



Dempo Charities Trust's
DHEMPE COLLEGE OF ARTS & SCIENCE
Miramar, Panaji-Goa

C++

[2 Credits 30 hours]

Course Objective:

C++ is an object oriented programming (oop) language. Students will learn concepts of object oriented programming over procedure oriented programming. Concepts like data encapsulation, data security, polymorphism, inheritance, template classes, exception handling, defining classes and objects will be covered in detail with corresponding examples using C++ programming language.

Learning Outcome:

Students will learn to design and implement object oriented systems in C++.

Course Content

1. Principles of OOP: Software crises, evolution, Procedure oriented vs object oriented paradigm, Basic concepts of OOP, Benefits and applications of OOP (2)
2. Beginning with C++: A simple c++ program, an example with class, structure of a c++ program, compiling and linking (2)
3. Tokens, expressions and control structures: Tokens, keywords, identifiers and constants, basic datatypes, operators, scope resolution operator, memory management operators, operator overloading (4)
4. Functions in C++: Main function, function prototyping, call by reference, inline functions, function overloading, friend and virtual functions (4)
5. Classes and objects: Specifying a class, defining member functions, private and public member functions, static member functions, friend functions, pointers to members (4)
6. Constructors and destructors: Constructors-default, parameterised, copy, constructor overloading, destructors (4)
7. Inheritance: Introduction, derived classes, single, multiple, multilevel, hierarchical, hybrid, virtual functions and classes, abstract classes (5)
8. Pointers, virtual functions and polymorphism: pointers, virtual functions (2)
9. Templates: Class template, function template, overloading templates (2)
10. Exception handling: Basics of exception handling, Try catch throw block (1)

Reference

I.E Balagurusamy, Object oriented programming in C++

Shilpa Naik
Ms Shilpa Naik

Dhempe College of Arts & Science

Miramar - Goa.

Academic Year : 2018 -19

SHORT TERM COURSE ATTENDANCE SHEET

Name of the Course : C++

Topic : _____

Class :- S-Y B-SC

Batch:- _____

Lecture No.	1	2	3	4	5	6	7	8	9	10
Date:-	12/2/19	14/2/19	16/2/19	18/2/19	20/2/19	25/2/19	27/2/19	4/3/19	5/3/19	6/3/19
Time:-										
Roll no.	Name of Student									
17262	NARAYAN BAHODKAR									
17263	TANISHA BHAT									
17264	GANESH BISHT									
17268	SHAWH VALEN FERRO									
17274	SMITA MALIK									
17276	VIBHAV PISSURLENKAR									
17277	SUNDEB SHAIKH									
17278	NIHAL SHETYE									
17281	SEYAR YOUSUF									
17282	SAMUJULLAH BHAT									
17283	TEJAS LOTLIKAR									
17285	APURVA PATIL									
17287	SWETA NAIK									

Name & Signature of the Teacher : DIKSHA H. PRABHU KHORJUVENKAR

Diksha

Prabhu
21/3/2019

Dempo Charities Trust
Dhempe College of Arts & Science

Miramar - Goa.

Academic Year : 2018 -19

SHORT TERM COURSE ATTENDANCE SHEET

Name of the Course : CFF

Topic: _____

Class :- S.Y.B.Sc

Batch:- _____

Lecture No.	1	2	3	4	5	6	7	8	9	10
Date:-	07/3/19	08/3/19	09/3/19	11/3/19	12/3/19	12/3/19	13/3/19	13/3/19	14/3/19	14/3/19
Time:-	11-12am	2-3	1-2	2-3	2-3	2-3				
Roll no.	Name of Student									
17262	Narayan Bandolka	NSB	NSB	NSB	NSB	NSB	NSB	NSB	NSB	NSB
17263	Tanisha Bhat	A	OBhatt	OBhatt	OBhatt	A	A	A	A	OBhatt
17264	Manish Bhat	A	Bhat	Bhat	Bhat	Bhat	Bhat	Bhat	Bhat	Bhat
17268	Shawn Kalin Farooq	Bhat	Bhat	Bhat	Bhat	Bhat	Bhat	Bhat	Bhat	Bhat
17274	Smita Malik	Bhat	Bhat	Bhat	Bhat	Bhat	Bhat	Bhat	Bhat	Bhat
17276	Vibhav Pissurankar	Wsp	Wsp	Wsp	Wsp	Wsp	Wsp	Wsp	Wsp	Wsp
17277	Sunober Shaikh	Shaikh	Shaikh	A	A	Shaikh	Shaikh	A	A	Shaikh
17278	Nihal Shetye	A	Shetye	Shetye	Shetye	Shetye	Shetye	A	A	Shetye
17281	Seyar Yusuf	A	Yusuf	A	A	Yusuf	Yusuf	A	A	Yusuf
17282	Sanjullah Boyat	A	Boyat	Boyat	Boyat	Boyat	Boyat	Boyat	Boyat	Boyat
17283	Tejas Lotlikar	Tejas	Tejas	Tejas	Tejas	Tejas	Tejas	Tejas	Tejas	Tejas
17285	Apurva Patil	Patil	Patil	Patil	Patil	Patil	Patil	Patil	Patil	Patil
17287	Sweta Naik	Naik	Naik	Naik	Naik	Naik	Naik	Naik	Naik	Naik

Name & Signature of the Teacher **DIKSHA N. PRABHU KHORJUVENKAR**

[Signature]

HOD *[Signature]*
27/3/2019



**Dempo Charities Trust's
Dhempe College of Arts and Science
Panaji, Goa**

Name of the Course: C++

This course introduces the student to object-oriented programming through a study of the concepts of program specification and design and coding.

No. of students: **13**

Fees: **Rs.1000/-**

Resource Person: **Ms. Diksha Prabhu Khorjuvenkar**

Co-ordinator: **Ms. Diksha Prabhu Khorjuvenkar**

Duration: (Dates) From **021/02/2019 to 14/03/2019 (40 contact hours)**

Attendance Record: Maintained/Not Maintained **Maintained**

Certificates: Issued/Not issued **Not Issued**

Proposal: Submitted/Not submitted **Submitted**

Student forms: Submitted/Not submitted **submitted**

Bills: Settled/Not settled **settled**