CS 152 Computer Programming Fundamentals using Java

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Instructor

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Office Hours: Friday 2:00pm-4:00pm via Zoom at `https://unm.zoom.us/j/95107430566`, Tuesday 1:30pm-3:00pm in person, or by appointment

Textbook

Optional Textbook: *Java, A Beginner's Guide*, Herbert Schildt
   The bookstore will have the most recent edition available. However, if you would prefer to use a slightly older edition (if, say, you bought a used copy off someone who took this course in a past semester), that will also work just fine. The concepts we will be learning in this course have not changed since then.

Course Description

CS-152 is an introduction to the art of computing. This course has several goals. Students who successfully complete the course should have a firm grasp on creating small programs in Java, should be able to solve problems with code, should have a more full idea of what Computer Science as a field is, and most importantly not be afraid to dive into code!
   The primary emphasis of this course is to develop fluency in working with conditional control flow, looping structures, and procedural programming techniques. The secondary emphasis is to apply those skills in solving computational problems.
   CS-152 is a project based course: students spend many hours writing programs that have a wide range of applications. In past semesters these have included business applications, multimedia manipulations, video games, simulations of complex systems, and scientific models.

CS-152 is currently taught using the Java programming language.

While Java is an Object Oriented Programming (OOP) language and while students in CS-152 will certainly be working with Objects, CS-152 is not a course on OOP. Experienced Java programmers with solid skills in control flow, procedural programming and computational problem solving should skip CS-152 and take CS-251 (Intermediate Programming). CS-251 is also currently taught in Java and its primary emphasis is on understanding, developing and applying OOP skills.

Schedule of Topics[1]

Week	Topics
1	Introduction, variables
2-3	Expressions, Control flow, Branching, Loops
4-5	Strings, Methods
6-7	Arrays, Recursion
8	Review and Midterm
9	2D Arrays
10-12	Objects and classes
13	Enums
14-15	Advance topic preview, Review and Final

Lab Attendance

Each lab section meets once per week, taught by an undergraduate section leader. You are expected to attend and participate in the exercises. If you are unable to attend one week (due to illness, last minute car trouble, etc.), let us know as soon as possible. Too many unexcused absences may result in being dropped from the course.

Working Together

Working together and helping one another on all projects (but not on exams and quizzes) is highly encouraged. This includes discussion of *project specification*, *algorithms*, *data structures*, and *test cases*. It does not include code. Each person must author his or her own code.

When trying to track down a bug, it is sometimes helpful to have someone else have a look. It is acceptable to show someone else your code for this purpose, preferably one of the instructors or a tutor. It is *not* acceptable to look at someone else's solution before submitting your own.

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[1]subject to change

Cheating

Cheating will be dealt with very harshly, and includes, but is not limited to:

- Copying code from another person or having someone else write your code.

- Copying code from the Internet or another source. (If there's some code that you would really, really like to use, please check with us before you do it.)

- Attempting to disassemble, decompile, or otherwise reverse engineer compiled example programs.

- Allowing another person to copy your code.

- Leaving your code (paper or electronic copies) where others can find it. You are responsible for the security of your intellectual property.

- Use of external libraries other than those included with Java without documenting it. *Note: If you do document usages of external libraries, it will not be considered cheating. However, you still might not receive full marks if the library covers too much of the assignment. It is best to check with one of the instructors before using an external library.*

- Violation of copyright or license agreements on external libraries. If you use external library code, it is your responsibility to understand and comply with the appropriate copyright and license issues.

- Violation of the University policy on acceptable computer use.

> Not being able to explain how some significant part of your code works will result in a zero for the assignment. It does not matter if the reason you do not understand your code is because you did not do the work or because you got your code working by trial and error. If I suspect someone of cheating, the first thing I do is ask that person to explain the code. This is not a quiz you ever want to fail. Too much code in the real world is built and maintained by trial and error. It makes for a house of cards. It is not a good way to produce code nor is it a good way to learn.

Grading

- 50% Programming Assignments

- 40% Exams (midterm and final)

- 10% Lab exercises, quizzes, and participation

Submitting Assignments

All assignments must be in Canvas in order to receive credit for them. If Canvas is down, you may e-mail the assignment to the section leader in order to prove it was done on time. However, it must be inside Canvas before you can receive credit for it.

It is your responsibility to make sure the correct file is submitted to Canvas before the deadline. Always double-check your submissions. If you realize you accidentally attached the wrong file, immediately resubmit the correct file with a note explaining the error.

Assignments are due at midnight. (Technically, the deadline is set to 11:59PM. The graders will accept submissions up to 12:15 or so to account for variations in clocks, network hiccups, etc.) You are permitted to submit multiple times and the most recent on time submission will be the one graded, so feel free to submit partial solutions as you complete milestones.

Pay attention to deadlines! Assignments are not always due on the same day of the week. You will generally have at least a week for each one, but some larger assignments may give you more time.

Late Assignments

Ideally, all assignments will be completed and submitted well before the deadline. However, I am well aware that sometimes this will not be possible due to illness, technical problems, other classes, etc. For that reason, each student is given a pool of ten extension days they may use during the semester, limited to at most three days for any single assignment.

- Extension days may *not* be used for online quizzes or surveys, since they generally will be discussed in the next lecture.

- You may use a maximum of three extension days for a given assignment. I want to be able to discuss the solution to an assignment within a reasonable amount of time after the deadline.

- You have a total of ten extension days over the course of the semester. It is up to you if you want to turn in three assignments three days late, five assignments two days late, every assignment one day late, or some other variation. You do not have to use them at all.

- Weekends count as days, too, so if an assignment is due on Friday and you don't turn it in until Monday, that would use 3 extension days.

- Use your extension days wisely. If you use all of them on 20 point assignments early in the term, you won't have any left to spend on a difficult 100 point assignment later on.

- Please contact me if you will need additional time (a fourth day on an assignment, more than ten days total for the term) to complete your work, preferably *before* you have run out. The extension day policy is so I don't have to individually approve minor delays, but if something larger is going on, such as being incapacitated with illness for

over a week, let me know as soon as you reasonably can and we can work something out.

Computer Science Advisement

Whether or not you have been officially admitted to the CS program yet, please consult the Department of Computer Science Undergraduate Advisor with any questions you may have. This is especially important when navigating the prerequisites for certain courses and resolving scheduling issues. More general university advisors are not always familiar with the details of the computer science program.

Computer Science Department Website

I host some course files on the CS department servers. Sometimes I may make a typo in a link or set the access permissions on a file incorrectly so that it cannot be reached. In those cases, let me know and I'll fix it.

It is also possible that the entire CS department website (`http://cs.unm.edu`) is unreachable for some reason. If that happens, I suggest you email the CS support team directly (email: `cssupport@cs.unm.edu`), since that will be faster than emailing me and waiting for me to see the message and email support myself. (Unfortunately, it is a bit hard to find the CS support email when the CS site is down, which is why I included here.)

Accommodations

UNM is committed to providing equitable access to learning opportunities for students with documented disabilities. As your instructor, it is my objective to facilitate an inclusive classroom setting, in which students have full access and opportunity to participate. To engage in a confidential conversation about the process for requesting reasonable accommodations for this class and/or program, please contact Accessibility Resource Center (`https://arc.unm.edu/`) at arcsrvs@unm.edu or by phone at 505-277-3506.

> The ARC is there to help you. If you have a condition where you need extra time or a quiet place for exams, I strongly recommend that you take advantage of their services.

Credit Hour Statement

This is a three credit-hour course. Please plan for a *minimum* of six hours of out-of-class work (or homework, study, assignment completion, and class preparation) each week.

Support

Resources to support study skills and time management are available through Student Learning Support at the Center for Teaching and Learning.

Title IX

Our classroom and our university should always be spaces of mutual respect, kindness, and support, without fear of discrimination, harassment, or violence. Should you ever need assistance or have concerns about incidents that violate this principle, please access the resources available to you on campus. Please note that, because UNM faculty, TAs, and GAs are considered "responsible employees" any disclosure of gender discrimination (including sexual harassment, sexual misconduct, and sexual violence) made to a faculty member, TA, or GA must be reported by that faculty member, TA, or GA to the university's Title IX coordinator. For more information on the campus policy regarding sexual misconduct and reporting, please see: `https://policy.unm.edu/university-policies/2000/2740.html`

Support

LoboRESPECT Advocacy Center, the Women's Resource Center, and the LGBTQ Resource Center all offer confidential services.

Land Acknowledgement

Founded in 1889, the University of New Mexico sits on the traditional homelands of the Pueblo of Sandia. The original peoples of New Mexico Pueblo, Navajo, and Apache since time immemorial, have deep connections to the land and have made significant contributions to the broader community statewide. We honor the land itself and those who remain stewards of this land throughout the generations and also acknowledge our committed relationship to Indigenous peoples. We gratefully recognize our history.

Citizenship and/or Immigration Status

All students are welcome in this class regardless of citizenship, residency, or immigration status. Your instructor will respect your privacy if you choose to disclose your status. UNM as an institution has made a core commitment to the success of all our students, including members of our undocumented community. The Administration's welcome is found on our website: `http://undocumented.unm.edu/`

Responsible Learning and Academic Honesty

We all have shared responsibility for ensuring that learning occurs safely, honestly, and equitably. Submitting material as your own work that has been generated on a website, in a publication, by an artificial intelligence algorithm (AI), by another person, or by breaking the rules of an assignment constitutes academic dishonesty. It is a student code of conduct violation that can lead to a disciplinary procedure. Please ask me for help in finding the resources you need to be successful in this course. I can help you use study resources responsibly and effectively. Off-campus paper writing services, problem-checkers and services, websites, and

AIs can produce incorrect or misleading results. Learning the course material depends on completing and submitting your own work. UNM preserves and protects the integrity of the academic community through multiple policies including policies on student grievances (Faculty Handbook D175 and D176), academic dishonesty (FH D100), and respectful campus (FH CO9). These are in the Student Pathfinder (`https://pathfinder.unm.edu`) and the Faculty Handbook (`https://handbook.unm.edu`).

Support

Many students have found that time management workshops or work with peer tutors can help them meet their goals. These and are other resources are available through Student Learning Support at the Center for Teaching and Learning.

Health and Wellness

If you do need to stay home due to illness or are experiencing a wellness challenge, please take advantage of the resources below. If you need to stay home, please contact me; I can work with you to provide alternatives for course participation and completion. Let me, an advisor, or another UNM staff member know that you need support so that we can connect you to the right resources. UNM is a mask friendly, but not a mask required, community. If you are experiencing COVID-19 symptoms, please do not come to class.

Support

Student Health and Counseling (SHAC) at (505) 277-3136. If you are having active respiratory symptoms (e.g., fever, cough, sore throat, etc.) AND need testing for COVID- 19; OR If you recently tested positive and may need oral treatment, call SHAC.

TimelyCare: Free 24/7 virtual care services (medical, emotional support, health coaching, self-care, basic needs support. Go to `http://timelycare.com/unm`.

LoboRESPECT Advocacy Center (505) 277-2911 can offer help with contacting faculty and managing challenges that impact your UNM experience.