CE108 - Spring 2018
Introduction to Computational Methods in Civil Engineering

COURSE OUTLINE

WEEK	TOPICS
1/9,11	Basic Matlab and Mathematica commands.
1/16,18	Basic Input/Output (I/O) and Algebric statements.
1/23,25	Basic data types and algebraic expressions.
1/30,2/1	File Input/Output (I/O) and logical expressions.
2/6,8	Loops and repetitive execution.
2/13,15	Iterative algorithms in applied mathematics.
2/20,22**	Matrix Operations.
2/27,3/1	Programming with functions and subprograms.
3/6,8	Global variables.
3/20,22	Introduction to UNIX and C-compilation.
3/27,29	Basic data types and integer arithmetic.
4/3,5	Basic I/O Operations and Introduction to Pointers.
4/10,12	Data representation and storage schemes.
4/17,19**	Assembler and Machine Languages.
4/24,26	Advanced topics.

** $\implies$ examination on that day (2/22, 4/19).

Grading Policy:

2 equally weighted examinations (30% each)	60%
12 computer projects	24%
8 written homework on computer algorithms	16%

Reference Textbooks:

- Introduction to Scientific Computation and Programming, by Daniel T. Kaplan, Thomson/Brooks/Cole, ISBN 0-534-38913-9.

- The C Programming Language, Second Edition, by Brian W. Kernighan and Dennis M. Ritchie, Prentice Hall, ISBN 0-13-110362-8.

Warning: Not working on the computer projects can be hazardous to your examination scores.

Course Website: http://www-classes.usc.edu/engr/ce/108