COURSE OUTLINE

Course Code: CSE 107

Course Title: Object Oriented Programming Language

Level/Term: 1/II **Section: A & B**

Academic Session:

Course Teacher(s):

Name:	Office/Room:	E-mail and Telephone: (optional)
Dr. Tanzima Hashem (Professor)	CSE 313	tanzimahashem@gmail.com
Tanveer Awal (Assistant Professor)	CSE 517	tanveerawal@cse.buet.ac.bd

Course Outline:

Philosophy of Object Oriented Programming (OOP); Advantages of OOP over structured programming; Encapsulation, classes and objects, access specifiers, static and non-static members; Constructors, destructors and copy constructors; Array of objects, object pointers, and object references; Inheritance: single and multiple inheritance; Polymorphism: overloading, abstract classes, virtual functions and overriding; Exceptions; Object Oriented I/O; Template functions and classes; Multi-threaded Programming.

Learning Outcomes/Objectives:

After undergoing this course, students should be able to:

i. Understand and apply the concepts of Object Oriented Programming
ii. Demonstrate analytical and technical skills required for design and development of real life software
iii. Proficiently write computer programs using C++ and Java
iv. Attain enhanced programming skills through use of generic codes, templates, code reuse and multithreading technology

Assessment

Class Tests/Assignments:	20%
Attendance:	10 %
Term final:	70%

Text and Reference books:

a. Herbert Schidlt, Teach Yourself C++, Third Edition.
b. Herbert Schildt, Java: The Complete Reference, Tenth Edition.

Weekly schedule:

Week	Topics	Teacher's Initial
1	Overview of Object Oriented Programming Language, Overview of C++	TH
2	Class, Array, Pointer, Reference	TH
3	Function Overloading, Operator Overloading, Inheritance	TH
4	Basic C++ I/O, Virtual function	TH
5	Introduction to Java, Console I/O, String, Arrays	TA
6	Inheritance, Interface, Package, Exceptions	TA
7	I/O, Threading	TA
8	Networking	TA
9	Templates and Standard Template Library (STL) in C++	TH
10	Advanced C++	TH
11	Generics, Collections	TA
12	Collections, Lambda Expressions	TA
13	Enumeration, TypeWrappers, Autoboxing; Review of some topics	TA
14	Review of some topics	TA

Prepared by :	
Dr. Tanzima Hashem & Tanveer Awal Date: 26/10/2018	