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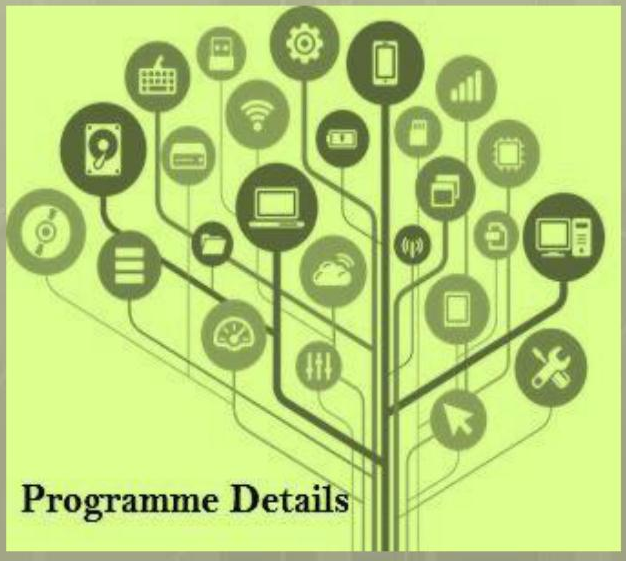
University of Mysore

(Estd.1916)

POSTGRADUATE DIPLOMA IN SOFTWARE DEVELOPMENT

Choice Based Credit System (CBCS)



UNIVERSITY OF MYSORE

Centre for Information Science and Technology
Manasagangotri, Mysuru-570006

Regulations and Syllabus

POSTGRADUATE DIPLOMA IN SOFTWARE DEVELOPMENT (PGDSD)

Under

Choice Based Credit System (CBCS)

UNIVERSITY OF MYSORE
GUIDELINES AND REGULATIONS
LEADING TO
POSTGRADUATE DIPLOMA IN SOFTWARE DEVELOPMENT (PGDSD)

Programme Details

Name of the Department	: Centre for Information Science and Technology
Subject	: Software Development
Faculty	: Science and Technology
Name of the Programme	: Postgraduate Diploma in Software Development (PGDSD)
Duration of the Programme	: 1 year

PROGRAMME SPECIFIC OUTCOMES

- ✓ Students will acquire the knowledge about the current technology, trends, tools, theory of Computer Science and software development concepts to develop applications and to identify the potential problems where creative computer-based solutions can be applied to solve the problems.
- ✓ Students will be successful software professionals in IT industry capable of assimilating new information and understanding new technology and its application domain to provide efficient and effective software solutions wherever possible.
- ✓ Students will inculcate the skills of communicating proficiently and collaborate successfully with peers, colleagues and organizations for higher studies, research and entrepreneurship to create new applications for the betterment of the society and their better future.

PROGRAMME PEDAGOGY

- ✓ The pedagogy involves meaningful incorporation of teaching and learning materials in addition to use of text books and reference works. It is needless to mention that the use of digital technology (ICT enabled teaching-learning) is a part of the pedagogy in this course.

POST GRADUATE DIPLOMA IN SOFTWARE DEVELOPMENT (PGDSD)

I Semester

Sl. No	Code	Paper Title	T	P	Credits
1	PGDSD T-1.1	Computer concepts and Operating Systems	2	2	4
2	PGDSD T-1.2	Programming in C and Data Structure	2	2	4
3	PGDSD T-1.3	Web Programming	2	2	4
4	PGDSD T-1.4	Software Engineering and Testing	2	2	4
5	PGDSD T-1.5	Data Communication and Networking	2	2	4

II Semester

Sl. No	Code	Paper Title	T	P	Credits
1	PGDSD T-2.1	RDBMS with MY SQL	2	2	4
2	PGDSD T-2.2	Object Oriented Programming in Java	2	2	4
3	PGDSD T-2.3	ASP.NET	2	2	4
4	PGDSD T-2.4	Software project management	2	2	4
5	PGDSD 2.5	Project**	2	2	4

FIRST SEMESTER

PGDSD T-1.1: COMPUTER CONCEPTS AND OPERATING SYSTEM

COURSE OUTCOME:

- ✓ Understand the organization of basic computer, its design and the design of control unit.
- ✓ Demonstrate the working of central processing unit.
- ✓ Describe the operations and language f the register transfer, micro operations and input- output organization.
- ✓ Understand the organization of memory and memory management hardware.

COURSE CONTENT:

UNIT-1

Introduction to computers, Computer Concepts, Input Devices, Output Devices, Secondary Storage Devices, Memory Organization, Computer Architecture, Operating System Basics, Programming Languages.

UNIT-2

Introduction to number system, Binary system, Decimal system, Octal system, Hexadecimal system. Various Conversion in Number system, One's and Two's Complements, Binary Arithmetic, One's and Two's Complement, Subtraction, Floating Point Arithmetic. Boolean Algebra and Venn diagram, Logic Gates.

UNIT-3

Process Management, process, process state, process control block, Thread and Multithreading Process Scheduling algorithm, Concurrency Control, Dead Lock, Interrupt Handler, Memory Management, Logical and physical Address space, swapping, Paging and Segmentation. Virtual Memory, Demand paging, Page replacement, Page Replacement Algorithm, FIFO Page replacement algorithm, Optimal Algorithm, LRU Algorithm

UNIT-4

File System Interface, Concept of File, File Access Methods, File System Implementation, File system Structure, File system Organization. I/O System, Network systems, Distribution, systems, MS-Dos Internal commands, MS-Dos External commands, Introduction to Unix, Introduction to Linux

REFERENCE BOOKS:

1. Computer Concepts Basics, Dolores J Wells, Publisher: Course Technology ,Edition Number: 4 ISBN: 1423904621,EAN: 9781423904625, Publish Date: 2008-12-31
2. Computer Concepts: Illustrated Brief, Dan Oja, ISBN:0538749547, Edition: 8 , Publisher: CourseTechnology
3. Computer Concepts And C Programming , Kumar, Udaya; Jeyapoovan; ISBN: 8125916458 , EAN:9788125916451, Edition: Paperback, Publisher: Vikas Publishing House
4. Computer Concepts and C Programming, I B Dixit, ISBN: 8170081130 Publisher: Laxmi publications PVT.LTD
5. Computer Concepts and C Programming, Dr S Ravishankar , Publisher: Himalaya ,Edition Number: 2 EAN: CHIMPUB110247
6. Computer Concepts & C Programming, Sangameshwara Bg, SANGUINE TECHNICAL PUBLISHERS, ISBN: 8188849308.

PGDSD T-1.2: PROGRAMMING IN C AND DATA STRUCTURE

COURSE OUTCOME:

- ✓ Describe the basic concepts of programming.
- ✓ Distinguish various control structures used in programming.
- ✓ Describe and apply the concepts of functions.
- ✓ Design, implement debug and document a program for a given problem statement.

COURSE CONTENT:

UNIT-1

C Language Preliminaries Introduction, History and features of C, Characteristics of C, Applications of C. Constants And Variables, Fundamentals of C, Variables, Constants, Data Types, int, float, char, double. Input-Output statements, formatted input, formatted output statements, Unformatted input statements, unformatted output statements.

UNIT-2

Operators In C, **C** operators, unary operator, binary operator, arithmetic operator, increment operator, Decrement operator, relational operator, logical operator, bit wise operator, ternary Operator, comma operator, size of ()-operator, mathematical functions, header files, Preprocessor directives. Control Statements, Conditional control statements, if-statements, if-else statements, nested if- statements, Switch-statements, go to statement. Loop Control Structures, while statement, do-while statement, for statement, nested for statement, break Statement, continued statement.

UNIT-3

Arrays, Definition, classification of arrays, declaration of an array, One-dimensional array & Multidimensional arrays. Functions Function definitions, arguments and parameters, category of functions, function with No arguments and no return values, function with arguments but no return value, Functions with no arguments and return values, local and global variables. Pointers, Definition, call by value and call by reference, pointer declaration, and pointer notations. Strings, declaring and initializing string variables, reading and writing strings, string handling functions.

UNIT-4

Structures And Unions, Definitions, declarations, embedded structure declarations, initialization of a Structure, array of structures, unions, definitions, declarations, accessing union Members, and initialization. File operations, Data organization, file operations, opening a file, reading from a file, trouble in Opening a file, closing the file. Advanced concepts Bit fields, Marcos, types def. Introduction to data structures, singly linked lists, doubly linked lists, circular list, representing stacks and queues in C using arrays and linked lists, infix to post fix conversion, postfix expression evaluation. Trees- Binary tress, terminology, representation, traversals, graphs-terminology, representation, graph traversals (dfs & bfs).

REFERENCE BOOKS:

1) The C Programming Language, B.W. Kernighan, Dennis M.Ritchie, PHI/Pearson Education
2) Computer Concepts and C Programming P.B.Kotur Sapna Book House
3) Programming in C, E.Balagurusamy, Tata McGraw Hill
4) Let us C , Yashavant P. Kanetkar, BPB Publications
5) Computer Basics and C, V Rajaraman, Tata McGraw Hill
6) Programming With C, Gottfried, Schaums Outline Series, Tata McGraw hill Publications.

7) Computer science, A structured programming approach using C, B.A. Forouzan and R.F. Gilberg, Third edition, Thomson.

8) DataStructures Using C - A.S.Tanenbaum, Y. Langsam, and M.J. Augenstein, PHI/Pearson education.

9) C & Data structures - P. Padmanabham, B.S. Publications.

10) C Programming with problem solving, J.A. Jones & K. Harrow, Dreamtech Press

11) Programming in C - Stephen G. Kochan, III Edition, Pearson Eductaion.

PGDSD T-1.3: WEB PROGRAMMING

COURSE OUTCOME:

- ✓ To understand the standards and structure of HTML.
- ✓ To create web documents.
- ✓ To understand XML structure.

COURSE CONTENT:

UNIT-1

Basics in Web Design, Brief History of Internet ,What is World Wide Web, Why create a web site, Web Standards.

Introduction to HTML, HTML Document, Basic structure of an HTML document , Creating an HTML document, Mark up Tags, Heading-Paragraphs, Line Breaks, HTML Tags. Introduction to elements of HTML, Working with Text, Working with Lists, Tables and Frames Working with Hyperlinks, Images and Multimedia.

UNIT-2

Working with Forms and controls. Tables & Lists – Creating Tables and Lists in HTML documents. Links: Creating links to local range,other pages, specific part of page, electronic mail. Images: Including icon and picture in HTML document. Creation of animated GIF. Sizing the pictures. MultimediaObjects Adding external images, video, and sound file including device independent (DVI) files. Add marquees of scrolling text. Frames Setting and releasing frames. Using one frame to index another. Creating floating frames, borderless frames and frames with borders. Forms Creating basic forms. Adding text box, check box, radio buttons, pulldown menus, single-line text field and password field. Processing the forms. Style sheets Creating style sheets to other HTML element, altering different characteristics and features.

UNIT 3

Fundamentals of Web, XHTML – 1: Internet, WWW, Web Browsers and Web Servers, URLs, MIME, HTTP, Security, The Web Programmers Toolbox. XHTML: Basic syntax, Standard structure, Basic text markup, Images, Hypertext Links. XHTML – 2, CSS: XHTML (continued): Lists, Tables, Forms, Frames CSS: Introduction, Levels of style sheets, Style specification formats, Selector forms, Property value forms, Font properties, List properties, Color, Alignment of text, The box model, Background images, The and tags, Conflict resolution.

UNIT 4

XML: Introduction, Syntax, Document structure, Document type definitions, Namespaces, XML schemas, Displaying raw XML documents, Displaying XML documents with CSS, XSLT style sheets, XML processors, Web services.

UNIT 5

PHP:Origins and uses of PHP, Overview of PHP, General syntactic characteristics, Primitives, operations and expressions, Output, Control statements, Arrays, Functions, Pattern matching, Form handling, Files, Cookies, Session tracking, Database access with PHP and MySQL.

REFERENCE BOOKS:

1. Robert W. Sebesta: Programming the World Wide Web, 4th Edition, Pearson Education, 2008. (Listed topics only from Chapters 1 to 9, 11 to 15).
2. M. Deitel, P.J. Deitel, A. B. Goldberg: Internet & World Wide Web How to Program, 4th Edition, Pearson Education, 2004.
3. Chris Bates: Web Programming Building Internet Applications, 3rd Edition, Wiley India, 2007.
4. Xue Bai et al: The web Warrior Guide to Web Programming, Cengage Learning, 2003.

PGDSD T-1.4: SOFTWARE ENGINEERING AND TESTING

COURSE OUTCOME:

- ✓ Identify unique features of various software application domains and classify software applications.
- ✓ Choose and apply appropriate lifecycle model of software development.
- ✓ Understand the principles of agile development and distinguish agile process model from other process models.
- ✓ Identify user needs and formulate software specifications, analyze requirements by applying various modeling techniques, Translate the requirements model into the design model.
- ✓ Understand the importance of User-interface design principles in software development, the concepts of clean room software development.

COURSE CONTENT:

UNIT-1

The role of software engineering in system design, software products, emergence of software engineering, notable changes in software development practices, the changing nature of software, the software engineering challenges,

UNIT-2

Software processes, desired characteristics of software process, the software life cycle, software development process models, comparison of process models.

UNIT-3

Requirement analysis and specification, need for SRS, characteristics of SRS, organization of SRS document. Techniques for representing complex logic, functional specification with Use Cases, formal system development techniques. System models: Data-flow models, semantic data models, object models, data dictionaries.

UNIT 4

Testing as an Engineering Activity – Role of Process in Software Quality – Testing as a Process – Basic Definitions – Software Testing Principles – The Tester's Role in a Software Development Organization – Origins of Defects – Defect Classes – The Defect Repository and Test Design – Defect Examples – Developer/Tester Support for Developing a Defect Repository.

UNIT 5

TEST CASE DESIGN Introduction to Testing Design Strategies – The Smarter Tester – Test Case Design Strategies – Using Black Box Approach to Test Case Design Random Testing – Requirements. Based testing – positive and negative testing –– Boundary Value Analysis – decision tables - Equivalence Class Partitioning state-based testing– cause effect graphing – error guessing - compatibility testing – user documentation testing – domain testing Using White–Box Approach to Test design – Test Adequacy Criteria – static testing vs. structural testing – code functional testing - Coverage and Control Flow Graphs – Covering Code Logic – Paths – Their Role in White–box Based Test Design – code complexity testing – Evaluating Test Adequacy Criteria.

REFERENCE BOOKS:

1. Srinivasan Desikan and Gopalaswamy Ramesh, " Software Testing – Principles and Practices", Pearson education, 2006.
2. Aditya P.Mathur, "Foundations of Software Testing", Pearson Education,2008.
3. Ian Sommerville – Software Engineering, Fifth Edition, Addison-Wesley.
4. Pankaj Jalote – An Integrated Approach to Software Engineering, Third Edition.
5. Rajib Mall – Fundamentals of Software Engineering, PHI.
6. Roger S. Pressman – Software Engineering, Sixth Edition, Mc Graw Hill.
7. Ghezzi, Jazayeri, Mandrioli – Fundamentals of Software Engineering, PHI.

PGDSD T-1.5: DATA COMMUNICATION AND NETWORKING

COURSE OUTCOME:

- ✓ Understand the data communications system and its components.
- ✓ Summarize signal conversions techniques for digital communication.
- ✓ Identify and categorize various types of transmission media.
- ✓ Understand various analog and digital services for data communication.
- ✓ Evaluate bandwidth utilization using multiplexing techniques.
- ✓ Implement advanced technique such as Data encoding and Compression for Image processing Applications.

COURSE CONTENT:

UNIT – 1

Networking: Needs and Advantages, Network, Network Types – Client, Server and Peers, introduction to various types of servers. TCP / IP reference Model and ISO reference Model, Physical layer, Data link layer, MAC (Medium Access Control) and LLC (Logical Link Control), Error Detection and Correction.

UNIT – 2

Network topology – Bus, Star, Ring, Star bus, Star ring, Mesh, features, Advantages and Disadvantages of each type. Transmission media – Guided transmission media, unguided transmission media. LAN standard, 802.3,802.4,802.5, Ethernet, Fast Ethernet, Token Rings, FDDI, ATM

UNIT – 3

Network layer: circuit switching, packet switching, routing and congestion control. Transport layer, connection oriented service, connectionless oriented service, TCP and UDP.

UNIT – 4

Value Added Networks: X.25 Interface Network, Frame Relay, ISDN (Integrated Service Digital Network. Interface Devices. Application Layer: Email, WWW, and FTP. Network Security, Satellite communication.

REFERENCE BOOKS:

1. Andrew & Tanenbaum, Computer Networks, Pearson Education.
2. William Stallings, Data and Computer Communications, 7/e Pearson Education.
3. S.K Basandra & S.Jaiswal, Local Area Networks, Galgotia Publications.
4. Ames Chellis Charles Perkins, Mathew Strebe Networking Essentials: Study Guide MCSE, 2/e, BPB Publication.
5. Black Uyless, Computer Networks: Protocols, Standards, and Interfaces, 2/e, PHI.
6. William A Shay, Understanding Communications and Networks, 3/e, Thomson Learning – Vikas Publication.

SECOND SEMESTER

PGDSD T 2.1: RDBMS WITH MYSQL

COURSE OUTCOME:

- ✓ Understand the basic concepts and appreciate the applications of database systems; design principles for logical design of databases, including the ER method and normalization approach; the basics of SQL and construct queries using SQL.
- ✓ Be familiar with a commercial relational database system (Oracle) by writing SQL using the system, the relational database theory, and be able to write relational algebra expressions for queries.
- ✓ Understand the basic database storage structures and access techniques: file and page organizations, indexing methods including B- tree, and hashing.
- ✓ Acquire the knowledge of working successfully in a team with the responsibility of designing and developing a database application.

COURSE CONTENT:

UNIT 1:

SQL, SQL*Plus: Introduction to SQL SQL Commands and Data types Introduction to SQL*Plus SQL*Plus formatting commands Operator and Expression SQL v/s SQL*Plus.

Managing Tables and Data: Creating and Altering tables (Including constraints) Data Manipulation Command like Insert, update, delete SELECT statement with WHERE, GROUP BY and HAVING, ORDER BY, DISTINCT, Special operator like IN, ANY, ALL, BETWEEN, EXISTS, LIKE Join,

subquery, Built in functions, View, Sequence Synonyms, Database Links Index.

UNIT 2:

Data Control and Transaction Control Command: Grant, Revoke, Role, Creating Users What is transaction? Starting and Ending of Transaction Commit, Rollback, Savepoint. Creating and Using Procedure, Functions, Package, Triggers. Creating Objects, PL/SQL Tables, Nestead Tables, Varrays **etc...**

UNIT 3:

Oracle Database Structure Instance Architecture (Database Processes, Memory Structure, Data files) Creating & Altering Database Opening & Shutdown Database Initialization Parameter Control Files, Redo Logs files Tablespace(Create, Alter, Drop) Rollback Segment (Create, Alter, System, Transaction RBS) Oracle Blocks Import, Export and SQL*Loader.

UNIT 4:

Backup & Recovery Backup & Recovery Type of Backup (Control file, Redo log file, Cold, Hot) What is Net 8? Why use Net 8?

REFERENCE BOOKS:

1. SQL, PL/SQL the programming lang. of oracle - Ivan Bayross - BPB Publications.
2. Using Oracle 8i - Page, Hughes.- QUE&PHI Publication.
3. Oracle 8i The Compete Reference - George Koch, Kevin Loney - Oracle Press and Tata MacGraw- Hill.
4. ONLINE REFERENCES Wikipedia Link http://en.wikipedia.org/wiki/SQL

PGDSD T-2.2: OBJECT ORIENTED PROGRAMMING IN JAVA COURSE OUTCOME:

- ✓ Justify the philosophy of object-oriented design and the concepts of encapsulation, abstraction, inheritance, and polymorphism.
- ✓ Design, implement, test, and debug simple programs in an object-oriented programming language.
- ✓ Describe how the class mechanism supports encapsulation and information hiding.
- ✓ Compare and contrast the notions of overloading and overriding methods in an object-oriented language.

COURSE CONTENT:

UNIT 1

Introduction to Java and its Features, Introduction to object oriented paradigm, Concepts of Object - Oriented programming (Objects and Classes, data abstraction and data abstraction and encapsulation, inheritance, polymorphism, Dynamic binding). Basics of Java, Java history; Java features (Compiled and interpreted, Platform-independent and portable, Object - Oriented, Robust and Secure, Distributed, Simple, Small and Familiar, Multithreaded and interactive, High performance, Dynamic and extensible); How Java differs from C and C++.

UNIT 2

Classes, Objects and Methods, Introduction, Defining a class, adding variables and methods, creating objects, accessing class members, constructors, method overloading and overriding, this keyword, finalize () and garbage collection, inheritance and abstract classes. Packages - Introduction, Java API packages, using system packages, naming conventions, creating packages, accessing a package, using a package, adding a class to a package, Java script.

UNIT 3

Interfaces - Introduction, Defining interfaces Extending Interfaces, implementing interfaces, accessing interface Variables. Managing Error and Exceptions - Introduction, types of errors (Compile-time and run-time errors), Exceptions, syntax of exception Handling code, multiple catch statements, using finally statement, throwing our own exceptions.

UNIT 4

Applet Programming - Introduction, how applets differ from applications, building applet code, applet Life Cycle (initialization state, running state, idle or stopped state, dead state, Display state, Creating an executable applet, designing a web page, AWT and swings Event handling. Managing Input/output files in Java - Introduction, concept of streams, stream classes, byte stream classes, character stream classes, using Streams, other useful I/O classes, and introduction to JDBC.

REFERENCE BOOKS:

1. Object-Oriented Programming with JAVA A Primer 5e,E Balagurusamy, McGrawHill, ISBN:978-93-51343-20-2,Edition:2014.
2. Object-Oriented Programming From Problem Solving to Java ,Jose M. Garrido ,ISBN : 81-7008-625-6 , Edition : 2004 ,Pages : 360.

3. Keeping Ahead - Java 2 ,Benjamin Aumaiile ,ISBN : 81-7008-470-9 ,Edition : 2006 Simply Java An Introduction to Java Programming, James R. Levenick, ISBN : 97881-318-0200-7 ,Edition : 2007
4. Internet & Java Programming, Harish Kumar Taluja ,ISBN : 978-81-318-0367-7 ,Edition : First, 2008 5. Programming Engineering Computations in Java ,Dr. Raja Subramanian, ISBN : 97881-318-0209-0 ,Edition : First, 2007
5. Secrets of JAVA ,Er. R. Kabilan ,ISBN : 978-81-318-0720-0, Edition : First, 2009

PGDSD T-2.3: PROGRAMMING WITH ASP.NET

COURSE OUTCOME

Students will be able to understand the development of C# programs and will be to utilize the .NET framework to build Asp.net web applications. They will be able to understand the 3-tier software architecture (presentation/client tier, application tier, data tier) and develop multi-tier applications and also practice the development of web applications using a combination of client-side (JavaScript, HTML) and server-side technologies (ASP.NET, ADO.NET).

COURSE CONTENT:

UNIT 1

Introduction, Common Language Runtime, Common Type System, Common Language Specification, The Base Class Library, The .NET class library Intermediate language, Justin-Time compilation, garbage collection, Application installation & Assemblies, Web Services, Unified classes.

UNIT 2

ASP.NET Controls: Overview of dynamic web page, introduction & features of ASP.NET, understanding ASP.NET controls, applications, web servers, installation of IIS. Web forms, web form controls, server controls, client controls, adding controls to web form, buttons, text box, labels, checkbox, radio buttons, list box. Adding controls a runtime, Running a web application, creating a multiform web project, Form validation: client side and server side validation, Validation controls: required field comparison range, Calendar control, Ad rotator control, Internet Explorer control.

UNIT 3

ADO.NET: Overview of ADO.NET, from ADO to ADO.NET, ADO.NET architecture, Accessing data using data adapters and datasets, using command and data reader, binding data to data bind controls, displaying data in data grid.

UNIT 4

XML in .NET: XML basics, attributes, fundamentals of XML classes: Document, text writer, text reader, XML validations, XML in ADO.NET, Data document

UNIT 5

Web Services: Introduction, State management, view state, session state, application state, service description language, building & consuming a web service. Web application development, Caching, Threading concepts, Creating threads in .NET, Managing threads, Thread Synchronization, features of .NET, role based security & code access security, permissions. Features of ASP.NET 2.0, Stages in Web Forms Processing, Introduction to Server Controls, HTML Controls, Validation Controls, User control, Data Binding Controls, Configuration, Personalization, Session State, ADO.NET

REFERENCE BOOKS:

1. Mitchell Scott, "Sams Teach Yourself ASP .NET 2.0 in 24 Hours, Complete Starter it (with CD)", Pearson Education, 2006.
2. Onion Fritz and Keith Brown, "Essential ASP .NET 2.0", Pearson Education, 2007
3. The Completer Reference ASP.NET – Mathew Macdonald (TMH) Professional ASP.NET – Wrox publication
4. VB.NET Programming Black Book – Steven Holzner (Dreamtech pub.)
5. Introduction to .NET framework – Wrox publication.
6. ASP.NET Unleashed - bpb publication.
7. Learn HTML in a weekend – Steven E. Callihan (TMH)
8. Using HTML – Lee Anne Philips (PHI)

PGDSD T-2.4: SOFTWARE PROJECT MANAGEMENT

COURSE OUTCOME

- ✓ Decide on a process model for a developing a software project. Classify software applications and Identify unique features of various domains.
- ✓ Design test cases of a software system. Understand basics of IT Project management.
- ✓ Plan, schedule and execute a project considering the risk management.
- Apply quality attributes in software development life cycle.

COURSE CONTENT:

UNIT 1

INTRODUCTION TO SOFTWARE PROJECT MANAGEMENT

Project Definition – Contract Management – Activities Covered By Software Project Management –Overview of Project Planning – Stepwise Project Planning.

UNIT 2

PROJECT EVALUATION

Strategic Assessment–Technical Assessment–Cost Benefit Analysis–Cash Flow Forecasting – Cost Benefit Evaluation Techniques – Risk Evaluation.

UNIT 3

ACTIVITY PLANNING

Objectives – Project Schedule – Sequencing and Scheduling Activities –Network Planning Models – Forward Pass – Backward Pass – Activity Float – Shortening Project Duration – Activity on Arrow Networks – Risk Management – Nature Of Risk – Types of Risk – Managing Risk – Hazard Identification – Hazard Analysis – Risk Planning and Control.

UNIT 4

MONITORING AND CONTROL

Creating Framework – Collecting The Data – Visualizing Progress – Cost Monitoring – Earned Value–Prioritizing Monitoring – Getting Project Back To Target – Change Control – Managing Contracts – Introduction – Types Of Contract – Stages In Contract Placement – Typical Terms Of A Contract – Contract Management – Acceptance.

UNIT 5

MANAGING PEOPLE AND ORGANIZING TEAMS

Introduction – Understanding Behavior – Organizational Behaviour:A Background – Selecting The Right Person For The Job – Instruction In The Best Methods – Motivation – The Oldman – Hackman Job Characteristics Model – Working In Groups – Becoming A Team –Decision Making – Leadership– Organizational Structures – Stress –Health and Safety – Case Studies.

REFERENCE BOOKS:

1. Bob Hughes, Mikecotterell, "Software Project Management", Third Edition, Tata McGraw Hill, 2004.
2. Ramesh, Gopalaswamy, "Managing Global Projects", Tata McGraw Hill, 2001.
3. Royce, "Software Project Management", Pearson Education, 1999.
4. Jalote, "Software Project Manangement in Practive", Pearson Education, 2002.

PGDSD 2.5: PROJECT