CS 105 Introduction to Scientific Computing Syllabus

    The syllabus below describes a recent offering of the course, but it may not be completely up to date. For current details about this course, please contact the course coordinator. Course coordinators are listed on the course listing for undergraduate courses and graduate courses.

Text Books

Required
Stephen J. Chapman , *Essentials of MATLAB Programming, Second Edition* , Cengage Learning, 2009, 0-495-29568-X

Week-by-Week Schedule

Week	Topics Covered	Reading	Assignments
1	Concepts of Computation and Algorithms. MATLAB environment	Chapter 1 and Chapter 2 (pages 16 - 24)	Using Canvas - Homework 1
2	Variables and Arrays	Chapter 2	Homework 2
3	Data files and built-in functions, Simple Plotting		Homework 3
4	Pseudocode and flowcharting	Chapter 3	Homework 4
5	Logical Operations		Homework 5 Test 1
6	If statements and switch	Kaplan 7.1 - 7.2	Homework 6
7	More plotting, while	Chapter 4	Homework 7
8	For loop		Homework 8
9	Nested loops		Homework 9 Test 2
10	User-defined functions	Chapter 5	Homework 10
11	Strings and menus	Chapter 6	Homework 11
12	Random numbers		Homework 12
13	Cell arrays and Structure arrays	Chapter 7	Homework 13
14	Catch-up and Review		