

CSC512: Networks: Architectures and Protocols

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**Course web site:** <http://faculty.kutztown.edu/frye/secure/CSC512/>**Office Hours**

Mon 1:00-3:00pm (1/21-2/21)

Mon 2:00-4:00pm (2/24-5/2)

Tue 9:30-10:45am

Thu 9:30-10:45am

Thu 7:30-8:00am (OM158)

Other times by appointment

COURSE INFORMATION**Meetings** M 6:00-8:50pm. OM158. Also available via RTVC using Zoom.**Dates** Last day 'W': 4/3. Final: week of 5/4.**Course Description** This course deals with the implementation of all TCP/IP details. Algorithms at all layers of the TCP/IP architecture will be examined. Network hardware and management will be explored in detail. 3 sh. Prereqs: CSC411 or unconditional acceptance to graduate program.**Course Objectives**

- A. Illustrate different types of network architectures.
- B. Demonstrate how TCP implements congestion control.
- C. Explain how IP accomplishes routing, including the implementation of several network routing protocols.
- D. Summarize various applications utilizing IP, including voice and video.
- E. Describe various MAC-layer protocols.
- F. Summarize the protocols utilized by wireless networks.
- G. Explain the concepts of a variety of wireless networks, including ad hoc networks and wireless sensor networks.
- H. Describe protocols used in network management.

Text None. Paper readings will be assigned throughout the semester.**COURSE GRADE**

Grading Policy	Projects	70%
	Final Project Report and Presentation	20%
	Class Participation	10%

The University Scale will be used in determining letter grades. Plus/minus grading will be used. In order to receive a passing grade for the course, you must have a passing test average.

Readings & Discussion Questions It is expected that you will complete all readings and be prepared to discuss them in class. Readings will be accompanied by discussion question posts, which will be a part of your course grade. See the assignment in D2L on the discussion questions requirements.

Projects	Any project turned in after the specified date and time will be considered late. Late projects will be penalized 10% for each <u>calendar</u> day it is late. All projects must be typed. Include the following information at the top of ALL assignments: your name, major, the course (CSC512), semester and year, and assignment number. All programs must follow the department documentation standard.
POLICIES	
Email	The best way to contact me is by e-mail (frye@kutztown.edu). When sending me e-mail, please indicate the course number in the subject line by putting it in brackets before your subject. For example, if you are in 512, the following may be the subject: [CSC512] Help with project #2
Documentation	The computer science documentation standard must be followed for software assignments. http://www.kutztown.edu/Documents/Computer%20Science/DocumentationStandard.pdf
Attendance	Regular class attendance and participation are expected and highly encouraged. Students are responsible for all material covered in class. Be sure you understand what is required to be successful when attending class virtually. Not every student is able to be successful with virtual attendance. This is not for everyone..
Class Participation	This course is intended to involve a lot of class discussion. Every student is expected to participate in the class discussions. Attendance, completed homework and doing the readings do not constitute class participation. Students must participate in the discussions, voluntarily.
Academic Dishonesty	All students should familiarize themselves with the Computer Science Department Academic Integrity Policy . Any student copying work or giving work to another student will receive a zero for that assignment and will be referred to the department chairperson.
Course Work / Accreditation	Any course work submitted to the instructor (including but not limited to assignments, tests, and projects) may be photocopied and retained for the purpose of assessment, accreditation and quality improvement.
Classroom Etiquette	Respect for your classmates, instructor, and the class is expected. Please come to class <u>on time and prepared to learn</u> . Coming and going during class should only occur in unavoidable situations. Electronic devices should be neither seen nor heard (unless used for class instructions, notes, etc.).
Students with Disabilities	Students with diagnosed disabilities or special needs that require accommodations for this course must first contact the Disability Services Office, located in the Office of Human Diversity at 215 Stratton Administration Building. Do this as soon as possible so that we may have a dialogue as to your needs and the recommended accommodations.
Gender-Based Crimes	Educators must report incidents of gender-based crimes, including sexual assault, sexual harassment, stalking, dating violence, and domestic violence. If a student discloses such incidents to me during class or in a course assignment, I am not required to report the disclosure, unless the student was a minor at the time the incident occurred. Regardless of the student's age, if the incident is disclosed to me outside the classroom setting or a course assignment, I am required by law to report the disclosure, including relevant details, such as the names of those involved in the incident, to Public Safety and Police Services and to Mr. Jesus Peña, Title IX Coordinator.

Note: This syllabus is subject to change at the discretion of the instructor.