TCOM 535 TCP/IP Suite Internet Protocol (3.0)

Instructor   Dr. Qiang Lin

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Time and Place Monday 7:20 PM – 10:00 PM, East 134

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: 3rd Edition*, Amazon.com, https://www.amazon.com/Internet-things-Ecosystem-Maggie-Qiang/dp/B09V7SWKN4/ref=tmm_pap_swatch_0?_encoding=UTF8&qid=1672968059&sr=8-1.

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 exam dates.

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 23, Monday: Concept, Protocol Layer, Internet Address and IoT Ecosystem
Jan 30, Monday: ARP, Datagram Delivery, Forwarding IP Datagram and IoT Architecture
Feb 6,   Monday: CIDR, ICMP and IoT Sensors
Feb 13, Monday: UDP, TCP and IoT Interfaces
Feb 20, Monday: Routing Architecture, Routing Protocols and Multicasting
Feb 27, Monday: Switching, MPLS, Mobile IP and Data
Mar 7,   Monday: **Midterm Exam**
Mar 20, Monday: NAT, VPN, Client-Server Model, Socket and DHCP
Mar 27, Monday: Cloud/Edge/Mist Computing and 5G
Apr 3,   Monday: DNS, Email, WWW, Data and IoT Communication
Apr 10, Monday: Multimedia, SNMP and IoT Applications
Apr 17, Monday: Security
May 8,   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!