

Course title: Computing for Scientists, Fall 2019

Instructor: Dr. R. Paul Mihail, 2119 Nevins Hall, Email: rpmihail@valdosta.edu

Class meeting times and location: Nevins Hall, Room 2109, Tuesday and Thursday from 3:30 PM to 4:45 PM

Office Hours: TR 11:00am-2:00pm and by appointment.

Required Textbook: Programming in MATLAB. This is an eBook from zyBooks. To purchase, you can either visit the VSU bookstore and get an activation code, or directly online by following these steps:

1. Sign up at learn.zybooks.com
2. Enter zyBook code VALDOSTACS1340MihailFall2019
3. Subscribe

Software: The software you need for this course is MATLAB, available on computers in labs on campus (Nevins Hall room 2109 and 2115).

Course Description: Foundations of computing, with an introduction to design and analysis of algorithms, including design and construction of programs for scientific and engineering applications.

Learning Outcomes: Students will understand basic programming terminology and techniques. More specifically students will:

1. Be able to design, code, and test MATLAB scripts that meet requirements expressed in words. This includes a basic understanding of top-down design.
2. Code MATLAB scripts using appropriate variables, control structures including conditionals and loops, functions (both built-in and user-defined), and file I/O.
3. Perform vector and matrix operations using MATLAB.
4. Plot data in 2D and 3D with graphics tools in MATLAB.

Course Prerequisites: Math 2261 (Calculus I) is required. Ideally, students should be familiar with vector and matrix operations from linear algebra.

Cell phone policy:

Usage of cell phones in the classroom is prohibited, with the exception of emergency calls. Texting or otherwise using your mobile device in the classroom will result classroom dismissal.

Assessment:

The grade for this course will be calculated as follows:

- Attendance/participation activities/pop quizzes: 10%
- Programming assignments (challenge activities): 20%
- Exam 1: 10%
- Exam 2: 20%
- Exam 3: 20%
- Final Exam (comprehensive):20%

Grades will be assigned according to the following scale:

90-100% = A
 80-89.99% = B
 70-79.99% = C
 60-69.99% = D
 Below 60% = F

Final Exam:

- Date and Time: Friday Dec 13 at 2:45pm-4:45pm.

What to do if you miss...

- **a lecture** - find out what the material covered was, read the book, borrow someone's notes, find out what any announcements or assignments were. If attendance was taken and you have a documented excuse as described in the attendance policy, contact your professor within one week of your absence.
- **a test** - if you know ahead of time you must miss a test, contact your instructor and make arrangements for an alternate time. If circumstances force you to miss an exam unexpectedly, you **MUST** contact your instructor within a week after the test, in order to have a chance (at instructor's discretion) to be allowed to make the exam up.

Late submissions: Late homework submissions will not be accepted for any reason except with a documented medical excuse.

File Formats in Electronic Submissions: You need to know the difference between a text file and a doc file and an HTML file and an executable file. Very often, the type that is acceptable in electronic submissions is a text file (which include .m files) or a doc file (test cases).

Academic Honesty:

Cheating consists of getting any form of unfair academic advantage. Cheating is strictly forbidden and I will pursue the maximum penalties allowed by the University, which includes a possibility for expulsion, but most likely will result in a permanent mark on your transcript accompanied by an F in this course.

You will be asked to write programs and submit the code. Often students have questions about what is

and what is not considered cheating. Below are a few bullet points I expect to be followed in my course:

- Google Searches. 1) You may often find a complete solution to a programming prompt online. Turning a complete solution that someone else wrote, with or without attribution, will be considered cheating and the penalty is failure of this course along with a letter to the registrar. 2) You may find snippets (parts) of code that you integrate into your solution. This is acceptable ONLY with attribution (at least 3 of the 4 w's: who, what, when and where) in your code AND write-up. Using snippets of code is only acceptable if they consist of less than one third of the total program. Failure to attribute a snippet of code will result in a 0 on the assignment for the first offense and a failure in the course for the second offense.
- Classmates/friends/tutors. Programming assignments are designated as individual work. That means it is forbidden to share code or work together on them with your classmates. You can, however, discuss high-level ideas, but they have to be documented. Failure to do so will result in an F on the assignment. Documenting high-level idea exchange can be made as a note in the assignment write-up (who/when/what/where). Sharing code with a classmate will result in an F on the assignment for the first offense and a failure of the course on the second documented offense.

Make the Lecture tests. This is also considered cheating. All programs may be checked by plagiarism detection software.

Withdrawing:

If you decide to leave the class, please do it officially. There is a date on the Academic Calendar past which you are not allowed to drop for academic reasons. We'd much rather give a W grade than an F. Don't just stop coming to class - you WILL get an F! Take care of your transcript! All policies associated with this course are subject to revision. Reasonable notification will be provided to students prior to any major changes.

New Withdrawal Policy (5 W Policy): Effective Fall 2010, all undergraduate students are limited to five course withdrawal (W) grades for their entire enrollment at Valdosta State University. Once a student has accumulated five W grades, all subsequent withdrawals (whether initiated by the student in BANNER or initiated by the instructor on the proof roll) will be recorded as WF.

The grade of WF is calculated as an F for GPA purposes. To get more details about this policy, students are strongly recommended to check the following link:

<http://www.valdosta.edu/academic/WithdrawalPolicy.shtml>

Extra Help: Do not hesitate to come to my office during office hours or by appointment to discuss a homework problem or any aspect of the course. There are also tutors available Monday through Friday, see Professor Said Fares (office in 1126 Nevins Hall) for more information. There is also the Student Success Center on campus located on the ground floor of the Langdale Residence Hall. The Student Success Center offers free one-on-one tutoring for core courses, success workshops, etc. You can find more information at <http://www.valdosta.edu/academics/student-success-center/>.

Attendance Policy: Please keep in mind that attendance is extremely important for this course. You are expected to show up for lectures and participate. In case you have to miss class, please make sure you ask for notes or see your professor. Directly part of your course grade, in-class quizzes/labs/exams have a dramatic impact. If you have a valid university excuse, please notify your professor as soon as possible.

Accommodation for Disabilities: If you have a documented disability that requires academic accommodations, please contact your professor as soon as possible. In order to receive accommodations in this course, you must provide a Letter of Accommodation from the Access Office for Students with Disabilities located in Farver Hall. The phone numbers are 229-245-2498(V/VP) and 229-219-1348(TTY). Accommodations can be made for all parts of the course. We only make special arrangements for class activities after we receive the letter.

Student Opinion of Instruction: At the end of the term, all students will be expected to complete an online Student Opinion of Instruction survey (SOI) that will be available through SmartEvals. Students will receive an email notification through their VSU email address when the SOI is available (generally at least one week before the end of the term). SOI responses are anonymous to instructors/administrators, and they will be able to access results only after they have submitted final grades. Before final grade submission, instructors will not be able to see any responses, but they can see the percentage of students who have or have not completed their SOIs. While instructors will not be able to see student names, an automated system will send a reminder email to those who have yet to complete their SOIs. Students who withdraw or drop a course will also be sent invitations to complete the Dropped Course Survey. Complete information about the SOIs, including how to access the survey, is available on the SOI Procedures webpage: <https://www.valdosta.edu/academics/academic-affairs/sois/welcome.php>

Title IX Statement: Valdosta State University (VSU) is committed to creating a diverse and inclusive work and learning environment free from discrimination and harassment. VSU is dedicated to creating an environment where all campus community members feel valued, respected, and included. Valdosta State University prohibits discrimination on the basis of race, color, ethnicity, national origin, sex (including sexual harassment and sexual violence), sexual orientation, gender identity, religion, age, disability, genetic information, or veteran status, in the University's programs and activities as required by applicable laws and regulations such as Title IX. The individual designated with responsibility for coordination of compliance efforts and receipt of inquiries concerning nondiscrimination policies is the University's Title IX Coordinator: the Director of the Office of

Social Equity, titleix@valdosta.edu, 1208 N. Patterson St., Valdosta State University, Valdosta, Georgia 31698, 229-333-5463.