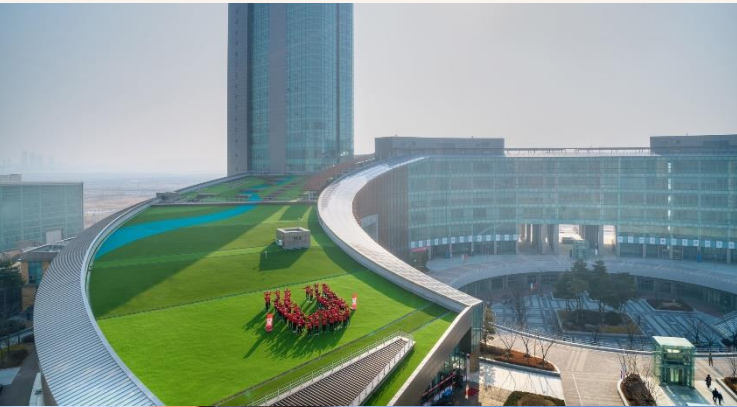THE UNIVERSITY OF UTAH
ASIA CAMPUS
SOUTH KOREA

Habtamu Minassie Aycheh,PhD
Department of Electrical and Computer Engineering

Department of Electrical and Computer Engineering
Spring 2022

Course Title: Programming for All 1
Course Number: COMP 1010

Instructor: Habtamu Minassie Aycheh, PhD
Email: habtamu.aycheh@utah.edu
Office : U759

Course Objective

- This course is designed for non-CS major students who desire a practical course for gaining basic computer programming skills.

- The course provides a comprehensive study of how to approach programming problems and devise solutions using python programming language.
  - basic concepts, patterns, data structures and implementation of python programming techniques will be presented.

Syllabus

Week	Day	Date	Topic
1	Tue	22/02/2022	Introduction
1	Thu	24/02/2022	Setup python working environment
2	Tue	01/03/202	Independence Movement Day
2	Thu	03/03/2022	Variables, Statements, and Expressions
3	Tue	08/03/2022	Values and primary data types
3	Thu	10/03/2022	Operators and Operands
4	Tue	15/03/2022	Program flow control- Conditions
4	Thu	17/03/2022	Program flow control- iterations
5	Tue	22/03/2022	More on Iterations /loops
5	Thu	24/03/2022	Algorithms
6	Tue	29/03/2022	Functions – Built in libraries/modules
6	Thu	31/03/2022	Spring Recess
7	Tue	05/04/2022	Functions -User defined Functions
7	Thu	07/04/2022	Strings and string manipulation
8	Tue	12/04/2022	Collection data types: Lists
8	Thu	14/04/2022	Mid Term Exam

Week	Day	Date	Topic
9	Tue	19/04/2022	More on lists
9	Thu	21/04/2022	Collection data types: Tuples
10	Tue	26/04/2022	Collection data types: dictionary
10	Thu	28/04/2022	Collection data types: Sets
11	Tue	03/05/2022	The random Module
11	Thu	05/05/2022	Children's Day
12	Tue	10/05/2022	Errors and Exceptions Handling
12	Thu	12/05/2022	Unit testing
13	Tue	17/05/2022	Python Turtle
13	Thu	19/05/2022	Object oriented programming (OOP) - class and object
14	Tue	24/05/2022	More on OOP -Inheritance
14	Thu	26/05/2022	File I/O operations
15	Tue	31/05/2022	File I/O operations – CSV files
15	Thu	02/06/2022	File I/O operations – image files
16	Tue	07/06/2022	Final Exam

Class Logistics

- **Class Time**
  - Tuesday & Thursday: 8:00am – 8:50am
  - Location: U513(Lab)
- **Office Hour**
  - By appointment
- **Course materials**
  - Canvas : https://utah.instructure.com
    - Please check canvas
      - for lecture slides before class
      - quizzes, assignments, etc..

Evaluation

- Class participation: 10%
- Quiz : 10%
- Programming Assignments(PAs) : 30%
- Mid test : 25%
- Final test: 25%

Academic integrity

- You have to be honest in all your academic course work
- Violation will be recorded in your transcript
  - https://regulations.utah.edu/academics/6-400.php
- Submit assignments by the deadline
- Attend classes to successfully complete the course.

Books

1. **Textbook**: Foundations of Python Programming
   - Interactive textbook: https://runestone.academy/ns/books/published/fopp/index.html

   Reference
2. Introduction to Computation and Programming Using Python, second edition
   - https://www.amazon.com/Introduction-Computation-Programming-Using-Python/dp/0262529629/ref=sr_1_3?keywords=Introduction+to+Computation+and+Programming+Using+Python.&qid=1564178404&s=gateway&sr=8-3

Introduction to Computation and Programming Using Python

With Application to Understanding Data

second edition

John V. Guttag
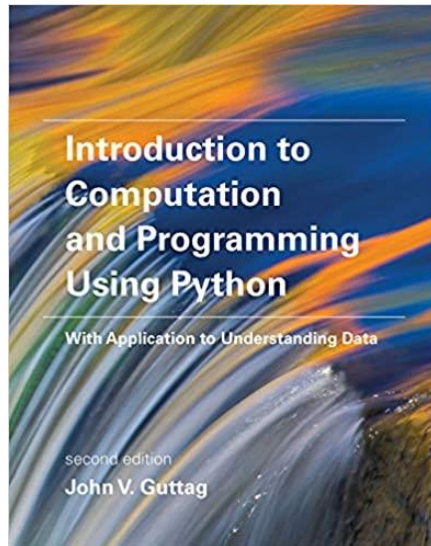
Programming requires "practice" not just reading!

Good luck and have a great semester!