



### Syllabus-Spring 2023

Title of Course-Section: Name of Department: Instructor: E-Mail: Class Meeting Days/Times: Credit Hours : Class Location: Office Location: Office Hours:

# CS108L - 553 (CS for All)

Mathematics, Engineering, & Computer Science Andisheh Dadashi, Assistant Prof. of Mathematics andisheh@unm.edu No scheduled lecture 3 credit hours Online (info on UNM CANVAS) Online via Zoom (info on UNM CANVAS) Mondays and Tuesdays: 8 am to 10 am or by appointment

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

### \*\* 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 108L-553** 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.

## What is CS for All?

Computer Science for All is an introduction to Computational Science and Modeling. The course is entirely online. Students are required to meet with the instructor once per week to ask questions and get real-time assistance and/or feedback. Students will gain experience not only in computer science and programming but also in designing, building, testing, debugging, and running experiments with computer models. Students will develop computational thinking skills and learn about complex adaptive systems.

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# Evaluation/Grading Methods

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

6 Programming Challenges	32~%
7 Multiple Choice Quizzes	28~%
Midterm Exam	20~%
Final Exam	20~%

# Overall Grade and Letter Grade

Passing grade is 70% or better.

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	То	Grade	From	То	Grade	From	То
A+	98	100	B+	88	89.99	C+	78	79.99
А	93	97.99	В	83	87.99	C	70	77.99
A-	90	92.99	B-	80	82.99	D	60	69.99

# Learning Objectives and Outcomes

# Pre-requisites/Co-requisites: \*N/A

**Course Description:** Computer Science for All is an introduction to Computational Science and Modeling. The course is entirely online.

**Goals:** Students will gain experience not only in computer science and programming but also in designing, building, testing, debugging, and running experiments with computer models. Students will develop computational thinking skills and learn about complex adaptive systems.

By the end of the course the student will be comfortable organizing complex modeling tasks into a collection of procedures, and executing those procedures using the Netlogo programming language.

- Students will be able to define, update, and make use of variables
- Local
- Global
- Agent
- Students will be able to write and call procedures (subroutines)
- Input arguments
- Documentation (comments)
- Students will be able to execute control structures
- If and ifelse statements
- Repeat loops (similar to for loops)
- While loops

### Technology Requirements

Access to a reliable and fast internet connection is required. The primary tool for the course is Canvas https://canvas.unm.edu, but students must also be able to navigate and use other online resources.

Students are required to download and install NetLogo on their computer: https://ccl.northwestern.edu/netlogo/download.shtml

Information about the many built-in functions in Netlogo can be found in the Netlogo Dictionary: http://ccl.northwestern.edu/netlogo/docs/dictionary.html There is no certain book assigned to this course. The CS108L course consists of a total of 8 weeks. There are 7 modules, each of which includes:

(a) A set of materials to read (documents) and watch (videos) in UNM Learn

(b) A programming challenge to be completed in Netlogo and submitted in UNM Learn

(c) An online quiz or test

A student's grade is determined by percentage. The following sections give a breakdown of points; any changes in points or assignments will be based on class needs and communicated early.

6 Programming Challenges (32 %)
Programming Challenges 1 to 5 are 5 % each
Programming Challenge 6 is 7 % each
Programming Challenge 7 is optional

• 7 Multiple Choice Quizzes (28 %)

- -5% each
- Timed (30 minutes)
- Two attempts are allowed
- Midterm Exam (20 %)
  Multiple Choice (10 %)
  Timed (90 minutes)
  Two attempts are allowed
  Coding (10 %)
- Final Exam (20 %)
  Multiple Choice (10 %)
  Timed (90 minutes)
  Two attempts are allowed
  Coding (10 %)

• Total = 100 %Every programming challenge, quiz, and exam will be submitted online through Canvas.

# Late Assignments

The due date for the assignments, quizzes and exams are very firm. All the assignments are open at the beginning of the semester therefore 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 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.

Q. Where can you find the materials for this class?

Canvas https://canvas.unm.edu

Q. Where do you find your assignments? 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.

## 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: <a href="https://pathfinder.unm.edu/code-of-conduct.html">https://pathfinder.unm.edu/code-of-conduct.html</a>

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.

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

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

 $\label{eq:unmedu} {\bf UNM \ Deadlines:} http://registrar.unm.edu/semester-deadline-dates/index.html \ .....And.... \ Academic \ Calendar: https://hr.unm.edu/calendars$ 

Library

We have a library at UNM-Valencia. You should already know where the library is!

	CS 108L Schedule Spring 2023					
Day of	CS 108L Schedule (subject to change if necessary)					
	First day of semester: January $16^{th}$ & Last day of semester: May $13^{th}$ Final Exams: May $8^{th}$ to $12^{th}$					
	Holidays: Martin Luther King Jan $16^{th}$ & Spring break March $12^{th}$ to $19^{th}$					
	Note: PC stands for Programming Challenge and Q stands for Quiz					
	Module 1: Introduction to NetLogo					
	PC1 / Q1 Due on Monday September $5^{th}$ at 11:59 PM					
	Module 2: Introduction to Abstraction					
	$\mathrm{PC2}$ / Q2 Due on Monday September $19^{th}$ at 11:59 PM					
	Module 3: Introduction to Modeling					
	PC3 / Q3 Due on Monday October $3^{rd}$ at 11:59 PM					
	Module 4: Boolean Logic					
	PC4 / Q4 Due on Monday October 17 <sup>th</sup> at 11:59 PM					
	<b>Midterm exam</b> Due on Monday October $24^{th}$ at 11:59 PM					
	Module 5: Variables, Scope, Computer Models					
	PC5 / Q5 Due on Monday November $7^{th}$ at 11:59 PM					
	Module 6: Algorithms					
	PC6 / Q6 Due on Monday November 21 $^{st}$ at 11:59 PM					
	Module 7: Epidemic Modeling					
	PC7 / Q7 Due on Monday December $5^{th}$ at 11:59 PM					
	<b>Final exam</b> Due on Monday December $12^{th}$ at 11:59 PM					