

Software Engineering - Course Outline

Software Engineering - Course Outline		Points Possible	Course Hours
Course Overview		500	144
Module 1: Desktop Application		300	72
	<i>C Language.</i>	100	24
	<i>C++ Language.</i>	100	12
	<i>C Sharp.</i>	100	36
Module 2: Web Application		200	72
	<i>Asp.Net Web Form.</i>	100	36
	<i>Asp.Net MVC.</i>	100	36
Module 1 : Desktop Application		300	72
C Language		100	24
Lecture 1: Introduction to Programming.			
	<i>Introduction to Software Development & Engineering.</i>		
	<i>Software Life Cycle(Short Brief).</i>		
	<i>Introduction to IDE.</i>		
Lecture 2: Structure of C Language			
	<i>Headers & Libraries.</i>		
	<i>Variables & Datatypes.</i>		
	<i>Built-in Functions.</i>		
	<i>Operators.</i>		
Lecture 3: Conditional Operators.			
	<i>If , Else if and Else.</i>		
	<i>Switch Case</i>		
	<i>Ternary Operators</i>		
Lecture 4: Loops.			
	<i>For Loop.</i>		
	<i>While Loop.</i>		
	<i>Do While Loop.</i>		
Lecture 5: Arrays.			
	<i>1d Array.</i>		
	<i>2d Array.</i>		
Lecture 6:Functions.			
	<i>User Defined Functions.</i>		
	<i>Recursion.</i>		
Lecture 7:Structures.			
	<i>structures.</i>		
Lecture 8:Pointers.			
	<i>Pointer & Address.</i>		
	<i>Pointer & Arrays.</i>		
	<i>Passing pointer through functions.</i>		
Lecture 9:File Management.			
	<i>File Output/Write.</i>		
	<i>File Input/Read.</i>		
	<i>File Append.</i>		
Quizzes:		20	

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	Assignments	20	
	Final Theory	40	
	Final Practical	10	
	Final Project with viva	10	
C++ Language		100	12
Lecture 1:Introduction to C++ Language.			
	<i>About C++ Language.</i>		
	<i>Difference Between C and C++ Language.</i>		
Lecture 2:Structure of C++ Language.			
	<i>Headers & Libraries.</i>		
	<i>Variables & Datatypes.</i>		
	<i>Built-in Functions.</i>		
Lecture 3:Functions.			
	<i>User Defined Functions.</i>		
Lecture 4:File Management.			
	<i>File Output/Write.</i>		
	<i>File Input/Read.</i>		
Lecture 5:Object Oriented Programming Language.			
	<i>Introduction to oop.</i>		
	<i>Class & Object.</i>		
	<i>Static Keyword.</i>		
	<i>This Keyword.</i>		
	<i>Access Modifiers.</i>		
	<i>Encapsulation.</i>		
	<i>Inheritance.</i>		
	<i>Polymorphism.</i>		
	<i>Aggregation.</i>		
	Quizzes:	20	
	Assignments	20	
	Final Theory	40	
	Final Practical	10	
	Final Project with viva	10	
C Sharp and Sql		100	36
Lecture 1:Introduction to C Sharp.			
	<i>About C Sharp Language.</i>		
	<i>Difference Between C and C++ Language and C Sharp Language.</i>		
	<i>Difference Between Desktop Application and Console Application.</i>		
	<i>Dot Net Framework.</i>		
	<i>About Visual studio Ide</i>		
Lecture 2:Structure of C Sharp.			
	<i>Headers & Libraries.</i>		
	<i>Variables & Datatypes.</i>		
	<i>Built-in Functions.</i>		
	<i>Operators</i>		
Lecture 3:Array.			
	<i>1d Array.</i>		
	<i>2d Array.</i>		

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	<i>Foreach Loop.</i>		
Lecture 4:Functions.			
	<i>User Defined Functions.</i>		
Lecture 5:Object Oriented Programming.			
	<i>Introduction to oop.</i>		
	<i>Class and Object.</i>		
	<i>Access Modifier.</i>		
	<i>Static and this Keywords.</i>		
	<i>Constructor.</i>		
	<i>Getter and setter.</i>		
	<i>Encapsulation.</i>		
	<i>Inheritance.</i>		
	<i>Polymorphism.</i>		
	<i>Aggregation.</i>		
	<i>List , Array list and Dictionary .</i>		
Lecture 6:Exception Handling , Break Point.			
	<i>Exception handing and its types..</i>		
	<i>Breakpoint.</i>		
Lecture 7:File Management.			
	<i>File Output/Write.</i>		
	<i>File Input/Read.</i>		
Lecture 8:Introduction to Database.			
	<i>Introduction to sql database.</i>		
	<i>Connection and user Authentication.</i>		
	<i>Database and Table.</i>		
	<i>Queries & Design Database and its table.</i>		
	<i>CRUD.</i>		
	<i>Joins.</i>		
	<i>Primary key and Foreign Key.</i>		
	<i>Sum , alter , drop and other keywords.</i>		
Lecture 9:C Sharp and Database.			
	<i>How to connect C Sharp with database.</i>		
	<i>How to connect C Sharp with sql.</i>		
	<i>Crud in C Sharp with sql.</i>		
	<i>Application in C Sharp and sql.</i>		
	<i>Crystal Report using Ado.Net</i>		
	Quizzes:	20	
	Assignments	20	
	Final Theory	40	
	Final Project with viva	20	
Module 2 : Web Application		300	72
Asp.Net Web Forms		100	36
Lecture 1: Introduction to Web Application.			
	<i>Introduction to Asp.Net.</i>		
	<i>Difference Between Website Designing and Development.</i>		
	<i>Introduction to IDE.</i>		
	<i>Introduction to Servers(IIs, Wamp, Xamp and etc)</i>		

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	<i>Introduction to live Servers(Dedicated and shared servers)</i>		
Lecture 2:Web Forms Architecture.			
	<i>Introduction to Web Form(Front-End).</i>		
	<i>Web Forms Life Cycle.</i>		
	<i>Code Behind(Back-End).</i>		
Lecture 3:State Management and Web Applications.			
	<i>Session State.</i>		
	<i>Application State.</i>		
	<i>Cookies.</i>		
Lecture 4: Introduction to Database.			
	<i>Introduction to sql database.</i>		
	<i>Connection and user Authentication.</i>		
	<i>Database and Table.</i>		
	<i>Queries & Design Database and its table.</i>		
	<i>CRUD.</i>		
	<i>Joins.</i>		
	<i>Primary key and Foreign Key.</i>		
	<i>Sum , alter , drop and other keywords.</i>		
	<i>View.</i>		
	<i>Trigger.</i>		
	<i>Stored Procedure.</i>		
Lecture 5: Web Application.			
	<i>Application using Asp.net Web Forms and Sql Database.</i>		
	<i>Data Binding.</i>		
	<i>Website Static To Dynamic.</i>		
	<i>Reporting.</i>		
	<i>Ado.Net</i>		
Lecture 6: Introduction to Asp.Net Ajax.			
Asp.Net MVC		100	36
Lecture 1: Introduction to Asp.Net MVC.			
	<i>Difference Between Asp.Net MVC and Web Forms.</i>		
	<i>Web Forms Life Cycle.</i>		
	<i>Introduction to MVC.</i>		
Lecture 2: Basic of software testing methodologies, routing.			
	<i>Controller.</i>		
	<i>View.</i>		
	<i>Models.</i>		
	<i>Routings and Routes.</i>		
	<i>Controller Actions.</i>		
	<i>Razor view Engines.</i>		
Lecture 3:Controller ,Views and Filters.			
	<i>Action Result.</i>		
	<i>View Data and View Bag.</i>		
	<i>Action Result.</i>		
	<i>Data Validation.</i>		
Lecture 4:Introduction to Database.			
	<i>Introduction to sql database.</i>		

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	<i>CRUD.</i>		
	<i>View.</i>		
	<i>Trigger.</i>		
	<i>Stored Procedure.</i>		
Lecture 5:Web Application.			
	<i>Application using Asp.net MVC and Sql Database.</i>		
	<i>Data Binding.</i>		
	<i>Website Static To Dynamic.</i>		
	<i>Reporting.</i>		
	<i>Ado.Net</i>		
Lecture 6:Web Api.			