

TCOM 535-001/DL1/P01 TCP/IP Suite Internet Protocol (3.0)

Instructor Dr. Qiang Lin
Office Adjunct Faculty Room, Engineering Building
E-mail qclin@gmu.edu
Telephone (571) 294-1252

Time and Place Monday 7:20 PM – 10:00 PM, Online synchronously.

Each lecture will be broadcasted using GMU Blackboard and recorded for later access.

Office Hours Before class or by appointment.

Required Textbooks:

1. D. E. Comer, *Internetworking with TCP/IP*, 6th, New Jersey: Prentice-Hall.
2. M. Lin and Q. Lin, *Internet of Things Ecosystem: 2nd Edition*, Amazon.com, https://www.amazon.com/dp/B08TBGGM1G/ref=sr_1_3?dchild=1&keywords=internet+of+things+ecosystem&qid=1611066098&sr=8-3.

Slides

At mymason.gmu.edu.

Homework

Will be assigned every Monday and is due the following week's class unless specified differently. Although the homework can be turned in later time without penalty if the student gets my permission, there will be 20% penalty on turning in more than THREE homeworks on the final exam date.

Exams

There will be one midterm exam and one final exam for this course. Both exams will be open book and open notes. The mid-term exam will cover the contents taught before the mid-term exam. The final exam will cover the contents taught after the mid-term exam and before the final exam. The precise dates for the exams will be listed below. Both midterm and final exam will be online only. Please watch detailed announcements for the exams.

Final Grade

The final grade will be determined from the combined scores of homework, midterm exam and final exam as follows:

- Homework 10%
- Midterm Exam 45% - online/take home
- Final Exam 45% - online/take home

Course Outline

Jan 25, Monday: Overview, Concept, Protocol Layer and Internet Address. Reading: Chapters 2, 3, 4 and 5
Feb 1, Monday: ARP, Datagram Delivery and Forwarding IP Datagram. Reading: Chapters 6, 7 and 8
Feb 8, Monday: CIDR and ICMP. Reading: Chapters 5 and 9
Feb 15, Monday: UDP and TCP. Reading: Chapters 10 and 11
Feb 22, Monday: Routing Architecture, BGP, RIP and OSPF. Reading: Chapters 12, 13 and 14
Mar 1, Monday: Multicasting, Switching, MPLS and Mobile IP. Reading: Chapters 15, 16 and 18
Mar 8, Monday: **Midterm Exam**
Mar 22, Monday: NAT, VPN, Client-Server Model, Socket and DHCP. Reading: Chapters 19, 20, 21 and 22
Mar 29, Monday: DNS, Email and WWW Reading: Chapters 23 to 25
Apr 5, Monday: Multimedia, SNMP and Security. Reading: Chapters 26, 27 and 29
Apr 12, Monday: Cloud/Edge/Mist Computing and 5G. Reading: *Internet of Things Ecosystem: 2nd Edition*
Apr 19, Monday: Internet of Things - 1. Reading: *Internet of Things Ecosystem: 2nd Edition*
Apr 26, Monday: Internet of Things - 2. Reading: *Internet of Things Ecosystem: 2nd Edition*
May 3, Monday: **Final Exam**

Plagiarism and Cheating – are strictly forbidden in any forms and formats governed by Rules and Regulations of the University, Department and TCOM Program!