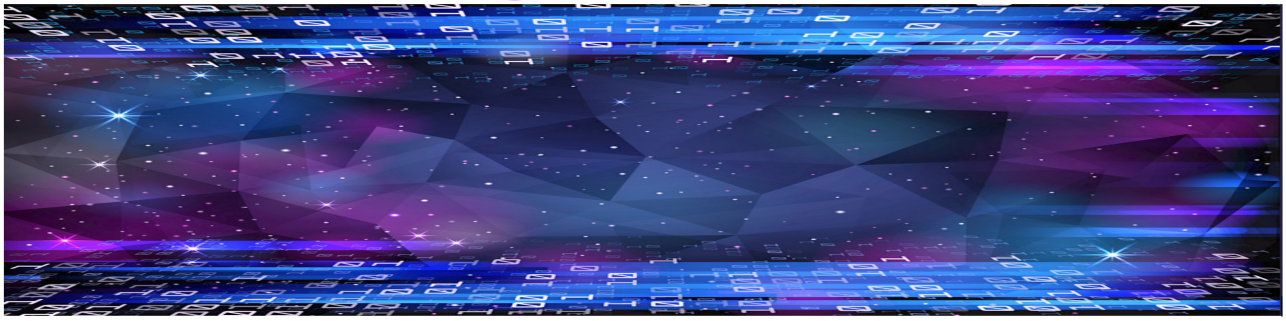
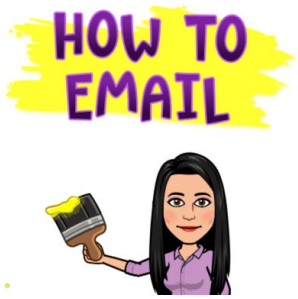


Syllabus-Spring 2023

Title of Course-Section:	**CS 152L-501 (Computer Programming Fundamentals)**
Name of Department:	Mathematics, Engineering, & Computer Science
Instructor:	Andisheh Dadashi, Assistant Prof. of Mathematics
E-Mail:	andisheh@unm.edu
Class Meeting Days/Times:	No scheduled lecture
Credit Hours :	3 credit hours
Class Location:	Online (info on UNM CANVAS)
Office Location:	Online via Zoom (info on UNM CANVAS)
Office Hours:	Thursdays: 8 am to 12 pm or by appointment

Table of content

Contacting your instructor via Email



When emailing me, in the subject of your email, please write down your course name, course number, and section number. For example, the subject of your email to me should be: **CS 152L-501**
You must only contact me with your **UNM e-mail**. Check your **UNM email frequently**. You are responsible for missing any announcement I send via email or posted on Canvas. Failure to identify your message with the class number, and not using your UNM email will result in no response at all.
Instructor's Availability Via email:

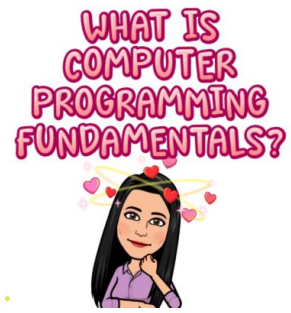
- The best way of contacting me will be via email (with proper subject mentioned **Above**).
- In all cases please, be patient and give me 24 hours to 48 hours to reach back to you.
- I will be available via email during the weekday until 5 pm.
- I may not be able to respond to any email on Saturday and Sunday.

Note: The instructor reserves the right to change the syllabus at any point of time during the semester.

Get to know your instructor:

Andisheh Dadashi is an Assistant Professor of Mathematics and CS in the Department of Mathematics, Engineering, & Computer Science Division at the University of New Mexico-Valencia Campus. She received her Bachelor's degree in Mathematics and CS in Iran and completed her first Master's degree in Mathematics in India. Andisheh received a second Master's degree in CS from the University of New Mexico (UNM) in 2016 and is currently a Ph.D. candidate in the UNM Computer Science Department. Previously, Andisheh was a visiting Lecturer II at UNM-Gallup where she implemented the Critical Technology Studies Program (CTSP) from the main campus. At UNM-Gallup, Andisheh helped prepare student scholars for careers in the Intelligence Community (IC) and related national security careers. Andisheh now continues this work at UNM-Valencia where she helps interested students develop the knowledge, skills, and relationships necessary to successfully compete for IC careers. Her research interests include computational biology and genetics, and metabolic networks. Currently, Andisheh's research focuses on developing theory, computational approaches, and statistical tools to uncover mechanisms of rapid polygenic adaptation in response to environmental change.
To know **Andisheh** watch this video https://youtu.be/t4ryQfdrSEo

What is Computer Programming Fundamentals?



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. The course objectives are understanding relationships between computation, problem-solving, and programming using high-level languages.

How to be successful in a Programming class?

Programming classes tend to be hard. There are a few reasons for this:
Programming is a different way of thinking, which some people find hard. Students tend to underestimate the time it takes to write and run programs. This usually has to do with an error or bug. Students overload their class schedules.

What to do:
Start early, the more time you give yourself to develop, write and test your program increases the amount of time you have to:
Get help from Myself or find a good resource online or if you are stubborn (quite like myself) spend time to figure the bug/error out and fix it.
Come to class or watch all the videos!
The first few assignments will be easy, and you will naturally think that the final project can be done in an hour. Don't make that assumption!
Start your Projects and assignments early.

What not to do:
Starting the homework and projects late.
Not watching the videos. Not reading before class. Note: There are a lot of things to cover, if you read before class you will have a better understanding of the material and will be able to form better questions.
Not reading after class because you didn't read before class.

Evaluation/Grading Methods

Your final grade in this class is based on the following components:

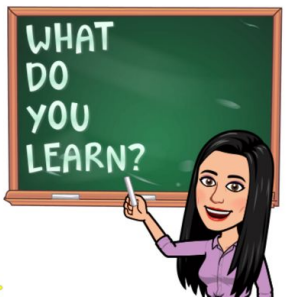
Quizzes (10)	20 %
Projects (8)	60 %
Midterm	10 %
Final	10 %
Overall	100 %

Passing grade is 70% or better. F is a grade lower than 60%
Overall Grades: pluses and minuses may or may not be added to letter grades at the instructor's discretion. Grades of A+ are not rare and will only be awarded for exceptional work.

Grade	From	To	Grade	From	To	Grade	From	To
A+	98	100	B+	87	89.99	C+	77	79.99
A	93	97.99	B	83	86.99	C	73	76.99
A-	90	92.99	B-	80	82.99	C-	70	72.99

Teaching Materials

Q. Where can you find the materials for this class? **Canvas** https://canvas.unm.edu
Q. Where do you find the projects? **Canvas**
Q. Where do you submit the projects? **Canvas**
Q. Where do you find your grade? **Canvas** (Gradebook)
Course information including this syllabus, and all the necessary materials and links, etc. will be available via Canvas.



Pre-requisites/Co-requisites: CS 105L, CS 108L, CS 151L, or ECE 131L.

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

Goals: The course objectives are understanding relationships between computation, problem-solving, and programming using high-level languages. 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!
By the end of the course, the student will be/should be able to:
1. develop fluency in working with conditional control flow.
2. develop fluency in working with looping structures
3. develop fluency in working with procedural programming techniques
4. design computer solutions to computational problems;
5. explain how are computer solutions designed;
6. write programs to solve simple computer problems in a high-level programming language.

*: Object-oriented programming (OOP) is a computer programming model that organizes software design around data, or objects, rather than functions and logic.

Access to a reliable and fast internet connection is required. For the course, we use Canvas https://canvas.unm.edu to navigate through the teaching materials and assignments, but students must also be able to navigate and use other online resources.

Students are required to download and install JAVA on their computer:
Download and install free software from the internet.
Java Standard Edition (SE) 17 Development Kit (JDK)
https://www.oracle.com/java/technologies/downloads/
Visual Studio Code (recommended editor)
https://code.visualstudio.com/Download
IntelliJ IDEA (integrated development environment)
https://www.jetbrains.com/idea/download/section=mac
for IntelliJ IDEA create an account as a student with your UNM email to download the free version of IntelliJ on JetBrains website.
GNU Emacs (alternative editor)
https://www.gnu.org/software/emacs/
we may use command-line tools and batch/bash scripts to navigate directories and compile/run java code.

Book: You do not need to purchase a textbook, but there is a freely available online text that we will be following:
Introduction to Programming Using Java, Eighth Edition, by David J. Eck
https://math.hws.edu/javanotes/
A student's grade is determined by points earned out of 100. The following sections give a breakdown of points; any changes in % or assignments will be based on class needs and communicated early.

• 10 Quizzes (**20%**)
– 2% each
– each quiz is timed (60 minutes)
– You have only one attempt
– Backtracking is NOT allowed
– Quizzes are posted on Canvas under the assessment module.
- Quizzes will appear on Canvas 24 hours before it is due
– Quizzes must be submitted on Canvas before the due date.
– Combination of Multiple choice, short answer.

• 8 Projects (**60 %**)
– Projects 1 **4 %**
– Projects 2 to 8 **8 %** each
– Projects are posted on Canvas under the assessment module a week before the due date.
– Projects must be submitted online on Canvas before the due date.
– Projects must be submitted only in JAVA format

• Midterm and Final Exams (each **10%**)
– Exams have two parts (Quiz and programming)
– Exams will be available on Canvas under the assessment module any time from 12:00 AM to 11:59 PM on exam day.
– The quiz part 2%
– The quiz part is a combination of Multiple choice and short answer questions.
– For the quiz part Backtracking is NOT allowed
– The quiz part is timed (1 hour and 30 minutes)
– Programming part (file response) 8%
– Programming is not timed, upload the Java program any time on exam day.
- The programming part must be submitted only in JAVA format

• Total = **100%**

Late Assignments

The due date for the assignments, quizzes and exams are very firm. Please manage your time wisely in order to prevent any delay. No late assignment is accepted unless in the event of a genuine emergency per the instructor's discretion.

If you must miss an exam, you must contact your instructor a couple of days before the day of the exam in order to discuss a make-up test. Make-up tests will be given solely at your instructor's discretion and only in cases of well-documented excused absences. If you miss an exam and do not contact your instructor immediately, you may be dropped from the course. No early exams will be permitted except in documented emergencies: flight reservations, weddings, vacations, birthdays, non-NCAA sporting events etc. are not considered emergencies.

Your Responsibility

EXPECTATIONS: Students are expected to conduct themselves in a polite, courteous, professional and collegial manner. Cell phones must be set on silent and be out of sight during class. No food or drink is allowed in the computer labs.
Time required for This Course: Plan to spend a minimum of 9 to 12 hours per week for this class. There is no guarantee you will pass if you dedicate this amount of time, you still need to learn the material and use your time wisely, but those who pass generally are the ones who spend the time needed to do the work to learn the material.
You are responsible for all material covered in this Syllabus and in class, in assigned readings, and on homework assignments. Not all material on tests will necessarily be covered in class but will be in the assignments. The use of cell phones, headphones, etc. is not permitted in class or exams.

Student Behavior & Collegial Behavior

According to the Code of Conduct as stated in the Policies and Regulations for UNM, student activities that interfere with the rights of others to pursue their education or to conduct their University duties and responsibilities will lead to disciplinary action.
This includes any activities that are disruptive to the class and any acts of academic dishonesty. Students are expected to behave in a courteous and respectful manner toward the instructor and their fellow students. Students may be dropped from a class for inappropriate behavior. For more information: https://pathfinder.unm.edu/code-of-conduct.html
Since we assume you are all adults, we will expect from you, respectful adult behavior. Engaging in disruptive or unruly behavior could result in your being asked to leave, at which time you will be counted absent and a referral will be sent to the Dean of Instruction. Continuing to behave in this way could result in your being dropped from the course. Disruptive or unruly behavior includes but is not limited to:

- texting or talking on your cell phone or Laptop at any time during class,
- continually talking with your neighbor when we are not working on a group activity,
- working on homework from another class,
- reading material or watching media on a mobile device not related to this course or at a time that is inappropriate,
- refusing to participate in the class activities.

Support!

If you have a documented disability, the Equal Access Services office will provide me with a letter outlining your accommodations. I will then discuss the accommodations with you to determine the best learning environment. If you feel that you need accommodations, but have not documented your disability, please contact Cheryl Dilger, the coordinator for Equal Access Services at 925-8910 or cdilger@unm.edu.
If you are struggling in this course, do not be afraid to ask for help!

- Office Hours: See my office hours listed at the beginning of this syllabus."Office Hours" Feel free to come by or log in for online office hours, or make an appointment to get help.
- Form study groups: You may work together with other members of our class on Canvas discussion board.
- Free Tutoring: The Math Center at Valencia campus has free tutoring and open labs. Call 505-925-8907 for more information. CAPS on main campus also provides tutoring for which I can get documentation."LRC"
- Student Services: There are various services provided in our Student Services Department. Read about Office of Equal Access. Also, we have a testing center, advising, and career placement available: Valencia Student Services

Academic Dishonesty

Having academic integrity is paramount to your success in any class. Plagiarism or cheating is not tolerated. Any instance of this will result in a grade of zero for that assignment. Here is the link to the UNM Academic Dishonesty Policy: https://policy.unm.edu/regents-policies/section-4/4-8.html. **The policy states:** Each student is expected to maintain the highest standards of honesty and integrity in academic and professional matters. The University reserves the right to take disciplinary action, up to and including dismissal, against any student who is found guilty of academic dishonesty or who otherwise fails to meet the expected standards. Any student judged to have engaged in academic dishonesty in course work may receive a reduced or failing grade for the work in question and/or for the course.
Academic Dishonesty is defined as:
"Academic dishonesty" includes, but is not limited to, dishonesty in quizzes, tests, or assignments; claiming credit for work not done or done by others; hindering the academic work of other students; misrepresenting academic or professional qualifications within or without the University; and nondisclosure or misrepresentation in filling out applications or other University records.
Cheating students will be prosecuted according to University guidelines. Students should get acquainted with their rights and responsibilities as explained in the Student Code of Conduct https://grad.unm.edu/aire/academic-integrity.html

UNM Valencia Title IX Representative

Title IX (9) Statement: In an effort to meet obligations under Title IX, UNM faculty, Teaching Assistants, and Graduate Assistants are considered "responsible employees" by the Department of Education (see pg. 15 - http://www2.ed.gov/about/offices/list/ocr/docs/qa-201404-title-ix.pdf). This designation requires that any report of gender discrimination which includes sexual harassment, sexual misconduct and sexual violence made to a faculty member, TA, or GA must be reported to the Title IX Coordinator at the Office of Equal Opportunity (oeo.unm.edu). For more information on the campus policy regarding sexual misconduct, see: https://policy.unm.edu/university-policies/2000/2740.html

Important Links

Disabilities Policy: Office of Equal Access: Contact the Office of Equal Access at 925-8560 to schedule an appointment.https://valencia.unm.edu/students/advisement/equal-access-faqs.html

The Center for Academic Learning: The Learning Center is open Monday – Friday with evening hours Monday – Thursday To schedule an appointment or for additional information call (505)-925-8907 https://valencia.unm.edu/campus-resources/learning-commons/index.html

UNM Valencia Registrar's Office
Contact Registration Office by calling 925-8580 http://valencia.unm.edu

UNM Deadlines & Academic Calendar
UNM Deadlines: https://registrar.unm.edu/semester-deadline-dates/index.html .....*And*....
Academic Calendar: https://hr.unm.edu/calendars

Topics
Introduction and Variables
Program Organization
Control Structures
Methods (subroutines)
Classes and Objects
Arrays, Searching and Sorting

CS 152 Schedule Fall 2023

Day of	Schedule subject to change if necessary
	First day of semester: August 21^{st} & Final Exams: Dec 11^{th} to 16^{th} Holidays: Labor Day Sep 4^{th} & Fall break Oct 12^{th}-13^{th} & Thanksgiving Nov 23^{rd}-26^{th}
Aug 22	Introduction
Aug 24	2.1: The Basic Java Application
Aug 29	2.2: Variables and the Primitive Types
Aug 31	2.3: Classes, Objects, Strings, Subroutines
	Note: Quiz 1 and Project 1 Due Sep 04^{th}, 11:59 pm
Sep 05	2.4: Text Output and Input
Sep 07	2.5: Details of Expressions
	Note: Project 2 Due Sep 11^{th}, 11:59 pm
Sep 12	3.1: Blocks, Loops, and Branches
Sep 14	3.2: Algorithm Development
	Note: Quiz 2 Due Sep 18^{th}, 11:59 pm
Sep 19	3.3: The while and do..while Statements
Sep 21	3.4: The for Statement
	Note: Project 3 Due Sep 25^{th}, 11:59 pm
Sep 26	3.5: The if Statement
Sep 28	3.6: The switch Statement
	Note: Quiz 3 Due Oct 02^{nd}, 11:59 pm
Oct 03	3.7: Intro to Exceptions and try..catch
Oct 05	3.8: Introduction to Arrays
	Note: Quiz 4 and Project 4 Due Oct 09^{th}, 11:59 pm
Oct 10	Review for Midterm Exam
Oct 12	No Topic: (Fall Break)
	Note: Midterm Due Oct 16^{th}, 11:59 pm
Oct 17	4.1,2: Black Boxes, Static Subroutines, Vars
Oct 19	4.3: Parameters
	Note: Quiz 5 and Project 5 Due Oct 23^{rd}, 11:59 pm
Oct 24	4.4: Return Values
Oct 26	4.8: The Truth About Declarations
	Note: Quiz 6 and Project 6 Due Oct 30^{th}, 11:59 pm
Oct 31	5.1: Objects, Instance Methods, and Variables
Nov 02	5.2: Constructors and Object Initialization
	Note: Quiz 7 Due Nov 06^{th}, 11:59 pm
Nov 07	5.3: Programming with Objects
Nov 09	7.1: Array Details
	Note: Quiz 8 and Project 7 Due Nov 13^{th}, 11:59 pm
Nov 14	7.2: Array Processing
Nov 16	7.3: Array List
	Note: Quiz 9 Due Nov 20^{th}, 11:59 pm
Nov 21	7.4: Searching and Sorting
Nov 23	No Topic: (Thanksgiving Break)
Nov 28	7.4: Searching and Sorting
Nov 30	**Note: Quiz 10 Due Nov 30^{th}, 11:59 pm**
Dec 05	**Note: Project 8 Due Dec 05^{th}, 11:59 pm**
Dec 07	**Note: Final Due Dec 07^{th}, 11:59 pm**