Colorado State University – Department of Computer Science

Culture and Coding

CS 150B Spring 2026

Instructor: Elisa Cundiff

Course Description

Survey of computer science, formal logic, and computational thinking. Explores the historical, gender, and cultural perspectives on the role of technology in society. Includes learning a basic programming language. Students will be expected to write small programs, and construct written arguments on ways in which technology influences our modern culture. Previous computer science experience is not necessary.

GT Pathways

The Colorado Commission on Higher Education has approved CS 150 for inclusion in the Guaranteed Transfer (GT) Pathways program in the GT-AH3 category. For transferring students, successful completion with a minimum C- grade guarantees transfer and application of credit in this GT Pathways category. For more information on the GT Pathways program, go to **http://highered.colorado.gov/Academics/Transfers/gtPathways/curriculum.html**

Note: this course serves as a prerequisite at CSU for CS 164. **You are required to achieve a B or better in CS 150B in order to continue into CS 164.**

Course Objectives

After completing this course, the successful student will be able to:

Critical Thinking

- Explain an Issue: Use data to describe a problem or articulate a question related to the topic.
- Evaluate Bias: Analyze one's own and others' assumptions and understand how data can be impacted by human bias.

Global Learning

- Build Self-Awareness: Demonstrate how their own attitudes, behaviors, or beliefs compare or relate to those of other individuals, groups, communities, or cultures.
- Examine Perspectives: Explore diverse perspectives when investigating modern impacts of computing.

Written/Oral Communication

- Construct meaningful arguments and ideas that align with the historical and cultural topics discussed in class.
- Evaluate and incorporate credible sources to support programming-related and cultural analysis.
- Communicate unique and personal ideas effectively through writing.

Programming

- Demonstrate that they can read the language syntax, parse code, and predict the flow of control and program output.
- Write programs of 100-200 lines, showcasing skills to design, build, and verify programs of moderate size.
- Demonstrate proficiency in testing and debugging code written by themselves or others.
- Illustrate understanding of fundamental programming skills, including data structures and File I/O.
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Contact: Students should first contact their Undergraduate Teaching Assistant (UTA) during lab or office hours. For escalated issues, reach out to the course instructor.

Major Topics

- History of Computing
- Formulating Arguments Related to Technology
- Evaluating Bias in Technology and Data
- The Internet
- New AI Technologies and Their Societal Impact
- Cybersecurity and Data Privacy
- Writing Python Tools for Data Analysis
- Programming Topics:
    - Operations
    - Functions
    - Conditionals
    - Strings
    - Loops
    - File I/O
    - Lists, Tuples, Dictionaries, Sets
    - Libraries

16 Week Schedule

Unit 1: A Human History of Technology

Module	CultureTopics	Coding Topics and High Value Assignments
Week 1	The Building Blocks: From Looms to Logic	Fundamentals: Intro to binary, ASCII, and Unicode
Week 2	The Imitation Game: Defining Intelligence	Python Fundamentals Live Programming Exam: Print Statement
Week 3	The Power of Abstraction: From Recipes to Reusable Tools	Variables and Functions
Week 4	Code as Communication: The Language of Data	Strings and Formatting Exam 1

Unit 2: Security, Surveillance, and Power

Module	Culture Topics	Coding Topics
Week 5	Engineering the Future: From Sci-Fi to Self-Fulfilling Prophecy	Branching and Conditionals
Week 6	The Persistence of State: Loops and Memory	While Loops and Encoding Operations
Week 7	The Ghost in the Machine: Is AI Thinking or Just Recognizing Patterns?	Boolean Logic Conditional Expressions Lists Files Tuples Live Programming Exam Due:

		Functions
Week 8	The Intelligence Explosion: Forecasting the Singularity	For Loops and Lists Range Nested Loops

Unit 3: The Future of Humanity and AI

Module	Culture Topics	Coding Topics
Week 9	The Power of the Key: From Index Cards to the Semantic Web	Files and Dictionaries Midterm Midterm Reflection Due
Week 10	Anatomy of a Digital Crime: Fintech, Fraud, and Geopolitical Espionage	Reading CSV Files Advanced Functions and Lists
Week 11	Known Unknowns: The Limits of Computers, Code, and Data	Python Libraries and Data Science

Unit 4:

Module	Culture Topics	Coding Topics
Week 12	The Alignment Problem: Engineering Morality and Practical Project Start	Data Wrangling
Week 13	TBD	Data Exploration and Visualization Practical Project Code Due
Week 14	TBD	Practical Project Paper Due
Week 15	Review	Review Final Reflection Due
Week 16	Final Exam	Final Exam

Please consult the university **Final Exam Schedule** for the final exam.

- During 16-week sessions, the final exam will take place during the university assigned time.
- During 8-week sessions, the final exam happens on the last scheduled class day.

Important! All due dates will be listed in Canvas

Programming Labs

Labs are in Zybooks and are meant to be complete during your assigned lab time. They will cover the programming topics listed above each week. Lectures focus on cultural topics.

Grading

Grade Assignment The assignment of letter grades will be made as follows:

Letter Grade	Points
A	≥ 90%
B	≥ 80%
C	≥ 70%
D	≥ 60%
F	< 60%

In general, we will *not* assign lower grades than shown. We reserve the right to change the grading cut lines.

Point Distribution

Activity	Weight
Formative: Readings and Programming Labs	25%
Formative: Knowledge Checks	15%
Formative: Writings and Reflections	15% *The lowest grade is dropped*
Summative: Participation (iClicker, in lab written explanations, and weekly course worksheets)	10% *Six lowest grades are dropped*
Summative: Practical Project Code	5%
Summative: Practical Project Paper (1 and 2)	5%
Summative: Exams	35%

Grade complaints will be considered only for two weeks immediately following when the assignment grade appears on Canvas!

Assignment Categories

Formative Assignments

Anything considered a formative assignment, can be redone within one week (7-days) of the due date. It is our belief that learning is a process, and mistakes happen during learning. Instead, we will continue to ask you to redo something until you get it correct.

Reading Assignments and Labs

Reading assignments are to be done in Zybooks, and are meant to be done **before** the associated lecture. Labs are meant to be after the lecture, and both are major components in your understanding of how to code. The readings often start out longer at the start of the semester, but decrease in length when we return to topics. Labs will start off easier, but will get longer throughout the semester.

To complete a reading, it suggested you use the link in canvas every time you login as compared to going

directly to zybooks. Due dates for the assignments are in Canvas, and are the night before the associated lecture.

Accommodation Window / Resubmissions

You may **resubmit reading assignments and labs for up to one week after the due date.** You must have an initial submission by the due date to be allowed to resubmit. Due to how technology interacts, the official “cutoff” date is in zybooks which will allow you to submit anything done before that date to canvas at a later time. Please note, it is still recommended that you complete most of the reading by the due date in canvas!

For accommodations, the resubmission window takes into account most accommodations, as it will allow anywhere from 3 days to 1 week of extra time. While the expected time is the due date in canvas, we understand that everyone can occasionally need accommodations, so having this resubmission window helps show competency at your own rate.

Knowledge Checks

Knowledge Checks and in-class activities supplement the lecture, by interweaving recall and instruction with the lecture content. Knowledge checks are available on canvas and are used to help ensure you are keeping up with current content and may be completed until the end of the semester.

Study Suggestion

You should go back to older knowledge checks each week, and interweave your study habits. For example, during week four, pick a knowledge check from 1, 2, and 3 to redo. This will help solidify content, and help with retention of information.

Writing and Reflections

You'll complete regular in-class writing and two major reflections exploring technology's impact on society and your life. These are a significant part of your grade, with your two lowest writing scores dropped. (***Note: This excludes your final project paper, worth 10% of total grade.***)

Accommodation Window / Resubmissions

> Students with accommodations have a one-week extension window on these written assignments. You must notify your SuperGroup lead before the original due date if using this extension.
>
> *Due to prompt feedback requirements and peer grading, extensions cannot exceed the accommodation window.*

Summative Assessments

While 65% of the course uses formative assessments (which you can redo within 7 days to encourage learning from mistakes), summative assessments demonstrate your mastery of the material.

Breakdown:

- Projects: 10% of final grade
- Exams: 25% of final grade

Practical Project / Final Paper

This capstone project includes both coding and written components. Details will be provided at the end of Unit 2.

Note: Unit 4 focuses on summative work—you'll have readings and knowledge checks but no labs, giving you time to complete your projects.

Guiding Principles

CS 150B - Culture and Coding: Python (AUCC 3B/GT-AH3) is built around the **Principles of Community**, and we expect students to uphold these principles within our classroom environment, and throughout their careers.

Inclusion

We create and nurture inclusive environments and welcome, value and affirm all members of our community, including their various identities, skills, ideas, talents and contributions.

This manifests in this class in our in class discussions, discussion posts, and our interactions on Teams. You are to be **kind** to others with various backgrounds and identities, without making assumptions. With that said, this course is considered a 'Brave Space'. This does not exclude the classroom from being a Safe Space - and know you are welcome - and the classroom is meant to challenge ideals. We will often approach topics that may make you feel uncomfortable and challenge your point of view. We will even ask you to argue the opposite of what you believe. That is the joy of learning.

Learn more about the difference:

- **Brave Space or Safe Space**
- **Safe Spaces, Brave Spaces**

Counseling Services

We encourage students to make use of the **University Counseling Services**. Just as one takes care of your physical health, you should also take care of your mental health using all tools and means at your disposal. Your student fees provide access to a wide range of mental health support resources at no additional cost. Visit Counseling Services on the 3rd floor of the CSU Health Network, and they'll work together with you to find the resources that are best for you.

Universal Design For Learning/Accommodation of Needs

We are committed to the principle of universal learning. This means that our classroom, our virtual spaces, our practices, and our interactions be as inclusive as possible. Mutual respect, civility, and the ability to listen and observe others carefully are crucial to universal learning.

If you are a student who will need accommodations in this class, please contact me to discuss your individual needs. Any accommodation must be discussed in a timely manner. A verifying memo from **The Student Disability Center** may be required before any accommodation is provided.

The Student Disability Center (SDC) has the authority to verify and confirm the eligibility of students with disabilities for the majority of accommodations. While some accommodations may be provided by other departments, a student is not automatically eligible for those accommodations unless their disability can be verified and the need for the accommodation confirmed, either through SDC or through acceptable means defined by the particular department. Faculty and staff may consult with the SDC staff whenever there is doubt as to the appropriateness of an accommodative request by a student with a disability.

The goal of SDC is to normalize disability as part of the culture of diversity at Colorado State University. The characteristic of having a disability simply provides the basis of the support that is available to students. The goal is to ensure students with disabilities have the opportunity to be as successful as they have the capability to be.

Support and services are offered to student with functional limitations due to visual, hearing, learning, or mobility disabilities as well as to students who have specific physical or mental health conditions due to epilepsy, diabetes, asthma, AIDS, psychiatric diagnoses, etc. Students who are temporarily disabled are also eligible for support and assistance.

Any student who is enrolled at CSU, and who self-identifies with SDC as having a disability, is eligible for support from SDC. Specific accommodations are determined individually for each student and must be supported by appropriate documentation and/or evaluation of needs consistent with a particular type of disability. SDC reserves the right to ask for any appropriate documentation of disability in order to determine a student's eligibility for accommodations as well as in support for specific accommodative requests. The accommodative process begins once a student meets with an accommodation's specialist in the SDC.

Inclusive Excellence

The **Mission, Vision, and Focus** webpage of the Vice President for Inclusive Excellence includes a comprehensive statement of CSU's commitments:.

Integrity

We are accountable for our actions and will act ethically and honestly in all our interactions.

Within the classroom, that means you do your own work! This is especially true when it comes to programming, as it is easy to copy another's code. Copying code *is cheating* and lacks integrity. Such violations of cheating or plagiarism will result in zero to a full negative grade on the assignment and reporting to the appropriate university resources. Further infractions will result in an F given in the course.

For personal assistance, here are some of the things that are appropriate:

- Clarifying ambiguities or vague points in class handouts, textbooks, or lectures
- Discussing or explaining the general class material
- Discussing the code that we give out on the assignment
- Discussing the assignments to better understand them
- Getting help from anyone concerning programming issues which are clearly more general than the specific project (e.g., what does a particular error message mean?)
- Suggesting solution strategies
- In general, oral collaboration is OK.

Here are some things that are inappropriate:

- Copying files or parts of files (such as source code, written text, or unit tests) from another person or source
- Copying (or retyping) files or parts of files with minor modifications such as style changes or minor logic modifications
- Allowing someone else to copy your code or written assignment, either in draft or final form
- Getting help that you do not fully understand, and from someone whom you do not acknowledge on your solution
- Writing, using, or submitting a program that attempts to alter or erase grading information or otherwise compromise security
- Copying someone else's files containing draft solutions, even if the file permissions are incorrectly set to allow it
- Lying to course staff
- Reading the current solution (handed out) if you will be handing in the current assignment late
- Copying prose or programs directly
- Copying/Pasting anything directly from a Large Language Model (LLM) such as Chat GPT, Gemini, or Claude.
- Copy/Pasting anything directly from any source.
- Giving copies of work to others
- Coaching others step-by-step

If you do any of these, your should also acknowledge it in what you turn in; but expect to have a conversation with an instructor about it and, at least, suffer some penalty in the grade. If we discover you have done this and not

acknowledged it, the penalty will be much more severe. In other words, dishonesty is much worse than stupidity.

Here are some gray areas:

- Reading someone's code for clarity or bugs, after you have completed your own
- Helping with debugging
- Looking at someone's prose or program but thinking about them and writing your own
- Following someone's advice or instructions without understanding them
- Many others

These, too, should be acknowledged.

A few resources

- **Cheating versus Collaboration**
- **CMU Policy**
- **CSU Resolution Center - Conduct Code**

Academic Integrity & CSU Honor Pledge

This course will adhere to the CSU **Academic Integrity/Misconduct** policy as found in the General Catalog and the **Student Conduct Code**.

Academic integrity lies at the core of our common goal: to create an intellectually honest and rigorous community. Because academic integrity, and the personal and social integrity of which academic integrity is an integral part, is so central to our mission as students, teachers, scholars, and citizens, I will ask that you affirm the **CSU Honor Pledge** as part of completing your work in this course.

Further information about Academic Integrity is available at CSU's **Academic Integrity - Student Resources**.

Respect

We honor the inherent dignity of all people within an environment where we are committed to freedom of expression, critical discourse, and the advancement of knowledge.

Within this classroom, we give everyone the opportunity to talk during discussions. We are honest and open with everyone. We will also treat the labs and computers with respect, and those in the lab. If you are unable to use the lab resources with respect, you can loose the privilege of the lab and computer use.

Please review the core **rules of netiquette** for some guidelines and expectations on how to behave in an online learning environment, such as canvas.

Religious Observances

CSU does not discriminate on the basis of religion. Reasonable accommodation should be made to allow individuals to observe their established religious holidays. Students seeking an exemption from attending class or completing assigned course work for a religious holiday will need to fill out the **Religious Accommodation Request Form** and turn it in to the Division of Student Affairs, located on the second level of the Administration building.

Once turned in, the Division of Student Affairs will review the request and contact the student accordingly. If approved, the student will receive a memo from the Dean of Students to give to their professor or course instructor.

Students are asked to turn in the request forms as soon as the conflict is noticed. Similarly, unanticipated conflicts requiring a religious observance, such as a death in the family, can also be reviewed.

Service

We are responsible, individually and collectively, to give of our time, talents, and resources to promote the well-being of each other and the development of our local, regional, and global communities.

Service within the class means giving back to the class. How do you choose to improve the classroom community, and those around you? Computer Science is about using technology to improve the world - and it starts with you.

Additionally, one way you will serve your local community is as a peer grader. Some of our assignments will require peer grading, and all assignments require peer interaction. If you do not follow your peer grading responsibility, you risk receiving a 0 on your assignments.

Social Justice

We have the right to be treated and the responsibility to treat others with fairness and equity, the duty to challenge prejudice, and to uphold the laws, policies and procedures that promote justice in all respects.

There are topics in this class that have to do with social justice and equity for all those who use technology. These topics are meant to cause us to think about inclusive design, and how we develop applications that actively promote social justice by means of the application following inclusive design principles.

Undocumented Student Support

Any CSU student who faces challenges or hardships due to their legal status in the United States and believes that it may impact their academic performance in this course is encouraged to visit **Undocumented Student Program** for resources and support. Additionally, only if you feel comfortable, please notify your professor so they may pass along any additional resources they may possess.

Title IX/Interpersonal Violence

For the full statement regarding role and responsibilities about reporting harassment, sexual harassment, sexual misconduct, domestic violence, dating violence, stalking, and the retaliation policy please go to: **Office of Title IX**

Programs and Gender Equity.

If you feel that your rights have been compromised at CSU, several resources are available to assist:

- Student Resolution Center, 200 Lory Student Center, (970) 491-7165
- Office of Equal Opportunity, 101 Student Services, (970) 491-5836

A note about interpersonal violence: If you or someone you know has experienced sexual assault, relationship violence and/or stalking, know that you are not alone. As instructors, we are required by law to notify university officials about disclosures related to interpersonal violence. Confidential victim advocates are available 24 hours a day, 365 days a year to provide support related to the emotional, physical, physiological and legal aftermath of interpersonal violence. Contact the Survivor Advocacy and Foundational Education (SAFE) Center at: (970) 492-4242.

Additional Standard Policies

Copyrighted Course Materials

Please do not share material from this course in online, print, or other media. Course material is the property of the instructor who developed the course. Materials authored by third parties and used in the course are also subject to copyright protections. Posting course materials on external sites (commercial or not) violates both copyright law and the CSU Student Conduct Code. Students who share course content without the instructor's express permission, including with online sites that post materials to sell to other students, could face appropriate disciplinary or legal action.

Third-Party Tools/Privacy

Please note that this course may require you to use third-party tools (tools outside of the Canvas learning management system), such as Skype and others. Some of these tools may collect and share information about their users. Because your privacy is important, you are encouraged to consult the privacy policies for any third-party tools in this course so that you are aware of how your personal information is collected, used and shared.

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