# Cal Poly Humboldt
# Course Syllabus for CS 279 - Section 10
# Introduction to Linux
# CRN 43313 - Fall 2022

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|---|---|---|
| ***Lecture meets:*** | Mondays and Wednesdays,<br>9:00 - 10:20 am | TA 011 |
| ***Lab meets:*** | Thursdays, 9:00 - 10:50 am | BSS 313 |

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|---|---|---|
| ***Instructor:*** | Sharon Tuttle | |
| ***Instructor's e-mail:*** | st10@humboldt.edu or<br>sharon.tuttle@humboldt.edu or<br>smtuttle@humboldt.edu | (note: these are all ALIASES to the SAME mailbox) |
| ***Instructor's office:*** | BSS 322 | (3rd floor, in one of the corners furthest from the elevator) |
| ***Student hours:*** | M, Tu, W: 3:30 - 5:00 pm<br>Th: 3:30 - 4:30 pm<br>or by appointment | (I'll be in BSS 322, but also have a Zoom session running from there if you prefer to use that)<br><br>(Zoom URL: see course Canvas site) |
| ***Course public web site:*** | follow CS 279 link from:<br>http://nrs-projects.humboldt.edu/~st10/<br>OR<br>follow link from course Canvas site | |

## Course Description

[from the Cal Poly Humboldt catalog:] Introduces the UNIX/Linux family of operating systems. Basic commands, utilities, system structures, scripting and tools are explored. Elements of system administration are presented.

This course is a general overview of the UNIX family of operating systems, with a specific focus on Linux, from the perspectives of the user, the programmer, and the administrator. Topics to be covered include the UNIX user environment (at the command line level), UNIX commands, examples of UNIX file systems, UNIX processes, some useful Linux utilities, and Linux system administration and security, as well as UNIX history and philosophy. We will also be covering using the `bash` shell and writing shell scripts in the `bash` user environment, a most essential part of a

Linux user/administrator's toolkit.

(Note that it is **not** a course on UNIX system programming; it is not a course on UNIX internals.)

## Course Prerequisite:

CS 111 - Computer Science Foundations 1

or instructor approval.

## Student Learning Outcomes:

After successfully completing this course, students should be able to: *

- comfortably use basic UNIX/Linux commands from the command line (from a terminal window);
- manage files and directories, and navigate through a UNIX/Linux system;
- organize and manage their processes within UNIX/Linux;
- usefully combine UNIX/Linux tools using features such as filters, pipes, redirection, and regular expressions;
- customize their UNIX/Linux working environment;
- read and write `bash` shell scripts to automate tasks;
- know how to use UNIX/Linux resources to find additional information about UNIX/Linux commands.

## CS Program Learning Outcomes that this course addresses:

This course addresses departmental learning outcomes of:

- Computational Thinking
- Self-Directed Learning
- The Ability to Produce and Digest Technical Documents

This course addresses computational thinking at an introductory to moderate level, introducing basic UNIX/Linux commands and how to write `bash` shell scripts to automate tasks. It addresses self-directed learning and the ability to produce and digest technical documents at an introductory level by introducing UNIX/Linux resources for finding additional information about UNIX/Linux commands.

## Cal Poly Humboldt Learning Outcomes that this course addresses:

This course contributes to Cal Poly Humboldt learning outcomes (https://academicprograms.humboldt.edu/content/undergraduate-institutional-learning-outcomes ) of:

- Critical Thinking
- Quantitative Reasoning

## Required Course Materials:

- **Linux Fundamentals**, Paul Cobbaut
  - 2021 updated partial-draft: http://linux-training.be/linuxtraining_20211003.pdf
  - 2015 complete edition: https://linux-training.be/linuxfun.pdf
  - This textbook is available free of charge under the GNU Free Documentation license – see the text abstract for more information.

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* Some of these are adapted from the ACM Computer Science Curriculum 2001, available from link at: http://www.acm.org/education/curricula-recommendations

- Turning Account License used with TurningPoint app (see "Clicker Questions" section below)
  - The TurningPoint app is free, but you do need to purchase a Turning Account License and register it from the CS 279 course Canvas site, or I will not be able to "see" your answers.
  - Note: I am told that the best price for the Turning Account License is available when you follow the "Turning Account Registration" link in Canvas -- this link is on the left-hand-side of the course Canvas site.
- Any additional required readings will be made available either on-line, or via resources available through the Cal Poly Humboldt Library such as the ACM Digital Library and Safari TechBooks Online.

## Course Software:

We will be using the distribution of Linux that is available on `nrs-projects.humboldt.edu`, and in terms of UNIX/Linux shells we will be focusing on the `bash` shell.

(Note that the `bash` shell seems to be the default for `nrs-projects.humboldt.edu`, Mac OS X's `Terminal` application, the Terminal in CS50's "old" IDE at https://ide.cs50.io/, and the Terminal in CS50's new browser-based Codespaces at `https://code.cs50.io/`.)

`nrs-projects.humboldt.edu` can be available from just about anywhere on the Internet by using `ssh` (Secure Shell), via an `ssh` client tool such as PuTTY or via the `ssh` command from a terminal. For transferring files to and from `nrs-projects.humboldt.edu`, you can use `sftp` (Secure File Transfer), via an `sftp` client tool such as FileZilla or via the `sftp` command from a terminal.

## Grading Breakdown

If you are a Computer Science (CS) major, note that you must earn at least a **C-** in CS 279 for this course to count towards your major.

Your semester grade will be determined based on the following percentages:

| | | | |
|---|---|---|---|
| **Homework assignments:** | | 25% | Note: **NO** homework grades are dropped |
| **Lab exercises:** | | 20% | Note: Lowest two lab exercise grades are dropped |
| **Clicker questions:** | | 15% | **Sum** of points earned from answering clicker questions, up to a **maximum** of 120 points |
| **Exams:** | **Exam 1:** | 10% | **Wednesday, September 28** |
| | **Exam 2:** | 10% | **Wednesday, November 9** |
| | **Final Exam:** | 20% | **Wednesday, December 14, 8:00 - 9:50 am** in TA 011 |

Your semester letter grade will be determined based on this chart:

| Overall Percentage (based on the given weights) | Letter Grade |
|---|---|
| >= 93 | A |
| >= 90 and < 93 | A- |
| >= 87 and < 90 | B+ |
| >= 83 and < 87 | B |
| >= 80 and < 83 | B- |
| >= 77 and < 80 | C+ |

| Overall Percentage (based on the given weights) | Letter Grade |
|---|---|
| >= 73 and < 77 | C |
| >= 70 and < 73 | C- |
| >= 70 | D+ |
| >= 60 and < 67 | D |
| < 60 | F |

### *More Coursework-related Policies*

- It is nearly impossible to write unambiguous specifications. If you have questions about what is being asked for -- whether on a homework problem, in a lab exercise, on an exam question, or even for a clicker question -- you are expected to **ask** me.
  - Being able to ask such questions is a necessary and important real-world skill in computer science!
- There is more to a command, expression, statement, function, or script than simply whether it "runs".
  - Part of your grade may be determined by how well your work **meets the stated requirements**.

    Your work is expected to meet stated requirements precisely. When working as part of a team on larger software projects, following specifications precisely is vital, and can mean the difference between a working product and one that just sits there.
  - Work may be graded on **style** as well -- following style and coding standards likewise helps to result in programs that are more readable, understandable, and maintainable over time. Discussions on style will be ongoing throughout the semester.

### *Homework Assignments*

- Note that **no homework assignment grades are dropped**; *every* homework assignment grade is included in determining the homework portion of your semester grade. Every homework includes important practice of course fundamentals.
- Homework problems are to be completed individually (although *discussing* homework problems with other students without copying their comments or code is fine!).
- Each homework assignment must be submitted as specified on its handout to be accepted for credit. This may vary for different homework assignments.
- Each homework assignment will be clearly marked with one or more due dates/deadlines (a single homework assignment could have multiple parts with multiple due dates/deadlines).
  - To best benefit from this class, it is important to **practice course concepts regularly** and to **attempt homework problems before the homework deadlines**.
    - If I notice that a class member is not submitting attempts at homework problems on a timely and regular basis, I may e-mail that class member and require that they set up a meeting with me to discuss this.
  - **If you have attempted all of a homework's Canvas short-answer question problems *AND* submitted initial attempts at some of a homework's remaining problems by its deadline,** you can still submit versions for other of those remaining problems, and/or improved versions of those problems, (and requested revisions, if any) up until example solutions are posted, before each Exam.
  - Once a homework's example solutions are posted, no more submissions or revisions will be accepted for that homework's (non-Canvas-short-answer) problems (*unless* you have discussed your unusual situation with me and we have set up a different arrangement).

- You may submit **multiple versions** of homework files and problems; I will grade the **most recent able-to-be-accepted** submission unless you inform me otherwise. (Homework short-answer questions answered on Canvas are handled differently, though -- see the section below.)
  - One reason for encouraging multiple submissions is to encourage you to **turn work in early and regularly**, even perhaps while it is still in-progress, since you can always turn in an improved version later, or if further inspiration strikes, etc.
  - Another benefit of early and regular submissions as you work through homework problems: you don't have to worry about forgetting to submit something that has already been submitted!

### Homework Short-Answer Questions answered on Canvas

- Most homework assignments will start with one or more problems that are short-answer questions answered on Canvas -- these are meant to give you a chance to see if you are on the right track on new syntax, new terms, or just important concepts.
- These short-answer questions are automatically graded -- after you have attempted all of a problem's questions, you will not be shown the correct answers, but you will be shown if your answers were correct or not, often including some additional explanation.
- **You can attempt these Canvas short-answer questions as many times as you would like -- your score for these will be the highest score from all of your attempts.**
  - Because students in the past mentioned that these were useful for exam review, these will be left available/open through the Final Exam.
  - HOWEVER, you will receive the **MOST** benefit from these if you start attempting them well **before** that homework's deadline, as a warm-up to the remaining problems.
  - If I notice that a class member is not attempting these homework short-answer questions on a timely and regular basis, I may e-mail that class member and require that they set up a meeting with me to discuss this.

### How I *hope* to handle grading homework assignments in Spring 2022:

- At a homework's deadline, I hope to start grading submitted homework files. (As noted above, the homework short-answer questions on Canvas are automatically graded.)
  - I *hope* to grade homework problems submitted by that homework assignment's deadline first -- you may have to wait longer for feedback on homework problems submitted after its deadline.
  - I am going to see if Canvas will allow me to give you grading comments while grading is still "in progress" (before the grading of a homework assignment is necessarily finished).

## *Lab Exercises*

- Review and/or lab-exercise-related clicker questions and graded lab exercises will be given during most lab sessions.
- If you miss a lab session, typically its clicker questions and graded lab exercise cannot be made up later (except for extenuating circumstances - please let me know!). However, the **two lowest lab exercise grades** will be dropped from the lab exercise portion of your semester grade.
- You will typically be **pair programming** for lab exercises -- in pair programming, two programmers work on and view the same file at the same time, one typing and the other saying what to type, and also discussing along the way.
  - **Both** are **actively** involved in the problem-solving process **together**.
  - This software engineering practice can result in products with fewer errors, amongst other potential benefits.
  - While learning new concepts and syntax, this practice can also give you more chances to discuss course concepts with other students, (along with the practical benefit of reducing the total number of questions the instructor has

to try to answer during lab sessions, hopefully also reducing your wait time for those answers).

- Note: if, for example, there is an odd number of students at a particular lab, or there are technical difficulties, we'll also sometimes have trios -- in that case, **all three** are still working on and viewing the same file at the same time, one programmer types, and the other two alternate saying what to type, and of course all are still also discussing along the way.
- It is **not acceptable** to simply sit back during a lab exercise and have your partner do all the typing and saying what to type and discussing -- you are expected to **actively participate** in your pair.
- Please let me know of any issues that come up related to pair programming, so we can work together to come up with means for dealing with them.
- Once you have completed a lab session's lab exercise, made sure that both of you have a copy of its files, and submitted your copy of those files, it is acceptable to leave the lab session.
  - After completing and submitting the lab exercise, it is also fine to use the remaining lab time to work on the current course homework assignment, to practice course concepts, and/or to ask questions about course-related topics.
  - However, note that questions from those still working on the lab exercise will be prioritized!

### *Clicker Questions*

We will be using the Turning Technologies student response software in class. There is significant literature indicating that using such so-called "clicker questions" may increase student engagement and success in learning.

Students purchase a Turning Account license/subscription and register it from the CS 279 course Canvas site, and they use this license with the TurningPoint application on a mobile device or from a web browser. You then will answer questions using this during **every** class meeting (lectures **AND** labs). (Part of the idea here is to stress that **every** class meeting is important, and that participating during **every** class meeting is important.)

Follow the **"Turning Account Registration"** link on the course Canvas site for registering so that your answers receive credit. (You can also purchase the Turning Account license via this link, and I am told they offer the best price for this.)

This software will be used for in-class questions, which might be asked at any time within class meetings. These will usually be given in a **think-pair-share** fashion, in which you answer a question first on your own, and then discuss your answer with other students, discussing **why** you think your answer is correct; if they gave a different answer, you try to persuade them that yours is the correct answer, and then either of you can change your answer if you wish. The response system will record the overall class response percentages as well as keep track of individual answers.

Note that a large part of the benefit of this is from these discussions with other class members -- research suggests both that putting concepts into your own words helps you to learn them better and that the other class member's explanations may also help you to learn them better.

Typically, you will receive:

- **1.5 points** for a correct answer,
- **0.75 points** for an incorrect answer, and
- **0 points** for no answer,
- but with a **maximum-possible** semester clicker-questions grade of **120**.
- (There may be some no-point questions from time-to-time as well -- these will be noted if/when they come up.)

Thus you will be rewarded for regular attendance and participation.

I hope to run tests of the system during the first week's class meetings, and to begin asking questions that "count" during the second week's class meetings. So, you need to purchase and register your license as soon as possible. If there is an issue with this, please let me know as soon as possible.

Finally, **NOTE** that use of another CS 279 student's account, or having someone else use your TurningPoint account in a CS 279 class session, or otherwise having anyone but yourself answering a clicker question on your behalf -- that is, pretending that someone is in class who actually is not -- is considered to be **cheating**, with the same policies applying as would be the case if you turned in someone else's work as your own or permitted someone else to copy your work. Please **ASK ME** if you are not sure what I mean by this.

#### Can clicker questions be "made up" outside of class sessions/lab sessions?

The general rule is that, if you miss a class session, you miss that day's clicker questions, and in general cannot make them up. (But I am willing to discuss alternate arrangements for extenuating circumstances -- contact me sooner rather than later if you would like to discuss such possibilities!)

There will be a sufficient number of questions asked during the semester (at least 120 points worth of questions) to allow for both the possibility of extra credit (up to a **maximum** clicker grade of **120**) or to make up for a day that you are out for illness (although note that you are still responsible for finding out what you missed on such days).

### *Exams*

There will be two exams during the semester and a Final Exam, at the dates given below.

Make-up exams are only possible by special prior arrangement or because of extenuating circumstances. You are expected to **contact me as soon as reasonably possible** in such circumstances.

There will be a review session before each of these exams as noted in the Tentative Course Schedule section.

#### Exam 1:

Exam 1 will be given during class on **Wednesday, September 28** in TA 011.

#### Exam 2:

Exam 2 will be given during class on **Wednesday, November 9** in TA 011.

#### Final Exam:

The Final Exam will be given in TA 011 from **8:00 - 9:50 am** on **Wednesday, December 14**. (This is the required date and time specified in the campus Final Exam schedule for a course that meets at 9:00 am on Mondays and Wednesdays.)

NOTE: You can also find the schedule for ALL of YOUR Final Exams in your Student Center! See:
https://studentcenterhelp.humboldt.edu/final-exam-schedule

But, just in case: Cal Poly Humboldt Fall 2022 Final Exams schedule matrix is also posted at:
https://registrar.humboldt.edu/sites/default/files/final-exam-matrix-fall-2022.pdf

## IMPORTANT COVID-19-Related Information

### *[adapted from examples from D. Tuttle and C. D. Hoyle]*

NOTE: This information is subject to change at any time as the university responds to the changing profile of the COVID-19 pandemic! It is the student's responsibility to be current on all university regulations regarding COVID-19 as they are changed and updated.

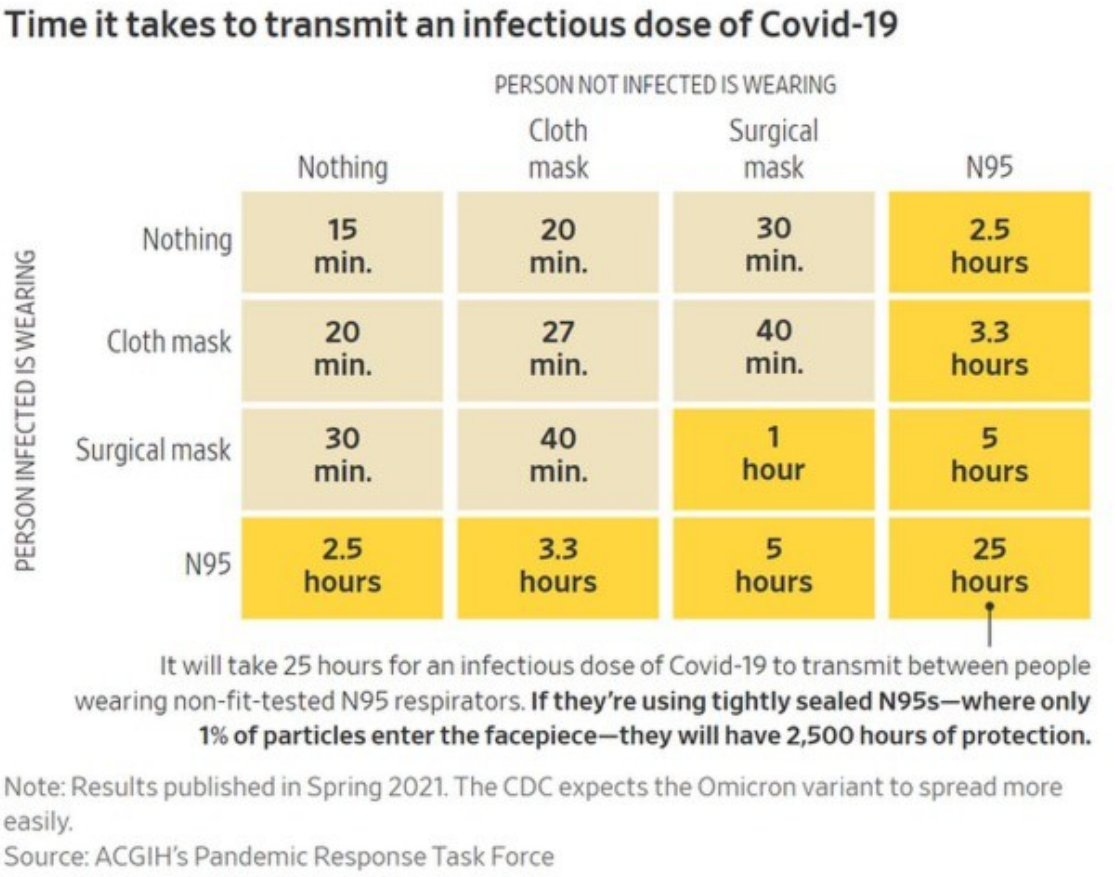
**Students are required to comply with all university regulations regarding COVID-19.**

Our local, rural hospital system can only handle so much, and most of us likely know people who are at higher risk if exposed. Some of those at higher risk may also include class members. So, while I cannot require that you wear masks during class sessions, I am planning to wear an N95 mask during class sessions.

- N95 and surgical masks are available for free to the campus community at the following distribution sites: College

Creek Mailroom, Jolly Giant Commons mailroom, University Police Department, Admissions Welcome Center, Library, and the Gutswurrak Student Activities Center.

Here is a chart that illustrates the effectiveness of various masks, however, this was made before Omicron which is even more transmissible:




### *Testing*

Cal Poly Humboldt offers COVID-19 testing on campus; you should be able to find the current location and current hours for this at:

https://wellbeing.humboldt.edu/covid-19-testing

### *Symptoms or Testing Positive*

If you have symptoms (see the "Daily Wellness Self Check" section at:

https://campusready.humboldt.edu/guide/health-safety#10

), you should not come to class. If you test positive, you should not come to class, you should notify me (and your other face-to-face course instructors), and you must notify Student Health & Wellbeing Services (SHWS) (e-mail health@humboldt.edu or call (707) 826-3146) and follow Cal Poly Humboldt's quarantine and isolation policies. See:

https://campusready.humboldt.edu/testing_vaccine#94

Please notify me again when you have recovered so that we can make a plan for you to get caught up with the class.

### *Cal Poly Humboldt COVID-19 Planning and Updates*

https://campusready.humboldt.edu/

Thanks for your cooperation to keep everyone safe and our course on track this semester!

## Other Expectations of the Student

- Read this syllabus, and be prepared to verify in a required Canvas activity that you have received it, have read it, and understand its contents.
- **Attend all class sessions, and participate!** Participating includes:
  - paying attention
  - discussing clicker question answers and class concepts with other students
  - being an attentive partner when pair-programming in lab
  - asking questions
- There is a general rule-of-thumb for college-level courses:

  *To be successful in a course, you should plan to spend at least 2 hours outside of class for each 1 hour of college course credit. That implies an estimate of* **at least 8 hours a week spent outside of class for this 4-credit course.**
  - In addition to required course reading, this time can include **typing in and playing around with in-class examples**, experimenting to see if something you are curious about really works like you think, and so on.
- Complete reading assignments in a timely fashion. Ask me if you have any questions about them.
- Check the CS 279 public course website and Canvas course site **frequently** for homework and other assignments, postings of course handouts and in-class examples, announcements, and updates.
- Check your Cal Poly Humboldt e-mail **daily** Monday through Friday.
  - All e-mails that I send for this course will include `CS 279` in their `Subject:` line.
  - Likewise, include `CS 279` along with a description of your e-mail in the `Subject:` line of all class-related e-mails that you send to me.
- Start working on homework assignments as soon as they are posted, submitting frequently. This gives you time to ask questions if you run into problems.
  - Why spend 4 hours struggling with a frustrating roadblock the night before the homework assignment is due, when you can spend 10 minutes composing an e-mail early in the week, work on other problems while waiting for the answer, and then get a reply that makes everything clearer as soon as you read it?
- Ask questions when you are having difficulty understanding a class concept or not making progress on a homework problem.
  - Ask questions early and often (I will gently let you know if you are overdoing it.)
  - Debugging can be a notorious time-eater. Sometimes a very small issue can take a long time to locate and fix, especially if you do not ask for help.
  - Later concepts are built upon earlier concepts as the course progresses -- if you ask as soon as you realize that some concept is not clear to you, that can help keep you from falling behind.
- Keep backups of your CS 279 files; if I cannot open one of your submitted lab exercise or homework files, I may need you to re-submit it or to e-mail it to me.
- If you have not completed a lab exercise or homework problem by its deadline, submit whatever you have done up to that point, even if it is not complete.
  - Remember, as noted earlier in this syllabus, submitting *something* by the deadline gives you the possibility of submitting improved versions and attempts at other of its problems after the deadline, up until example solutions are posted, before each Exam.

  - Submitting what you have by the deadline shows that you have started, and *might* allow me to give you feedback based on what you have done so far.
  - I believe in partial credit on homeworks, believing that if you have at least started working on a problem, any eventual posted example solution will be more helpful/understandable than if you have not.
- Take the opportunity to learn how to write your own thoughts; don't plagiarize. Be sure to give credit where credit is due and cite your sources.
- If example solutions for selected homework problems are posted, read those over and compare them to how you approached those problems. Be sure to ask me if you have any questions as a result!
- When grades are posted to the course Canvas website, check them and let me know about any discrepancies or issues.

## Class Culture*

We will decide on the final expectations together, but some of the guiding principles will involve:

- Respect for each other (what does that mean to you?)
- Come to class sober
- Keep cell phones and other distractions put away
- Be in the classroom before class starts, so that you're ready when it starts
- If you need to leave in the middle of class, do so as quietly and unobtrusively as you can
- Stay until class is over
- Be a regular and willing participant

*Contact the instructor if you need special accommodation or exception from these rules.

## Expectations of the Instructor

- I will prepare and review course materials to be as current and accurate as possible.
- I will be available to answer questions or issues that may arise for you during this course. **Expect a 24-hour turnaround time for response to e-mails on weekdays and 48 hours on weekends.**
- I will try to the best of my ability to prepare you for the assignments and other assessments in this course.
- I will utilize fair and honest evaluation techniques for each assignment required for this course.
- I will do my best to address the needs of a diverse range of learning styles in this course.
- I will only share your student information per FERPA (federal privacy) guidelines.

## Other Course Policies

### *Inclusivity*

Students in this class are encouraged to speak up and participate in-class. Each of us must show respect for each other because our class represents a diversity of beliefs, backgrounds, and experiences. I believe that this is what will enrich all of our experiences together. I recognize that our individual differences can deepen our understanding of one another and the world around us, rather than divide us. In this class, people of all ethnicities, genders and gender identities, religions, ages, sexual orientations, disabilities, socioeconomic backgrounds, regions, and nationalities are strongly encouraged to share their rich array of perspectives and experiences.

If you feel your differences may in some way isolate you from our classroom community or if you have a specific need, please speak with me early in the semester so that we can work together to help you become an active and

engaged member of our class and community. *(Adapted from Cal Poly Humboldt Canvas Accessible Syllabus Template, which was in turn adapted from CSU Chico and Winona State University)*

Thus, spoken language and body language should emanate respect for everyone in our classroom community. This includes coming to class on time and being prepared to listen and share. (*Adapted from Jayne McGuire's syllabi language*)

### *CS 279 E-mail Policies*

- **NOTE:** do **NOT** use Canvas messages to contact me or ask me a question -- send me **actual e-mail messages** instead. Handling Canvas messages is time-consuming and error-prone on my end.
  - Please ASK me if you are not sure what I mean by this.
- Students are responsible for checking their Cal Poly Humboldt e-mail account for official communications. You are expected to check for course-related messages as well.
  - While students may elect to redirect messages sent to their official Cal Poly Humboldt e-mail address to another address, those who redirect their e-mail to another address do so at their own risk.
  - Cal Poly Humboldt E-mail Policy: https://policy.humboldt.edu/p21-01-email-policy
- All e-mails that I send for this course will include `CS 279` in their `Subject:` line.
- Likewise, include `CS 279` along with a description of your e-mail in the `Subject:` line of all class-related e-mails that you send to me.
  - This will help your e-mail be more recognizable as a class-related message, and will make it less likely that I will accidentally overlook it.
- ALSO include a **descriptive subject** along with the `CS 279` in that `Subject:` line -- this also increases the chances that I will notice and reply to your question more promptly.
  - (In particular, do not just reply to a class e-mail message I have sent previously, and do not simply leave the `Subject:` line blank!)
- Ask **specific** questions via e-mail -- for less-specific or broader questions, come to student hours or make an appointment to meet with me. Overly-vague or broad questions are problematic to answer by e-mail.
  - For example, an example of a **specific** question is:

    "When I try to run my script `myfun` [attach your file `myfun`], I receive the following error message: [paste in the first 4-5 lines of that error message]

    Can you point me in the right direction about what is wrong?"
  - An example of an overly-vague or broad question is:

    "Here's my script: [just pasting in its code]. Is it right?"
- When e-mailing a question about a script,
  - attach a copy of your file(s)

    **and ALSO**
  - paste in the first 4-5 lines of the **error messages** you are getting

    and/or descriptions of **bizarre behavior** you are seeing.
- It is perfectly reasonable if you e-mail me a specific question and then happen to find out the answer yourself before you receive my answer. (Letting me know you've found the answer is fine, too!)
- Likewise, it is not a problem if you happen to send me several specific questions in separate e-mails (for example, as you work on different homework problems while awaiting earlier answers). I can answer shorter e-mails more quickly than longer e-mails.

- Expect a **24-hour turnaround time** for response to e-mails on weekdays and **48 hours** on weekends.
  - So, in general, if I have not replied to your e-mail within 24 hours, please **re-send** it, just in case I have overlooked it or some glitch occurred.
  - (And if there seems to be a chance that your message is getting chomped by a spam filter -- rare, but not unprecedented! -- leave me a message at 707-826-3381 with the `Subject:` line of the e-mail you are trying to send and the e-mail address you are using, and I will see if I have indeed received it!)
- You are expected to **sign** each e-mail you send me with **your name** -- sometimes the sender's identity is not obvious from one's e-mail address, especially for an off-campus e-mail address.
- Please take a few minutes to ensure that your message reflects a professional tone. I know I have sent an e-mail or two in the heat of the moment that I soon regretted. Take your time and communicate professionally. ( *Adapted from Jayne McGuire's syllabi language*)

### *Course Absences*

Between the ample quantity of clicker questions asked during the semester, and the two dropped lab exercise grades, you can be absent several times from non-exam lecture or lab sessions without significant direct penalty, for whatever reason. However, it is **your responsibility** to find out what was announced and covered on those days; "I wasn't there that time" is not an acceptable excuse.

Please let me know if class or life issues are making it difficult for you to attend class meetings or to keep up with course material and coursework, so we can make arrangements to help you work through those. It helps if you let me know **sooner** rather than later about such issues!

### *Academic Honesty*

Students are responsible for knowing policy regarding academic honesty. For more information, visit:

https://www2.humboldt.edu/studentrights/academic-honesty

**Plagiarism is a serious offense. Copying of another person's work and submitting it as your own for individual assignments, or providing your work to others for them to copy and submit as their own for such assignments, is not acceptable.**

Notice that this also means that it is NOT okay to copy or post homework answers or code from or to an online discussion or from or to sites such as Chegg.

Learning takes hard work; when students turn in others' work as their own, or provide it to others to copy, it is a slap in the face to those seriously interested in learning who are putting in that effort. Not turning in an assignment results in no credit for that assignment, but that is an honest grade. Work that violates the course honesty policy deserves a lower grade than that, and therefore the course policy is that work violating this policy may receive **negative** credit. Likewise, a person **providing** a file for copying would receive the same **negative** credit as the copier. Repeat offenses will be handled according to University policies, and may result in appropriate penalties up to and including a failing grade in the course.

When you pair-program in lab, both/all of your names are included in the work files that result. This should mean that you all *participated* in pair-programming for that assignment.

Did you find an interesting inspiration from a Google search or from a book for your algorithm or for a part of your shell script? **Attribute** it -- include a **comment giving its source**!

- Note that it is fine and *encouraged* to make use of shell scripts and functions from posted in-class examples -- reusing tested and debugged code is good programming practice! -- but it is professional to comment their source as well. (For CS 279 purposes, this can be as simple as "`from posted CS 279 examples`", for example.)

Note that it is **your** responsibility to ensure that your homework files are read-protected. If you are careless about this, and someone else copies your work, you will share the penalty. (In particular, be very careful about leaving work on shared network drives, or in UNIX/Linux directories that are not read-protected.)

### Is is OK to help each other?

On exams, **no**. (That said, *studying* together for each exam, before taking it, is an excellent idea and encouraged!)

For homework assignments, discussing approaches to homework problems is fine -- a good rule-of-thumb is that you are discussing approaches but not writing down or copying how to complete a particular problem.

Students may also help one another in determining causes of homework problem bugs, or in determining the meaning of error messages.

**However -- again -- any copying or modifying of someone else's answers, source code, or files, OR of providing answers, source code, or files to another, related to homework assignments and exams is definitely over the line, and never justified.**

### *More on Asking Questions/Getting Help*

- You are encouraged to ask questions in class, in student hours, and by e-mail. The most successful students are those who are not afraid to ask questions early and often (I will gently let you know if you are overdoing it).
- Especially with regard to homework assignments, it is usually better to ask a question **sooner** than later.
  - For example, it is better to send an e-mail with a specific question you have about a problem as soon as you think of it, rather than wait a day or two until the next class meeting or student hour.
  - If you wait to ask such questions, you might not have time to complete the assignment.

### *Incompletes*

Incompletes are rarely given and only in the case of a true emergency. They are not appropriate for students who find they have fallen behind on assignments, missed a test, or taken on too much academic, work, or family responsibilities. For these situations, dropping the course would be appropriate (**if** that is still possible according to the University policies for dropping courses).

If you are facing extenuating or emergency circumstances at any time during the semester, please consider contacting the Cal Poly Humboldt **Campus Assistance, Response, and Engagement (CARE) Services** office:

https://deanofstudents.humboldt.edu/CARE

## Campus policies

The following leads to useful links regarding Cal Poly Humboldt policies, procedures, and resources:

https://academicprograms.humboldt.edu/content/syllabus-addendum

All of the policies linked from the above are applicable to this class, and you are expected to be familiar with these policies.

The following are just a FEW highlights from this site, along with a few additional campus-policy-related notes:

### *Students with Disabilities*

Persons who wish to request disability-related accommodations should contact the **Student Disability Resource Center**, **707-826-4678 (voice)** or **sdrc@humboldt.edu**. Disability accommodations must be pre-approved by the Student Disability Resource Center.

You can reach the Student Disability Resource Center's web site at:

https://disability.humboldt.edu/

Please note that some accommodations may take up to several weeks to arrange. If you are eligible for such accommodations, please contact me as soon as possible to discuss them.

### *Dropping or Adding a Class*

- Students are responsible for knowing the University policy, procedures, and schedule for dropping or adding classes.
  - You can find these deadlines for Fall 2022 in the "Activities and Deadlines" calendar for Fall 2022, available at:

    https://registrar.humboldt.edu/sites/default/files/activites-deadlines- fall2022.pdf

    (There are MANY important deadlines in this calendar -- it is well-worth reading through!)
- **Note that the Add/Drop deadline for Fall 2022 is 11:59 pm on MONDAY, SEPTEMBER 5th.**
  - This is the deadline to add or drop courses through the Student Center.
  - After September 5th, dropping a course requires a "documented serious and compelling reason", and it is the **Registrar's Office** that determines what constitutes a "documented serious and compelling reason".
  - Note that it is the student's responsibility to properly drop a course.
- You can also find more information about dropping or adding a class at:

  https://registrar.humboldt.edu/forms - and click on **Add/Drop Date** on the right-hand side (OR toward the BOTTOM if viewing this on a phone or within a narrow browser window!)
- You can find the University policies for repeating classes at:

  https://registrar.humboldt.edu/forms#policies - and click on **Repeating Courses** on the right-hand side (OR toward the BOTTOM if viewing this on a phone or within a narrow browser window!)

### *Note about Course Grade Modes*

Note that courses applying to CS major/minor requirements -- including CS major electives! - must be taken with a grade mode of **letter grade** (that is, NOT with a grade mode of CR/NC, credit/no credit).

If you are taking this course as a **free** elective, however (and **not** as a CS major elective or as part of a CS minor), then note that the limit of **at most one optional CR/NC course per term** is back in effect, and that, for Fall 2022, the deadline to change grade modes is **Monday, October 17th.**

For more information on optional CR/NC grade mode, see:

https://registrar.humboldt.edu/node/407 - and click on **Credit Limitations** on the right-hand side (OR toward the BOTTOM if viewing this on a phone or within a narrow browser window!), and within that scroll down to the **Credit/No Credit** section within.

### *Attendance and disruptive behavior:*

Students are responsible for knowing policy regarding attendance and disruptive behavior:

https://www2.humboldt.edu/studentrights/attendance-behavior

- **Class disruption:** University policy requires that instructors eliminate disruptions to the educational process. Distractions such as excess talking or behaviors that disrupt the class are not acceptable.
  - Students indulging in such behaviors will first be warned before any additional measures are taken (although a warning is not required in the case of abusive behavior).

## In Case of Emergency:

Adapted from "**Earthquake Resources for HSU Faculty and Staff**", by the Cal Poly Humboldt Geology Department:

IN THE EVENT OF AN EARTHQUAKE:

- DROP AND COVER YOUR HEAD, AS BEST YOU CAN.
- DO NOT RUN, JUMP OVER SEATS, PUSH ANYONE, OR HEAD FOR THE DOORWAY.

- STAY WHERE YOU ARE UNTIL THE SHAKING STOPS.
- WE WILL CALMLY AND QUICKLY EXIT THE CLASSROOM/LAB AND ASSEMBLE AT OUR ASSIGNED EMERGENCY ASSEMBLY POINT (EAP).
- Download the MyShake app on your smartphone so that you can receive earthquake alerts from the earthquake early warning system.

Want to read more from this excellent resource? Here is a link (provided with permission from Professor Melanie Michalak):

https://docs.google.com/document/d/1_TeV_SoN2M7jqUyOVQPdSsw5jndGMY1zuCJroFUF8zM

More generally:

### *Emergency Information*

Please review the evacuation plan for the classroom (posted on the orange signs). During an emergency, information regarding campus conditions can be found at **707-826-INFO** or:

https://www.humboldt.edu/emergency

You can review the campus Emergency Preparedness plan at:

http://risksafety.humboldt.edu/sites/default/files/risksafety/hsu_eop-g_9.3.pdf

## incredibly-TENTATIVE Course Schedule: (very subject to change with fair notice)

### *Week 1: August 22, 24, 25*

- **Topics**: some UNIX/Linux history and background; going over basic Linux command format and some basic commands
- **Homework 1 out**

### *Week 2: August 29, 31, September 1*

- **Topics**: more basics of Linux user commands; basic Linux filesystems structure, and basics of Linux file handling, files and directories
- **Homework 1 due - 11:59 pm Friday, September 2**
- **Homework 2 out**

### *Week 3: September 7, 8*

- **FYI: NOTE: Last day to drop a course through your Student Center (without a W and without a serious and compelling reason) is MONDAY, September 5.**
- **NO class on Monday, September 5 -- Humboldt Labor Day Holiday**
- **Topics**: continuing with basics of Linux file handling, files and directories; intro to writing a simple `bash` shell script
- **Homework 2 due - 11:59 pm Friday, September 9**
- **Homework 3 out**

### *Week 4: September 12, 14, 15*

- **Topics**: `bash` environment variables and `bash` shell script variables

- **Homework 3 due - 11:59 pm Friday, September 16**
- **Homework 4 out**

### *Week 5: September 19, 21, 22*

- **Topics:** command-line arguments for a `bash` shell script; permissions needed for execution; redirecting standard output, redirecting standard error output
- **Wednesday, September 21 - REVIEW for Exam 1** (NOTE that this will include several review clicker questions.)
- **Homework 4 due - 11:59 pm Friday, September 23**

### *Week 6: September 26, 28, 29*

- **Topics**: `bash` shell script control structures; backquoting a command
- **Wednesday, September 28 - Exam 1**
- **Homework 5 out**

### *Week 7: October 3, 5, 6*

- **Topics**: the `grep` command, and intro regular expressions (basic and extended)
- **Homework 5 due - 11:59 pm Friday, October 7**
- **Homework 6 out**

### *Week 8: October 10, 12, 13*

- **Topics:** more on `bash` shell script control structures; exiting a script early; how to get the exit status of the last command executed
- **Homework 6 due - 11:59 pm Friday, October 14**
- **Homework 7 out**

### *Week 9: October 17, 19, 20*

- **FYI: NOTE: Last day to change a registered class' grade option to CREDIT/NO CREDIT is Monday, October 17.**
  - (limit of at most **one** optional CR/NC course permitted per term)
  - (that said, also note that courses applying to your CS degree requirements -- including CS major electives! -- must **NOT** be taken as credit/no credit; they must be graded with a **letter grade**)
- **Topics**: discussion of `diff`, `wc`, `touch`, `tee`; intro to the `find` command; intro to `bash` arrays
- **Homework 7 due - 11:59 pm Friday, October 21**
- **Homework 8 out**

### *Week 10: October 24, 26, 27*

- **Topics**: intro to the `BASH_REMATCH` array (holds matches to regular expression subexpressions), intro to `gzip/gunzip` and `tar`; setting your `bash` command prompt; a few more `ls` options, intro to `head` and `tail`, intro to `sed`
- **Homework 8 due - 11:59 pm Friday, October 28**
- **Homework 9 out**

### *Week 11: October 31, November 2*

- **FYI: NOTE: Last day to drop a course with a W, with a serious and compelling reason, and subject to your 18 semester-units drop limit is Monday, October 31.**
- **Topics:** more about processes; more history-related command-line shortcuts
- **Wednesday, November 2 - REVIEW for Exam 2** (NOTE that this will include several review clicker questions.)
- **November 4 - no lab**, because instructor will be traveling to a conference (CCSC-NW 2022) **- BUT NOTE:**
- **Homework 9 due - 11:59 pm Friday, November 5**

### *Week 12: November 7, 9, 10*

- **Topics**: `bash` shell script functions; intro to a Linux GUI
- **Wednesday, November 9 - Exam 2**
- **Homework 10 out**

### *Week 13: November 14, 16, 17*

- **Topics:** intro to `sftp`; intro to `sleep`, `time`, `wait`, `nohup`, `nice`, `renice`
- **Homework 10 due - 11:59 pm Friday, November 18**
- **Homework 11 out**

### *FALL BREAK - November 21-25*

### *Week 14: November 28, 30, December 1*

- **Topics**: intro to `bash` shell `case` statement; intro to `crontab`; intro to `uptime`, load average, `top`, `at`, `batch`
- **Homework 11 due - 11:59 pm Friday, December 2**
- **Homework 12 out**

### *Week 15: December 5, 7, 8*

- **Topics:** a little system administration advice; intro to `date`, `cal`, `printf`, `df`, `du`, `uname`, `sudo`, `useradd`, `passwd`; review for Final Exam
- **Homework 12 due - 11:59 pm Friday, December 9**

### *Final Exam:*

**WEDNESDAY, DECEMBER 14, 8:00 - 9:50 am** in TA 011.