CISC 4615 Data Communication and Network Spring 2019

Description: This course provides an introduction to fundamental concepts in the design and implementation of computer communication networks, their protocols, and applications. Topics to be covered include: the overview of network architectures, applications, network programming interfaces (e.g., sockets), transport, congestion, routing, and data link protocols, addressing, local area networks, wireless networks, network security, and network management. Examples will be drawn primarily from the Internet (e.g., TCP, UDP, and IP) protocol suite.

Instructor: Dr. Ying Mao (JMH 328A / LL 610H)

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Office Hours: T / R 4:00 p.m. – 5:30 p.m. (by appointment).

Textbook: Computer Networks: A Systems Approach (5th edition), by Larry Peterson and Bruce Davie. Using the 4th edition is completely alright, though the chapter/section and the corresponding content may be different. While the class has a textbook, we will not follow its order of presentation; instead, we will use the textbook as a reference when covering each individual topic.

Course Web Resources: https://yingmao.github.io/cisc4615new/

Grading Policy:

- ❖ Quiz (5)   ---- 20%
- ❖ Labs (3)   ---- 15%
- ❖ Projects (2)   ---- 15%
- ❖ Midterm   ---- 20%
- ❖ Final   ---- 30%

- A (>= 90)
- B (>= 80)
- C (>= 70)
- D (>= 60)
- F (< 60)

Policy:

- Late submission of labs/projects: 20% reduction each day.
- Attendance is strongly encouraged and required.

Tentative Course Schedule

Week	1-2	Introduction and Overview of Computer Networks
Week	3-4	Sockets Programming
Week	5-6	Network Architecture / Link Layer / Network Layer
Week-	7	Transport Layer
Week	8	Midterm Review / Midterm
Week	9	Spring Break
Week	10-11	Application Layer
Week	12	Network Case Studies
Week	13	Easter Recess
Week	14	Advanced Topics in Network
Week	15	Final

Additional Remarks

- **Academic Honesty**

All work produced in this course should be your own unless it is specifically stated that you may work with others. You may discuss the homework problems with other students generally, but may not provide complete solutions to one another; copying of homework solutions is always unacceptable and will be considered a violation of Fordham's academic integrity policy. Violations of this policy will be handled in accordance with university policy which can include automatic failure of the assignment and/or failure of the course. For more information, please refer to the Academic Integrity website.

- **Makeup Exam**

There will be no make-up exams given after the exam date. If you know in advance that you will have to miss an exam, you must check with me (in advance) to avoid getting a zero for that exam. In case of illness on an exam date, please contact me as soon as possible, so that appropriate arrangement can be made.