

Course Information

Instructor: Grace Muzny

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Office: ECOT (engineering center tower) 743

Credit: 3 credits

Lecture times: Mondays & Wednesdays 1 - 1:50pm, HUMN 150

Course website: <https://moodle.cs.colorado.edu>, then search for “CSCI 1200 - Muzny - The Art of Computational Thinking”, access code “s18cs1200”

Recitations/Labs:

Section	Location	Time	TAs
100-101	ECES 112	W 3 - 4:40	Denver Chernin Melissa Mantey
100-102	ECES 114	W 4 - 5:40	Ross Blassingame Kaelan Patel
100-103	ECES 112	W 5 - 6:40	Eleanor Hightower Nihar Nandan
200-201	ECES 112	F 1 - 2:40	Suchita Lulla Michael Tang
200-202	ECES 114	F 2 - 3:40	Benjamin Shoeman Chaitra Ramachandra
200-203	ECES 112	F 3 - 4:40	Peter Rock Chaitra Ramachandra

Course Goals

1. To learn what computer scientists study and the techniques that they use.
2. To understand the form and function of computer programming languages.
3. To know the steps in a software development process.
4. To understand programs following the input, process, output (IPO) pattern.
5. To be able to take a systematic approach to problem solving, to begin to formulate an algorithm/strategy with a computational approach.

Expectations

You are responsible for the material covered in both the Monday and Wednesday lectures of this course. You may attend these lectures in person or watch the video recordings and study the corresponding material in the textbooks.

Late Policy

All homeworks may be turned in up to 3 days (72 hours) late for a 20% penalty. If a homework is due on Tuesday at 11:55pm, it may be turned in as late as Friday at 11:55pm. If a student would have received a 95% had they turned their homework in on time, a late submission will earn them a 75% instead.

Recitation work must be turned in at the end of recitation.

Make-Up Policy

If you are unable to attend the recitation that you are registered for during a particular week, it is your responsibility to contact both your TAs and the TAs of the recitation that you wish to attend instead to get approval beforehand. You should contact the TAs at least 24 hours before your the earlier recitation whenever possible.

Collaboration Policy

The collaboration policy is simple:

- **Inspiration is free:** you may discuss homework assignments with anyone. You are especially encouraged to discuss solutions with your instructor and your classmates.
- **Plagiarism is forbidden:** the assignments **and code** that you turn in should be written entirely on your own. You should not need to consult sources beyond your textbook, class notes, posted lecture slides and notebooks, and Python/Numpy/Matplotlib documentation. Copying/soliciting a solution to a problem from the internet or another classmate constitutes a violation of the course's collaboration policy and the honor code and will result in an **F** in the course and a trip to the honor council.
- **Do not search for a solution online:** You may not actively search for a solution to the problem from the internet. This includes posting to sources like StackExchange, Reddit, Chegg, etc.
- **StackExchange Clarification:** Searching for basic techniques in Python is totally fine. If you want to post and ask "How do convert a float to an integer" that's fine. What you **cannot** do is post "Here's the function my prof gave me to write. I need to convert this temperature in celcius to farenheit. **Give me code!**". That's cheating.
- **Tutors:** you should always consult the TAs for this course if you need extra help. They are here specifically to help you! You should never have anyone else write code for you. This includes tutors, friends, strangers, friends of friends. Anyone who is not you.
- **When in doubt, ask:** If you have doubts about this policy or would like to discuss specific cases, please ask the instructor.

Course Resources

This course uses an interactive online free textbook:

How to think like a computer scientist – Interactive Edition

The main website can be found here: <https://runestone.stage.csel.io/thinkcspy1200/index.html>

Grading

	Due Dates	Total points	Percentage of grade
Homework	Due tuesdays* * except for the final homework, due on Thursday, April 26th	450	45%
Project	Skeleton code - Friday, March 23rd Part 1 - Thursday, April 5th Part 2 - Tuesday, April 10th Part 3 - Tuesday, April 17th	250	25%
Recitations	All recitations are worth up to 10 points. Any points over 100 that you earn are worth half in extra credit. The maximum points you can earn in this category is 120.	100	10%
Midterm Exam	Tuesday, February 27th	100	10%
Final Exam	TBD	100	10%

Topics

Week 1: Jan 16 - 21	Logistics, what is computation
Week 2: Jan 22 - 28	What are computers, variables, data types
Week 3: Jan 29 - Feb 4	Functions and scope, for loops
Week 4: Feb 5 - Feb 11	Functions and parameters, for loops, part 2
Week 5: Feb 12 - Feb 18	Functions and returns, selection statements (if/else), boolean
Week 6: Feb 19 - Feb 25	Selection statements (if/else), while loops
Week 7: Feb 26 - March 4	Midterm, file input/output
Week 8: March 5 - March 11	File input/output, lists
Week 9: March 12 - March 18	Important algorithms
Week 10: March 19 - March 25	Projects, numpy
Spring Break	

Week 11: April 2 - April 8	Numpy, graphing
Week 12: April 9 - April 15	Graphing, matplotlib
Week 13: April 16 - April 22	Objects
Week 14: April 23 - April 29	Objects
Week 15: April 30 - May 4	Final review, tournament

For further information, see the calendar posted on the class moodle.

Accommodation for Disabilities

If you qualify for accommodations because of a disability, please submit your accommodation letter from Disability Services to your faculty member in a timely manner so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities in the academic environment. Information on requesting accommodations is located on the [Disability Services website](http://www.colorado.edu/disabilityservices/students) (www.colorado.edu/disabilityservices/students). Contact Disability Services at 303-492-8671 or dsinfo@colorado.edu for further assistance. If you have a temporary medical condition or injury, see [Temporary Medical Conditions](#) under the Students tab on the Disability Services website and discuss your needs with your professor.

Religious Holidays

Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. In this class, contact the instructor at least 7 days in advance to reschedule a test. Contact both your TAs and the TAs of the recitation that you wish to attend at least 24 hours before the earlier of the two to reschedule a recitation.

See the [campus policy regarding religious observances](#) for full details.

Classroom Behavior

Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make

appropriate changes to my records. For more information, see the policies on [classroom behavior](#) and the [Student Code of Conduct](#).

Sexual Misconduct, Discrimination, Harassment and/or Related Retaliation

The University of Colorado Boulder (CU Boulder) is committed to maintaining a positive learning, working, and living environment. CU Boulder will not tolerate acts of sexual misconduct, discrimination, harassment or related retaliation against or by any employee or student. CU's Sexual Misconduct Policy prohibits sexual assault, sexual exploitation, sexual harassment, intimate partner abuse (dating or domestic violence), stalking or related retaliation. CU Boulder's Discrimination and Harassment Policy prohibits discrimination, harassment or related retaliation based on race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. Individuals who believe they have been subject to misconduct under either policy should contact the Office of Institutional Equity and Compliance (OIEC) at 303-492-2127. Information about the OIEC, the above referenced policies, and the campus resources available to assist individuals regarding sexual misconduct, discrimination, harassment or related retaliation can be found at the [OIEC website](#).

Honor Code

All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to [the academic integrity policy](#). Violations of the policy may include: plagiarism, cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, clicker fraud, resubmission, and aiding academic dishonesty. All incidents of academic misconduct will be reported to the Honor Code Council (honor@colorado.edu; 303-735-2273). Students who are found responsible for violating the academic integrity policy will be subject to nonacademic sanctions from the Honor Code Council as well as academic sanctions from the faculty member. Additional information regarding the academic integrity policy can be found at the [Honor Code Office website](#).