

# Syllabus: CmpSci 2750

# System Programming and Tools

### **Department of Mathematics and Computer Science**

Semester

SP/SS/FS XXXX

## **Instructor Details**

Name: Put name

Office Hours: Put hours, 1.5 hrs/wk per course for FT faculty, 3 hours a week for adjunct

**Office Location:** Put location, can be in office, in class, online, etc.

#### **Submission and Communication**

Your specific policies and procedures regarding submissions, late submissions, communication means, etc.

### Scoring

List any additions/changes you want to make to the course details below, such as using quizzes, attendance requirements, etc. Keep in mind you cannot change the course details, you can only work within what it says. So if you want to add quizzes and they are not listed, scoring for quizzes has to be added to homework, tests, or another part. If the course detail gives ranges for grading, you have to provide specific values within these ranges.

### **Incremental Grading**

Provide information if used.

#### **Schedule**

If the course detail does not state detailed timing or sections/topics, you may put them here. Keep in mind you cannot remove topics and if the course is coordinated you may have to follow topic allocations.

## **Course Details**

#### **General Policies**

Lecture recordings, audio or video, are not permitted unless the instructor explicitly allows that.

We follow the university policies regarding excused EX and EX-F drops.

Students are given and are expected to sustain positive learning environment in class. This means positive conduct in class, no late walk-ins or early walk outs without a good explanation or a prior arrangement, and if on-line access is available in class - not using it for anything not class related. Students not meeting these standards may be asked to leave the classroom.



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All in and out of class work for grade should be done independently (except for group projects). Homework can be discussed with others, but the final work (code, answer, etc.) should be independent. Programs may be discussed up to design, but no code is allowed to be shared except for what is presented in class. Help can always be sought and received. However, help to assignments should be generic on the subject matter or very narrowly focused on specific problem not being the central point in the assignment.

### **Course Description**

This course covers system programming, scripting, libraries, utilities, and development tools. Additional programming topics include piping, binary files, exception handling, command-line arguments and symbolic debugging. This course also explores tools available in the Unix/Linux environments.

Prerequisites: CMP SCI 2250, and CMP SCI 2700 (CMP SCI 2700 may be taken concurrently).

#### **Text and Other Materials**

Paul S. Wang "Mastering Linux", CRC Press, 2011.

Yung-Hsiang Lu "Intermediate C Programming", CRC Press 2015.

Recommended: Arnold Robbins "UNIX in a Nutshell" (4th edition), O'Reilly, 2005.

Some additional materials may be posted on the course site. Customize List topics from the text, including

#### **Course Schedule**

The list of topics:

- Command-line processing in UNIX/Linux
- Stream editing using sed, awk and regular expressions
- Shellscripts
- Program development and optimization tools, including Makefile, gdb, git and gprof
- Introduction to C
- System calls in UNIX/Linux

#### **Course Objectives and Learning Outcome**

List and explain objectives. What are expected outcome.

#### **Course Grading**

Grading scheme: Programming projects → 350 points;

Quizzes → 50 points;

Two exams → 400 points;

Final Exam → 200 points.

The letter grades will be assigned as follows:



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## **Department of Mathematics and Computer Science**

Score	<600	600 – 699	700 – 799	800 – 899	>=900
Grade	F	D	С	В	A

Sometimes +/- grades may be given at the discretion of the instructor.

# **University Policies and Information**

You may insert the notes or leave the link. The page gets updated as needed.

http://www.umsl.edu/~webdev/mathematics/files/pdfs/cs\_umsl\_syllabus\_university.pdf