AC –
Item No. –

As Per NEP 2020

Tolani College of Commerce (Autonomous)

Knowledge is Supreme

Title of the Course: Object Oriented Programming

Programme: B.Com (Accounting and Finance), B.Com(Management Studies), B.Com(Banking and Insurance), B.Com.(Financial Markets) Semester II

Syllabus for 2 credits

From the academic year- 2024-2025

Sr. No.	Heading	Particulars
1	**Description of the course**	Object-oriented programming (OOP) is a style of programming characterized by the identification of classes of object closely linked with the methods (functions) with which they are associated.
2	**Vertical:**	Minor
3	**Type:**	Theory and Practical
4	**Credit**:	2 credits
5	**Hours Allotted:**	30 Hours
6	**Marks Allotted**:	50 Marks Continuous Evaluation:20 Semester End Examination:30
7	**Course Objectives**: **1.** This course provides rich experience on C++ Programming, understand the concepts of C++ language and expertise in using C++ **2.** To implement real-world entities like inheritance, hiding, polymorphism, etc. in programming **3.** The main aim of OOPS is to bind together the data and the functions that operate on them so that no other part of the code can access this data except that function. **4.** This course provides rich experience of Handling exceptions to control errors.	
8	**Course Outcomes**: **1.** Learn basics of OOPS, Understand functions in C++ **2.** Understand Constructor and polymorphism Concept **3.** Learn the inheritance concepts, Ability to learn about error handling **4.** Learn how to control errors with exception handling	

9	**Module1: Object Oriented Methodology,Classes, Objects and Constructors ,Destructors (15 Hours)**	
	• Introduction of object oriented programming • Simple classes (Class Specification, Class members accessing), Defining member functions, passing object as an argument, Returning object from functions, • Friend classes, Default Constructor, Parameterized Constructor and examples, Destructors.	
	Module2: Polymorphism, Inheritance, Exception Handling (15 Hours)	
	• Concept of function overloading, overloaded, operators overloading, • Introduction, understanding inheritance, Advantages provided by inheritance, • Introduction, Exception Handling Mechanism, Concept of throw & catch with example	
10	**Reference Books:** • **Author:** E. Balagurusamy, **Title:** Object Oriented Programming with C++,**Publisher:** TataMcGraw Hill 9th Edition, **Year:** 2014 • Link: https://e-next.in/bsc-it/sem2/object-oriented-programming/	
12	**Internal Continuous Assessment:20%**	**Semester End Examination:30%**
13	**Continuous Evaluation through:**	**Practical**

14 **Format of Question paper:**

Scheme of Evaluation Pattern

Table 1A: Scheme of Continuous Evaluation (CE/Practical)

Scheme of Evaluation Pattern

Sub-components	Maximum Marks	Conditions for passing
1) Practical exam	15	b) A learner must be present for each of the sub-components.
2) Journal and Viva	5	
Total	20	

Table 1B: Scheme of Semester End Examination (SEE) Evaluation

Question Paper Pattern for Semester End Examination (SEE)

Maximum Marks: 30 **Duration: 1 Hrs.**

Note: All questions are compulsory. Each question has an internal choice.

Question Number		Nature of Questions	Maximum Marks
1)		**Attempt any 3**	
	a)		15
	b)		
	c)		
	d)		
	e)	**Attempt any 3**	
2)			15
	a)		
	b)		
	c)		
	d)		
	e)		