

# Introduction to Computer Science (COSC 010) (Summer 2021)

## PROFESSOR:

Mahendran Velauthapillai  
Department of Computer Science  
331 St.Marys

Phone: 202-687-5936 (office)

## OFFICE HOURS:

M-R :2.00 to 3.00 PM or by appointment

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## TEACHING ASSISTANTS:

To be announced

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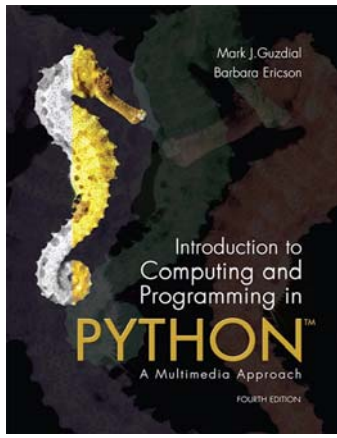
## COURSE DESCRIPTION:

The class is designed to give hands on experience 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.

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## TEXT:



Introduction to Computing and Programming in PYTHON

by Mark Guzdial & Barbara Ericson

Publisher: Pearson

ISBN-13:

9780134025544

**TOPICS COVERED:**

The whole text

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**COURSE REQUIREMENTS:**

18 Labs: 70% of your final grade; (you will fail if you don't show up to class)

**ALL LABS MUST BE COMPLETED THE SAME DAY**

Mid Term: 10% of your grade

Final: 20% of your grade

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**IMPORTANT DATES:**

Mid term1: June 24 (R)

Finals; July 8(R)

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**Course Schedule:**

Date	Topic
6/07	Introduction to Computer Science and Media
6/08	Introduction to Programming
6/09	Modifying Pictures Using Loops
6/10	Modifying Pictures Using Loops

6/14	Modifying Pixels in Range
6/15	Modifying Pixels in Range
6/16	Picture Techniques with Selection and Combination
6/17	Picture Techniques with Selection and Combination
6/21	Modifying Sound Using Loops
6/22	Modifying Sound Using Loops
6/23	Modifying Sound Using Loops
6/24	Midterm
6/28	Modifying Samples in Range
6/29	Modifying Samples in Range
6/30	Modifying Samples in Range
7/01	Making Sounds by Combining Pieces
7/05	Making Sounds by Combining Pieces
7/06	Building Bigger Programs
7/07	Building Bigger Programs
7/08	Finals

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**Notes:**

An overview of the notes will be available here the day before class.

The overview will be replaced with the full notes after class.

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Home Work	Given	Points	Problem	
1	6-7	20	hw1	sol
2	6-8	20	hw2	sol
3	6-9	20	hw3	sol
4	6-10	20	hw4	sol
5	6-14	20	hw5	sol
6	6-15	20	hw6	sol

7	6-16	20	hw7	sol
8	6-17	20	hw8	sol
9	6-21	20	hw9	sol
10	6-22	20	hw10	sol
11	6-23	20	hw11	sol
12	6-28	20	hw12	sol
13	6-29	20	hw13	sol
14	6-30	20	hw14	sol
15	7-01	20	hw15	sol
16	7-05	20	hw16	sol
17	7-06	20	hw17	sol
18	7-07	20	hw18	sol

**COURSE POLICY:**

1. All *Home works* should be turned in at the end of the class. Keep the graded home works until the semester is over. Do NOT discard your home works.
2. 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.
3. 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.