

Coverage for CS 408 Final Exam – Fall 2019

Abbreviations

CNIP: Stallings, Computer Networks and Internet Technology (our main textbook)

DCC: Stallings, Data and Computer Comm., 6th Ed.

Tanenbaum: Tanenbaum, Computer Networks, 4th Ed.

Comer: D. E. Comer, Computer Networks and Internets, 5th Ed.

Final Exam: December 26, Thursday, 2019, at 12:30, lastname [A-D] in FENS L045; [E-S] in FENS G077 (auditorium); [T-Z] in FENS G035.

- Exam will be closed book, closed notes as in Midterm Exam
 - Calculators are allowed (and needed). However, it is not allowed to use a machine with any kind of communication interface (infrared, Bluetooth, Wi-Fi, Ethernet, GSM, etc.). That means, please bring only a calculator, not a combo device.
- You are responsible for all topics I covered in the class even if some of them are not in the book (I sometimes used other books) and not in the ppt files (I sometimes showed applications on the computer and used board especially for mathematical stuff)
- You are also responsible for Lab 2 (Packet Analysis with Wireshark) and Lab 4 (IP Addressing, Subnetting and CIDR).
- Final exam is comprehensive, meaning that you are responsible from all topics since the beginning of the course. However, the topics that we covered after the midterm exam may have more weight.
- We are going to have a quiz about Lab 4 (IP Addressing, Subnetting, CIDR) before the final exam. The notes will be open in the quiz only.

Below is the coverage in the Final exam. The handouts (for the topics covered after midterm exam) from other books are available at SUCourse (under "resources"), but these handouts do not imply any completeness due to some parts that I covered out of my own experience.

- Midterm topics. I had posted the list of Midterm topics before the Midterm exam. Moreover, the handouts from other books for the Midterm coverage are also at SUCourse.
- About Data Link Layer (was partially covered in Midterm exam):
 - We covered Chapter 14 from CNIP
 - Performance details and error detection codes that are mostly shown on board are in appendices of Chapter 14
 - Appendix 14A for error detection codes
 - Appendix 14B for performance issues
 - Selective Reject ARQ from DCC (pages 211 – 213, 232)
 - Since I referred in class, I include the Sliding Window Protocols section (Section 3.4, pages 211 – 228) from Tanenbaum in the handouts. However, this is complementary to above topics and your responsibility is only the lecture coverage.
 - Other Data Link Control Protocols from DCC Section 7.5 (pages 221 – 223 until Frame Relay) and Logical Link Control section from DCC (pages 437 – 439)
- About IP:
 - Chapter 8 from CNIP
 - For IP addresses, I have used some sections (especially about classless addresses and special IP addresses) of Comer Section 21 (pages 345 – 361).
 - IP security is from Section 16.6 of CNIP
- About Routing:
 - Chapter 11 from CNIP
- About TCP, Congestion Control, TCP Traffic Control
 - Chapter 6 from CNIP
 - Chapter 5 from CNIP (until 5.7)
 - Chapter 7 from CNIP
- Lab 2 (Packet Analysis with Wireshark) and Lab 4 (IP Addressing, Subnetting and CIDR) content