

FALL 2016

Computer Science Special Topics

CS 591-3 / CS 407-1

Monday, Wednesday, Friday

11:00 – 11:50 AM

ML 722

Instructor – Dr. Norman Carver

Advanced Linux/UNIX Programming

This course builds on the knowledge gained in CS 306, to prepare students to do advanced development on Linux/UNIX platforms. The topics studied are critical for achieving high performance in large-scale, high-load networked software systems. These topics include development techniques such as profiling, concurrent programming and synchronization, network programming for high-load servers, advanced I/O alternatives, and IPC such as shared memory. The course will involve the study of code from Open Source projects like Apache and Nginx. The focus will be on the C language, but other languages will also be considered. Students must complete a significant network software project.

Prerequisite: CS 306 & 335 with grades of C or better, or grad standing with C language & Linux system programming experience.

Textbook: *The Linux Programming Interface*. Kerrisk, Michael. No Starch Press, 2010.