Preliminaries
Dmitri Loguinov
Texas A&M University

January 15, 2019
Agenda

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

463

Introduction (ch1)

Application layer (ch2)

Transport layer (ch3)

Network layer (ch4)

Data-link layer (ch5)

Network concepts

Web crawler (hw1)

HTTP, FTP, SMTP/POP3, P2P

DNS (hw2)

UDP

Switching

TCP (hw3)

Routing (hw4)

CSMA/Ethernet
Agenda

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

• Instructor: Dmitri Loguinov
  - Office hours: TR 5:10-6:10pm in HRBB 515C

• TA: Di Xiao
  - Office hours: MW 11-12pm in HRBB 501C

• Main text:

• Website: http://irl.cse.tamu.edu/courses/463
  - Slides and future test dates
  - Homework assignments
  - Links to useful material

• Piazza: http://piazza.com/tamu/spring2019/csce463
Syllabus 2

• Must use Visual Studio 2017 + Win 10.0.17763 SDK
  – Can use Microsoft APIs or C++11 threads/synchronization
  – Download from Dreamspark (see https://engineering.tamu.edu/cse/cse-internal/microsoft-dreamspark-for-academic-institutions)
  – Or get a Community Edition from Microsoft

• 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
Syllabus 3

- Homework (40% of final grade):
  - 4 programming assignments
  - Each explores a different aspect of computer networks
- Exams (60% of final grade):
  - Closed-book, no cheat-sheets
  - 3 quizzes (15% of final grade):
    - Problems from each chapter
  - 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
- **Student type A**: emails for every simple issue
  - How to create a project, start a program, linker errors
  - Instructor ends up googling and sending results back
- **Student type B**: never asks for help
  - Spends hours or days being stuck on the same problem
- Best route lies somewhere in between
  - Realize that others might have experienced similar problems (e.g., stackoverflow has tons of useful answers)
  - Perform initial investigation, obtain insight into the issue
Syllabus 5

• If nothing useful emerges, ask for help
  – Through piazza (general concepts) or email (code-specific)
  – During class
  – Office hours (bring a laptop)

• If problem is solved, answer your own question!
  – Help others on piazza

• 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
  – Call stack, breakpoints, immediate/watch/thread window, common debugging techniques, stepping thru code
Agenda

• Roadmap
• Syllabus
• Academic integrity
• Homework expectations
• Visual Studio
• Wrap-up
Academic Integrity

• No teamwork is allowed
  - General discussion is acceptable, but no part of an assignment may be copied from another student

• Academic Rules, Section 20
  - All sources must be properly acknowledged (including MSDN examples and sample code)
  - No information may be copied from the Internet, books, or elsewhere; all work must be original and yours
  - Do not use last year’s homework
  - Do not hire people to write it for you

• All parties involved in cheating will be punished equally
  - Any occurrence: F* in class or expulsion from university
Agenda

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

• Homework:
  – Due at noon, 20% penalty per day (no points after 5 days)
  – Delays for personal reasons must be requested in advance

• Provide a detailed written report
  – If multiple parts to hw, only the last one needs a report
  – Answer questions posed in the problem statement

• Sample runs
  – Capture screenshots or print into a file details of what your code does on test input data

• Hard copy:
  – Both report and code submitted at start of class
Homework 2

• Soft copy:
  – Add a comment to the top of each cpp/h file with your full name, class, and semester
  – Create a zip *preserving the directory structure* and containing only *.sln, *.cpp, *.h, *.lib, *.vc*proj*, delete everything else
  – Make sure to delete the hidden folder .vs
  – Preserve the original directory structure inside the zip
  – Upload to csnet.cse.tamu.edu

• Department servers for this class
  – ts.cse.tamu.edu and ts2.cse.tamu.edu
  – Use Windows Remote Desktop client to login
  – Username AUTH\user and howdy password
Agenda

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

• Homework #1 is due in three parts:
  – Part 1 (1/22/18 next Tuesday!): load a single page
  – Part 2 (1/29/18): crawl a list of pages with one thread
  – Part 3 (2/12/18): multi-threaded crawler

• Suggestions:
  – Read my programming tutorial and hw1p1
  – Formulate questions about either
  – Experiment with VS 2017
  – Ask questions on Thursday