CSE 1111: Structured Programming Language (Sec B/E)

Course outline for Summer 2022
United International University (UIU)

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Course Website

- Log in to your account at http://www.lms.uiu.ac.bd
- A student must use his university provided email address (name###id@bscse.uiu.ac.bd). In this email address, you will receive important messages from the course instructor through eLMS.
- You should be automatically enrolled to this course. If not, or registered later, use "1234" to be enrolled in the class.

Lectures

Sec E	Sun & Wed 10:05 AM – 11:35 AM	Room # 0402
Sec B	Sun & Wed 11:40 AM – 1:10 PM	Room # 0403

Counseling Hours

- **Sun & Wed:** 8-30 am – 10 am, **Thu**: 7 pm to 8 pm (**Online**) (Other times based on appointment).

Text book

- ***"C - How to Program", – Deitel & Deitel*** *(9th Ed.)* ***(DD)***

Reference books

- ***"C Programming: Absolute Beginner's Guide",*** *- (3rd Edition or later)* ***- Perry and Miller (PM)***
- ***"Programming in ANSI C",*** *- (6th Edition or later)* ***- E. Balagurusamy (EB)***

Evaluation

Attendance	5%
Class Tests	20%
Homeworks / Assignments	5%
Midterm	30%
Final	40%

Tests Policy

- Schedule of the **midterm**: 7th week of the semester
- **4 class tests** will be taken, **best 3** will be considered. **There will be no makeup for a class test.**
- **If you are absent during mid/final, and you have not informed me earlier, your grade for the exam will be zero.**

Grading

Letter Grade	Marks	Grade Point	Letter Grade	Marks	Grade Point
A (Plain)	90-100	4.0	C+ (Plus)	70-73	2.33
A- (Minus)	86-89	3.67	C (Plain)	66-69	2.00
B+ (Plus)	82-85	3.33	C- (Minus)	62-65	1.67
B (Plain)	78-81	3.00	D+ (Plus)	58-61	1.33
B- (Minus)	74-77	2.67	D (Plain)	55-57	1.00

Course Objectives: Basic understanding of problem solving; Structured programming language: data types, operators, expressions, control structures (If-else, Switch-case, Loop); Functions and program structure: parameter passing conventions, scope rules and storage classes, recursion; Header files; Pointers and arrays; Strings; Multidimensional array; User defined data types: structures, unions, enumerations; Input and Output: standard input and output, formatted input and output, file access; Variable length argument list; Command line parameters; Error Handling; Graphics; Linking; Library functions.

Course Learning Outcomes:

1. **Store** and **manipulate** data using **variables, operators and library functions**.
2. **Design** problem solutions using programming **control structures** (**conditions and loop**).
3. **Modularize** and **reduce redundancy** using **functions, parameters, and return values**.
4. **Store and manipulate** large amount of data using **arrays, structures, pointers, and files**.

Topic Outline:

Lectures	*Topics Or Assignments*	*CLOs*	*Readings*	*Activities*
1, 2, 3, 4	Introduction to basic C program structure, Executing a C program, Declaration and use of variables & data types, Managing input/output operation, Use of Arithmetic, Relational, Logical, Assignment, Increment and decrement operators, Arithmetic expression evaluation, Mathematical functions of math.h.	1	DD (2.2 – 2.6)	Lecture, Q/A, Assignment, Problem solving session, CT 1
5th Lecture	**Class Test # 1**			
5, 6, 7, 8	Decision making with if, if---else statement, Nesting of if---else statement, The else—if ladder, The switch statement, The for, while, do-while repetitive statement, Usage of break and continue. Solve problems such as displaying series, patterns.	1, 2	DD (3.1-3.12, 4.1-4.10) Chap 4 Exercises	Lecture, Q/A, Assignment, Problem solving session, CT 2
9th Lecture	**Class Test # 2**			
9 ,10, 11, 12	Introduction, initialization, and use of Arrays. Introduction, initialization, and use of 2-D Arrays and matrix operations. **Problem solving** & **REVIEW**	1, 2	DD (6.1-6.5, 6.11)	Lecture, Q/A, Assignment, Problem solving session
Mid Term Assessment –See Central Exam Routine for Date & Time				
13, 14, 15, 16	Introduction and use of User defined functions. Introduction, Initialization and use of string, Different string handling functions	2, 3, 4	DD (5.1-5.9, 5.12-5.16)	Lecture, Q/A, Assignment, Problem Solving Session, CT 3
17th Lecture	**Class Test # 3**			
17, 18, 19, 20	Introduction and use of structures. Pointer: Introduction to pointers and pointer arithmetic, Directly and indirectly referencing a variable, Pointer operators & and *, Pass-by-reference with pointer arguments.	2, 3, 4	DD (10.1-10.5, 7.1-7.4, 7.8-7.10)	Q/A, Assignment, Problem Solving Session, CT 4
21st Lecture	**Class Test # 4**			
21, 22, 23, 24	File I/O: Introduction to File management system, C File I/O, Opening a file, Reading from or writing to file, Closing a file, Various File-System functions. **Problem solving** & **REVIEW**	2, 3, 4	DD (11.1-11.8)	Q/A, Assignment, Problem Solving Session
Final Assessment –See Central Exam Routine for Date & Time				