

CSCE 463/612

Networks and Distributed Processing
Fall 2025

Preliminaries

Dmitri Loguinov

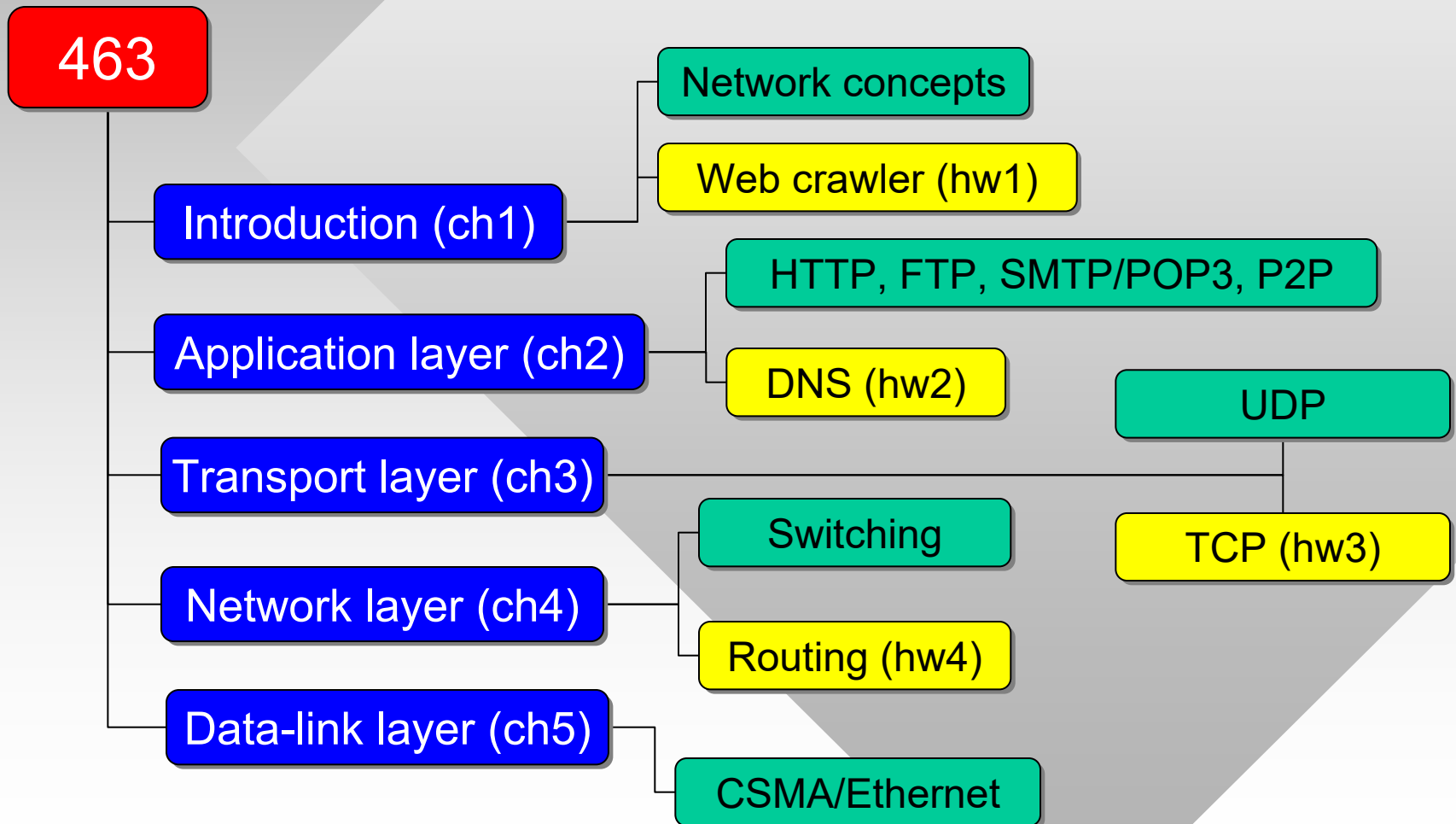
Texas A&M University

August 26, 2025

Agenda

- Roadmap
- Syllabus
- Academic integrity
- Homework
- Visual Studio
- Wrap-up

Course Roadmap



Agenda

- Roadmap
- Syllabus
- Academic integrity
- Homework
- Visual Studio
- Wrap-up

Syllabus

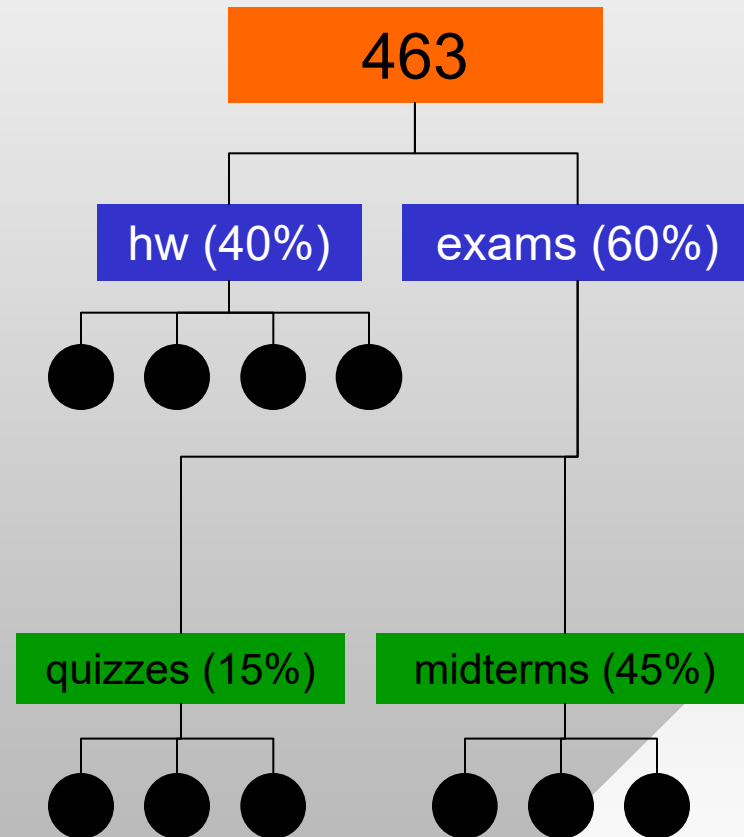
- Instructor: **Dmitri Loguinov**, TR 1-2pm, 209 PETR
- TA: **Arif Arman**, MW 12-1pm, 211 PETR
- Main text:
 - J.F. Kurose and K.W. Ross, “Computer Networking: A Top-Down Approach,” Addison-Wesley, 6th edition, 2013
- Homework submissions & grades
 - <http://canvas.tamu.edu>
- Slides, supporting material, and future test dates
 - <http://irl.cse.tamu.edu/courses/463>
- Discussion forum
 - <http://piazza.com/tamu/fall2025/csce463>

Syllabus 2

- Must use Visual Studio 2022 + default SDK
 - Download Community Edition for free from Microsoft
<https://visualstudio.microsoft.com/vs/>
 - When installing, only need “Desktop Development with C++” in the set of options
 - Can use Microsoft APIs or C++11 threads/synchronization
- Prerequisites:
 - Competent C/C++ and debugging skills
 - CSCE 313: Computer Systems
 - Multi-threading and synchronization
 - CSCE 221: Data Structures and Algorithms
 - Queues, sets, hash tables, trees
- Expect heavy coding & debugging

Syllabus 3

- Homework (40% of grade):
 - 4 programming assignments
 - Each explores a different aspect of computer networks
- Exams (60% of grade):
 - Closed-book, no cheat-sheets
 - 3 quizzes (15% of final grade):
 - Problems from each chapter and system notes from course website
 - 3 midterms (45% of final grade):
 - Lecture/homework topics



Syllabus 4

- Grade distribution
 - 90-100% (A), 80-89% (B), 70-79% (C), 60-69% (D), 0-59% (F)
- **You cannot pass the class without doing homework**
- One approach is to email for every simple issue
 - How to create a project, start a program, linker errors
 - Instructor ends up googling and sending results back
- Another is to never asks for help
 - Spends hours or days being stuck on the same problem
- Best route lies somewhere in between
 - Perform initial investigation, obtain insight into the issue
 - Narrow down the section of code that is causing problems
 - Create a hypothesis on what might be going on

Syllabus 5

- Asking for help
 - Through piazza (general concepts) or email (code-specific)
 - During class, office hours
- Piazza
 - If showing code, make the post private
- If emailing
 - Provide a clear description of the problem, where it occurs, and what you have done to debug it
- Read my tutorial on pointers, debugging, APIs
 - <http://irl.cs.tamu.edu/courses/463/systems%20notes.pdf>
 - Call stack, breakpoints, immediate/watch/thread window, common debugging techniques, stepping thru code

Agenda

- Roadmap
- Syllabus
- **Academic integrity**
- Homework
- Visual Studio
- Wrap-up

Academic Integrity

Exceptions: class sample code, API documentation, interaction with TA/instructor



- No teamwork, no external help
 - All submissions must be 100% **original** and **yours**
- Student rules 20.1.2.3.5 Plagiarism
 - The appropriation of another person's ideas, processes, results, or words without giving appropriate credit
- Student rules 20.1.2.3.1 Cheating:
 - Intentionally using or attempting to use unauthorized materials, information, notes, study aids or other devices or materials in any academic exercise. Unauthorized materials may include anything or anyone that gives a student assistance and has not been specifically approved in advance by the instructor
- **All** parties involved in misconduct penalized equally
 - **F* in the class or expulsion from university**

Agenda

- Roadmap
- Syllabus
- Academic integrity
- **Homework**
- Visual Studio
- Wrap-up

Homework

- Homework:
 - Due at **10am**, 20% penalty per day (no points after 5 days)
 - Delays for personal reasons must be requested **in advance**
- What to submit:
 - Add a comment to the top of each cpp/h file with your full name, class, and semester
 - Create a zip containing only *.sln, *.cpp, *.h, *.vc*proj*, [delete everything else \(especially the hidden directory .vs\)](#)
 - *Preserve the original directory structure inside the zip*
 - Upload to canvas.tamu.edu
 - Submitted code should compile as is, release & debug

Homework 2

- Windows machines for this class
 - You can use your laptop/desktop for most tasks
 - But on some of the benchmarks, local ISPs and dorms are likely to block your connections
- Alternatives
 - Azure for students (\$100 credit per year)
 - Visit <https://azure.microsoft.com/en-us/free/students/>
 - Allows you to spin up a virtual machine (Server 2019-2022) in the cloud, run your code over Remote Desktop
- Department Windows servers (need TAMU VPN)
 - ts.cse.tamu.edu and ts2.cse.tamu.edu
 - Use Remote Desktop to access them (username AUTH\tamuID)

Agenda

- Roadmap
- Syllabus
- Academic integrity
- Homework
- **Visual Studio**
- Wrap-up

Wrap-up

- Homework #1 is due in three parts:
 - Part 1 (9/2): load a single page
 - Part 2 (9/9): crawl a list of pages with one thread
 - Part 3 (9/23): multi-threaded crawler & report
- **Suggestions before next class:**
 - Read my programming tutorial and hw1p1
 - Formulate questions about them, ask me next time
 - Experiment with VS 2022