DASF004: Basic Practice in Programming (3 Credits)
Semester 1, 2021

Instructor: Dr. Arthur Tang
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Textbook: C How to Program, 7th Edition, by Paul Deitel & Harvey Deitel
ISBN 10: 013299044X; ISBN 13: 978-0132990448

Class Time and Venue:

	Section 41		Section 42	
	Lecture	Lab	Lecture	Lab
Time	Monday 15:00 – 16:15	Wednesday 16:30 – 17:45	Monday 13:30 – 14:45	Wednesday 12:00 – 13:15
Venue	Online	Online	Online	Online

Description of Course
This course covers the fundamental of computing and computational thinking techniques. Emphasis will be placed on implementing computer programs towards solutions for practical problems using C.

Course Objectives
The objectives of this course are:
- to familiarize students with fundamental concepts of computing systems;
- to facilitate students with ability to identify, formulate and solve computational engineering problems;
- to develop students' ability to develop computer programs and to read code developed by others; and
- to provide students with hands-on experience in computer programing and computational problem solving.

Teaching Methodology
This course incorporated the Outcome Based Learning approach. It is a student-centered approach for teaching and learning. The course has a list of ***Intended Learning Outcomes***. All ***Teaching and Learning Activities*** throughout the course are aimed to help students achieving these Intended Learning Outcomes. Throughout the semester, students will be assessed based on the **Assessments** aligned to the Intended Learning Outcomes, and the final grade will be determined based on these Assessments. In other words, any student who is able to demonstrate all the Intended Learning Outcome through all the Assessments, she/he will get an excellent grade.

Course Intended Learning Outcomes
On successful completion of this course, students will be able to:
1. Solve real-world problems that will arise in the future by using computational thinking methods;
2. Define problems computationally;
3. Develop computational algorithms to problems;
4. Develop computer programs using C;
5. Read and understand programs written by others; and
6. Apply computational thinking techniques to solve the problems in their domains.

Course Assessments

- Homework Assignments: 28%
- Lab Exercises: 14%
- Mid Term Test 26%
- Final Exam 32%

Homework Assignments (28%):

Homework assignments will be assigned during each lab session throughout the course. **You should submit your source code only (no grade will be given if you do not submit your source code)**. You should submit the assignments on iCampus before the deadline. **No late assignment will be accepted**.

Lab Exercises (14%):

Lab exercises will be assigned in each lab session throughout the semester. Lab exercises are to be completed within the day of the lab sessions; you should **submit the lab exercises before the end of the day of the lab sessions (i.e. 11:59 pm)**. You should submit your **source code** only (no grade will be given to your work if you do not submit your source code). **No late assignment will be accepted** unless you have proper documentation for your absence. If your absence to the lab session is excused with proper documentation, bring the documentation within two weeks of the absence and you will be given another chance to submit your lab exercise if approved. **Late submission will only be allowed with approval**.

Midterm Test and Final Exam (26% and 32% Respectively):

This course will have one midterm exam and one final exam. Both the midterm and the final exam are in the form of a take home programming project. Final Exam is cumulative; it covers the materials of the entire course. You should submit your solution before the deadline. **No late submission will be accepted.**

Late Assignment Policy

In order to maintain fairness to everyone in the class, attendance, exam and assignments cannot be made up. **No late assignments will be accepted**. Late assignments will not be graded and a zero grade will be given to the missed exam and assignments.

Attendance

Students are responsible for attending all lecture and lab session on time and stay for the whole period. Your attendance for lectures will be recorded electronically on iCampus. At the end of each lecture and lab session, it is the students' responsibility to check and verify that your attendance is properly recorded. **If you miss class(es), it will be your responsibility to find out what materials were covered, what works were assigned, what handouts were missed, and all class announcement during your absence.** If your absence is excused, submit your documentation within two weeks after the absence and you will be given attendance credit if approved. **Credit will only be given to documented absence**. According to university policy, an F Grade will be given to students who attend less than **75%** of total number of class automatically.

Medium of Instruction:

The medium of instruction for this course is English. If you are not able to understand course instruction in written and/or oral English, you should not take this course. “I did not understand your instruction in English” would not be considered as an excuse for any missed instruction in class.

Course Information Update:

Handouts, powerpoint presentations, additional assigned readings, assessment scores and updated course information will be made available online through iCampus.

Course Communication:

Email is the best way to communicate with the instructor. You may also meet with the instructor after each lecture, or make appointment with the instructor to schedule a meeting. **Do not use the iCampus messaging system for communication** (nobody read the messages on iCampus).

Expectation

The instructor is responsible to design and create a positive learning environment in the course. However, students are expected to play a MAJOR role in class discussion and offer responsible feedback.

Disruptive Behavior

The student's behavior in the classroom shall be conducive to the teaching and learning process for all concerned. Students whose conduct adversely affects the learning environment in this classroom may be asked to leave, and are subjected to disciplinary action through the relevant academic unit. Penalties in course grade will be imposed if the disruptive behavior continue.

Academic Honesty

I have a very high standard in academic honesty. *Plagiarism and cheating will not be tolerated at all*.

- Student cannot supply or use work or answers that are not one's own.
- You may discuss homework assignments with other students, but you must follow collaboration policy strictly. The assignments you submit must be entirely your own work.
- **Plagiarism will not be tolerated at all.** Works completed by others used in your assignments should be cited properly.
- Penalties in course grade will be imposed in all incidents of academic honesty. All incident of academic honesty is subjected to disciplinary action through the relevant academic unit.

Collaboration Policy for Homework Assignments

You are free to give or receive help when doing homework assignments, but you must follow the restrictions as follow:

- Only the helper can look at the code of others. Student who is receiving help must not look at the code of the helper;
- Student who is receiving help must do all the typing herself/himself. Helper must not touch the computer of the student who is receiving help; and
- All student cannot post your code through the internet, nor send your code to other students.

Tentative Class Calendar

Note: This calendar is tentative and is subjected to modification throughout the semester.

Week	Section 41 and 42	
	Date	**Topic**
1	Feb 22	Lecture 0: Orientation; Introduction
	Feb 24	Lab 0
2	Mar 1	Lecture 1: Introduction to C Programming
	Mar 3	Lab 1
3	Mar 8	Lecture 2: Program Control
	Mar 10	Lab 2
4	Mar 15	Lecture 3: Program Control / Function
	Mar 17	Lab 3
5	Mar 22	Lecture 4: Function
	Mar 24	Lab 4
6	Mar 29	Lecture 5: Function
	Mar 31	Lab 5
7	Apr 5	Lecture 6: Array
	Apr 7	Lab 6
8	Apr 12	**Mid-term Exam**
	Apr 14	**NO LAB !!!**
9	Apr 19	Lecture 7: Array
	Apr 21	Lab 7
10	Apr 26	Lecture 8: Pointer
	Apr 28	Lab 8
11	May 3	Lecture 9: Pointer
	May 5	Lab 9
12	May 10	Lecture 10: Character and String
	May 12	Lab 10
13	May 17	Lecture 11: File Processing
	May 19	Lab 11
14	May 24	Lecture 12: Structure
	May 26	Lab 12
15	May 31	**NO CLASS !!!**
	Jun 2	**Final Exam**