

## CS 151L-501 -- Mondays & Wednesdays 1:30-2:45pm Room B124

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**Instructor:** Nancy McLendon

**Office:** A113, Cubicle 6

**Office Hours:** Monday 2:45--4:00, Wednesday 12:00 - 1:00, OR by appointment.

**Class:** VABS-124, Monday & Wednesday, 1:30 - 2:45 pm

**Email:** nmclendon@unm.edu

**Phone:** 925-8629

**COURSE DESCRIPTION: CS 151L - Computer Programming Fundamentals for Non-Majors** An introduction to the art of computing. This course is not intended for Computer Science majors or minors. The objective of the course is to develop an understanding of the relationship between computing and problem solving, using MATLAB as a programming language. 3 credit hours.

**COURSE MATERIALS:** Flash drive, notebook, pencil/pen. There is no required text.

### Grading Scale

<b>A</b>	90 – 100%	> <b>225</b> pts	CR	Credit 70 – 100%
<b>B</b>	80 – 89%	> <b>200</b> pts	NC	No Credit < 70%
<b>C</b>	70–79%	> <b>175</b> pts		
<b>D</b>	60–69%	> <b>150</b> pts		
<b>F</b>	< 59%			

**10 Weekly Written Quizzes @10 points ea** **100 pts**

**10 Programming Assignments @10 points ea** **100 pts**

**Cumulative Final @ 50 points** **50 pts**

**TOTAL POSSIBLE POINTS** **250 pts**

### Extra Credit:

NO extra credit work will be available.

### IMPORTANT DATES:

Last date to drop without a grade: September 6, 2019

**Final Exam: 1:30-3:30 PM Monday, Dec 9, 2019 in B124**

### THE COURSE: Programs, Quizzes, and Final:

- Homework: Assignments are due at the beginning of the following class. Late assignments will be penalized 20%.
- Quizzes will be Mondays at the beginning of class. They will be paper quizzes and will be open book, open note and open computer/internet but worked alone. Quizzes will cover the most recent topics. Quizzes cannot be made up if you are late or absent but the 2 lowest scores will be dropped. If there is no class on a Monday, there will be no quiz that week.
- The final will be cumulative, on paper, worked alone and will be open book, open note, open computer/internet.

**UNM EMAIL/BLACK BOARD LEARN ACCESS:** All UNM-Valencia students will need a UNM Net ID which can be created by going to: <http://it.unm.edu/accounts/>. UNM Net ID will give you access to the computer labs on campus, blackboard learn and UNM Email.

**COMPUTER LAB RESPONSIBILITY:** Use of computer labs on UNM properties is governed by “Policy 2500: Acceptable Computer Use” which can be found at <http://policy.unm.edu/university-policies/2000/2500.html>. Food and drink are also prohibited in any computer lab on campus. Anyone violating these policies is subject to possible suspension and loss of computer lab privileges.

**SUPPORT SERVICES:** The STEM Center and the Learning Commons offer free tutoring at no cost to the student. For best results, schedule appointments for tutoring. Students who miss tutoring appointments may be denied future appointments.

**EXPECTATIONS:** Students are expected to conduct themselves in a polite, courteous, professional and collegial manner. Cell phones must be set on silent. Please step into the hall if you need to take a call during class. Cell phones must be turned off during exams.

**TITLE IX:** 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>

**DISABILITY STATEMENT:** 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 available accommodations with you to determine the best learning environment. If you feel that you need accommodations, but have not documented your disability, please contact Jeanne Lujan, the coordinator for Equal Access Services at 925-8910 or [jmlujan@unm.edu](mailto:jmlujan@unm.edu)

**UNM's Policy on Academic Honesty:** 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, including dismissal, against any student who is found responsible for academic dishonesty. Any student who has been 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 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; and misrepresenting academic or professional qualifications within or outside the University.

#### **STUDENT LEARNING OBJECTIVES/OUTCOMES:**

By the end of this course, a successful MATLAB student will be able to

- Apply standard computer programming vocabulary and practices including:
  - \* Coding comments
  - \* Correct formatting rules in writing programming code
  - \* Mathematical operators
  - \* Relational and conditional operators
  - \* Looping
  - \* Arrays
  - \* User functions
  - \* Debugging
- Solve selected engineering problems
- Manipulate data sets
- Create quality MATLAB graphs
- Solve selected mathematical problems symbolically
- Produce functional MATLAB GUIs
- Simulate selected physical problems

Week #	Assn Due	Topics (Subject to change)	Quiz
1		Introduction, Programming Basics	
2		Live Scripting, Strings	Quiz 1 (scripting)
3	Assn 1 (Scripting)	Matrices, Plotting	
4		Matrix Multiplication, Graphics Manipulation	Quiz 2 (matrices)
5	Assn 2 (Graphics, Matrices)	Functions	Quiz 3 (functions)
6	Assn 3 (Functions)	Conditionals, Tables	Quiz 4 (conditionals)
7	Assn 4 (Conditionals, Tables)	Table Operations	Quiz 5 (tables)
8	Assn 5 (Tables)	Loops, Debugging	Quiz 6 (loops)
9	Assn 6 (Debugging)	Equations, Plotting	Quiz 7 (equations, plotting)
10	Assn 7 (equations, plots)	Symbolics & Solutions, Linear Equations	Quiz 8 (linear equations)
11	Assn 9 (linear equations)	Trigonometry and Calculus	Quiz 9 (trig/calculus)
12	Assn 10 (Trig/calculus)	Differential Equations	Quiz 10 (diff equations)
13	Assn 11 (Diff Equations)	GUIs, Simulations & Tools	Quiz 11 (Simulations)
14	Assn 12(Sims)	Other MATLAB capabilities	
15		Review	Quiz 13 (final prep)
16		<b>Final Exam: 1:30-3:30 PM Monday, Dec 9, 2019 in our classroom</b>	