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Department of Computer Science and Engineering

Course Title: Structured Programming Language (Theory)
Course Code: CSE 1213
Credits: 3.0
Prerequisites: N/A
Course Instructor: Ayesha Siddiqua
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Course Description: This course focuses on the syntax and semantics of structured programming, while analyzing and designing various programming problems using different library and user defined functions. Also, it helps to develop basic programming and problem-solving skills to program design and development.

Objectives: The goal of this course is to introduce the students to the concept of programming and principles of structure programming. The course is designed in such a way so that the students are able to know the differences between different types of data storage and why each is needed. Understand how data is transferred from RAM to permanent storage including the use of arrays. Learn how the control structures of sequence, repetition and condition can be used to process data. Understand the various parts of a C program and how modular structures are introduced. Create small project that must reflect all of the knowledge gathered throughout the course.

Grading policy: Attendance: 10%
*Class Performance and class tests: 20%
Mid-Term: 30%
Final: 40%
*Class performance includes a series of class tests, assignments, and class performance.

Schedule	Content / Title	Preloaded Video by CT	Course material by CT	Live recording by IT	Teaching Strategy
Lecture 01	Introduction to C Programming				Lecture Discussion
Lecture 02	Syntax rules in C programming				Lecture Discussion Q & A
Lecture 03	Output				Lecture Discussion Q & A
Lecture 04	Comments				Lecture Discussion Q & A
Lecture 05	Variables				Lecture Discussion Q & A
Lecture 06	Data Types				Lecture Discussion Q & A
Lecture 07	Constants				Lecture Discussion Q & A
Lecture 08	Operators				Lecture Discussion Q & A
	Class Test – 01				
Lecture 10	If ... Else				Lecture Discussion
Lecture 11	Switch				Lecture Discussion Q & A
Lecture 12	While Loop				Lecture Discussion Q & A

Lecture 13	Do-While Loop				Lecture Discussion Q & A
Lecture 14	Review Class and Assignment				
Lecture 15	Class Test - 02				
Lecture 16	For Loop				Lecture Discussion
Lecture 17	Nested For Loop				Lecture Discussion Q & A
Lecture 18	For Loop Problem Set - 1				Lecture Discussion Q & A
Lecture 19	For Loop Problem Set - 2				Lecture Discussion Q & A
Lecture 20	For Loop Problem Set - 3				Lecture Discussion Q & A
Lecture 21	Break and Continue				Lecture Discussion
Lecture 22	Review Class and Assignment				
Lecture 23	Mid Term Exam				
Lecture 24	Arrays				Lecture Discussion
Lecture 25	Reverse an Array				Lecture Discussion Q & A

Lecture 26	Insert Element in Array				Lecture Discussion Q & A
Lecture 27	Delete Element from Array				Lecture Discussion Q & A
Lecture 28	Strings				Lecture Discussion
Lecture 29	String Problem Set - 1				Lecture Discussion Q & A
Lecture 30	String Problem Set - 2				Lecture Discussion Q & A
Lecture 31	String Problem Set - 3				Lecture Discussion Q & A
Lecture 32	Review Class and Assignment				
Lecture 33	Class Test – 03				
Lecture 34	User Input				Lecture Discussion
Lecture 35	Pointers				Lecture Discussion
Lecture 36	Array of Pointers				Lecture Discussion Q & A
Lecture 37	Pointer to a Pointer				Lecture Discussion Q & A
Lecture 38	Pointer to a Function				Lecture Discussion Q & A

Lecture 39	Functions				Lecture Discussion
Lecture 40	Function Parameters				Lecture Discussion Q & A
Lecture 41	Function Declaration and Definition				Lecture Discussion Q & A
Lecture 42	Recursion				Lecture Discussion Q & A
Lecture 43	Review Class and Assignment				
Lecture 44	Class Test - 04				
Lecture 45	Structures (structs)				Lecture Discussion
Lecture 46	Structures Problem Set - 01				Lecture Discussion Q & A
Lecture 47	Structures Problem Set - 02				Lecture Discussion Q & A
Lecture 48	Files and Streams				Lecture Discussion
Lecture 49	List Files in Directory				Lecture Discussion Q & A
Lecture 50	Files Problem Set - 01				Lecture Discussion Q & A
Lecture 51	Review Class and Assignment				
Lecture 52	Final Exam				