CS1410: Object Oriented Programming

@ Utah Tech University

Fall 2022 Syllabus

Required of all students pursuing Computer and Information Technology degrees, open to all students with a general interest in computer programming. Introduces object oriented programming techniques through completion of programming projects of increasing difficulty. **COURSE LEARNING OUTCOMES (CLOs) At the successful conclusion of this course, students will be able to: 1. Construct computer programs in a modern development environment using standard tools. 2. Develop solutions using a range of programming constructs, including control structures, functions, input/output, classes and objects, and data collections. 3. Design and implement programs from English descriptions. 4. Demonstrate the use of correct syntax and semantics in a high-level programming language. Course fee required. Prerequisites: CS 1400 (Grade C or higher). FA, SP.

Prerequisites

CS 1400 with a C or better

Course fees

Course fee: $20, used to assist in maintaining CIT infrastructure.

Sections

Section	CRN	Meeting Times	Room	Final Exam
01	40568	MWF 11:00-11:50 AM	Smith 116	Mon Dec 12, 11:00AM-12:50 PM
02	42463	TR 1:30-2:45 PM	Smith 116	Tues Dec 13, 1:00-2:50 PM

Final exams schedule

Instructors

See individual instructor pages for email, office location, and office hours.

Instructor: Curtis Larsen **Instructor:** Ren Quinn

Course Learning Outcomes

By the end of this course, you will be able to ...	Achievement of this outcome is measured through...
1. Construct computer programs in a modern development environment using standard tools. [CS/SE PLO #1 #2]	Drills, Programs, and Practical Exams
2. Develop solutions using a range of programming constructs, including control structures, functions, input/output, classes and objects, and data collections. [CS/SE PLO #1 #2]	Drills, Programs, and Practical Exams
3. Design and implement programs from English descriptions. [CS/SE PLO #1 #2]	Drills, Programs, and Practical Exams
4. Demonstrate the use of correct syntax and semantics in a high-level programming language. [CS/SE PLO #1 #2]	Drills, Programs, and Practical Exams

Resources

Texts

There are two optional texts for this course, available from the campus bookstore or online:

1. *Think Python: How to Think Like a Computer Scientist* by Allen B. Downey ISBN: 978-1-449-33072-9, available as a free download here (recommended)

2. *Python Programming: An Introduction to Computer Science, 2nd Edition* by John Zelle, ISBN: 1590282418 (recommended)

These teach fundamental programming concepts as well as the Python programming language. No text is required, but having at least one of them is recommended.

Computer Labs

You may use the computers in Smith 123. There will also be lab assistants in this lab. Not all assistants will be qualified to assist with this course.

Assignments and exams

Reading

Reading from one of the recommended text books or from online resources linked from the course website is strongly recommended. The student will find material beyond what we will discuss in lecture, which you are encouraged to study on your own. Feel free to bring questions from the reading to lectures or to office hours.

Drills

Programming drills will be required every week, usually due on Thursday evening. A drill set will usually include 10 or more problems. Access to the drills will be through Canvas.

Assignments

Assignments will be graded for correct functionality and good style. For example, proper use of modularity in your programs is good style. Programs that do not run will receive no credit.

Assignments are due on the date listed in the schedule, and must be passed off to a lab assistant for the course. This means that you must find a time during the course assistant's lab hours to pass it off before the end of the day it is due. Program source code must also be submitted to Canvas to receive credit.

Quizzes

Quizzes will be given according to the schedule given, usually one per week.

Exams

This course has one midterm exam and a comprehensive final exam. These exams will consist of questions similar to the quizzes and the drills.

Grading

Assignments, quizzes, tests, drills and class participation all contribute to your point total.

Drills are 15% of your grade, assignments are 15%, quizzes are 5%, participation is 3%, the midterm is 25% and the final exam is 37%.

Letter grades are assigned based on the percentage of possible points attained, according to the following chart:

Minimum Percentage	Letter Grade	Minimum Percentage	Letter Grade	Minimum Percentage	Letter Grade	Minimum Percentage	Letter Grade
94	A	84	B	74	C	64	D
90	A-	80	B-	70	C-	60	D-
87	B+	77	C+	67	D+	0	F

Class Etiquette

To promote a positive learning environment this class has the following rules:

- No Swearing
- No Game Playing

- Show respect for one another by listening when another person is speaking

Collaboration

Limited collaboration with other students in the course is permitted. Students may seek help learning concepts and developing programming skills from whatever sources they have available, and are encouraged to do so. Collaboration on assignments, however, must be confined to course instructors, lab assistants, and other students in the course. Students are free to discuss strategies for solving programming assignments with each other, but this must not extend to the level of programming code. Each student must code his/her own solution to each assignment. See the section on cheating.

Cheating

Cheating will not be tolerated, and will result in a failing grade for the students involved as well as possible disciplinary action from the university. Cheating includes, but is not limited to, turning in homework assignments that are not the student's own work. It is okay to seek help from others and from reference materials, but only if you learn the material. As a general rule, if you cannot delete your assignment, start over, and re-create it successfully without further help, then your homework is not considered your own work.

You are encouraged to work in groups while studying for tests, discussing class lectures, discussing algorithms for homework solutions, and helping each other identify errors in your homework solutions. If you are unsure if collaboration is appropriate, contact the instructor. Also, note exactly what you did. If your actions are determined to be inappropriate, the response will be much more favorable if you are honest and complete in your disclosure.

Where collaboration is permitted, each student must still create and type in his/her own solution. Any kind of copying and pasting is *not* okay. If you need help understanding concepts, get it from the instructor or fellow classmates, but never copy another's code or written work, either electronically or visually. The line between collaborating and cheating is generally one of language: talking about solutions in English or other natural languages is usually okay, while discussions that take place in programming languages are usually not okay. It is a good idea to wait at least 30 minutes after any discussion to start your independent write-up. This will help you commit what you have learned to long-term memory as well as help to avoid crossing the line to cheating.

College Policies

University Policies

Utah Tech Student Policies

Disability/Accessibility Resources

Utah Tech strives to make learning materials and experiences accessible for all students so if you are a student with a medical, psychological, or learning disability or anticipate physical or academic barriers based on disability, you are welcome to let me know so we can discuss options. Students with documented disabilities are required to contact the Disability Resource Center located in the North Plaza Building, next to the Testing Center (435-652-7516) to explore eligibility process and reasonable accommodations related to disability.

Title IX Statement

Utah Tech seeks to provide an environment that is free of bias, discrimination, and harassment. If you have been the victim of sexual harassment/misconduct/assault we encourage you to report this to the university's Title IX Director, Cindy Cole, (435) 652-7731, cindy.cole@utahtech.edu. If you report to a faculty member, she or he must notify the Title IX Director about the basic facts of the incident.

Email Disclaimer

You are required to frequently check your campus email account. Important class and university information will be sent to your campus email account, including Utah Tech bills, financial aid/scholarship notices, notices of canceled classes, reminders of important dates and deadlines, and other information critical to your success at Utah Tech and in your courses. To access your campus email account, visit mail.utahtech.edu. Your username is your Digital ID (e.g. D00111111) If you have forgotten your PIN, visit my.utahtech.edu and click the "Forgot Pin" button.

Useful Resources

- Disability Resource Center
- IT Help Desk
- Library
- Testing Center
- Tutoring Center
- Writing Center

Important Dates Fall 2022

Click on this link: https://calendar.utahtech.edu/ for the official academic calendar, which has several important dates you should be aware of.

Aug 22 - Date classes begin

Aug 26 - Last day to add without instructor permission

Sep 2 - Last day for refund of 100% tuition and fees

Sep 6 - Late registration / payment fee – Purge date (students who have not paid tuition / fees IN FULL or made payment arrangements may be dropped from classes!)

Sep 12 - Pell Grant census date

Sep 12 - Last day for refund of 50% tuition and fees

Sep 19 - Last day to add or audit classes with instructor permission

Oct 12 - Midterm grades posted

Oct 18 - Last day to drop an individual class

Nov 11 - Last day for complete withdrawal from all classes

Dec 9 - Last day of classes

Dec 12-16 - Final Exam dates

Dec 20 - Final grades posted