CIS 5512 Operating Systems Syllabus

Prof. Qiang Zeng

Fall 2017

1   General Information

Meeting Times and Location:

Thur 5:30–8pm, Tuttleman Learning Center 302

Prerequisite:

Systems Basics (CIS 3207 or CIS 5012) and Data Structures (CIS 3223 or CIS 5011)

Description:

The course examines important problems in operating system design and implementation. Particular emphasis is given to the three major subsystems: *process management* (processes, threads, processor scheduling, synchronization, and deadlock), *memory management* (virtual memory, paging, and page faults), and *file systems*. They provide resources, protection, and intercommunication for program execution. The discussion will cover *how* these subsystems and functions are implemented and *why* they have been implemented that way.

Instructional Staff:

Prof. Qiang Zeng, email: qzeng@temple.edu
Office hours: Thur 3:00–5:00pm SERC 328

2 Textbooks

Required:

- "Operating Systems", Deitel, Deitel, and Choffnes, 3rd edition 2004. `// Easy to follow`

Optional:

- "Operating Systems: Principles and Practice", Anderson and Dahlin, 2nd edition, 2014. `// Modern stuff and rich in x86/Unix`

- "Interprocess Communications in Linux: The Nooks and Crannies", Gray, 2003. `// Best practices of IPC`

- "Linux Kernel Development", Love, 3rd edition, 2010. `// Kernel hacking`

3 Grading

Midterm: 35%
Final: 35%
Assignments: 30%. There will be three programming assignments.

4 Dates of Importance

- First class: Thur, Aug 31

- Labor day: Mon, Sept 4

- Last day to add or drop: Mon, Sept 11

- Midterm: Thur, Oct 12, 5:30–7:30pm

- Last day to withdraw: Tue, Oct 24

- Fall break and Thanksgiving holiday: Nov 20–26

- Last class: Thur, Dec 7

- Final: Thur, Dec 14, 5:45–7:45pm

5   Policies

Cheating: Feel free to discuss assignments with your classmates verbally. However, **do not share your solutions with other students; do not copy solutions of others or online**. Such behaviors will be reported to the University and lead to an "F" grade.

Grading policy: If you disagree with any grade, send emails to the instructor documenting the reasons and evidence; the instructor will respond in email. If you are still dissatisfied with the response, please talk with the instructor. For a grade dispute to be considered, the written grievance must be submitted within two weeks of when the respective grade is given.

No late submissions: Late submissions will be rejected and lead to a score 0; no execuse.

Accommodations for Students with Disabilities

Any student who has a need for accommodation based on the impact of a documented disability, including special accommodations for access to technology resources and electronic instructional materials required for the course, should contact me privately to discuss the specific situation by the end of the second week of classes or as soon as practical. If you have not done so already, please contact Disability Resources and Services (DRS) at 215-204-1280 in 100 Ritter Annex to learn more about the resources available to you. I will work with DRS to coordinate reasonable accommodations for all students with documented disabilities. (`http://www.temple.edu/studentaffairs/disability/accommodations/`).

Student and Faculty Academic Rights and Responsibilities

Freedom to teach and freedom to learn are inseparable facets of academic freedom. The University has a policy on Student and Faculty and Academic Rights and Responsibilities (Policy #03.70.02) which can be accessed through the following `http://policies.temple.edu/PDF/99.pdf`.

Acknowledgments

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