

Fundamentals of Programming – CRN – CS 1400 – Section X

COURSE SYLLABUS – SEMESTER YYYY

3 Credit Hours

**Room Number – Days – Time**

# Instructor

## Contact Info

e-mail, office location, phone

## Office Hours

Days, times, method of communication

 Other appointments available to meet student needs (virtual or otherwise)

 Statement regarding commitment to answer email within specific time (such as 1 business day)

# Course Materials

## Required materials, fees, and technology

* The CS 1400 course on Codio, which is required for the textbook and assignments
* Canvas
* Python 3.7 or later
* Extra Python modules you want to install (shown in class)
* pylint or Thonny

## Optional materials, fees, and technology

* A Python IDE
	+ [python.org](https://python.org) lists several popular Python IDEs and bundles.
	+ [Thonny](https://thonny.org/) is a good IDE for beginners and includes an appropriate version of Python.
	+ [Anaconda](https://www.anaconda.com/download/#download) is a popular Python distribution that installs many useful scientific libraries.
* There are thousands of interesting Python modules and libraries to play with for graphics, art, music, game development, scientific computing, business, economics, and beyond. Adventuresome students are encouraged to experiment beyond the scope of this class.
* The [OnStudy Discord Server](https://bit.ly/onstudy) 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 Information:

## 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. A lab access fee of $35 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.

## Student Learning Outcomes

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

## Prerequisites and Needed Skills

### Course Prerequisites

## MAT 1000 or MAT 1010 with a B or better, or MAT above 1010 or ACT score 23 or higher or ALEKS score 38 or higher. CS 1030 recommended.

### Technology Expectations

You have access to a computer with a browser and internet access. If you cannot install software on your computer, web-based programming environments are also available.

### Personal skills

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 Modules page on Canvas has articles on note taking and problem-solving, which will help you succeed in this class.

# Logistics

## Assignments

This course includes weekly reading and exercises, seven programming projects, and three exams. The third exam is Project 7, which counts as both a project and as the final exam.

### 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 seven programming projects, which are all listed in Codio. Each project has two components: a design worksheet and the project proper. You must complete the design worksheet one week before the due date for each project. Projects are submitted on the Codio platform.

## Expected time

## For this three-credit course, students should expect to spend [at least 9 hours per week](https://policy.uvu.edu/getDisplayFile/5776f19f0a07bd1c1049287d) 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.

## Responsibilities

You are responsible for your own learning. Instructors will help you learn but cannot do it for you.

### Student Responsibilities

* Learn and apply course material.
* Start class the first week of the term.
* Set aside regular time each week to complete course activities and assignments on time.
* Learn how to use Canvas and MS Teams. If you have technology-related problems, contact the [Service Desk](https://www.uvu.edu/servicedesk/).
* Abide by ethical standards. Your work must be your own.
* Contact your instructor as early as possible if an emergency arises.
* Attend class or arrange to learn the material and receive in-class announcements.
* Read assigned material before class.
* Get help from your instructor, [academic tutors](https://www.uvu.edu/academictutoring/), or other students as soon as you begin struggling.
* If you are not learning effectively in class, ask a question you cannot answer.
* Notify your instructor as soon as is practical if you have an emergency.

### Instructor Responsibilities

* Respond to emails within one business day. If multiple emails are received regarding the same question or concern, they may be responded to with an announcement to the entire class.
* Provide timely, meaningful, and constructive feedback on assignments and posted questions. Usually, assignments will be graded before the next class period.
* Provide an opportunity for every student to leave each class having learned something.
* Promote further learning on a topic beyond what is taught in class.
* Refer students to appropriate services for issues that are non-course content specific. For instance, technical issues, writing labs, accessibility services, and so forth.
* Mentor students through the course.

Grading

Students earn points for completing assignments. They do not lose points for failing to complete an assignment properly. 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

|  |  |
| --- | --- |
| **Grade** | **Minimum Percentage** |
| A | 93 |
| A- | 90 |
| B+ | 87 |
| B | 83 |
| B- | 80 |
| C+ | 77 |
| C | 73 |
| C- | 70 |
| D+ | 67 |
| D | 63 |
| D- | 60 |
| E | 0 |

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.

### Grade weights

Grades are evenly weighted within their categories. Each category accounts for a percentage of the total grade, as follows:

|  |  |
| --- | --- |
| **Activity** | **Percent** |
| Programming projects (7) | 45% |
| Homework exercises | 25% |
| Exams | 30% |

### Late work policy

The maximum number of points that can be earned decreases by 10% per day after the due date to a maximum of 50%. Late work may or may not receive feedback at the instructor's discretion. Projects are often reviewed in class after they are due, so late assignments will not reflect work that is exclusively the student's.

## Course help resources

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

* Arrange an in-person or online session with [academic tutoring](https://www.uvu.edu/academictutoring/)
* Ask your instructor
* Join a study group
* Join the cs1400 channel on the [OnStudy Discord Server](https://bit.ly/onstudy)

# Policies

## [Accessibility Services](https://www.uvu.edu/equalopportunity/docs/title_9_syllabus_statement.pdf)

Students who need accommodations because of a disability may contact the UVU Office of Accessibility Services (OAS), located on the Orem Campus in LC 312. To schedule an appointment or to speak with a counselor, call the OAS office at 801-863-8747. Deaf/Hard of Hearing individuals, email nicole.hemmingsen@uvu.edu or text 385-208-2677.

## Title IX

Title IX makes it clear that violence and harassment based on sex and gender (which includes sexual orientation and gender identity/expression) is a civil rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, color, religion, age, status as a person with a disability, veteran’s status, or genetic information. If you or someone you know has experienced or experiences harassment or sexual assault including, dating and domestic violence, stalking or sexual exploitation, you are encouraged to report it to the Title IX Coordinator in the Office for Equal Opportunity and Affirmative Action, BA-203, (801) 863-7999.

Please be aware that all faculty members and university employees are considered “Responsible Employees” and are required to report incidents of sexual misconduct and relationship violence and thus cannot guarantee confidentiality. Please know that you can seek confidential resources at UVU Student Health Services, SC-221, (801) 863-8876. Please visit https://www.uvu.edu/equalopportunity/ for more information.

## Student Conduct

Review our department’s [Ethics and Conduct Policy](https://www.uvu.edu/cs/ethics.html) and the university’s [Student Conduct & Conflict Resolution](https://www.uvu.edu/studentconduct/students.html). You will be required to abide by these policies. Violation of these policies will result in college disciplinary actions and possible civil liabilities.