Course Information

Networking
CS 3470, Section 1
Sarah Diesburg
Instructor

- Sarah Diesburg (diesburg@cs.uni.edu)
- Office: 311 ITTC
- Office hours
  - MW 2:00-3:00pm, TTh 3:00-5:00pm, and by appointments
- Class websites
  - [http://www.cs.uni.edu/~diesburg/courses/cs3470_fa14/index.htm](http://www.cs.uni.edu/~diesburg/courses/cs3470_fa14/index.htm)
  - eLearning
Class Schedule

- Lecture M W F 1:00-1:50pm in ITTC 328
  - Participation points
Why Study Networking?

- Amount of networked systems and electronics growing
  - Computers, servers, cell phones, tablets
  - Cars
  - Smart homes
  - Law-enforcement cameras
  - Wearable technologies
  - UNI ID card
Why Study Networking?

- It contains many important system concepts
  - Quality of service
  - Encapsulation
  - Resource coordination
  - Reliability
Learning Objectives

- Networking concepts
  - Structure and organization of computer networks
  - Network layers and design goals
    - Reliability, congestion control, routing algorithms, protocols
  - Network packets
  - Network programming
    - Sockets, client/server design, etc.
Prerequisites

- **Computer Science Majors**
  - CS 1410 Computer Organization
  - CS 1520 Data Structures
  - CS 1800 Discrete Structures

- **Industrial Technology Majors**
  - TECH 1037 Intro to Circuits
  - TECH 2041 Intro to Analog Electronics
  - TECH 2042 Intro to Digital Electronics
  - CS 1160 C/C++
Prerequisites

- Working knowledge of the UNIX programming environment
- C or other high-level programming language proficiency
  - How much do I need to do with C?
“A final note: you might think of the current situation for programmers with a car analogy: driving a car with an automatic transmission is great. It's easy because the car does everything for you. No clutch, no shifter to worry about. But, to drive a sports car or a racing car, who wants an automatic transmission? As programmers, we often want closer access to the machine level, and we want to control exactly what happens, and when it happens.”

Ann Tyson, From C++ to C
Course Material

- Lecture notes (posted at the class website)
- Textbook:
- Supplementary materials
## Class Grading

<table>
<thead>
<tr>
<th>Activity</th>
<th>Quantity</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mini Projects</td>
<td>4 @ 75pts, 1@ 100pts</td>
<td>400</td>
</tr>
<tr>
<td>Homworks</td>
<td>10@10pts</td>
<td>100</td>
</tr>
<tr>
<td>Regular Tests</td>
<td>2@100pts</td>
<td>200</td>
</tr>
<tr>
<td>Final</td>
<td>1@250pts</td>
<td>250</td>
</tr>
<tr>
<td>Participation</td>
<td>10@5pts</td>
<td>50</td>
</tr>
</tbody>
</table>
Exams

- Exam 1 (10%)
- Exam 2 (10%)
- Comprehensive final exam (25%)
More on Exams

- 80% based on lectures, assignments, and projects
- 20% based on your ability to apply various principles learned in the class
Assignments and Projects

- Homework assignments (10%)
  - Maybe some in-class activities
  - Type and submit on eLearning
- 5 projects (total 40%)
If you pass projects and final, your grade will be:

- 100 – 92  A
- 91.9 – 90  A-
- 89.9 – 88  B+
- 87.9 – 82  B
- 81.9 – 80  B-
- 79.9 – 78  C+
- 77.9 – 72  C
- 71.9 – 70  C-
- 69.9 – 68  D+
- 67.9 – 62  D
- 61.9 – 60  D-
- 59.9 – 0   F
Assignments

- Individual homework assignments
  - One bonus point for each homework assignment
    - Constructive comments on lectures and recitations
    - Or, a funny story of the week
Late Submission Policy for Projects

- Late project solutions will incur a 10-point deduction each day the project is late.
- Project solutions received after three days from the original due date will receive 0 points.
Slack Days

- Exception to the Late Submission Policy
- Each student has 3 slack days
  - May be used to turn in a project solution a day late without incurring the 10 point deduction
  - Cannot be used in fractional amounts
- To use, indicate in the submission how many slack days are being used
So, what if….

- If I use one slack day and turn the project in two days late, what is my deduction?
  - -10 pts

- If I use all three slack days on one project, will turning the project in 4 days after the deadline only incur a 10-point deduction?
  - No. The project is over 3 days late.

- How do weekends and holidays count?
  - A day is a day (no matter what)
Computer Accounts

- CatID credentials to access eLearning website
- UNI emails
  - Important class announcements will be sent frequently from eLearning
  - You should have already received the first class announcement
- Specialized login accounts from me to a class-specific programming server
  - More details to be announced later
Your Responsibilities

- Understand lecture and reading materials
- Attend office hours for extra help, as needed
- Uphold academic honesty
- Turn in your assignments on time
- Check class Web page and your UNI email account and regularly
Dos and Don’ts

- Do share debugging experiences
- Do share knowledge of tools
- Do acknowledge help from others
- Do acknowledge sources of information from books and web pages
**Dos and Don’ts**

- Don’t cheat
- Don’t copy code from others
  - Berkley MOSS
- Don’t *paraphrase* code from others either
  - E.g., changing variable names & indentations
- Don’t post more than 1 line of code to the discussion board
Course Policies

- Attendance mandatory
- There are no make-up exams for missed exams...
- Honor code: read your student handbook
- Students with disabilities
  - Report to Student Disability Resource Center
  - Bring me a letter within the first week of class
To see or not to see me

- I am not psychic
- Please let me know if...
  - Class is too hard
  - You don’t have the background
  - Class can be improved in certain ways
- When in doubt, email me…
  - diesburg@cs.uni.edu
Survival Tips

- Post messages and read the discussion board frequently
  - Sign up to receive emails
- Web search engines are your good friends