



CS 252 Syllabus - Fall 2026 (session A)

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1 Course Description

CS 252 is an introduction to Unix with emphasis on the skills necessary to be a productive programmer in Unix, Linux, and related environments.

The focus of this course is on learning enough Unix for students to function productively in later CS courses. Because working directly from a workstation console in a CS Dept lab is no longer the dominant mode of interacting with our Unix systems, this course will emphasize connecting via the Internet from a remote PC to our Unix systems. Both text-based (ssh/shell) and window-based (X) connections will be covered.

This is a self-paced course delivered via the Internet and may be taken for P/F grades only. There are no regularly-scheduled class meetings. Students will be able to work through the material at any time, including taking automatically graded assignments. At the end of the session, a final exam will be issued. Students who have successfully completed a sufficient number of assignments and achieved a sufficient grade on the exam

will be given a grade of P. More detailed information is in the [Grading](#) section of this document.

The assignments for this course will be marked with deadlines but these are advisory, intended to keep you onm pace to finish by the end of the course term.

The only **real** deadline is the one at the end of the course, the final deadline by which all assignments need o be submitted.

1.1 Topics Covered

1. Getting started

- Why Unix? Logging in.

1. The Basics: Working in Text Mode

- Working at the command line, the Unix File System, absolute and relative paths, basic file manipulation commands, wildcards and quoting,
- editing files (nano, emacs, & vim)
- security (file permissions, SSH keys)
- file transfer (sftp, scp)
- redirection and pipelines

2. Program Development

- compiling and executing programs (g++, gcc, java)
- compiling in editors
- IDEs for program development (emacs, vim, VSCode)
- Debugging (gdb and IDEs)

3. Working in Graphics Mode (X)

- X and X2Go
- editing in X

4. Scripting

- Environment variables, customizing the Unix environment, writing shell scripts
- regular expressions (grep, sed)

A more [detailed outline](#) is available on the course website.

2 Basic Information

2.1 Instructor

When sending e-mail to the instructor, *please* include the course number (“CS252”) as part of your Subject line. Messages with that in the subject are less likely to be lost amid my daily dose of spam messages.

2.1.1 Steven Zeil

If you are in CRNs 12246 or 20745, your instructor is

Steven J. Zeil	E&CS 3208
(757) 683-4928	Fax: (757) 683-4900
zeil@cs.odu.edu	

Office Hours

Students may meet with Dr. Zeil in person, by telephone, or via Zoom. A week-by-week schedule of available meeting times can be found by going to the [instructor's home page](#) and clicking on “[Office Hours and Appointments](#)”.

2.1.2 Thomas J. Kennedy

If you are in CRNs 18078 or 20764, your instructor is

Thomas J. Kennedy	Monarch Hall 2123G
(757) 683-7725	
tkennedy@cs.odu.edu	

Office Hours

Thomas's general office hours are available at <https://www.cs.odu.edu/~tkennedy/>. Instructions for scheduling a formal appointment are listed here. Note that my office hours are exclusively web-conference based appointments.

General questions about course content and reports of website problems should normally be asked in the Forums on Canvas or via email.

Questions about grades, how to solve assignments and other graded activities must be sent to szeil@odu.edu.

For more discussion on course communications, please refer to the Communications policy.

2.2 Location

This course is hosted on [ODU's Canvas](#) server.

2.3 Texts

The readings for this course available on-line.

- The *lecture notes* are **required** readings.
 - All information necessary to do the assignments and complete the course is in the lecture notes.
- Various *textbook chapters* are also listed.

These are **optional** readings.

- If you are struggling with some of the ideas presented in the lecture notes, you may find that the texts provide alternative viewpoints or explanations.
- These texts are available on-line via the ODU Library through the Virtual Library of Virginia (VLVA).

Everything you need to complete the assignments and successfully pass the exam is in the Lecture Notes.

The Lecture Notes include *Try This* exercises to give you practice with the commands and concepts covered in the course.

- The Internet is a wonderful resource, but copying something that you don't really understand from a webpage just because it seems vaguely relevant is likely to lead to trouble.
 - Nearly a quarter of my mail traffic in this course is devoted to problems arising because someone insisted that something they copied from the Internet must be correct, despite it not actually working, or helping people to recover from damage done to their files and directories by a command they copied from the Internet without understanding what it did.

If a command or option is not covered in the Lecture Notes, and you have not practiced with it in one of the *Try This* exercises, **you don't need it** to complete the assignments. Unless you *really, really* understand what you are doing, **don't use it!**

2.4 Course Prerequisites

- CS 151 (Introduction to Programming in Java), or an equivalent first programming course in a high-level programming language.

Students are also expected to be familiar with the use of standard Internet-based tools including email and web browsers.

2.5 Hardware and Software Requirements

Because this course is hosted on the Internet, you will need to make sure that you have access to the appropriate computing equipment and software to participate in the course activities.

2.5.1 Computing Devices

You will not need your own access to a Unix or Linux machine. The CS Dept provides such machines, and learning how to use them from both on and off-campus locations is a major theme of the course.

You will need hands-on access to a PC of some kind. These do not need to be particularly powerful machines, as you will be using them as entry points for remote connections to the CS Dept. machines on which you will be doing your "real" work.

Your PC for this course may run any of these:

- Windows 11
- Windows 10 build from no earlier than Fall 2018 (build # 1709)
- macOS
- Linux

However, to take the final exam you will need access to a PC running Windows or macOS. See [Respondus](#), below.

2.5.2 Software

Web Browser

You will need a reasonably up-to-date version of the Edge, Firefox, or Chrome web browser. Other browsers or older versions of these may also be acceptable, but cannot be guaranteed so, because the course materials are not tested with other and older browsers.

- Neither Safari (Apple) nor Internet Explorer (Windows) are recommended. They might work. They might not.

To be installed

You will need to install some software on your PC. All such software is available in free, open-source distributions and will be introduced as it becomes relevant during the course.

- You should not plan on using a PC at your place of work, or in a library, or other locations where you do not have permission to install software.
- In some cases, you may be able to install the software to a USB flashdrive and then use that on machines where you otherwise do not have permissions to install software. Be aware, however, that some sites that lock down their machines to prevent new software installation may also lock them down to prevent execution of programs from USB drives.

Respondus

The [Respondus Lockdown Browser](#) will be required for the final exam. The webcam option (also known as Respondus Monitor) will *not* be required.

- You will not be able to take the exam using a regular web browser.
- Because Respondus requires either Windows or MacOS, you will need access to a PC with one of those operating systems to take any of these tests.

All students in this course are responsible for making sure they have Respondus available and working prior to the final exam.

A “practice exam” will be made available in advance of the final exam so that students can test their Respondus installation.

2.5.3 Internet Access

You will need a good quality internet connection. Again, be wary of planning to use PCs at work, libraries,

etc., with this course. Many of these places will run firewalls that heavily restrict access to network services.

If you are working from home, your home internet probably allows the access you need by default. If you need to check with the systems staff at some location, tell them that you need to make *outgoing* connections to

1. web servers using the https protocol. If you can view web pages like this one, you are probably OK.
2. secure shell servers using the ssh protocol (port 22). Although rare, some companies and public libraries do block this.

3 Grading

This is a Pass/Fail course. No letter grades are assigned. The only possible grades are P, F, and WF.

This course does not affect your grade point average — only letter-graded courses can do that.

To see a list of the assignments that you have completed, go [here](#).

Assignment grades are also posted to Canvas, but may lag a day or so behind.

3.1 Requirements

To obtain a pass (P) grade, students must accumulate 160 points out of a possible 220.

Points are awarded as follows:

- Ten points for each assignment completed, up to a total of 120.
 - All assignments are automatically graded. Students can check their assignment status at any time by using the **Grades** button on the various course directory pages.
- One point for each percentage point correct on the final exam.
 - The final exam is a multiple-choice exam and will be available on line during exam week on dates listed in Canvas.

For example, a student who completes all 12 assignments (120 pts) need score only 40% on the final exam. A student who completes 10 assignments (100 pts) must score a 60% on the final exam.

Exam scores are rounded to the closest integer. So, for example, a student with 10 assignments completed who scores 59.6% on the final exam will pass the course. A student with 10 assignments completed who scores 59.3% on the final exam will not pass the course.

- Students who achieve 160 or more points will receive a grade of P.
- Students who have never completed a single assignment will be given a grade of WF*.
- Students who complete at least one assignment but fail to achieve the required 160 points overall will be given an F*.
 - The '*' designation on the grade indicates that, because this is a P/F course, the grade does not affect the

student's grade point average.

3.2 Grade History

The course is designed with the assumption that students will make a serious attempt to complete *all* assignments, even though this is not strictly required. The assignments give you practice with and help to reinforce the lessons tested by the exam.

Historically, there is a strong correlation between the number of assignments completed and the chances of scoring high enough on the exam to pass the course:

# assignments completed	minimum exam score required to pass	% of students that pass
< 6	(not possible)	0%
6	100%	0%
7	90%	0%
8	80%	50%
9	70%	60%
10	60%	87%
11	50%	95%
12	40%	96%

Partly this is because students who have scored more points from the assignments need fewer points on the exam.

It is also because completing, or at least attempting, the assignments is an essential component of preparation for the exam.

4 Course Policies

4.1 Meeting Times

This is a self-paced Internet-delivered course. There are no regularly scheduled class meetings.

4.2 Computer Accounts

All students taking this course will need a login account on the CS Dept.'s Unix network. (This is distinct from any Midas or other account you may have from the general University computer center – the ODU ITS).

You may have a CS account already if you were registered for a CS class last semester. If not, you will need to create a new account. Instructions on how to do so are in the course materials for the first module of the course.

4.3 Communications

Because this course does not have traditional lectures, most communication between instructor and students will need to be conducted electronically. Usually, this will be via email. Details can be found in the [Communications Policy](#).

When sending email related to this course, please remember to include “CS252” as part of the email subject line. This will flag your email for my attention and may also help avoid its getting lost amid my daily spam.

As noted [earlier](#), I will hold regular office hours, conducted via Zoom.

4.4 Academic Honesty

Everything turned in for grading in this course must be your own work.

- If you have questions about the readings or the general subject matter, you may ask me, your classmates, other students, tutors, or anyone else you think might be helpful.
- If you have questions about assignments (or any other graded activity), you may ask me, the course TA (if I have one – I usually do not have one for this course), or *official* tutors provided by the CS Dept. or ODU.

You may **not** discuss possible solutions to assignments or exams with your classmates, other students, TAs for other courses (including TAs for CS 151, 153, or 251), tutors who you may have hired on your own, forums and help sites on the web, etc.

The instructor reserves the right to question a student orally or in writing and to use his evaluation of the student’s understanding of the assignment and of the submitted solution as evidence of cheating.

Violations will be reported to the office of Office of Student Conduct and Academic Integrity for consideration for punitive action.

Students who contribute to violations by sharing their code/designs with others are subject to the same penalties as those who misrepresent such work as their own.

4.5 Due Dates

Assignments are due by the end of the day announced in Canvas. Typically this is the final day of classes for the Fall and Spring semester sessions and the day prior to the opening of the final exam for the Summer semester.

Because CS252 is offered online and all online courses at ODU are offered in 8-week sessions, if you take a course in the first session, the end of classes and the due-date for that session may be in the *middle* of the semester.

Due dates shown in Canvas for the individual assignments are *suggestions* only.

These are intended to keep you on pace to complete the course.

The only **real** deadline is the deadline for completing all assignments at the end of the session.

The final exam will be available on-line. Refer to Canvas for the dates. Detailed instructions will be posted in the Quizzes area on Canvas.

4.6 Extensions, Exceptions, and Incomplete (I) Grades

Exceptions to the due dates or grading policy will only be granted under the conditions defined by the [ODU policy on Incomplete \(I\) grades](#): “exceptional circumstances beyond the student’s control”. Except in such circumstances, students who fail to complete the course in the time allowed will not be permitted to resume the course without re-registering, and would then be expected to complete all assignments from the beginning of the course.

Reasons that are most likely to justify an exception include extended illness, military deployments, or job transfer/relocation, but you should be prepared to document these if requested.

The following are usually *not* valid reasons for an extension:

- “I forgot that I was signed up for this course.” or “I didn’t know what the Grading policy was.” or “I forgot when the assignments were due.”

This was not beyond your control.

- “I have a part-time (full-time) job.”

This is not exceptional. Most of your classmates work, many of them full-time.

- “I have a heavy course-load this semester.”

Neither exceptional nor outside your control.

- “I’ve worked so hard on this course.”

I’m sure that your fellow students would not appreciate the implication that you believe they have been slacking off.

Fundamentally, though, this argument misses the whole point of grades in a course. They are not a reward for putting in time and effort. They are given, instead, to certify that you have demonstrated a certain level of knowledge and, in the case of a course like this that is a prerequisite to many other courses, to make sure that you are sufficiently prepared to succeed in those later courses.

- “I got stuck on assignment X and was never able to catch up.”

Actually, this *might* qualify, but *only* if you made good use of email and/or my office hours to resolve your problems with that assignment in a timely fashion. Your chances of getting an exception in this case will also depend upon just how many assignments you have remaining to complete. You are far more likely to get a short period of time to complete one assignment than to get any extra time at all to complete 7 assignments.

- “I had trouble completing some assignments and haven’t sent you an email or attended your office hours because I’m not the kind of person who likes to ask for help.”

Then you shouldn’t be the kind of person who asks for exceptions either. A significant part of a college-level education is learning to exploit the information resources available to you. Deliberately

refusing to do so is not a behavior that I'm inclined to reward.

Requests for an "I" grade or extended time to complete the course should be made before the actual end of the session, whenever possible. Requests made after grades have been submitted will need to include an explanation of why the request was delayed.

4.6.1 Requests for Extensions Late in the Semester

Increasingly, I am finding that most of the requests that I receive for extensions come from students who have left all or most of the assignments until the final one or two weeks of the session.

If there are less than two weeks remaining until the end of the session and you have more than half of the assignments unfinished, do not even bother asking for an extension unless you have **written documentation** of exceptional circumstances that explain, not only why you are unable to finish the assignments, but *why you left them until so late in the session*.

5 Getting Started

A typical work session for this course starts by entering the course via the course Canvas site to check for announcements. Then click on "Outline" to reach the course Outline page.

On the Outline page, you will see the list of topics, with on-line lecture notes, textbook readings, and assignments. You can then begin working through the course material, or pick up from wherever you last left off.

6 Educational Accessibility:

Old Dominion University is committed to ensuring equal access to all qualified students with disabilities in accordance with the Americans with Disabilities Act (ADA). The Office of Educational Accessibility (OEA) is the campus office that works with students who have disabilities to provide and/or arrange reasonable accommodations.

- If you experience a disability which will impact your ability to access any aspect of the course, present me with an accommodation letter from OEA so that we can work together to ensure that appropriate accommodations are available to you.
- If you feel that you will experience barriers to your ability to learn and/or complete examinations in the course but do not have an accommodation letter, consider scheduling an appointment with OEA to determine if academic accommodations are necessary.

The Office of Educational Accessibility is located at 1021 Student Success Center, and their phone number is (757)683-4655. Additional information is available at the [OEA website](#).

