Department of Engineering, Physical, and Computer Sciences
Montgomery College

ENEE140: Introduction to Programming Concepts for Engineering
Spring 2019

1. General Information

Lecture :31297 M/W 1:00- 1:50PM Location: SC424
Lab : 31299 M/W 2:00- 2:25PM Location: SC424

Instructor: Dr. Lan Xiang
Email: Lan.Xiang@montgomerycollege.edu
Office: SC436F
Phone: (240) 567-1740
Office Hours: MW 12 – 1:00pm; 2:30pm – 3:00pm, TR 9:00am – 10:00am

Recommended Textbooks:
C How to Program, by Deitels, 8th Edition, Prentice Hall, ISBN: 0136123562
Class handouts and lecture notes are available on the MyMC

2. Catalog Description

Principles of software development, high-level languages, input/output, data types and variables, operators and expressions, program selection, repetition, functions, arrays, strings, introduction to algorithms, software projects, debugging, documentation. Programs will use the C language.
Prerequisites: MATH165.

ENEE140 is the prerequisite for ENEE150: Intermediate Programming Concepts for Engineers. ENEE150 is intended for students who are comfortable with the fundamentals of procedural programming. It will cover intermediate topics in procedural programming including pointers, dynamic memory allocation and data structures, linked lists, abstract data types, and more.

3. Grading Policy

Letter grade will be based on the total score in the following five categories:

Lab assignments	10%	(In-class lab assignments)
Homework	20%	
Programming tests	20%	(In-class programming tests on computer)
Midterm Exam	20%	
Final Exam	30%	(comprehensive)

4. Course Structures

There will be weekly homework assignments. You are supposed to work on your assignments individually and originally. It is acceptable, and you are encouraged, to discuss assignments with other students, but you have to code by yourself. **Do not share your source code with others. Working in groups, copying other student's program, or allowing others to copy your work will be considered as academic dishonesty, and will be not be tolerated.** Late assignments will

NOT be accepted for any reason except for documented illness or emergencies with instructor's permission before the deadline.

We will have several programming tests. In each test, you will be asked to write small C programs individually during the class time. This includes typing, testing, debugging, executing the program and electronically submitting it to the instructor.

There are in-class lab assignments that students need to complete during the lab session. Midterm exam and final exam are both written exams. Makeup exams will be ONLY allowed for documented excused absences as defined by the Student Handbook or as a result of a prior arrangement with the instructor.

Heavy Workload Warning:

You can expect a heavy workload in this course, especially if you have never done any kind of programming in the past. The programming assignments are not necessarily difficult, but they do require lots of time and patience. **Due to the nature of the course, you may not start feeling this heavy workload in the first couple of weeks.**

Attendance

Each student is required to attend the lecture and the lab on time every time. Late arrivals will disturb the class. **More than TWO unexcused absences without prior permission from the instructor will have one grade level penalty in the final grade (for example, A to B).** Lateness of more than 15 minutes will be counted as one absence.

Support Services

A student needing special accommodations due to a disability should let the instructor know as soon as possible. A letter from Disability Support Services (DSS) authorizing the accommodation is required. The DSS office is located in Room 122 CB and may be called on (301) 279-5060 or TDD (301) 294-9672.

In addition to course requirements and objectives that are in this syllabus, Montgomery College has information on its web site (see link below) to assist you in having a successful experience both inside and outside of the classroom. It is important that you read and understand this information. The link below provides information and other resources to areas that pertain to Student Success such as: Student Behavior (Student Code of Conduct); Student e-mail, College Tobacco Free Policy; Course Withdrawal and Refund Information; Resources for Military Service Members, Veterans and Dependents; how to access information on delayed openings and closings; how to register for Montgomery College's Alert System and how closings and delays can impact your classes.
Important Student Information Link: http://cms.montgomerycollege.edu/mcsyllabus/

ENEE140 Course Outline (Spring 2019)

Weeks	Dates	TOPICS	Readings
1	1/23	Introduction to UNIX and C programming	UNIX Tutorial (website)
2	1/28	Introduction to UNIX and C programming	Vi Tutorial (website)
	1/30	Programming basics and Variables	2.1- 2.4
3	2/4	Programming basics and Variables	2.1- 2.4
	2/6	Basic Data types	Notes
4	2/11	Arithmetic operations	2.5, 3.11-3.12
	2/13	Program selection	2.6, 3.1-3.6
5	2/18	Program selection	4.7, 4.10-4.12
	2/20	Case Study and Review	
6	2/25	**Programming test 1**	
	2/27	Program repetition	3.7-3.10
7	3/4	Program repetition	4.2-4.6, 4.8-4.9
	3/6	Case Study and Review	
8	3/11	**Spring Break**	
	3/13	**Spring Break**	
9	3/18	**Midterm Exam**	
	3/20	Functions	5.1-5.8
10	3/25	Functions	5.10-5.16
	3/27	**Programming test 2**	
11	4/1	Arrays	6.1-6.5
	4/3	Arrays	6.7-6.10
12	4/8	Multidimensional Arrays	6.11
	4/10	Strings	8.1-8.2, 8.5
13	4/15	Strings	8.3, 8.6-8.7
	4/17	Case Study and Review	
14	4/22	**Programming test 3**	
	4/24	Input/output functions	9.1 – 9.11
15	4/29	File manipulations	11.3-11.4
	5/1	File manipulations	11.3-11.4
16	5/6	Final Review	

Note: Final Exam May 8 (Wednesday), 12:30pm – 2:30pm. The above course outline is tentative and subject to change. Please check MyMC often for updates.