[pedro@roboto:"/umd/S16/5631]% cat README.TXT

CS 5631 - SPRING '16 OPERATING SYSTEMS

Instructor: Peter A. H. Peterson <pahp@d.umn.edu> Time: MWF: 10:00-10:50, Lab T: 5:00-6:50

/* A required course for the BS in CS! */
/* Fulfills advanced elective for BA in CS! */

Operating system as resource manager. Processor management and scheduling, deadlocks, concurrency, memory management and protection and security as applied in modern operating systems. Concepts are illustrated via laboratory assignments which heavily emphasize concurrency.

Prerequsites: 2511, 2521 or instructor consent, a grade of C- or better is required in all prerequisite courses.

+-----+ I ABOUT THE CLASS I

We will be using the FREE online textbook, Operating Systems: Three Easy Pieces, by Remzi and Andrea Arpaci-Dusseau.[1] It investigates operating system design and responsibilities through the lens of three properties: VIRTUALIZATION, CONCURRENCY and PERSISTENCE. (Hard copies and ebooks are also available for purchase if you prefer.)

Lectures will be interactive and fun, including live demos. Homework will include a mixture of both traditional and hands-on exercises working with programs that demonstrate operating system behavior (e.g., scheduling, file systems and threading). Lab assignments will include implementation projects in the C language where you will create working operating system components for the xv6 OS[2] running in a virtual machine. For more information, contact the instructor or see the REFERENCES.

Come get your hands dirty learning and hacking[3] on OS internals!

REFERENCES:

- [1] http://www.ostep.org/
- [2] https://pdos.csail.mit.edu/6.828/2014/xv6.html
- [3] Not cracking, see: http://en.wikipedia.org/wiki/Hacker_culture