

SWAMI VIVEKANAND UNIVERSITY, SIRONJA, SAGAR (M.P.)



SYLLABUS

For

**Diploma in Computer Science and Engg.
Semester - VI**

**Swami Vivekanand University, Sironja Sagar
2013-2014**

PROGRAMME NAME : Three years Diploma in **Computer Science and Engineering**

Name of Scheme : **Jul. 2013**

Implemented from Session 2013– 2014

Scheme of Studies and Examinations for: **VI SEMESTER**

COURSE CODE	COURSE TITLE	THEORY BLOCK								PRACTICAL BLOCK					Practical Credit	Total Credit	Grand Total of Marks	
		Lectures	Continuous Evaluations			End of Term / Semester			Theory Credit	Practical	Continuous Evaluations	End of Term / Semester Evaluations						
			Term Work, Quiz, Assignment	Mid Term Test(Two)		Theory Paper						Lab Work, Quiz, Assignment	Practical/ Oral Examination					
				I	II	No.	Marks	Durations					No.	Marks				Durations
Hrs per Week								Hrs per Week										
DCCS-601	Computer Graphics, Multimedia & Animation	04	10	10	10	01	70	03	04	02	20	01	30	03	02	06	150	
DCCS-611/ 612/ 613	Elective I Dot Net Technologies Network Security and Management Advanced Web Technology	04	10	10	10	01	70	03	04	02	20	01	30	03	02	06	150	
DCCS-621 622	Elective II Data mining & Warehousing Artificial intelligence and expert system	04	10	10	10	01	70	03	04	02	20	01	30	03	02	06	100	
DCCS-604	Project	-	-	-	-	-	-	-	-	04	150	01	100	03	04	04	250	
TOTAL		12	30	30	30	03	210	09	12	10	210	03	190	09	10	22	700	

Semester: Sixth Scheme: Jul. 2013

COURSE CODE: 622

Paper Code: DCS 622

NAME OF COURSE: ARTIFICIAL INTELLIGENCE AND EXPERT SYSTEM

UNIT-1

INTRODUCTION TO AI

Meaning and definition of Artificial Intelligence, Characteristics of AI Problems, Scope and Future Expectation of AI, Application of AI, State Space Representation, Problem Characteristics, Production System and its type, Characteristics of Production System, Breadth First Search and Depth First Search, Forward and Backward Chaining, Control Strategies and its Type.

UNIT-2

HEURISTIC SEARCH TECHNIQUES

Hill Climbing, Branch and Bound Technique, Best First Search Technique and algorithm, A* Algorithm and AO* Algorithm, Constraints Satisfaction and related numeric problems.

UNIT-3

KNOWLEDGE REPRESENTATION

Representation and Mapping Approaches to Knowledge Representation, Issues in Knowledge Representation, Knowledge Representation using Predicate Logic and Propositional Logic, Resolution and Refutation, Deduction, Theorem Proving, Procedural Knowledge and Declarative Knowledge, Introduction to Reasoning, Various types of Reasoning methods like Forward, Backward, monotonic, non-monotonic, probabilistic Reasoning, Bayes's Theorem, Bayesian Network, Semantic Networks, Frames, Conceptual Dependency, Script

UNIT-4

LEARNING AND NATURAL LANGUAGE PROCESSING

Introduction to Learning, Types of Learning, Learning in neural network, Learning Processes :- Error Correction Learning, Memory based Learning, Hebbian Learning, Competitive Learning, Learning with teacher, Learning without teacher, Introduction to NLP and its different Phases, Parsing Techniques, Context Free Grammar, Recursive Transition nets (RTN), Augmented Transition nets (ATN), CSE and Logic Grammars, Semantic Analysis

UNIT-5

GAME PLAYING

Introduction to Game Playing, Mini max Search Procedure, Alpha-Beta Cut offs

EXPERT SYSTEM

Definition and Characteristics of Expert System, Rule Based System Architecture, Non-Production System Architecture, Knowledge Acquisition and Validation, Expert System Life Cycle and Expert System Tools, MYCIN and DENDRAL examples of Expert System

SCHEME: Jul.2013

SEMESTER: **Sixth**

NAME OF COURSE: **ARTIFICIAL INTELLIGENCE AND EXPERT SYSTEM**

COMMON WITH PROGRAM (S):

RECOMMENDED TEXT BOOKS

- Artificial Intelligence by Elaine Rich and Kerin Knight, Tata McGraw Hill Edition

REFERENCE BOOKS

- Introduction to AI & ES by DAN W. Patterson, PHI learning
- Introduction to Artificial Intelligence by Eugene Charniak and Drew McDermott, Addison Wesley.
- Principles of Artificial Intelligence by Nils J. Nilson.

Semester: Sixth

Course Code: 601

Name Of Course: Computer Graphics Multimedia and Animation

Common With Program (S):

Scheme: Jul. 2013

Paper Code: DCS 601

SCHEME OF STUDIES AND SPECIFICATION TABLE

Lectures: **5**Hrs. per week

Practical: **2** Hrs. per week

SCHEME OF STUDIES				
S.No.	TOPICS	THEORY (HRS.)	PRACTICAL (HRS)	TOTAL (HRS)
8.	Introduction to Computer Graphics	8	1	9
9.	Graphics Primitives:	8	2	10
10.	Transformation, 2-D Viewing and Clipping	15	5	20
11.	Projection	6	2	8
5.	Shading, Colour model and Illumination	8	5	13
6	Basics of Multimedia Technology	8	2	10
7	Graphics Image File Formats	7	3	10
8	Computer Animation	15	10	25
TOTAL		75	30	105

Semester: Sixth

Course Code: 601

Name Of Course: Computer Graphics Multimedia and Animation

Common With Program (S):

Scheme: Jul. 2013

Paper Code: DCS 601

COURSE CONTENT

Lectures: **5** Hrs. per week

S. No. Course Content

UNIT-1

Introduction to Computer Graphics

Definition of Computer Graphics, Application of Computer Graphics, Graphics Hardware Input and Output Devices, Display Devices, Refreshing Display Devices, Raster-Scan, Random-Scan Points and Lines Line-drawing Algorithms , DDA Algorithm, Bresenham's line Algorithm Circle-generating Algorithm Midpoint Circle of Algorithm Polygon Filling Algorithm: Scan-Line

UNIT-2

Transformation, 2-D Viewing and Clipping

Basic Transformations (2D and 3D)

Translation , Rotation , Scaling , Shear , Reflection **Composite Transformations**

Rotations about a point, Reflection about a line, Homogeneous Coordinate Systems

Clipping-Point Clipping, Line Clipping -Cohen-Sutherland Clipping algorithm., Polygon Clipping: Sutherland Hodgeman Algorithm

UNIT-3

Basics of Multimedia Technology

Concepts of Multimedia: Types, Data Streams, Hardware and Software Requirements and Applications, Multimedia Authoring. Digital Audio: Audio Sampling, Recording Digital Audio, Audio Standards for Multimedia Applications, MIDI File Formats, MIDI Hardware and Software. Image Compression Standards: Types. Video Compression and Standards: Compression Standards, MPEG Compression Basics, MPEG-1, MPEG-2, and MPEG-4 Hypertext and Hypermedia

UNIT-4

Graphics Image File Formats

Raster Format, Bitmap (BMP) Format, Graphics Interchange Format (GIF), Joint Photographic Experts Group (JPEG), Tagged Image File Format (TIFF), Portable Network Graphics (PNG) and their differences

UNIT-5

Computer Animation

Development of Animations: Non Computer and Computer Based Animations, Different Types of Animations. Flash Basics: Flash Work Flow, Animation Using Flash.

The Flash Work Environment: The Stage and the Time Line, Symbols and Instances, Symbols and Interactive Movies, Using the Tool Box, Using Panels, Using Context Menus, Moving the Play Head, Working the Frames using time line. Drawing Overview: Flash Drawing and Painting Tools, Working With Color, Using Imported Art Work, Adding Sound, Representation of Animation.

Using Layers: Adding and Deleting Layers, Viewing Layers. Creating Text Boxes for User input. Creating Animations: Creating Key Frames, Layers in Animations, Frame Rates, Frame Rates, and Steps for creating animations. Frame by Frame Animations.

Publishing and Exporting.

LIST OF EXPERIMENTS

Practical: 2 Hrs. per Week

S.NO.	Name of experiments	Hours of Study
1.	Write a program for 2D line drawing as Raster Graphics Display.	
2	Write a program for circle drawing as Raster Graphics Display.	
3	Write a program for polygon filling as Raster Graphics Display	
4	Write a program for line clipping.	
5	Write a program for polygon clipping.	
6	Write a program for displaying 3D objects as display using perspective transformation.	
7	Devise a routine to produce the animation effect of a square transforming to a triangle and then to a circle	
8	Write a program to show a bitmap image on your computer screen.	
9	Write a program to play “wave” or “midi” format sound files.	
10	Create animations using Adobe FLASH. Flash Drawing and Painting Tools. Flash Drawing Modes. Pencil Tools Importing artwork into Flash (Working with Photoshop PSD files (PSD file import preferences)	

BOOKS RECOMMENDED.

- Computer Graphics, Multimedia and Animations by Malay K. Pakhira, PHI Learning.
 - Computer Graphics by Donald Hearn and M. Pauline Baker, PHI

 - Computer Graphics Principles and Practices second edition by James D. Foley, Andeies van Dam, Stevan K. Feiner and Johb F. Hughes, 2000, Addition Wesley.

 - Introduction to Computer Graphics By N. Krishnamurthy T.M.H

 - Graphics, GUI, Games & Multimedia Projects in C by Piliaia & Mahendra, Standard Pub

 - Newman W.M. and Sproull R.F., " Principles of Interactive Computer Graphics ", Second Edition, *Tata McGraw Hill Publishing Company Limited, New Delhi,*

 - Multimedia on the PC, Sinclair, BPB

 - Multimedia in Practice by Jeff coate Judith, 1, PHI.
 - Multimedia S systems by Koegel, AWL
 - Multimedia Making it Work by Vaughar, etl
 - Principles of Multimedia by Ranjan Parekh, *Tata McGraw Hill Education Private Limited, New Delhi.*
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Semester: Sixth
Course Code: 613
Name Of Course: Advanced Web Technology
Common With Program (S):

Scheme: Jul. 2013
Paper Code: DCS 613

SCHEME OF STUDIES AND SPECIFICATION TABLE

Lectures: Hrs. 6 per week
Practical: Hrs. 2 per week

S.No.	TOPICS	THEORY (HRS.)	PRACTICAL (HRS)	TOTAL (HRS)
1	INTRODUCTION	12	04	16
2	BASIC WORKING	24	08	32
3	MYSQL BASICS	30	10	40
4	PHP WITH MYSQL	24	08	32
	TOTAL	90	30	12

Semester: Sixth
Course Code: 613
Name Of Course: Advanced Web Technology
Common With Program (S):

Scheme: Jul. 2013
Paper Code: DCS 61

COURSE CONTENT

Lectures: 6 Hrs. per week

UNIT-1

INTRODUCTION

History, Current and Future Versions of MySQL and PHP, How to Get MySQL, Installing MySQL on Windows, Troubleshooting your Installation, Basic Security Guidelines, Building PHP on Windows with Apache, Windows, php.ini. Basics, The Basics of PHP scripts. The Building blocks of PHP: Variables, Data Types, Operators and Expressions, Constants. Flow Control Functions in PHP: Switching Flow, Loops, Code Blocks and Browser Output.

UNIT-2

BASIC WORKING

Working with Functions: What is function?, Calling functions, Defining Functions, Returning the values from User-Defined Functions, Variable Scope, Saving state between Function calls with the static statement, more about arguments. Working with Arrays: What are Arrays, Creating Arrays, Some Array-Related Functions.

UNIT-3

Working with Objects: Creating Objects, Object Instance Working with Strings, Dates and Time: Formatting strings with PHP, Investigating Strings with PHP, Manipulating Strings with PHP, Using Date and Time Functions in PHP. Working with Forms: Creating Forms, Accessing Form Input with User defined Arrays, Combining HTML and PHP code on a single Page, Using Hidden Fields to save state, Redirecting the user, Sending Mail on Form Submission, Working with File Uploads.

UNIT-4

MYSQL BASICS

Understanding the database design process: The Importance of Good Database Design, Types of Table Relationships, Understanding Normalization. Learning basic SQL Commands: Learning the MySQL Data types, Learning the Table Creation Syntax, Using Insert Command, Using SELECT Command, Using WHERE in your Queries, Selecting from Multiple Tables, Using the UPDATE command to modify records, Using the DELETE Command, Frequently used string functions in MySQL, Using Date and Time Functions in MySQL.

UNIT-5

PHP WITH MYSQL

Interacting with MySQL using PHP: MySQL Versus MySQLi Functions, Connecting to MySQL with PHP, Working with MySQL Data. Creating an Online Address Book: Planning and Creating Database Tables, Creating Menu, Creating Record Addition Mechanism, Viewing Records, Creating the Record Deletion Mechanism, Adding Sub-entities to a Record.

LIST OF EXPERIMENTS

Practical: 2 Hrs. per Week

S.NO.	TOPICS	Hours of Study
	<p>Write a program to print PHP information.</p> <p>Create a web page HTML and execute a PHP file on submission of the HTML form and display the information using PHP.</p> <ul style="list-style-type: none"><input type="checkbox"/> Write a program to find the factorial of a number and display. Write a program to implement the concept of if-else and while loop.<ul style="list-style-type: none"><input type="checkbox"/> Write a program to show that array is received on server side during multiple options in SELECT.<input type="checkbox"/> Write a program to show the concept of cookie. Write a program to redirect the browser.<input type="checkbox"/> Write a PHP script showing function call.<input type="checkbox"/> Write a program in PHP to create a file and write the data into it. Create a database of an employee in MySQL.<input type="checkbox"/> Write a program to connect to the database already created in MySQL.<ul style="list-style-type: none"><input type="checkbox"/> Write a program to read, write, update and delete the database using PHP.	

Lectures: **5** Hrs. per week

Practical: **2** Hrs. per week

SCHEME OF STUDIES

Unit	Topic	Theory Hrs.	Practical Hrs.	Total Hrs.
I	FUNDAMENTALS OF DATA MINING	08	02	10
II	DATA PROCESSING AND DATA WAREHOUSES	12	04	16
III	WEKA AN ATTRACTIVE DATA MINING TOOL	10	08	18
IV	ASSOCIATION RULE MINING	15	06	21
V	THE CLUSTERING TASK	15	04	19
VI	THE ESTIMATION TASK	07	04	11
VII	MINING OF TIME SERIES	08	02	10
	Total Hrs.	75	30	105

Semester: Sixth
Course Code: 621
Name Of Course: Data Mining and Data Warehousing
Common With Program (S):

Scheme: Jul. 2013
Paper Code: DCS 621

Content Details

UNIT-1

FUNDAMENALS OF DATA MINING 08

- 1.1 Data mining
- 1.2 The history of the data mining
- 1.3 Data Mining strategies
- 1.4 Popular data mining techniques
- 1.5 Data mining applications
- 1.6 Challenges of data mining
- 1.7 The future of data mining

UNIT-2

DATA PROCESSING AND DATA WAREHOUSING

- 2.1 Data, information and knowledge
- 2.2 Types of data
- 2.3 Data warehouses
- 2.4 Data cleaning
- 2.5 Data de-normalization
- 2.6 Data transformation
- 2.7 Data quality measure
- 2.8 OLAP(Online Analytical Processing)
- 2.9 Data Sampling

UNIT-3

WEKA AN ATTRACTIVE DATA MINING TOOL

- 3.1 Introduction
- 3.2 Installing Weka
- 3.3 Weka data file format
- 3.4 Starting Weka
- 3.5 Data Visualization
- 3.5 Data filtering
- 3.6 Selecting Attributes
- 3.7 Data Mining with Weka

UNIT-4

ASSOCIATION RULE MINING

- 4.1 Transaction data
- 4.2 Concepts of association rules
- 4.3 Relevance of association rule mining
- 4.4 Functions of association rule mining
- 4.5 Improvement and share
- 4.6 The problem of large datasets
- 4.7 Apriority algorithm
- 4.8 Strengthens and weakness of Association Rule Mining
- 4.9 Application of Association Rule Mining

ASSOCIATION RULE MINING

- 4.1 Transaction data
- 4.2 Concepts of association rules
- 4.3 Relevance of association rule mining
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- 4.7 Apriority algorithm
- 4.8 Strengthens and weakness of Association Rule Mining
- 4.9 Application of Association Rule Mining

UNIT-5

THE CLUSTERING TASK

- 5.1 Introduction
- 5.2 Distance Measure
- 5.3 Types of clustering
- 5.4 Clustering through Weka: K-Means algorithms
- 5.5 Clustering Validation
- 5.6 Strengthens and weakness of Clustering algorithms
- 5.6 Applications of Clustering algorithms

THE ESTIMATION TASK

- 6.1 Introduction
- 6.2 Scatter plots and correlation
- 6.3 Linear regression Models
- 6.4 Logistic regression
- 6.5 Regression analysis
- 6.6 Strengthens and weakness of estimation
- 6.7 Application of estimation

PRACTICALS: - 2 Hrs. per week

S.No. Practical

1 Write a program for storing the transaction data (like item no. , price, date, quantity etc.) of shopping mall duration of one month and find out

(A) The total amount

(B) The day in which maximum transaction occur.

(C) The item that are purchased maximum times

(D) The item that are purchased minimum times

2 Use of WEKA tool.

3 Apply the association mining rule on problem no. 1

4 Apply the c lustering technique on problem no. 1

SCHEME OF STUDIES

Lectures: 6 Hrs. per week

Practical: 2 Hrs. per week

S.No.	TOPICS	THEORY (HRS.)	PRATICAL (HRS.)	TOTAL (HRS.)
1	Introduction to .NET	20	02	22
2	ASP.Net Objects and components	25	03	28
3	ADO.Net	25	10	35
4	ASP Transactions and e-mail	10	10	20
5	Working with XML in ASP.NET	10	05	15
	TOTAL	90	30	120

Semester: Sixth
Course Code: 611
Name Of Course: Dot Net Technology
Common With Program (S):

Scheme: Jul. 2013
Paper Code: DCS 611

UNIT-1

Introduction to .NET

Introduction to Microsoft.Net Framework, Building blocks in .Net, Drawback of previous languages, Understand .Net, Common language runtime (CLR), Common type system (CTS), Difference between ASP and ASP. Net, Introduction to IIS, web application and its usage, ASP.Net IDE Visual studio .Net, Creation of web forms, Using web form controls.

UNIT-2

ASP.Net Objects and components

Response object, Server object, Application object, Session object, ASP.Net scope, state, view state, post back and configuration, ObjectCreation: Scripting, Drive, Folder, File, Use of object, ServerComponents: Ad Rotator, Content Linker, Browser Capabilities Use and Creation of global.asa file, Application object: Events, Methods and collections, Example, Session object: Enabling and disabling of session, Event, Properties, Method, Collection.

UNIT-3

ADO.Net

ADO.Net in ASP. Net: Connection, Dataset and data reader, Datatable and data row, Web.config introduction, Binding data with data grid, Accessing and manipulating data, ADO .Net: Server control templates and data binding techniques, Data access in .Net using ADO.Net, Server control templates available for data binding like repeater, data list and data grid controls.

UNIT-4

ASP Transactions and e-mail

Transactions, Transaction db design, CDONTS object, Email sending web page creation

UNIT-5

Working with XML in ASP.NET

Basics of XML, XML support in .NET, XML Validation Overview, XML Parsing API's in .NET, Parsing XML with the XmlTextReader, Parsing XML using DOM Objects, Generating XML with the XmlTextWriter, Introduction to XSLT, Transforming XML using .NET's XSLT classes, Viewing relational data as XML, Dataset XML Properties and Methods, Using the XmlDataDocument Class Syncing between DataSets and XmlDataDocuments.

List of Practicals

1. Design registration form of polytechnic college using text box, text area, radio list, check list, button etc. using Autopostback property.

2. Design application for following function: (1) Login (2) Surfing (3) Logout taking into considerations (Application, Session, Server object, global.asa file and their events, methods and collection) also demonstrate enabling and disabling of session).

3 Creation of file, entry, reading data from a file

4 Create following using components: (1) Advertisement (using AdRotator)

(2) Book example (using Next function)

(3) Find capabilities of browser (Browser object capabilities)

5 Online application (student, employee, product, shopping mall) (a) Using dataset, datareader

(b) Using data table and data row (use datagrid to display data)

(c) Bind data to datagrid using properties/templates

(d) Display details (student, employee, product, etc.) using data list (4 cols per line)

6 Application to send email.

7 Using the XmlTextReader to Parse XML

8 Creating XML Documents with the XmlTextWriter

9 Examining the Web.config File

Semester: Sixth
Course Code: 612
Name Of Course: Network Security And Management
Common With Program (S):

Scheme: Jul. 2013
Paper Code: DCS 612

Lectures: **6** Hrs. per week
Practical: **2** Hrs. per week

SCHEME OF STUDIES

Unit	Topic	Theory Hrs .	Practical Hrs .	Total Hrs.
I	Introduction	08	02	10
II	Information System Security Management	08	02	10
III	Secrete Communication	15	02	17
IV	Network management overview	15	02	17
V	Network Services: Enterprise Level	12	02	14
VI	SNMP(Simple Network Management Protocol)	12	10	22
VII	Troubleshooting Tools and Strategies	20	10	30
	Total Hrs.	90	30	120

Semester: Sixth
Course Code: 612
Name Of Course: Network Security And Management
Common With Program (S):

Scheme: Jul. 2013
Paper Code: DCS 612

COURSE CONTENT

UNIT-1

Introduction 08

- 1.1 Security overview, Computer security, network security, Key principles of Network security-Confidentially, Integrity, Availability.
- 1.2 Threats to security need of security, types of security, Security issues.

Information System Security Management

- 2.1 Security Policies, Security Awareness, security control - Physical Controls, Procedural Controls, Technical Controls and Legal and liability.
- 2.2 Identification and Authentication - Password, Biometrics, Single Sign On.

UNIT-2

Secrete Communication

- 3.1 Introduction to secrete communication, Basics of Cryptography –Substitution cipher, Cryptographic primitives.
- 3.2 Encryption, Symmetric Encryption- Stream cipher, Block cipher, Sharing Keys.
- 3.3 Asymmetric Encryption- Using Certificate Authority, Digital signature, SSL (Secure Socket Layer), TLS (Transport Secure Layer), Hashing algorithms

UNIT-3

Network management

- 4.1 Definition need and advantages.
- 4.2 Windows NT Networking Architecture, Windows NT Operating System Design and Basics, Open Systems and Industry Standards,
- 4.3 Client/Server Computing, Interoperating with Other Networks, Remote Access Service-Point to point protocol,
- 4.4 Network Security and Domain Planning - Security Model Architecture, Controlling Access - User Accounts, User Rights.

UNIT-4

Network management

- 4.1 Definition need and advantages.
- 4.2 Windows NT Networking Architecture, Windows NT Operating System Design and Basics, Open Systems and Industry Standards,
- 4.3 Client/Server Computing, Interoperating with Other Networks, Remote Access Service-Point to point protocol,
- 4.4 Network Security and Domain Planning - Security Model Architecture, Controlling Access- User Accounts, User Rights.

Network Services

- 5.1 Enterprise Level- Installing and Configuring TCP/IP, Configuring TCP/IP Clients,
- 5.2 Dynamic IP Addressing Configuring DHCP, Accessing the DHCP Manager, Managing DHCP Scopes
- 5.3 Reserving IP addresses
- 5.4 Installing and Configuring WINS, Installing DNS Service

UNIT-5

Simple Network Management Protocol (SNMP) for Network Management-

- 6.1 Overview of SNMP, SNMP Registry, Management Information Base, Object Identifiers,
- 6.2 SNMP Installation, Starting and Stopping the SNMP Service
- 6.3 Troubleshooting SNMP

Troubleshooting Tools and Strategies

- 7.1 Overview of TCP/IP Troubleshooting Tools, Identify the TCP/IP Configuration by Using IP Config, Test Connection to the TCP/IP Network by Using Ping, Understanding Address and Name Resolution Test IP-address-to- MAC-address Resolution by Using ARP
- 7.2 Understanding IP Routing for Windows NT - The Route Table, Display Current TCP/IP Connections and Statistics by Using Netstat, Using Performance Monitor, Troubleshooting Other Connection Problems – Error 53, Cannot Connect to a Specific Server, Troubleshooting Telnet.

List of Practical

S.No	Practical	Time (Hrs.)
1	Implement the password and identify the valid and invalid user.	
2	Implement the Substitution cipher method of cryptography	
3	Implement the Block cipher method of cryptography	
4	Implement the Hashing algorithms	
5	Installing and Configuring TCP/IP	
6	Configuring DHCP	
7	Installing DNS Service	
8	Installing Simple Network Management Protocol	
9	Identify the TCP/IP Configuration by Using IPConfig	
10	Test Connection to the TCP/IP Network by Using	

RECOMMENDED BOOKS :-

1. Fundamentals of Network Security by John E. Canavan
2. Network Security Bible by Dr. Eric Cole, Dr. Ronald Krutz, and James W. Conley
3. Network Management: A Practical Perspective by Allan Leinwand and Karen Fang
4. Forouzan, TCP/IP Protocol Suite 4th edition, TMH
5. J.Richard Burkey, Network Management Concept and Practice, PHI

Semester: Sixth

Scheme: Jul. 2013

Course Code: 605

Paper Code: DCS 605

Name Of Course: PROFESSIONAL ACTIVITIES (PA).

Common With Program (S):

Scheme of Studies

Practicals: 2 Hrs Per Week

S.No.	Topics	Total Hrs
1.	PRESENTATION SKILLS:	
2.	LEARNING TO LEARN SKILLS:	
3.	STUDY SKILLS :	
4.	INFORMATION SEARCH:	
5.	TIME MANAGEMENT:	
6.	PERSONALITY:	
7.	PERSONAL GROOMING:	
	Total Hrs.	30

Semester: Sixth
Course Code: 605

Scheme: Jul. 2013
Paper Code: DCS 605

Name Of Course: PROFESSIONAL ACTIVITIES (PA).
Common With Program (S):

Content Details

S.No. Course Contents

UNIT-1

PRESENTATION SKILLS:

Oral Presentation :

Need of effective oral presentation.Characteristics of good oral presentation.Ways of Oral Presentation (Seminar, Viva -voce, Interview, Group Discussion, Lecturing, Power Point Presentations etc.)Gestures/Mannerism during oral presentation Media,methods used for effective oral presentationAssessment of oral presentation.

Written Presentation:

Need and characteristics of written presentation.Ways of written presentation (Report writing, manual, handout, notes etc.).Grammar, Punctuation, referencing paragraphs during written presentation.

UNIT-2

LEARNING TO LEARN SKILLS:

Need of Learning to Learn Skills.

Type of Learning Skills (Learning face to face, Individualized learning, Distance learning, Self- Learning).Developing Learning to Learn Skills.

STUDY SKILLS :

Methods of Good Study Habits,Note Taking Developing Reading Skills.

UNIT-3

INFORMATION SEARCH :

- 4.1 Objectives of information search.
- 4.2 Ways of information search (Internet surfing, Library search, Abstracts, Journals, books etc.)
- 4.3 Assimilation and presentation of information.

UNIT-4

TIME MANAGEMENT :

- 5.1 Principles of Time Management.
- 5.2 Time Management matrix.
- 5.3 Criteria governing Time Management.
- 5.4 Possible time waster

PERSONALITY :

- 6.1 Concept and meaning of personality.
- 6.2 Characteristics of good personality.
- 6.3 Factors influencing personality.
- 6.4 Types of personality.
- 6.5 Need for desirable personality for success.
- 6.6 Qualities of complete personality.

UNIT-5

PERSONAL GROOMING:

- 7.1 Posture and Health.
- 7.2 Types and importance of posture.
- 7.3 Importance of yoga and meditation.
- 7.4 Factors affecting good health-diet, exercise personal cleanliness, sleep and rest.
- 7.5 Use of cosmetics.
- 7.6 Dress Code
- 7.7 Physical Fitness and Inner Strength.

Semester: Sixth
Course Code: 605

Scheme: Jul. 2013
Paper Code: DCS 605

Name Of Course: PROFESSIONAL ACTIVITIES (PA).

Common With Program (S):

A) SUGGESTED IMPLEMENTATION STRATEGIES :

1. Students should be made to listen to effective presentations of experts, comprehend that and then summarise that orally and in writing. Feedback should be given immediately after each task.
 2. Also they should be given certain task/assignment on which they need to collect new information in specified time.
 3. Students should be able to take decision that the particular information can be gathered from such and such sources and should be able to present that confidently in verbally or in writing.
- In this particular subject only practical hours are allotted, but, it may be essential to take up certain inputs followed by assignments this may include expert lectures, group discussion, plenary session etc.

B) SUGGESTED LIST OF EXPERIENCES/TUTORIALS :

1. Seminar Presentation on Specific topic for fixed time duration.
2. Information Collection on a particular topic followed by presentation in specified time duration.
3. Visit to multinational outlet for observing personality traits of officials and preparing detailed report.
4. Demonstration exercise by personality experts.
5. Arranging expert lecturers of well known personality like Shrivastava etc.
6. Selected Book Review.

C) EVALUATION :

Following grade scale of evaluation of performance in PA has been established.

Grades Level of performance

- | | |
|---|--------------------|
| A | Excellent |
| B | Good |
| C | Fair |
| D | Average |
| E | Below Expectations |

S. No.	Detailed Course Guidelines	STUDY HRS.
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1 1 Project Guidelines: The focus of the Project is on preparing a working system (e.g. software system/Interface, hardware/software interface design etc.), using system analysis tools and design techniques and submit it in the form of a write-up i.e. detail project report. The student should select some real life problems for their project and maintain proper documentation of different stages of project such as requirement specification, objectives, work plan, analysis, design, implementation and test plan. Each student is required to prepare a project report and present the same at the final examination with a demonstration of the system.

The faculty and student should work according to following schedule:

- i) Each student undertakes substantial and individual project in an approved area of the subject and supervised by a member of staff.
- ii) The student must submit outline and action plan for the project execution (time schedule) and the same be approved by the concerned faculty.
- iii) The project development must be carried out according to following steps and final write-up should have the same sequence.
 - Project objectives.
 - Requirement gathering.
 - Modelling of project should be done in any well-known modelling tools like Flow Chart, DFD, UML, E-R etc.

COUSE GUIDELES

S. No	Detailed Course Guidelines	STUDY HRS.
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- Analysis of project.
- Design of project.
- Implementation of project
- Testing of project.
- Quality consideration of software /interface .
- Designing a small user manual.
- System requirement for designed software/ interface.
- Estimating the cost of the project.
- Future scope and suggestions.

iii) The above project should be implemented by using Languages, Visual tools, Graphic tools, DBMS, AI systems, Web Design supporting packages and tools etc.

iv) Suggested areas of project

- Web Technology based applications
- Database management systems
- Communication and Network
- Graphic based application
- System software
- Automation
- Embedded systems
- Data acquisition systems
- AI based systems
- Control systems etc.
- Net Working

COURSE GUIDELINES

Practical: 12 Hrs. per week

ACTION PLAN FOR PROJECT WORK (SUGGESTIVE):

Orientation of students by HOD/Project supervisor

Literature survey and resource collection

- Selection and finalization of topic before a committee*
- Detailing and preparation of project (Modeling, Analysis and Design of Project work)
- Development stage
- Testing, improvements, quality control of project
- Acceptance testing
- Report writing

Presentation before a committee (including user manual)

*Committee comprises of HOD, all project supervisors including external guide from industry (if any).

NOTE: Marks for continuous evaluation (i.e. Lab work) to be awarded after II seminar.

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