



**COURSE OUT LINE**

**Course Code: CSE 291**

**Course Title: Computer Programming**

**Level/Term: 2/1**

**Academic Session: 2017-2018**

**Course Teacher(s):**

<b>Name:</b>	<b>Office/Room:</b>	<b>E-mail and Telephone:</b>
Lt. Col. Amirul Azim	Room No: <b>805</b> Tower-1	<a href="mailto:azim518000@gmail.com">azim518000@gmail.com</a> 01769023922
Lec Md. Jakaria	Room No: <b>810</b> Tower-1	<a href="mailto:jakaria@cse.mist.ac.bd">jakaria@cse.mist.ac.bd</a> 01686239998

**Course Outline:**

CSE 291 Computer Programming

**Objectives:**

1. To provide basic concepts of compilers, interpreters and IDE
2. To know about various syntax, semantics of structured programming languages
3. To analyze and design various applications using different library functions of structured programming language

**Learning Outcomes:**

Upon completion of the course, the students will be able to:

1. Describe algorithm and solve problems using computers.
2. Analyze the fundamental principles, typical characteristics and mechanisms of a structured programming language.
3. Develop basic programming skills with respect to program design and development.



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### Text and Reference books:

- Teach Yourself C - Herbert Schildt
- C: The Complete Reference - Herbert Schildt
- C Programming Language – Dennis M. Ritchie

### Weekly schedule:

Week	Lecture	Topic	Class Test
1	Lec 1 Lec 2 Lec 3	Programming Concepts, Program development Stages, Structured programming language.	<b>Class Test 1</b>
2	Lec 4 Lec 5 Lec 6	Number System: binary, octal, decimal and hexadecimal systems; Data types and their memory allocation.	
3	Lec 7 Lec 8 Lec 9	Operators, expressions, Basic Input/output; Control Structure: “if else”, “switch”, Flow Charts	
4	Lec 10 Lec 11 Lec 12	Control structures: loop	<b>Class Test 2</b>
5	Lec 13 Lec 14 Lec 15	Control structures: Nested loop	
6	Lec 16 Lec 17 Lec 18	Function, parameter passing convention; Recursion	
7	Lec 19 Lec 20 Lec 21	Advanced recursion; Variable length argument list, Command line parameters	
8	Lec 22 Lec 23 Lec 24	Arrays, Strings	<b>Class Test 3</b>
9	Lec 25 Lec 26 Lec 27	Pointers	



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Week	Lecture	Topic	Class Test
10	Lec 28 Lec 29 Lec 30	Multidimensional array; Dynamic memory allocation	
11	Lec 31 Lec 32 Lec 33	File I/O; Header files, Preprocessor. User defined data types: structures, unions, enumerations	<b>Class Test 4</b>
12	Lec 34 Lec 35 Lec 36	Error Handling; Bitwise Operations	
13	Lec 37 Lec 38 Lec 39	Linking, Library functions.	
14	Lec 40 Lec 41 Lec 42	Basic Data Structures: Stack, Queue and Review	

### Marks Distribution:

Class Participation/Observation	10%
Class Attendance	10%
Homework assignment and quizzes	20%
Final Examination (3 hours)	60%
<b>Total</b>	<b>100%</b>