

ECE 598 – Advanced Operating Systems Lecture 25

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3 May 2016

Announcements

- All homework grades are now posted. Someone should have reminded me that I hadn't sent out HW8 or HW9 grades before the midterm
- Course evals.



Showed off VMWos

- Demo went poorly mostly due to the PS/2 keyboard driver having issues.



Project Presentations

- Info on project presentations
- Aim for 10 minutes with maybe 2 min for questions
- Can present with slides if you want
- Mostly just showing off your project idea and what you accomplished.
- Intro (background), Experimental Setup, Results, Comments on what worked and what didn't, Future



Work, Conclusion, Questions. Feel free to give demo if possible.



Midterm Review

- Average was an 89%
- Aside on non-atomic access to clock timers with interrupts
- Aside on priority inversion and watchdog timers
- Aside on “goto considered harmful” and how it is used in kernel for error handling exit (re: locking)



OS Security

- Notes on trying to disable cache, secure mode
- Types of bugs in operating systems
- How to find them
- Fuzzing
- Language concerns, C
- Buffer overflows. Code execution. Rootkits.



- Linux kernel and reporting bugs as security issues
 - All bugs are potentially security bugs
 - Figuring out if any bug (and hundreds are fixed per week) is a security bug takes time
 - False positives/negatives
 - Having to manually mark them as such can help black hats find them easier

