SPRING 2019

CSE 1121 –COMPUTER PROGRAMMING I

Department of Computer Science and Engineering (CSE)

International Islamic University Chittagong (IIUC)

Instructor:	**Saifur Rahaman (SR)** **Doctoral Research Fellow, CSE, BUET** **Assistant Professor** **Department of CSE, IIUC** e-mail: saifurcubd@gmail.com saifurcse@iiuc.ac.bd Mobile No: **01815646105**		
Schedules:	1. Monday (08:30 am - 10:45 am), FClab2 (306) - Sessional 2. Monday (10:45 am - 11:30 am), R-304 3. Tuesday (8:30 am - 10:00 am), R-305		
Place:	**Academic Building 2, FAZ**		
Semester:	**First Semester, Female, Section B – 1BF**		
Credit Hours:	**3**	**Contact Hours:**	**3**
Prerequisite:	**N/A**		
Textbooks:	**Programming in ANSI C** (Latest Edition) -by E. Balagurusamy **Schaum's outline of Theory and Problems of Programming with C.** (Latest Edition) -by Byron S. Gottfried		
Reference Books:	**Teach Yourself C** (Latest Edition) -by Herbert Schildt **Art of Programming Contest**(Latest Edition) -by Ahmed Shamsul Arefin		
Course Objectives:	▪ To introduce student to the fundamentals of systems analysis and program development using top-down design, structured programming, testing and implementation and elementary data structures. ▪ To gain experience about structured programming ▪ To help students to understand the implementation of C language ▪ To understand various features in C		
Course Outcomes:	At the end of the course students will be able to ▪ Solve the given problem using the syntactical structures of C language ▪ Develop, execute and document computerized solution for various problems using the features of C language ▪ To read and write C program that uses pointers, structures and files etc.		

Course Grading:

Class Attendances	10 Marks	**20 Marks**	**100 Marks**
Class Test & Assignments	10 Marks		
Section A (Mid term)	30 Marks	**30 Marks**	
Section B (Final Exam)	**Group A & Group B** (20 + 30) Marks	**50 Marks**	

Homework & Programming Assignments:

You have to follow the deadline to submit your homework and assignments. **No late submission will be accepted**. Copying will be considered as an **offence** and will be **penalized**.

Student Civility at Class Room:

- In an effort to make this class enjoyable for everybody…
- Please be on time to class
- Please do not talk to your friends and neighbors in class. If you have a question, just ask me
- Please turn your pagers and cell-phones off
- No permission needed to enter the class room

CSE-1121 Lecture Outlines by SR

Lecture Outlines:

Lecture	Date	Topics of Midterm	Segment	Assignment	Due
1		Introductory Class and Course description	1		
2		**Introduction – Software:** Definition of software, its classification, Problem solving steps, Flow charts	1	HW1	
3		**Introduction of C:** Introduction of C: history and Characteristics of C, structure of C programming	1		
4-5		**Introduction to basics of C:** Identifiers and keywords, data types, constants, variables, statements, symbolic constant	1	HW2	HW1
6		Review of S-1 & Class Test-1	1	CT-1	
7-8		**Operators:** Arithmetic, unary, relational, logical, assignment, conditional operators, precedence of operators	2		HW2
9		**Operators:** Expressions, type conversions (casting), library functions			
10-11		**Input and Output:** Managing data input (scanf, getchar, gets etc), Managing data output (printf, putchar, puts etc), formatted input and output	2	HW3	
12		Review of S-2	S-2	A-1	
13-14		**Control statements:** Branching- If and if… else statements, nested if.	3		HW3
15		**Control statements:** switch statement.	3	HW4	
16		Review of S-3 and Class test - 2	3	CT-2	HW4
17-18		Review of S-1 to S-3 for Midterm Exam	1-3		A-1
Mid-Term Examination (June-July 2019)					
Lecture	**Date**	**Topics of Final Exam (Group A)**	**Segment**	**Assignment**	**Due**
19-20		**Looping:** while, do-while and for looping statements.	4	HW5	
21-22		**Looping:** Jumps in loops, goto statement, break and continue statement.	4		
23		Review of Segment 4 & Class Test 3	4	CT-3	HW5
24-26		**Function**: Defining a function, accessing a function, function prototypes, passing arguments to a function, Recursions, Storage class	5	HW6	
27		Review of Segment 5 & Class Test 3	5		HW6
Lecture	**Date**	**Topics of Final Exam (Group B)**	**Segment**	**Assignment**	**Due**
28-29		**Array**: Defining an array, processing an array, passing arrays to functions, Multidimensional array	6	HW7	
30		**Array**: String, Array of Strings	6	HW8	HW7
32-33		**Array**: pointer declarations, operations on pointers Pointers and arrays, Pointers and functions, Dynamic memory allocation	6	HW9	HW8
34		Review of Segment 6	6		HW9
35-36		**Structure**: defining a structure, processing a structure, structure and pointers, passing structures to functions, self referential structure	7	HW10	
37-39		**Structure**: Union. File: opening and closing a file, creating a file, processing a file	7	A-2	
40		Review of Segment 7	7		HW10
41-43		**Computer Graphics**: Low level programming bitwise operations, bit fields, Some features of C (Enumeration, Command line parameters, Header files, Pre-processors, Macros), Graphics programming	8		
44		Review of Segment 8 & Class Test 4	8	CT-4	A-2
45		Review of S-1 to S-3 for Final Exam	4-8		

Final Examination
(September-October 2019)

Saifur Rahaman
Assistant Professor, CSE, IIUC