

CIS342: Introduction to Systems Programming

Dr. Yuzhe (Richard) Tang

Administrivia

- Instructor
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- Course syllabus:
 - <http://tristartom.github.io/docs/syllabus-cis300.pdf>

Learning Goal

- Learn how to program in Unix environment

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- Learn how to program in Unix environment
- Prerequisite:
 - Programming skills in Java/C/C++/etc (ECS102)
- Skills to learn (from Syllabus [[link](#)])
 1. Setting up Linux
 2. Bash programming and vim
 3. Basic C/C++ programming
 4. Assembly programming
 5. Gcc, makefile, and gdb
 6. Concept of syscalls

Evaluation

- This is 2-credit course
- In-class exercises (30%)
 - Bring your computer to the classroom.
- Homeworks (40%)
- Final exam (30%)

Materials

- Slides/lectures are the most important!
 - In Blackboard/github webpage
- Other online materials
 - Bash programming
 - Bash Guide for Beginners:
<http://tldp.org/LDP/Bash-Beginners-Guide/html/index.html>
 - Advanced Bash-Scripting Guide: <http://www.tldp.org/LDP/abs/html/>
 - System programming in C/C++/GDB:
 - Unix Programming Tools:
<http://cslibrary.stanford.edu/107/UnixProgrammingTools.pdf>
 - Using GNU's GDB Debugger: Memory Layout And The Stack:
[http://www.dirac.org/linux/gdb/02a-Memory Layout And The Stack.php](http://www.dirac.org/linux/gdb/02a-Memory_Layout_And_The_Stack.php)
 - **CSAPP: Computer Systems: A Programmer's Perspective**, by Randal E. Bryant and David R. O'Hallaron

Being an SU Student

- Student Status
 - Good Standing, or Hold
 - Make sure you understand what each means
- Grade and Transcript Issues
 - Course drop deadlines
 - link: www.syracuse.edu/academics/calendars/quarter-term/
 - Add deadline* Jan. 23
 - Financial drop deadline* Feb. 6
 - Academic drop deadline* Feb. 6
 - After that, you get the grade you get, stays on transcript
 - Grades stay on transcript, counts for your GPA
 - Very hard to compensate an F!

Honor Code

- Syracuse University has an Academic Integrity Policy
 - Read it! (http://supolicies.syr.edu/ethics/acad_integrity.htm)
 - Violations WILL be reported!
- Grading based on your own work
 - Do NOT allow ANYONE see your work
 - Do NOT try to look at ANYONE's work
 - ANYONE includes other students, friends, family, resources from the Internet, etc.
 - Work includes code snippet, hw solutions, etc
- Penalties for cheating are high
 - Best-case scenario: lose a letter grade
 - Worst-case scenario: expelled from the University
 - Don't take chance! Cheating WILL be detected.
- **JUST DON'T CHEAT!**

Demo.

- A demonstration of the learning objectives