



CS1400 Course Syllabus

For additional course information, including prerequisites, corequisites, and course fees, please refer to the Catalog: <https://catalog.uvu.edu/>

Semester: Spring

Year: 2025

Course Prefix: CS

Course and Section #: CS1400-002

Course Title: Fundamentals of Programming

Credits: 3

Course Description

CS 1400 introduces techniques and tools to formulate and solve problems where computer algorithms and programs are a core part of an effective, repeatable solution. It teaches algorithmic thinking using procedural programs composed of sequences of commands, functions, loops, conditionals, and basic data structures. It may be delivered online. AILab access fee of \$45 for computers applies.

CS 1400 is not a GE course. It is required for Computer Science majors, Engineering majors and a growing number of other majors. It is also a nice elective choice for any major where it is not required.

Course Attributes

This course has the following attributes:

- General Education Requirements
- Global/Intercultural Graduation Requirements
- Writing Enriched Graduation Requirements
- Discipline Core Requirements in Program
- Elective Core Requirements in Program
- Open Elective

Other: *Click here to enter text.*

Instructor Information

Instructor Name: Eshita Zaman

Student Learning Outcomes

Upon successful completion of this course, students will be able to:

- Design procedural solutions to programming problems
 - Implement procedural solutions to problems with appropriate use of sequences of commands, functions, variables, conditionals, looping, files, lists, and libraries.
 - Test programs to assure that solutions are correct and complete.
 - Design readable, maintainable code, using a good, consistent programming style.
-

Course Materials and Texts

Required materials, fees and technology:

- Lab access fee of \$45 for computers applies.

- [CodioLinks to an external site.](#), which is required for the textbook and assignments

To access Codio:

1.
 1. Click on **Modules** in Navigation at the left.
 2. Scroll down to Module 1 or any linked assignment or reading, and click on it. This will take you to a screen to access Codio.
 3. Students should purchase access and set up an account. Use a credit card to purchase access. Use the same email that you use for UVU login credentials. Make sure that you have **popups** enabled in your browser. This license is good for one year.
- Canvas
 - Python 3.10 or later
 - Extra Python modules you want to install
 - A Python IDE (Integrated Development Environment):
 - [Python.orgLinks to an external site.](#) lists several popular Python IDEs and bundles.
 - [ThonnyLinks to an external site.](#) is a good IDE for beginners and includes an appropriate version of Python.
 - [AnacondaLinks to an external site.](#) is a popular Python distribution that installs many useful scientific libraries.

Optional materials, fees and technology:

- There are thousands of interesting Python modules and libraries to play with for graphics, art, music, game development, scientific computing, business, economics, and beyond. Adventurous students are encouraged to experiment beyond the scope of this class.
- The [OnStudy Discord ServerLinks to an external site.](#) has a CS 1400 channel where you can connect with instructors and other students

Software Licenses:

- Any versions of Python required for this course are both free and open source. No paid license is needed.
- All extra modules used in the course are free. Most are also open source.
- Thonny, a simple IDE that we recommend for beginners to use, is free and open source (MIT License).
- The textbook and assignments are hosted on Codio, which does require a paid license.

Course Requirements

Course Assignments, Assessments, and Grading Policy

Students earn points for completing assignments. To earn points, students must demonstrate that they have mastered the material; it is not the instructor's job to show that they have not.

Grading Scale:

The following grading standards will be used in this class:

Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
Percent	93-100	90-92	87-89	83-86	80-82	77-79	73-76	70-72	67-69	63-66	60-62	0-59

CS majors need a C+ minimum to pass for matriculation. Other majors may have different standards for passing. It is up to the student to know the standards that apply.

Assignment Categories

Activity	Percent
Required Reading	5%
Discussions	5%
Programming Projects	40%
Homework Exercises	15%
Midterm Exams	20%
Final Project	15%
Extra Credits	2%

Late Work Statement:

Late submissions do not earn full credit; the number of points earned is reduced when the assignment is graded. All assignments are due at **11:59:59 pm** (Mountain time) on the date assigned. Homework assignments are penalized 10% per weekday after the due date to a maximum of 20%. Projects are penalized 20% for being late. Late work may or may not receive feedback at the instructor's discretion. There are no make-up exams. You will have **two grace days** to be claimed for any programming project assignment during the semester. You really should have no reason to hassle me about grades or extensions (good for me, and you!). When using a grace day, please let your instructor and TA know.

Assignment and Assessment Descriptions

Assignments:

This course includes weekly reading and exercises, six programming projects, and three exams. The final exam is Project 6, which is weighted as both a project and the final exam. All graded assignments except in-class activity are submitted via Codio. All assignments except programming assignments may be reset and resubmitted at will by students.

Weekly homework assignments:

The textbook has assigned readings that include exercises. These exercises are designed to give you an opportunity to incrementally practice and apply what you are learning. You will submit them by completing them in Codio.

Programming projects:

There are six programming projects, which are all listed in Codio. Read each project description very carefully before starting it. Projects are submitted on the Codio platform.

Discussions:

Discussions will be opportunities to explore topics together. Posts to the discussion should add significantly to the conversation and support your point of view. Comments that do not add significantly to a discussion will receive no credit. It is okay to disagree in a discussion. In fact much learning happens when we disagree. However, we need to be respectful and keep our online classroom a safe place to learn.

Due dates for discussions correspond with the initial post date which is usually a Thursday. Follow-up comments are due by Friday. Follow-up posts are expected to be after the due date and are not marked as late. Discussions conclude by the Friday following the due date. After this, posts will be marked late.

Assessments:

Assessments will be administered in Codio.

Required or Recommended Reading Assignments

This course has required reading and exercises each week.

General Description of the Subject Matter of Each Lecture or Discussion

Course Mode:

This course is delivered face-to-face.

Description of how the course works:

Computer science involves:

- attention to detail,
- memory,
- abstract thinking,
- creativity and intuition, and
- dedication

These skills can all be developed with time and practice. Be prepared to experience both frustration and elation as you work on difficult problems that affect both your mood and your grade. CS 1400 is designed to help you develop these skills.

The Tips for Success module has articles on note taking and problem-solving, which will help you succeed in this class.

Assignments

This course includes weekly reading and exercises, five programming projects, and three exams. The final exam is Project six, which is weighted as both a project and the final exam. All graded assignments except in-class activity are submitted via Codio. All assignments except programming assignments may be reset and resubmitted at will by students.

Course help resources

You have many resources available to you to help you as you study. Consider doing any or all of the following:

- Meet with your [instructional assistantLinks to an external site.](#)
- Ask your instructor
- Join a study group
- Join the CS1400 channel on the [OnStudy Discord ServerLinks to an external site.](#)

Expected time:

For this three-credit course, students should expect to spend at least **9 hours** per week completing course activities,

including class time. A block class or summer section typically requires double the pace and double the time

commitment per week. It is strongly recommended that you schedule class and homework time in advance.

Third-Party Usage:

Please review the Terms and Conditions of Use, including the Privacy and Data Usage policies of the following providers:

- Codio: [Terms and Conditions of UseLinks to an external site.](#)
- Discord: [Terms of ServiceLinks to an external site.](#) [Privacy PolicyLinks to an external site.](#)

Inclusion Statement

“Come as you are. UVU has a place for you.”--President Tuminez.

UVU is committed to preparing all students for success in an increasingly complex, diverse, and globalized society. We value and promote collegial relationships and mutual respect among students, faculty, staff, and the community. We acknowledge and seek to address the needs of populations who are underserved as well as students with varying levels of academic preparation. Since your experience

in this class is important to me, it is my intent to promote civility and respect the voice, dignity, and potential of each individual. I aim for an inclusive learning environment that provides equitable opportunities and fosters the understanding, appreciation, and recognition that diversity and individual differences are a source of strength. I aim for a course that is respectful of diversity including age, culture, disability, ethnicity, gender, nationality, race, religion, sexuality, and socioeconomic status. Please contact me if you need to talk about any issues you are facing. I value any suggestions on how to improve the effectiveness of this course. If that feels uncomfortable to you, you can contact the [Inclusion and Diversity Committee](#)[Links to an external site.](#) to ask for help and support.

Required Course Syllabus Statements

Generative AI

ChatGPT (and similar Tools) in This Course: Use ChatGPT as a learning assistant, not as a crutch. If you use it, cite it at the top of your code. **You** are responsible to make sure that any code or content does what it is supposed to do and says what you want it to say. Don't accept anything it generates at face value without checking it critically. These days potential employers will expect you to know how to use tools like ChatGPT to generate code, so it is a skill we need to teach you. If it helps you learn some things faster, GREAT because we can spend class time on more interesting topics. Just remember: If you REALLY want to be good, work for it.

Suggestions for using it responsibly:

- If you don't have a clue, use AI to get a clue.
- If you don't understand a concept, ask AI for an explanation with examples.
- If some code isn't working, ask AI for help on that snippet, including broken APIs.
- If you want help on improving your code, ask AI how you might improve some function or section of your code.
- Tell AI to guide you toward a solution rather than giving you a solution immediately.
- If you use AI, remember to note you've used it in your module docstrings and in your project submission document.
- If you feel like you need smaller exercises or practice with some concept before working on some part of your project, use AI to generate exercises for you.
- Whatever the AI generates, don't turn in code you could not, would not, or should not have written. That will be penalized heavily. The instructor is the judge of that.

Using Remote Testing Software

This course does not use remote testing software.

This course uses remote testing software. Remote test-takers may choose their remote testing locations. Please note, however, that the testing software used for this may conduct a brief scan of remote test-takers' immediate surroundings, may require use of a webcam while taking an exam, may require the microphone be on while taking an exam, or may require other practices to confirm academic honesty. Test-takers therefore shall have no expectation of privacy in their test-taking location during, or immediately preceding, remote testing. If a student strongly objects to using test-taking software, the student should contact the instructor at the beginning of the semester to determine whether alternative testing arrangements are feasible. Alternatives are not guaranteed.

Required University Syllabus Statements

Accommodations/Students with Disabilities

Students needing accommodations due to a permanent or temporary disability, pregnancy or pregnancy-related conditions may contact UVU [Accessibility Services](#) at accessibilityservices@uvu.edu or 801-863-8747.

Accessibility Services is located on the Orem Campus in BA 110.

Deaf/Hard of Hearing students requesting ASL interpreters or transcribers can contact Accessibility Services to set up accommodations. Deaf/Hard of Hearing services can be contacted at DHHservices@uvu.edu

DHH is located on the Orem Campus in BA 112.

Academic Integrity

At Utah Valley University, faculty and students operate in an atmosphere of mutual trust. Maintaining an atmosphere of academic integrity allows for free exchange of ideas and enables all members of the community to achieve their highest potential. Our goal is to foster an intellectual atmosphere that produces scholars of integrity and imaginative thought. In all academic work, the ideas and contributions of others must be appropriately acknowledged and UVU students are expected to produce their own original academic work.

Faculty and students share the responsibility of ensuring the honesty and fairness of the intellectual environment at UVU. Students have a responsibility to promote academic integrity at the university by not participating in or facilitating others' participation in any act of academic dishonesty. As members of the academic community, students must become familiar with their [rights and responsibilities](#). In each course, they are responsible for knowing the requirements and restrictions regarding research and writing, assessments, collaborative work, the use of study aids, the appropriateness of assistance, and other issues. Likewise, instructors are responsible to clearly state expectations and model best practices.

Further information on what constitutes academic dishonesty is detailed in [UVU Policy 541: Student Code of Conduct](#).

Equity and Title IX

Utah Valley University does not discriminate on the basis of race, color, religion, national origin, sex, sexual orientation, gender identity, gender expression, age (40 and over), disability, veteran status, pregnancy, childbirth, or pregnancy-related conditions, citizenship, genetic information, or other basis protected by applicable law, including Title IX and 34 C.F.R. Part 106, in employment, treatment, admission, access to educational programs and activities, or other University benefits or services. Inquiries about nondiscrimination at UVU may be directed to the U.S. Department of Education's Office for Civil Rights or UVU's Title IX Coordinator at 801-863-7999 – TitleIX@uvu.edu – 800 W University Pkwy, Orem, 84058, Suite BA 203.

Religious Accommodation

UVU values and acknowledges the array of worldviews, faiths, and religions represented in our student body, and as such provides supportive accommodations for students. Religious belief or conscience broadly includes religious, non-religious, theistic, or non-theistic moral or ethical beliefs as well as

participation in religious holidays, observances, or activities. Accommodations may include scheduling or due-date modifications or make-up assignments for missed class work.

To seek a religious accommodation, a student must provide written notice to the instructor and the Director of Accessibility Services at accessibilityservices@uvu.edu. If the accommodation relates to a scheduling conflict, the notice should include the date, time, and brief description of the difficulty posed by the conflict. Such requests should be made as soon as the student is aware of the prospective scheduling conflict.

While religious expression is welcome throughout campus, UVU also has a [specially dedicated space](#) for meditation, prayer, reflection, or other forms of religious expression.