



CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY, BHILAI

DIPLOMA PROGRAMME IN INFORMATION TECHNOLOGY Semester – VI COURSE OF STUDY AND SCHEME OF EXAMINATION

S. No.	Board of Study	Subject Code	Subject	Periods/Week (In Hours)			Scheme of Examination						Credit L+ (T+P)/2
				L	T	P	Theory			Practical		Total Marks	
							ESE	CT	TA	ESE	TA		
1	Mechanical Engg.	200615 (37)	Entrepreneurship Development	4	1	-	100	20	10	-	-	130	5
2	Info. Tech.	233611 (33)	Dynamic Web Page Design	4	1	-	100	20	20	-	-	140	5
3	Info. Tech.	233612 (33)	Management Information System	3	1	-	100	20	20	-	-	140	4
4	Info. Tech.	233613 (33)	Client/Server Application	3	1	-	100	20	20	-	-	140	4
5	Info. Tech.	233614 (33)	Information Services	3	2	-	100	20	20	-	-	140	4
6	Info. Tech.	233623 (33)	Major Project	-	-	5	-	-	-	100	70	170	3
7	Info. Tech.	233621 (33)	Dynamic web page design Lab	-	-	4	-	-	-	50	20	70	2
8	Info. Tech.	233622 (33)	Client/Server Application Lab	-	-	4	-	-	-	50	20	70	2
TOTAL				17	6	13	500	100	90	200	110	1000	29

L : Lecture hours : T : Tutorial hours, P : Practical hours.

ESE – End of Semester Exam.; CT – Class Test; TA- Teacher’s Assessment

**CHHATTISGARH SWAMI VIVEKANAND TECHNICAL
UNIVERSITY, BHILAI**

- A) **SEMESTER** : **VI**
 B) **COURSE TITLE** : **ENTREPRENEURSHIP DEVELOPMENT**
 C) **CODE** : 200615 (37)
 D) **BRANCH/DISCIPLINE** : **INFORMATION TECHNOLOGY**
 E) **RATIONALE**

It has been experienced in most parts of the world that entrepreneurship development is a means of rapid economic development vis-à-vis creation of gainful employment of masses. The myth that entrepreneurs are born and not made no longer holds good. Experiences of last few decades in India show that it is possible to develop entrepreneurs through planned efforts.

These designed efforts are more essentially required in polytechnics where increasing unemployment has necessitated promoting self-employment/entrepreneurship as career option thereby creating more job providers than job seekers. This course focuses on inputs required for students to undertake entrepreneurial activities as career option.

F) TEACHING AND EXMINATION SCHEME:

Course Code	Periods/Week (In Hours)			Scheme of Examination						Credit L+(T+P)/2
	L	T	P	Theory			Practical		Total Marks	
				ESE	CT	TA	ESE	TA		
200615(37)	4	1	-	100	20	10	-	-	130	5

L: Lecture hours; T: Tutorial hours, P: Practical hours
 ESE – End of Semester Exam.; CT – Class Test; TA- Teacher’s Assessment ;

G) DISTRIBUTION OF MARKS AND HOURS:

Sl. No.	Chapter No.	Chapter Name	Hours	Marks
1.	1.	Entrepreneurship Development	10	12
2.	2.	Forms of business organization	8	10
3.	3.	Institutional support for SSI	8	10
4.	4.	Planning a small scale industry	10	18
5.	5.	Management of small business firms	8	12
6.	6.	Project selection, formulation and appraisal	12	10

7.	7.	Problems of small industries	12	12
8.	8.	Entrepreneurial motivation training	12	10
		Total	80	100

H) DETAILED COURSE CONTENTS:

CHAPTER-1 ENTREPRENEURIAL DEVELOPMENT

- Definition of entrepreneurship,
- Characteristics of entrepreneurs,
- Factors influencing entrepreneurship,
- Need for promotion of entrepreneurship and small business
- Entrepreneurial Environment
- Environmental analysis.
- Government policies for setting up new small enterprises
- Opportunities in service industries.

CHAPTER – 2 FORMS OF BUSINESS ORGANIZATION

- Forms of ownership
- Sole Proprietorship
- Partnership
- Cooperative society
- Joint – stock company
- Private Limited Companies
- Public Limited Companies

CHAPTER – 3 INSTITUTIONAL SUPPORT TO SSI

- Institutional set up
- Industries centers,
- Industrial estates
- Institutional support at National level
- Institutional support at State level
- Commercial banks and financial institutions

CHAPTER – 4 PLANNING A SSI

- What is planning?
- Types of planning
- Importance of planning
- Steps in planning
- Steps in planning a SSI

- Technical dimensions for setting up an enterprise

CHAPTER-5 MANAGEMENT OF SMALL BUSINESS FIRM

- Functional areas of small business firm
- Fundamentals of Management
- Managerial effectiveness
- Essential data for effective control of small business
- Resource management
- Office management
- Employees Welfare & safety
- Factory rules and Labour Laws related to SSIs
- Sales Tax and Income Tax laws related to SSIs

CHAPTER-6 PROJECT SELECTION, FORMULATION & APPRAISAL

- Project selection & formulation
- Scope of project report
- Content & Format of Project report
- Need of Project Appraisal
- Steps of Project Appraisal

CHAPTER-7 PROBLEMS OF SMALL INDUSTRIES

- Power shortages
- Project planning
- Finance
- Raw material
- Production constraints
- Marketing
- Personal constraints
- Regulations

CHAPTER-8 ENTREPRENEURIAL MOTIVATION TRAINING

- Achievement Motivation
- Creative thinking
- Risk taking abilities

D) SUGGESTED INSTRUCTIONAL STRATEGIES:

- Lecture Method.

- Industrial visits.
- Simulation
- Role play
- Interaction with successful entrepreneurs
- Demonstration.
- Games

J) SUGGESTED LEARNING RESOURCES:

(a) Reference Books :

Sl. No.	Title	Author, Publisher, Edition & Year
1.	Starting your own Business, A step-by-step Blue print for the First-time Entrepreneur	Stephen C. Harper, Mc Craw-Hill
2.	Harward Business Review on Entrepreneurship	Harvard Business School Press
3.	Entrepreneurship Development in small scale proceedings of National Seminar, DCSSI, New Delhi	Patel V.G.
4.	Entrepreneurship : Strategies & Resources	Abrams Grant Pass, Oregon: Oasis Press
5.	The Business Planning Guide	David H. Bangs Upstart Publishing Company, In Chicago
6.	Entrepreneurship development in India	Dr. C.B. Gupta Dr. N.P. Srinivasan Sultan Chand & Sons

LIST OF TERM WORK

Term Work will consist of collecting following information by the students:

1. Collect State industrial policy
2. Report of interaction with successful entrepreneurs/industrial visits
3. Prepare list of opportunities for business, service and industrial ventures
4. Whom to approach for What?
5. Facilities and incentives available from various support agencies

**CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY,
BHILAI**

- A) **SEMESTER** : VI
 B) **SUBJECT TITLE** : DYNAMIC WEB PAGE DESIGN
 C) **CODE** : 233611 (33)

D) **BRANCH/DISCIPLINE** : INFORMATION TECHNOLOGY

E) **RATIONALE** :
 The aim of this subject is to make the students understand the basic concepts of client server architecture. The students will also develop competence to use structured query language to design and develop client server based application program

F) TEACHING AND EXAMINATION SCHEME

Course Code	Periods/Week (In Hours) (Teaching Scheme)			Scheme of Examination						Credit L+(T+P)/2
	L	T	P	Theory			Practical		Total Marks	
233611(33)	4	1	-	100	20	20	-	-	140	5
233621(33)	-	-	4	-	-	-	50	20	70	2

L : Lecture hours ; T : Tutorial hours; P : Practical hours
 ESE – End of Semester Exam.; CT – Class Test; TA- Teacher’s Assessment

G) DISTRIBUTION OF MARKS AND HOURS

Chapter No.	Chapter Name	Hours	Marks
1	Introduction to server side programming	6	8
2	Introduction to active server pages	6	8
3	Introduction to JAVA script	10	12
4	Introduction to VB script	10	12
5	VB script control structure	6	8
6	VB script functions and subroutines	6	8
7	ASP objects	10	12

Chapter No.	Chapter Name	Hours	Marks
8	Communicating with users	8	8
9	ASP components	6	8
10	Reading and writing of files	6	8
11	Reading from a data base and writing to database	6	8
	TOTAL	80	100

H) DETAILED CONTENT	
CHAPTER - 1	INTRODUCTION TO SERVER SIDE PROGRAMMING
	<ul style="list-style-type: none"> • Introduction to server pages • Understanding client server model • Difference between client side scripting and server side scripting • Concept of personal web server, Internet information server (IIS).
CHAPTER – 2	INTRODUCTION TO ACTIVE SERVER PAGES
	<ul style="list-style-type: none"> • Understanding active server pages & scripts • Creating ASP pages • ASP comment lines. • RESPONSE write object • The ASP process
CHAPTER – 3	INTRODUCTION TO JAVA SCRIPT
	<ul style="list-style-type: none"> • Java script Overview, Java script and the WWW, Java script vs. VBScript, Java script vs. Java, Java script versions, Script element, • Inline Java script, Including Java script. • Functions : Functions introduction, Calling functions, • Java script Comments : Comments overview, When to comment, Types of comments • Variables : Variables overview, Declaring variables, Types of variables, Casting variables, Alert box • Expressions : Arithmetic operators, Assignment operators, Logical operators, Expressions and precedence • Statements : If statement, For statement, While statement • Break/Continue
CHAPTER – 4	INTRODUCTION TO VBSCRIPT

	<ul style="list-style-type: none"> • Character set • Data types
	<ul style="list-style-type: none"> - Integer - Floating point numbers - Strings - Date - Boolean - Currency
	<ul style="list-style-type: none"> • Declaration of variables
	<ul style="list-style-type: none"> • Use of option explicit
	<ul style="list-style-type: none"> • Constants
	<ul style="list-style-type: none"> • VB script operators
	<ul style="list-style-type: none"> - Arithmetic
	<ul style="list-style-type: none"> - Array processing - Relation - String
CHAPTER – 5	VB SCRIPT CONTROL STRUCTURES
	<ul style="list-style-type: none"> • Conditional statements
	<ul style="list-style-type: none"> - if then statement - if then else statement - Nested if statement - Select case statement
	<ul style="list-style-type: none"> • Looping statements
	<ul style="list-style-type: none"> - Do loop statement <ul style="list-style-type: none"> ▪ Do while – Do ▪ Do until
	<ul style="list-style-type: none"> - while – whend statements - For – next statement - For each – next statement - Nesting loops
CHAPTER – 6	VB SCRIPT FUNCTIONS AND SUBROUTINES
	<ul style="list-style-type: none"> • Writing subroutines using Sub - End Sub • Argument passing to a subroutine • Writing functions • Calling functions • VB Script Built-in functions

	<ul style="list-style-type: none"> - Type casting functions - Formatting functions - Math functions - Date functions - String functions
CHAPTER – 7	ASP OBJECT
	<ul style="list-style-type: none"> ● Concept of objects
	<ul style="list-style-type: none"> - Definition - Properties - Methods - Instances of objects
	<ul style="list-style-type: none"> ● Built in ASP objects and their definitions
	<ul style="list-style-type: none"> - Response objects - Request object - Application object - Session object - Server object - Context object - ASP error object
	<ul style="list-style-type: none"> ● Using Response objects
	<ul style="list-style-type: none"> - Sending HTML to the browser - Response write
	<ul style="list-style-type: none"> - Buffering ASP - Response buffer
	<ul style="list-style-type: none"> - Response clear - Response flush - Response end - Sending the user to another page - Response redirect - Caching ASP - Response expires
CHAPTER-8	COMMUNICATING WITH USER
	<ul style="list-style-type: none"> ● Concept of forms ● Creating forms
	<ul style="list-style-type: none"> - Using forms fields - Designing forms - Submitting forms - Reading form values from an ASP - Client side form validation <ul style="list-style-type: none"> ●

	<ul style="list-style-type: none"> • Collecting the form information
	<ul style="list-style-type: none"> - Using Request object - Reorienting values from Text Box, list Box, check Box, Radio Button.
	<ul style="list-style-type: none"> • Cookies
	<ul style="list-style-type: none"> - Reading cookies using request object - Writing cookies using response object - Advantages and disadvantages of cookies
CHAPTER – 9	ASP COMPONENTS
	<ul style="list-style-type: none"> • Using Component in ASP • Using the Ad rotator • Content linker and its users <p>Browser capabilities component</p>
CHAPTER – 10	
	<ul style="list-style-type: none"> • Accessing files and folders using server object. • Opening files • Reading files • Writing files to the server • Appending files
CHAPTER – 11	READING FROM A DATABASE AND WRITING TO DATABASE
	<ul style="list-style-type: none"> • Introduction to databases, ODBC, activeX Data objects (Application Data Object) ADO • Connecting to database using connection object • Reading the data from database <ul style="list-style-type: none"> - Using record set object • Displaying the contents of database • Inserting records • Using ADD Address and update • Updating records • Deleting records

D) SUGGESTED IMPLIMENTATION STRATEGIES

To implement this subject it is assumed that student is not having knowledge of server side programming. It is also assumed that the student is well aware of web page

designing & client side programming. While implementing this one should clearly understand client server technology. For effective teaching/learning it is expected that related assignments / programs should be given based on the topics. During the practical sessions one should try to implement the concepts learned in theory.

J) LEARNING RESOURCES SUGGESTED TO BE USED

a) Reference Books

S.No.	Title	Edition Year of Publication Author Publisher & Address
1.	Teach yourself ASP in 21 days	Techmedia, Latest Edn.
2.	Teach yourself VB script in 21 days	Techmedia, Latest Edn.
3	Active server pages	Morneau,Keith,Vikas publication, Latest Edn.
4	ASP internals	Flanders, Pearson education India, Latest Edn.
5	ASP 3.0 instant reference	Petroutsos,BPB publication, Latest Edn.

Course: Dynamic Web Page Design, Lab

Code: 233621 (33)

Hours: 64

K) LIST OF PRACTICALS/ ASSIGNMENT:

- Assignment based on client server model.
- Assignment based on terminology related to dynamic web pages
- Assignments to write character, data types, operators & symbols of WB scripts.
- A simple program on dim statement and arithmetic calculation.

- A program based on each
 - if
 - Select case

- Do loop
- While
- For next
- A program based on each
 - Subroutines
 - Argument passing to sub routine
 - Built-in function
- A program to make use of response buffer, response. Clear, response flesh response expires.
- Designing a form and submit
- Information collection using request object
- Reading and writing cookies.
- Browser name and version
- File handling
- Read data from database & process it
- Update the database
- Deleting the data

**CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY,
BHILAI**

- A) **SEMESTER** : VI
- B) **SUBJECT TITLE** : MANAGEMENT INFORMATION SYSTEM
- C) **CODE** : 233612 (33)
- D) **BRANCH/DISCIPLINE** : INFORMATION TECHNOLOGY
- E) **RATIONALE** :
The objective of this course is to Explain different models of Computer based Information systems their design and development, according to organizational needs. Hardware and software requirement of Information Systems.

F) TEACHING AND EXAMINATION SCHEME

Course Code	Periods/Week (In Hours) (Teaching Scheme)			Scheme of Examination						Credit L+(T+P)/2
	L	T	P	Theory			Practical		Total Marks	
				ESE	CT	TA	ESE	TA		
233612(33)	3	1	-	100	20	20	-	-	140	4

L : Lecture hours ; T : Tutorial hours; P : Practical hours

ESE – End of Semester Exam.; CT – Class Test; TA- Teacher’s Assessment

G) DISTRIBUTION OF MARKS AND HOURS

Chapter No.	Chapter Name	Hours	Marks
1	Introduction to MIS	6	8
2	Structure of a MIS	8	14
3	Hardware, Software and Communication Technology for Information	10	14
4	Transaction Processing and Information Processing Control	12	14
5	Decision Making Process	10	18

Chapter No.	Chapter Name	Hours	Marks
6	Concept of Information	8	16
7	Support Systems for Planning, Control and Decision Making	10	16
8	Information to Enterprise Resource Planning (ERP) Data ware housing & Data Mining		
TOTAL		64	100

H) DETAILED CONTENT

CHAPTER - 1

- Definition of MIS
 - Computer based User machine system
 - Integrated System
 - Need for database
 - Utilization of Model
- MIS an Evolving Concept
 - MIS versus Data Processing
 - MIS and Decision Support System
 - MIS and Information Resource Management
 - End-User Computing
- Subsystem of an MIS
 - Organizational Function Subsystem
 - Activity Subsystem

CHAPTER – 2

STRUCTURE OF A MIS

- Operating elements of an Information System
 - Physical Components
 - Processing Functions
 - Output for users
- MIS support for Decision Making
 - Structured, Programmable Decision
 - Unstructured, Nonprogrammable Decision
- MIS Structure Based on Management Activity
 - Hierarchy of Management Activity
 - Information System for Operational Control
 - Information System for Management Control
 - Information System for Strategic Planning
- MIS Structure Based on Organizational Function

- Sales and Marketing Subsystem
- Production Subsystem
- Logistics Subsystem
- Personal Subsystem

CHAPTER – 3 HARDWARE, SOFTWARE AND COMMUNICATION TECHNOLOGY FOR INFORMATION

- Computer System
 - Computer Hardware
 - Classes of Computer System
 - Computer Software
- Instructing a Computer
 - Procedure Oriented Language
 - Database Query Languages
 - Program Generators
 - Statistical Packages
 - Modeling Languages
 - Very High level Languages
- A user view of Computer System
 - Batch System Use
 - Online System Use
 - Microcomputer Use, Time sharing, Real Time Systems
- Communication Facilities
 - Model of a communication System
 - Communication Channel
 - Front-end Processor

CHAPTER – 4 TRANSACTION PROCESSING AND INFORMATION PROCESSING CONTROL

- Transaction Processing
 - Transaction Processing Cycle
 - Methods for Processing Transaction
 - Controls for Transaction Processing
 - Retrieval in transaction Processing
- Information Processing Control
 - Information system management and control
 - Control functions for Information processing
 - Guidelines for end-user computing facilities

CHAPTER – 5 DECISION MAKING PROCESS

- Intelligence and decision making
 - Problem finding
 - Problem formulation
 - Development of alternatives
- Concept of decision making
 - Knowledge of outcome
 - Programmed verses Nonprogrammed decision
 - Criteria for decision making
- Methods for deciding among alternatives

- Optimization techniques under Certainty
- Payoff Matrices in statistical decision theory
- Decision trees
- Ranking, weighting, or elimination by aspect
- Game theory
- Relevance of decision-making concept for Information System Design
 - Support for decision making phases
 - Support for programmed versus non-programmed decision
 - Relevance of Model of decision maker
 - Support for alternative technique
 - Support for quality of decision making

CHAPTER – 6

CONCEPT OF INFORMATION

- Definition of Information
 - Information in mathematical theory of communication
 - Historical development
 - Model of communication System
 - Redundancy
- Information Presentation
 - Methods that increase the sending and receiving efficiency of a System
- Quality of Information
 - Utility of Information
 - Information satisfaction
 - Error Bias
- Value of information in decision making
 - Value of perfect information
- Age of Information

CHAPTER – 7

SUPPORT SYSTEMS FOR PLANNING, CONTROL AND DECISION MAKING

- Decision Support System
 - Characteristics of decision support system
 - Decision support and structure of decision making
 - Decision support and repetitiveness of decision
 - Classes of decision support system
 - Decision support system users
- Expert system
 - Support for the intelligence phase
 - Support for the design Phase
 - Support for the choice phase
 - Decision support and Alternative concept of Decision making
- Approaches to Development of decision support systems
 - Programming Language
 - Spreadsheet processor
 - Analysis Package
 - Model Generator

CHAPTER - 8 - Model base management
INTRODUCTION TO ERP, DATAWARE HOUSING & DATA MINING

I) SUGGESTED IMPLIMENTATION STRATEGIES

The subject content detailed under each chapter may be taught by giving real life/industrial problems. To understand the concept of Management Information system a mini project should be assigned separately to all the students or in-group.

J) LEARNING RESOURCES SUGGESTED TO BE USED

a) Reference Books

S. No.	Title	Author, Publisher & Address, Edition,Year of Publication,
1.	Management Information Systems	Gordon B. Davis and Margreth H. Olson McGraw Hill International, IInd Edition
2.	Data Warehousing	BPB Publication
3.	Data Mining	BPB Publication

**CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY,
BHILAI**

- A) **SEMESTER** : **VI**
 B) **SUBJECT TITLE** : **CLIENT / SERVER APPLICATION**
 C) **CODE** : 233613 (33)
 D) **BRANCH/DISCIPLINE** : **INFORMATION TECHNOLOGY**
 E) **RATIONALE** :

The aim of this subject is to make the students understand the basic concepts of client server architecture. The students will also develop competence to use structured query language to design and develop client server based application program

F) TEACHING AND EXAMINATION SCHEME

Course Code	Periods/Week (In Hours) (Teaching Scheme)			Scheme of Examination						Credit L+(T+P)/2
	L	T	P	Theory			Practical		Total Marks	
				ESE	CT	TA	ESE	TA		
233613(33)	3	1	-	100	20	20	-	-	140	4
233622(33)	-	-	4	-	-	-	50	20	70	2

L : Lecture hours ; T : Tutorial hours; P : Practical hours

ESE – End of Semester Exam.; CT – Class Test; TA- Teacher’s Assessment

G) DISTRIBUTION OF MARKS AND HOURS

Chapter No.	Chapter Name	Hours	Marks
1	An Overview Of Client Server Architecture And Oracle	8	12
2	Interactive SQL	12	20
3	PL/SQL	16	20

4	Stored Procedures And Functions	16	24
5	Database Triggers	12	24
	TOTAL	64	100

H) DETAILED CONTENT

CHAPTER - 1 AN OVERVIEW OF CLIENT SERVER ARCHITECTURE AND ORACLE

- **Client server Architecture, benefit and pitfalls of client server computing, An overview of RDBMS**
- Introduction to Oracle: What is Oracle server, its components, SQL, Forms, Reports, Oracle Architecture, Developer 2000 and Designer 2000
- Overview of the Data Integrity with DBMS, data concurrency: Data locks, Data security: Granting access, Extending and restricting privileges
- Data entry using form applications, Query tools and reporting application, GUIs

CHAPTER – 2

INTERACTIVE SQL

- Invoking SQL * Plus, DDL DML, DQL, The Oracle Data Types, Creating Tables, Insertion of Data into Table, Updating the contents of a Table, Deletion Operations, Modifying, Removing, Deleting, Dropping Tables, Applying Data Constraints, Query, Oracle Functions, Grouping Data from Tables in SQL, aggregate function of oracle, Numerical string and date functions in SQL, Joins: equi Join, non-equi Join, inner, outer joins.
- Sub-queries: using Unions, Intersect and Minus clause Indexes, Views Sequences.

CHAPTER – 3

PL/SQL

- PL-SQL execution environment, PL/SQL Character Set, Operators, Variables, Common Data Types, Components, PL/SQL syntax, Block structure, conditional and looping statements, Oracle transactions, Locks, error handling.

CHAPTER – 4

STORED PROCEDURES AND FUNCTIONS

- Procedures: advantages of procedures, declarative part, Executable part, Exception handling part creating procedure, Executing Procedures.
- Functions: Advantages of functions, creating, executing, Deleting a stored function.

CHAPTER – 5

DATABASE TRIGGERS

- Introduction, use of database triggers type of triggers, syntax for creating a trigger, enabling, disabling, replacing and dropping triggers, Creating Application using Database Triggers.

I) SUGGESTED IMPLEMENTATION STRATEGIES

Concepts of DBMS will be implemented by using Oracle 7.0 Oracle 8.0 RDBMS Package. The teachers may make the students to develop as much as client server application programs as possible.

J) LEARNING RESOURCES SUGGESTED TO BE USED

a) Reference Books

S. No.	Title	Author, Publisher & Address, Edition, Year of Publication,
4.	Introduction to Database Management System	Navin Prakash Tata Mcgraw Hill, Latest
5.	Mastering Oracle 7.0 and Client/Server Computing	Steven M, Bobrowski, BPB Publications, Latest
6.	Oracle 7.0	Eran Barose BPB Publication., Latest
7.	Oracle- the complete reference	George Koch & Kevin Loney, Oracle Press (TMH), Latest
8.	Using Oracle 8.	William Page Jr. And Nathen Hughes, Latest

Course: Client/Server Applications, Lab

Code: 233622 (33)

Hours: 64

K) LIST OF PRACTICALS / TUTORIALS:

- Assignments and Practice in developing client server programs using Oracle.
- Tutorial on selected topic may also be given.

**CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY,
BHILAI**

- A) **SEMESTER** : **VI**
 B) **COURSE** : **INFORMATION SERVICES**
 C) **CODE** : 233614 (33)

D) **BRANCH/DISCIPLINE** : **INFORMATION TECHNOLOGY**

E) RATIONALE:

The subject 'Information Services' is designed to make the student familiar with different aspect of establishing and managing computer based information services. The student will understand the project management, network management, security aspects and maintenance of computer system and peripherals.

F) TEACHING AND EXAMINATION SCHEME

Course Code	Periods/Week (In Hours) (Teaching Scheme)			Scheme of Examination						Credit L+(T+P)/2
	L	T	P	Theory			Practical		Total Marks	
				ESE	CT	TA	ESE	TA		
233614(33)	3	2	-	100	20	20	-	-	140	4

L : Lecture hours ; T : Tutorial hours; P : Practical hours

ESE – End of Semester Exam.; CT – Class Test; TA- Teacher's Assessment

G) DISTRIBUTION OF MARKS AND HOURS

Chapter No.	Chapter Name	Hours	Marks
1.	Information Service Trends and Issues	10	14
2.	Establishing Information Service Centre	15	18
3.	Electrical Equipments Requirements	12	16
4.	Procurement Process: Hardware & Software	12	14
5.	Project Management	12	14
6.	Security Aspects	9	12
7.	Maintenance	10	12
	Total	80	100

H) DETAILED CONTENT

CHAPTER-1

INFORMATION SERVICE TRENDS AND ISSUES

- Present and future Information Technology Industry Scenario: Problems and Trends, Solution through Information Service (IS) Department/Centre
- Organization and Administration of an IS center: Common Manpower levels and their Roles
- Functions of Computerized IS: System Development, System Maintenance, Production, Administration, Technical Support.
- Cost Vs Benefits: Equipment Costs, Installation Costs, Development Costs, Personal Costs, Operating Costs Vs Benefits

CHAPTER-2

ESTABLISHING INFORMATION SERVICE CENTRE

- Computer Software Acquisition:- System and Application Software requirement, Evaluation Criteria- Cost, Service and support, Documentation, Flexibility, Stability, Machine and O.S dependency, Completeness; Tailor made package evaluation Criteria- System Adaptability, Training, Portability, Performance and Capacity, support, File Maintenance, Controls, Data Integrity and Backup
- Computer Hardware Acquisition- Identification, Guidelines & Specification of computer systems (Server/workstations), Peripherals: printer, scanner, plotter etc.; Network Equipments: Switches, Hubs, network cable and connectors etc.

CHAPTER-3

ELECTRICAL EQUIPMENTS REQUIREMENTS

- Physical Layout and structure considerations- computer layout- Architecture(space), false ceiling, false flooring, computer furniture's , Room Layout, Air Conditioning, Dust - free, Cleanliness, Sitting arrangements, Access, Security, Fire safety and protection, Environment Factors.
- Electrical Equipment and fittings considerations: Power and Lighting, Electrical Fittings, System load, Specifications of window air conditioner/split-AC, fire-extinguishers, tool kit, servo stabilizer, Specifications of isolations Transformer, UPS, CVT, CVR, Safety Considerations.

CHAPTER-4

PROCUREMENT PROCESS: HARDWARE & SOFTWARE

- Need Identification, Alternative Selection, H/w & S/w requirement Study and Configuration, Request for Quotations, Evaluation of Quotations, Selection and Ordering, Delivery, Installation & Benchmarking.
- Acceptance and Taking Over, Post Installation, Basis for Evaluation Checklist.

CHAPTER-5

PROJECT MANAGEMENT

- Need for Planning
 - Uncertainty in data processing plans
 - Long –term plans

- Project Planning
Project Phases, Estimating, Resource Scheduling
- Planning Control Aids
 - Critical Path Method, Gantt charts, Networks, Network Analysis, Planning from the network, Network Packages
- Project control
 - Measuring Progress, Recording Progress, Deviation from plans, Performance Statistics

CHAPTER-6 SECURITY ASPECTS

- Physical Security- Security factors, fire, flooding, earthquake, theft and sabotage, electrical failure
- Data Security-Accidental disclosure, deliberate infiltration, control of illegal access, control measure/techniques for security-authorization
- System Security-Log Book Maintaining, Viruses, backups

CHAPTER -7 MAINTENANCE

- Maintenance
 - Introduction: Factors for negotiating the hardware maintenance contract- terms, service and response, vendor support etc.
 - Different types of maintenance
 - Preventive maintenance
 - Remedial Maintenance
 - Intermittent faults
 - Customer provided information and its synthesis
- Network Management
 - Intranet and Internet Management

D) SUGGESTED IMPLEMENTATION STRATEGIES

The teachers should insist student to develop a proposal to establish a computer center. Various demonstration will also help students to understand the use of Information Services

J) SUGGESTED LEARNING RESOURCES

a)Reference Books

S. No.	Title	Author, Publisher & Address, Edition,Year of Publication,
1.	Computer Management & Planning	Latest, Utpal Banerjee, TMH Publications
2.	Management of Information Services	1 st , 2000, Chitra Sivakumar & K.S. Babai Tata McGraw- Hill
3.	Introducing system Analysis & Design	Latest, Galgotia Booksource, New Delhi

K) LIST OF TUTORIALS/ DEMONSTRATIONS

Study of institution functioning

- Prepare a proposal to establish a computer centre

**CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY,
BHILAI**

- A) **SEMESTER** : **VI**
 B) **SUBJECT TITLE** : **Major Project**
 C) **CODE** : **233623 (33)**
 D) **BRANCH/DISCIPLINE** : **INFORMATION TECHNOLOGY**
 E) **RATIONALE** :

The major project will enable the students to integrate the knowledge and software development skills acquired during his diploma programme. He would be able to design and develop an identified software system independently in particular using the software in Sixth Semester.

F) TEACHING AND EXAMINATION SCHEME

Course Code	Periods/Week (In Hours) (Teaching Scheme)			Scheme of Examination						Credit L+(T+P)/2
	L	T	P	Theory			Practical		Total Marks	
				ESE	CT	TA	ESE	TA		
233623(33)	-	-	5	-	-	-	100	70	170	3

L : Lecture hours ; T : Tutorial hours; P : Practical hours

ESE – End of Semester Exam.; CT – Class Test; TA- Teacher’s Assessment

G) PROJECT DEVELOPMENT APPROACH

a. Project Selection

- 1 Project must be based on the knowledge acquired by the students. Students must be aware of the languages, packages and hardware that he is using for his project.
- 2 Repetition of projects may be avoided as far as possible.

- 3 The students should be given some time for project selection. At the end of it, the student must submit a 3 to 4 page document-giving outline of project and feasibility study report.
- 4 Feasibility study includes:
 - 5 Time feasibility.
 - 6 Software, Hardware availability.
 - 7 Information source etc.
- 8 The students has to independently carry out the project.
- 9 Project may be an application software development

b. Project Design

In this phase the students will actually start analyzing the system and collect data/information for their project. The student should.

- 1 The student should analyse and design the system.
- 2 The student must adopt standard norms and procedures.
- 3 Design must be modular & there must be clear.
- 4 The student must submit “Synopsis” giving details about system analysis and design aspects. He should individually contact the concern teacher to clear his views about the project.

c. Project Development

Remaining time may be utilized for actual coding, testing, of project.

- 1 Independent module development is necessary.
- 2 The project guide must continuously assess their project during its development.
- 3 Taking into consideration shortcoming & suggestions given during testing, the final software should be developed and submitted by the end of the term.

d. Project Report

The following section should be considered while writing the project:

- 1 Project Title
- 2 Feasibility study
- 3 Analysis
- 4 Design Aspect
- 5 Developmental Aspect (including source code)
- 6 Books/Manual/Documentation

e. Project Valuation

- | | | |
|---|-----------------|-----|
| 1 | Innovative idea | 10% |
| 2 | Project Design | 25% |
| 3 | Working Model | 40% |

4	Oral		15%
5	Presentation		10%
		Total	100%

H) IMPLEMENTATION

The teachers are expected to motivate the students to take innovative projects either from the polytechnic system or from the industry. Teachers should evaluate the project as per the guidelines given above.