Introduction to Computer Science: Python (COSC 1010) (Summer 2024)

PROFESSOR:

Mahendran Velauthapillai
Department of Computer Science Phone: 202-687-5936 (office)
331 St.Marys

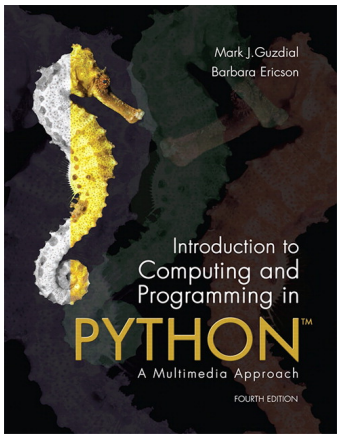
OFFICE HOURS:

MW:2-00 to 3.00 PM or by appointment

TEACHING ASSISTANTS:

Name	Office Hours (EDT) Washington DC Time	Location	Email
xxxx	xxxx	xxxxx	xxxxx

TEXT:

	Introduction to Computing and Programming in PYTHON
	by Mark Guzdial & Barbara Ericson
	Publisher: Pearson
ISBN-13:	9780134025544

COURSE DESCRIPTION:

The class is designed to give hands on expreience in using computers and computer programming.

Students will be introduced to digital logic, circuits, graphics, memory access (internal/external), networks, security, algorithms, representation of information in computers and programming.

Students will write programs, and perform other laboratory exercises to understand these concepts. Python language will be used as the media by which these topics will be covered. Students will be required to write programs in Python.

TOPICS COVERED:

Data types, variables, conditionals, loops, functions, parameter passing, lists,files, tuples, dictionary, classes, inheritance and exception handling.

COURSE REQUIREMENTS:

Programming projects: 60% of your grade
Mid Term: : 15% of your grade
Final : 25% of your grade

IMPORTANT DATES:

Mid Term: 6-20 (R)
Finals; 7-3 (W)

Course Schedule:

Week	Topic
1	Introduction to Computer Science and Media
1	Introduction to Programming
2	Variables, lists
3	Conditionals and Loops
4	Modifying Pictures Using Loops
5	Multi dimensional lists
6	Modifying Pixels in Range
7	Picture Techniques with Selection and Combination
8	Functions and parameter passing
9	Modifying Sound Using Loops

10	Files input/output
11	Modifying Samples in Range
11	Making Sounds by Combining Pieces
12	Classes
13	Inhereitence, exception handling

Notes:

Notes will be on canvas after each class.

Home Work	**Given**	**Due**	**Points**	**Problem**	Solution
1	6-3	6-4	10	hw1	sol
2	6-4	6-5	10	hw2	sol
3	6-5	6-6	10	hw3	sol
4	6-6	6-10	10	hw4	sol
5	6-10	6-11	10	hw5	sol
6	6-11	6-12	10	hw6	sol
7	6-12	6-13	10	hw7	sol
8	6-13	6-17	10	hw8	sol
9	6-17	6-18	10	hw9	sol
10	6-18	6-19	10	hw10	sol
11	6-20	6-24	10	hw11	sol
12	6-24	6-25	10	hw12	sol
13	6-25	6-26	10	hw13	sol
14	6-26	6-27	10	hw14	sol
15	6-27	7-1	10	hw15	sol
16	7-1	7-2	10	hw16	sol

COURSE POLICY:

1. All *Home works* should be uploaded to canvs by the due date.

2. Use of ChatGPT is allowed for home works. Not allowed for exams.

3. Late Home work will NOT be accepted.
   If you cannot make it to class to turn in your home work
   its your responsibility to turn it in prior to the due date.

4. Makeups and extensions will be given only for medical reasons.

COURSE ETHICS:
You can discuss the questions with your classmates, but do not copy the solutions