CS 251 Intermediate Programming

Brooke Chenoweth

University of New Mexico

Spring 2025

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Contact Info

Instructor: Brooke Chenoweth Email: bchenoweth@cs.unm.edu Office: Room 2060 in Farris Engineering Center Web site: cs.unm.edu/~bchenoweth/cs251

Schedule — Lectures (required)

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- 11:00 am 11:50 am
- MWF
- Centennial Engineering Center 1041

Schedule — Labs

Lab	CRN	Time	Day	Location				
002	32295	2:00 pm - 2:50 pm	F	Centennial B146				
003	32296	2:00 pm - 2:50 pm	М	Centennial B146				
004	34022	1:00 pm - 1:50 pm	W	Centennial B146				
005	81487	1:00 pm - 1:50 pm	Μ	Centennial B146				
You may attend a different section, but please check								
with the assistant to make sure there is room.								

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- What happened to Lab 001?
- B146 was double booked F 1pm
- Lab 001 is gone, new Lab 005 created M 1pm
- If you were in lab 001, join another section now

Office Hours

- Office Hours: TBA
 I've posted a survey on Canvas to find the
 classes preferences for days/times, remote vs in
 person, before choosing my office hours. Hours
 will be posted on the course website once
 determined.
- You may attend regular office hours without an advance appointment. If you want to meet at another time, make an appointment by email.
- Course assistants have office hours, too! (Check course website)
- Feel free to ask any of the assistants for help.

Grading

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- 50% Programming Assignments
- 40% Exams (midterm and final)
- 10% Lecture, quizzes, and participation

Assignments and Projects

- Assignments must be in Canvas to receive credit.
 - Contact Canvas support if you are having technical difficulties.

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- It is your responsibility to make sure you submit the correct file.
- Don't wait until the last minute to submit.
- Submit early, submit often!
 - We'll grade your most recent submission.

Extension Days

- Ideally, you'll never need to turn in an assignment late.
- However, life happens!
- You have 10 extension days to spend through the term.
- Max 3 days per programming assignment.
- Use them wisely.
- You don't need to ask before using regular extension days.
- Contact me if these will not be enough, preferably *before* you are late.

ARC Accomodations

- The Accessibility Resource Center provides accomodations with students with disabilities.
- For example: Extra time and/or quiet location for exams

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- http://arc.unm.edu
- Please take advantage of their services if applicable

Canvas

- http://canvas.unm.edu
- Assignment submissions
- Discussion forum
- Surveys and quizzes
 - Office hour survey, welcome discussion, and syllabus quiz are there now!

Working Together

- Working together and helping one another on all projects is highly encouraged. This includes discussion of:
 - project specification
 - algorithms
 - data structures
 - test cases
 - Not code!
- Do *not* share code.
- It is considered cheating to leave your code (paper or electronic copies) where others can find it. You responsible for the security of your intellectual property.

Cheating

- Don't cheat.
- Using books, websites, other people as resources is expected, but document it.
- If unsure, talk to us first.
- Understand your code! If you didn't actually write it, you likely don't understand it.

• Trying to "help" a friend by sharing your solution is also cheating.

- You ask a friend for help with your program.
- They give you their solution from when they took the course.

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• You copy their code into your project.

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You didn't write that code!

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- You ask a ChatGPT for help with your program.
- It generates a solution.
- You copy its code into your project.

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- You ask a friend for help with your program.
- They describe a general approach, draw a helpful diagram, and suggest a Java library they like to use.
- You discuss the approach and ask for clarification.
- You read the documentation for the library and decide if it would help.

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• You think a while and code up your own solution.

- You ask a friend for help with your program.
- They describe a general approach, draw a helpful diagram, and suggest a Java library they like to use.
- You discuss the approach and ask for clarification.
- You read the documentation for the library and decide if it would help.

• You think a while and code up your own solution.

You did write that code!

Topics

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- Objects and Classes
- Inheritance
- Interfaces
- 10
- Exceptions
- Collections
- Generic Types
- Enums
- Standard library packages
- Threads and GUIs
- Debugging and Profiling

Summary

- Go to class and labs
- Keep up with the websites
- Expect some sort of work each week
- Be proactive!
- Form study groups
- Ask questions
- The instructors are there to help you

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To do

- Visit course website
 - Slides will be posted after the lecture.
- Visit Canvas site
 - Take welcome quiz and office hours survey

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- Visit discussion forum, introduce yourself
- Contact ARC if you need it

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An object encapsulates data and behaviour.

Data
 Behaviour

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• Data

• Behaviour

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- State
- Properties

An object encapsulates data and behaviour.

- Data
- State
- Properties

- Behaviour
- Actions
- Activities

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An object encapsulates data and behaviour.

- Data
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In Java: fields, aka member variables

- Behaviour
- Actions
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An object encapsulates data and behaviour.

- Data
- State
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In Java: fields, aka member variables

- Behaviour
- Actions
- Activities

In Java: methods

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