



**Dr D Y Patil Pratishthan's**  
**Dr. D.Y. Patil Institute of Engineering, Management and Research, Akurdi, Pune**

**Course Outcomes**

**Syllabus: SE\_Sem-I(2015 Pattern)**

**Department : Computer Engineering**

<b>Subject:</b>	<b>Discrete Mathematics</b>	<b>Subject Code:</b>	<b>210241</b>
CO1	201.1	Formulate problems precisely, solve the problems, apply formal proof techniques, and explain the reasoning clearly.	
CO2	201.2	Specify, manipulate and apply equivalence relations, construct and use functions and apply these concepts to solve new problems.	
CO3	201.3	Examine numbers of possible outcomes using permutations and combinations to model and analyze computational processes using combinatorics.	
CO4	201.4	Model and solve computing problem using graph and Identify solutions for the problems using appropriate algorithms.	
CO5	201.5	Analyze the properties of binary operations on tree.	
CO6	201.6	Apply abstract algebra in coding theory and evaluate the algebraic structures.	

<b>Subject:</b>	<b>Digital Electronics &amp; Logic Design</b>	<b>Subject Code:</b>	<b>210242</b>
CO1	202.1	Solve Boolean functions for designing digital circuits using K map and Quine Mc-Clusky method.	
CO2	202.2	Design and Implement different types of Sequential digital circuits and Combinational Circuits as per specifications.	
CO3	202.3	Develop simple Digital systems using Algorithmic State Machines and VHDL	
CO4	202.4	Differentiate types of PLDs and Design Combinational Digital Circuits using PLDs.	
CO5	202.5	Compare and Choose appropriate Logic Families IC Packages as per given specifications.	



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CO6	202.6	Describe Microcontroller 8051 and compare Microprocessor and Microcontroller.
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<b>Subject:</b>	<b>Data Structures &amp; Algorithms</b>	<b>Subject Code:</b>	<b>210243</b>
CO1	203.1	Demonstrate a detailed understanding of behavior of data structures like array, linked list, stack, and queue.	
CO2	203.2	Discriminate the usage of various structures design/program/implement the appropriate data structure use them in implementations of abstract data type and identify appropriate data structure in approaching the problem solution	
CO3	203.3	Discriminate the usage of dynamic data structures in approaching the problem solution.	
CO4	203.4	Understand, implement and apply principals of stack to solve computational problems	
CO5	203.5	Understand, implement and apply principals of queue to solve computational problems	
CO6	203.6	Compare and contrast data searching and sorting techniques.	

<b>Subject:</b>	<b>Computer Organization &amp; Architecture</b>	<b>Subject Code:</b>	<b>210244</b>
CO1	204.1	Describe the basic concepts of the structure, function and characteristics of computer systems	
CO2	204.2	Recognize various memory systems and its hierarchy	
CO3	204.3	Identify and compare different methods for computer input/output	
CO4	204.4	Demonstrate the elements of modern instruction set and their impact on	



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		processor design
CO5	204.5	Evaluate various design alternatives in processor organization
CO6	204.6	Compare and contrast computer architecture and organization

<b>Subject:</b>	<b>Object Oriented Programming</b>	<b>Subject Code:</b>	<b>210245</b>
CO1	205.1	Use various fundamental object oriented programming concepts and its associated libraries using c++ language	
CO2	205.2	Demonstrate object oriented programming solutions by code reuse and objects of multiple forms.	
CO3	205.3	Examine memory management in complex programming situations.	
CO4	205.4	Select Files for storing and retrieving data from secondary storage devices.	
CO5	205.5	Implement generic classes and handle exceptions using C++ programming	
CO6	205.6	Develop applications using object oriented principles using C++ language	

<b>Subject:</b>	<b>Digital Electronics Lab</b>	<b>Subject Code:</b>	<b>210246</b>
CO1	206.1	Understand fundamentals and functionality of electronic circuits	
CO2	206.2	Apply knowledge to appropriate IC as per design specifications.	
CO3	206.3	Design and Implement combinational and Sequential Logic Circuits	



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CO4	206.4	Design and Simulate basic applications of VHDL
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<b>Subject:</b>	<b>Data Structures Lab</b>	<b>Subject Code:</b>	<b>210247</b>
CO1	207.1	Apply and analyze linear and nonlinear data structures to solve real world complex problems	
CO2	207.2	Design and analyze the time and space efficiency of the data structure	
CO3	207.3	Identify the appropriate data structure for given problem	
CO4	207.4	Analyze the efficiency of most appropriate data structure for creating efficient solutions for engineering design situations.	

<b>Subject:</b>	<b>Object Oriented Programming Lab</b>	<b>Subject Code:</b>	<b>210248</b>
CO1	208.1	Apply object oriented concepts and its associated libraries for implementing c++ programs	
CO2	208.2	Install and use Linux Operating System	
CO3	208.3	Use command line arguments & files for storing and retrieving data from secondary storage devices while implementing C++ programs	
CO4	208.4	Develop c++ applications by using generic classes and functions and will be able to apply exception handling techniques	

<b>Subject:</b>	<b>Object Oriented Programming Lab</b>	<b>Subject Code:</b>	<b>210248</b>
CO1	208.1	Apply object oriented concepts and its associated libraries for implementing c++ programs	



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CO2	208.2	Install and use Linux Operating System
CO3	208.3	Use command line arguments & files for storing and retrieving data from secondary storage devices while implementing C++ programs
CO4	208.4	Develop c++ applications by using generic classes and functions and will be able to apply exception handling techniques

<b>Subject:</b>	<b>Soft Skills</b>	<b>Subject Code:</b>	<b>210249</b>
CO1	209.1	Effectively communicate through verbal/oral communication and improve the listening skills	
CO2	209.2	Write precise briefs or reports and technical documents	
CO3	209.3	Actively participate in group discussion/meetings/interviews and prepare & deliver presentations.	
CO4	209.4	Become a more effective individual through goal/target setting , self motivation and practicing creative thinking.	
CO5	209.5	Function effectively in multi-disciplinary and heterogeneous teams through the knowledge of team work, Inter-personal relationships, conflict management and leadership quality.	