csce215 — UNIX/Linux Fundamentals
Spring 2022 — Syllabus

1   Course Personnel

Instructor: Professor Jason O'Kane (jokane@cse.sc.edu)
Graduate teaching assistant: Rashmi Ravindranth (ravindra@email.sc.edu)
Graduate teaching assistant: Yong Zhao (yongz@email.sc.edu)
Undergraduate teaching assistant: José Gonzalez (jag6@email.sc.edu)

2   Webpage

Information about the course will be posted at this site:

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https://cse.sc.edu/~jokane/215
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This site will be the definitive resource for the course, and is the place to look for assignments, lecture notes, and announcements.

3   Instructional format

This is an in-person course consisting of two parts:

- **Lectures** on Mondays from 2:20 until 3:10, in SWGN 1C01 (Amoco Hall). These lectures will introduce new material, primarily in a live demonstration format. Notes on this material will be made available on the course website, but those notes are intended as supplements to, rather than as replacements for, engaged in-class attendance.

- **Labs** on Wednesdays and Thursdays, at distinct times for each section, in SWGN 1D43. Each lab session will be an opportunity to begin work on an assignment consisting of exercises that practice and extend the material from that week's lecture. Details about how to access the lab, including the door combination and a list of hostnames for remote access, may be found here:

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https://cse.sc.edu/resources/cse-linux-workstations
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Attendance at both the lectures and labs will be tracked and will be counted toward determination of final grades, as described below.

Certain weeks will have neither lectures nor labs, to keep the overall time required appropriate for a one credit hour course. Specific dates appear on the course website.

4   How to get help

Office hours (i.e. scheduled times for asking questions about the assignments or other aspects of the course) will be offered by the instructor and the TAs, as shown below.

	When?		Where?	Who?
Tuesdays	2:00pm–3:00pm	every week	Innova 2229	O'Kane
Thursdays	7:30am–8:30am	non-intermission weeks	SWGN 1D43	Ravindranth
Thursdays	4:10am–5:10am	non-intermission weeks	SWGN 1D43	Ravindranth
Fridays	10:30am–11:30am	non-intermission weeks	SWGN 1D43	Bickel
Fridays	1:00pm–3:00pm	non-intermission weeks	SWGN 1D43	Zhao
Fridays	4:00pm–5:00pm	non-intermission weeks	SWGN 1D43	Ginn
Saturdays	1:00pm–3:00pm	non-intermission weeks	SWGN 1D43	Gonzalez

You may also stop by my office at other times —I am often, but not always, around and available to help— or make an appointment via email.

In addition, a Slack workspace dedicated to the course, allowing online discussion with the instructor and TAs, has been established. An invitation link will be provided in class.

5   Description

Official description   UNIX operating system, user-level system commands, and programming tools. UNIX scripting languages.

Course outcomes   After taking this course, you should be able to:

1. Use the user-level tools available in UNIX-like operating systems to run and build software and programs.

2. Describe, traverse, and manipulate file systems in UNIX-like systems.

3. Describe and use processes, pipes, signals, and filters.

4. Automate tasks using appropriate scripting languages.

5. Utilize regular expressions and related tools to search and modify text.

Anticipated workload   The course is structured around the usual standard in which each credit hour requires, on average, a time investment of about one hour of lecture or two hours of lab time, along with about two hours of work outside of class, for each week of the semester. In the case of this course, those lecture and lab hours are divided across nine weeks, shown as 'chapters' in on the course website. These 9 weeks are balanced by

6 'intermission' weeks, in which no lectures nor labs will occur. The primary outside-of-class activity will be to complete the assignments, which are intended to be started, but not necessarily finished, within the designated lab sessions.

6   Prerequisites

By course   CSCE 145 Algorithmic Design I

By topic   This course requires a user-level understanding of modern operating systems and a working knowledge of a programming language such as C, C++, or Java.

7   Textbook

There is no required textbook for the course. Instead, course content will draw upon several open educational resources (i.e. free online materials). The primary resource will be:

> Shotts, William. *The Linux Command Line*. Fifth Internet Edition, 2019.

This is a comprehensive introduction to Unix-like systems, available both as a collection of web pages and in book form. Reading assignments will be drawn directly from the book format. Direct links to this resource and others as needed will be made available on the course website.

8   Evaluation and Grading

Your learning in this course will be evaluated based on the following factors:

- **Attendance** at the 9 lectures and 9 lab sessions, each worth 4 points, for a total of 72 possible attendance points.

- A total of 9 **assignments**, each worth 92 points. Across the 9 assignments, a total of 828 points are available.

- A **final exam** on April 30 at 4:00pm, worth 100 points.

Thus, there are a total of **1,000 points** available to earn through the semester: 100 points from attendance and assignment in each of the 9 scheduled weeks of the course, and 100 from the final exam.

The following table shows how final grades will be determined.

Grade	Minimum total points
A	900.0
B+	855.0
B	800.0
C+	750.0
C	700.0
D+	650.0

Total scores below 650.0 will earn an F.

Gradebook access   Grades will be posted on the CSE moodle server:

https://dropbox.cse.sc.edu

It is your responsibility to verify that grades are correctly recorded on this site.

Corrections and regrades   My goal is to ensure that all of the grading for this course is fair and correct. If you believe there's been a mistake in grading, please bring it to my attention within one week after the scores are posted. Regrade requests after one week will be politely declined.

Important reminder   Keep in mind that I am grading your work, not you as a person.

Deviations from the grading policy   I assume that every student takes the class intending to succeed, and I share that goal. However, in the interest of fairness and consistency, requests for grade increases that are inconsistent with the stated grading scale will be politely declined. Here is an incomplete list of hypothetical requests from students that are not sufficient reasons to deviate from the stated grading scale:

- *I need a GPA of at least _____ to get the internship I want.*

- *My parents will be disappointed in me.*

- *If my grade is less than _____, I won't be able to graduate.*

- *I've never gotten a grade as low as _____ before.*

- *Getting a grade lower than _____ makes me feel sad.*

- *I have too many other responsibilities.*

- *The course is too hard for me.*

- *I am about to graduate.*

- *I have a good GPA so far.*

- *I have never failed a class before.*

- *I am willing to do extra work.*

- *I am really close to getting a _____.*

- *I want to get into graduate school.*

9 Policies

Cheating   Academic dishonesty undermines the educational mission of the course and reflects disrespect to your classmates and to your instructor. Therefore, you are expected to practice the highest possible standards of academic integrity. This policy includes all forms of academic misrepresentation, including cheating, complicity, falsification, and plagiarism.

In particular, assignments should be done independently. Discussions with your classmates or others should remain at a very high level, and must not include any specific details of the solutions. You must work out the details and compose the complete answers independently. Submission of identical or substantially identical work will be considered strong evidence that violations of academic integrity by all involved have occurred.

It is not acceptable in this course to copy/paste commands or code into your terminal or editor, to submit work completed by anyone else as your own, to make your own work available to anyone else, nor to distribute or post the materials for the course in any venue.

More details on university's academic integrity policies are available at

http://sc.edu/academicintegrity

The academic penalty for students found responsible for violating the academic integrity expectations is a failing grade for the course.

Excused absences   Excused absences include (but are not limited to) being in quarantine or isolation, illness, religious holidays, medical conditions related to pregnancy, military duty, legal obligation to appear at or participate in a judicial or administrative proceeding, and any other absences required to be excused by applicable state or federal law. Such absences are exempt from the attendance policy described above. Whenever possible, documentation is required in advance of any excused absence.

Late assignments   Each assignment will indicate a specific date and time by which it must be submitted, after which the submission site will promptly close. No late submissions will be accepted.

Mobile devices   Please silence any mobile devices before coming to class. If your phone rings in class, I reserve the right to answer it for you and take a message. Likewise, if my phone rings during class time, I will allow a student to answer it.

Accommodations for disabilities   Reasonable accommodations are available for students with documented disabilities. If you have a disability and may need accommodations to fully participate in this class, contact the Student Disability Resource Center. (https://www.sa.sc.edu/sds/). All accommodations must be approved through the Student Disability Resource Center.

Potential for policy changes   Amendments to the syllabus at the instructor's reasonable discretion, including changes to course schedule or to the evaluation and grading mechanisms, are possible but unlikely.