on our course website and announced in class. Assignment is due at the beginning of the class on the specified due date. If you will miss the class for homework submission, you should either submit it earlier or ask a classmate to submit it for you. No late assignments will be accepted.
Project: A course project will be assigned after the midterm exam and a list of topics will be posted on the course website. Discussion is allowed among students but each student must write his/her own project. The project is due by 5:00pm on the specified due date. **No late project will be accepted.**

Exam: Exams will be closed-book and closed-notes. No make-up exams will be given unless arrangements are made with the instructor before the absence.

Academic Honesty: Students are expected to adhere to the honor code:

“An essential feature of The University of Tennessee is a commitment to maintaining an atmosphere of intellectual integrity and academic honesty. As a student of the University, I pledge that I will neither knowingly give nor receive any inappropriate assistance in academic work, thus affirming my own personal commitment to honor and integrity.”

I have zero tolerance for cheating in the exam which will result in the student receiving an “F” for this course.