INDUS UNIVERSITY
DEPARTMENT OF COMPUTER SCIENCE

Departmental Vision:

The department of Computer Applications aims to generate groomed, technically competent and skilled intellectual professionals to meet the current challenges of the modern computing industry with greater social impact.

Departmental Mission:

The missions of department are:

M1: To offer high-grade, value-based Graduate and Post-graduate program in the field of Computer Applications.

M2: To provide conducive environment so as to achieve excellence in teaching-learning, research and development activities.

M3: To facilitate students to nurture skills and professional competency to meet the ever-changing needs of society and industry.

M4: To provide students with the tools to become productive, participating global citizens and life-long learners.

PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO1. Ability to demonstrate and implement the core concepts of Information Technology, principles and Tools to design IT systems effectively.

PSO2. Able to prepare students with the base of computer science skills and practical knowledge to meets social and global requirement.
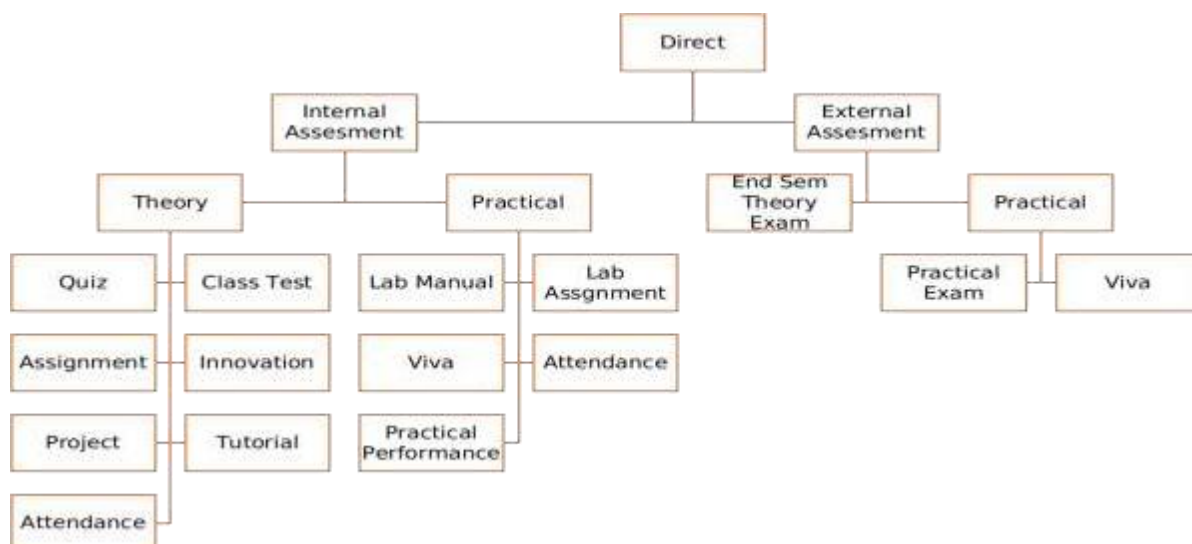
Program Outcomes(POs)

Computer Application & Information Technology graduates will be able to:

PO1	**IT knowledge:** Apply the knowledge of mathematics, science, IT fundamentals and specialization to the solution of complex problems.
PO2	**Problem analysis:** Ability to identify and formulate problems related to information technology and apply knowledge to solve industry problems.
PO3	**Design/development of solutions:** Ability to design, develop , test and maintain system as per the needs of industry.
PO4	**Conduct investigations of complex problems:** Ability to apply mathematical models, algorithms in the computer based system.
PO5	**Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern IT tools including prediction with an understanding of the limitations.

PO6   **The digital youth and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional skill-set.

PO7   **Ethics:** Recognize and apply the ethical role and responsibility.

PO8   **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary.

PO09   **Communication:** Communicate effectively on complex activities with the IT community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO10   **Project management and finance:** Demonstrate knowledge and understanding of the IT and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO11   **Life-long learning:** Ability to engage in lifelong learning in the broadest context of technological change..

A.Y.2020-2021
SEMESTER-III

Subject Name: Object Oriented Programming with C++ (IMSCO3O2)

Course Outcomes

CO 1: Students will learn the importance of object oriented concepts. (BT-1,2)

CO 2 Analyze the advanced programming concepts (BT- 2, 3)

CO 3: Analyze the knowledge of techniques pertaining to problem solving skills (BT- 3)

CO 4: Evaluate the object oriented program with classes (BT-4)

CO 5: Demonstrates the file storage techniques for object oriented concepts. (BT-5,6)

CO 6: Develop object oriented namespaces and library functions (BT-5, 6)

COURSE OUTCOME (CO) and PROGRAM OUTCOME (PO) Matrix

(1- Low, 2-Medium, 3- High) (Average of COs course wise for each POs)

CO	PO1	PO2	PO 3	PO 4	PO 5	PO 6	PO7	PO8	PO9	PO10	PO11
CO 1	1	2	2	1	3	-	-	-	-	1	-

COURSE OUTCOME and PROGRAM SPECIFIC OUTCOME Matrix

CO	PSO 1	PSO 2
CO 1	1	2
CO 2	2	2
CO 3	1	2
CO 4	2	2
CO 5	-	2
CO 6	1	2
IMSC0302	1.16	2

Direct Assessment method – The knowledge and skills learnt by the students are assessed directly from their performance through internal assessment and external assessment processes.

External assessment- Performance of student is recorded in university theory exams,

laboratory exams and project evaluation.

Internal assessment- Performance of student is recorded through class assignments and

tutorials, internal assessment tests, laboratory assignments, seminars and project progress review and evaluation.

Attainment of Course Outcomes (CO's)Test

For End Semester Theory and Practical Exams 1. Attainment Level 1: If <45% students scoring ≥60% marks 2. Attainment Level 2: If >45-75% students scoring ≥60% marks 3. Attainment Level 3: If >75-100% students scoring ≥60% marks
For Internal Theory and Practical Exams 1. Attainment Level 1: If <45% students scoring ≥75% marks 2. Attainment Level 2: If >45-75% students scoring ≥75% marks 3. Attainment Level 3: If >75-100% students scoring ≥75% marks

Weights of Attainments are assigned as per University Evaluation criteria as below
For A.Y. 2020-21

1. For all courses except courses marked with (*)

INDUS University End Semester Examinations: Weightage: 40%

Internal Assessment: Weightage: 60%

2. Courses marked with (*)

INDUS University External Examinations: Weightage: 0%

Internal Assessment: Weightage: 100%

Internal Component with COs mapping

Component-1: Assignment/Class Participation (CO1, CO2, CO3, CO4, CO5, CO6)

Component-2: Class Test (CO1, CO2, CO3, CO4, CO5, CO6)

Component-3: Internal Practical (CO1, CO2, CO3, CO4, CO5, CO6)

Course Attainment Academic Year 2020-2021

Course Name with Code	Object Oriented Programming with C++ - IMSCO3O2
Class	Integrated MscIT Semester-III
Faculty Name	Prof. Madhavi Dave

CO Attainment Internal component	1	2	3	Internal assessment component total (1 to 3)
CO 1	1	2	1	1.3
CO 2	2	1	2	1.7
CO 3	1	1	2	1.3
CO 4	1	1	1	1.3
CO 5	2	1	1	1.3
CO 6	1	1	2	1.0

Indirect Attainment from the students feedback for each COs

S.N.	Course Outcome	L	M	H
1	Students will learn the importance of object oriented concepts.			

2	Analyze the advanced programming concepts			
3	Analyze the knowledge of techniques pertaining to problem solving skills			
4	Evaluate the object oriented program with classes			
5	Demonstrates the file storage techniques for object oriented concepts			
6	Develop object oriented namespaces and library functions			

1-Low(L), 2-Medium(M), 3- igh(H)

Totalstudentgivenfeedback:0

S.N.	Course Outcome	Value
1	Students will learn the importance of object oriented concepts.	
2	Analyze the advanced programming concepts	
3	Analyze the knowledge of techniques pertaining to problem solving skills	
4	Evaluate the object oriented program with classes	
5	Demonstrates the file storage techniques for object oriented concepts	
6	Develop object oriented namespaces and library functions	

% CO Attainment	Internal Exam	Internal Exam *0.6	End sem Exam	End sem Exam*0.4	Direct Attainment (DA)	Indirect Attainment (IA)	Overall = 0.8*DA + 0.2*IA
CO 1							
CO 2							
CO 3							
CO 4							
CO 5							
CO 6							
	OverallCourseAttainment						
	SetTargetforthecourse						
	Course Attainment Status(Yes/No)						

Best Performing CO:	
Least Performing CO	

Observations:

1	
2	
3	

Plan of Action:

1	
2	

Faculty Signature

Madhavi Dave