



**JAI HIND COLLEGE
BASANTSING INSTITUTE OF SCIENCE
&
J.T.LALVANI COLLEGE OF COMMERCE
(AUTONOMOUS)**

"A" Road, Churchgate, Mumbai - 400 020, India.

**Affiliated to
University of Mumbai**

Program : BVOC

Proposed Course : Software Development

Semester II

**CBCS NEP Based Syllabus with effect from the
academic year 2023-24**

FYUGP Credit Structure from 2023-24 (Across All courses)										
Level	Sem	Major (Sub-1)	Elective	Minor (Sub-2)	OE	VSC	IKS Generic	OJT, FP, RP, CEP	Cum Cr/Sem	Degree/Cum Cr
						SEC	AEC, VEC	CC		
4.5 (2023-24)	Sem 1	4	0	4	4	4	6	0	22	44 UG certificate
	Sem 2	4	0	4	4	4	4	2	22	
	Cum Cr	8	0	8	8	8	10	2	44	
<p>A student will decide which of the 2 subjects (Sub-1 or Sub-2) will be major and minor at the end of the second semester (ie the first year) Major subject-specific IKS of 2 credits must be done as 2 units (could be 1 unit + 1 unit) from Sem 3 to Sem 6</p> <p>Exit option with a UG Certificate in Major with an additional 4 credits core NSQF course/internship OR continue with Major & Minor</p>										
5 (2024-25)	Sem 3	8	0	4	2	2	2	4	22	88 UG Diploma
	Sem 4	8	0	4	2	2	2	4	22	
	Cum Cr	24	0	16	12	12	14	10	88	
<p>Exit option with a UG Diploma in Major & Minor with an additional 4 credits core NSQF course/internship OR continue with Major & Minor</p>										
5.5 (2025-26)	Sem 5	12	4	2	0	2	0	2	22	132 UG Degree
	Sem 6	12	4	2	0	0	0	4	22	
	Cum Cr	48	8	20	12	14	14	16	132	
6 (2026-27)	Sem 7	12	4	4	0	0	0	2	22	176 UG Honours
	Sem 8	12	4	0	0	0	0	6	22	
	Cum Cr	72	16	20	12	14	14	24	176	
6 (2026-27)	Sem 7	10	4	4	0	0	0	4	22	176 UG Honours with Research
	Sem 8	10	4	0	0	0	0	8	22	
	Cum Cr	68	16	20	12	14	14	28	176	
Four-Year UG Honours with Research Degree with Major and Minor										

PI note: 1 credit = 15 hr of T and 30 hr of P T=Theory P=Practical (dry Lab or wet Lab)/Hands-on/Experiential learning

F.Y.BVOC (Software Development)

Academic year 2023-2024

Semester II					
	Course Code	Course Title	Lectures/Practicals	Credits	Total Credits
Major	JUSVSD-DSC201	Advanced Web Designing	45L/15P	3+1	4
Minor	JUSVSD-MIN201	Computational Mathematics	45L/15P	3+1	4
OE	JUSVSD-OE201	Strategic Management	30L	2	2
	JUSVSD-OE202	Digital Marketing	30L	2	2
VSC	JUSVSD-VSC201	Introduction to Database	15L/15P	2	2
SEC	JUSVSD-SEC201	Java Programming	15L/15P	2	2
VEC	JUSVSD-VEC201	Digital Empowerment	30L	2	2
AEC	JUSVSD-AEC201	English Communication Skills	30L	2	2
OJT/FP/ RP/ CEP/CC			30H	2	2

Major Course

Course Code: JUSVSD-DSC201	Course Title: Advanced Web Designing (Credits : 03 Lectures/Week: 03)	
	<p>Objectives:</p> <ul style="list-style-type: none"> • Understanding emerging web technologies • Learn the basics of creating XML documents, transforming XML documents, and validating XML documents • Articulate what React is and why it is useful • Understand creating large web applications • Creating dynamic web applications • Creating progressive web applications • Use React components to build interactive interfaces • Build interactive user interfaces <p>Outcomes:</p> <ul style="list-style-type: none"> • Understand how the client-server model of Internet programming works. • Design and develop interactive, client-side, executable web applications. • Build tools that assist in automating data transfer over the Internet. 	
Unit I	<p>XML: Introducing XML: The Benefits of XML, How XML Works. XML Fundamentals Contents: XML Documents and XML Files Elements, Tags, and Character Data Attributes, XML Names Entity References, CDATA Sections Comments Processing Instructions, The XML Declaration Checking Documents for Well-Formedness. React: Introduction,What is React ,What is single page application(SPA), How React Works & Understanding Components ,React Class,More About Components & Styling with CSS Classes ,Handling Events ,Introducing State,Event Props,Stateless and Stateful Components,Adding Routing,Adding Links & Navigation,CSS Modules</p>	15 L

Unit II	<p>Introduction of Laravel PHP Framework: Laravel Directory Structure, Configuring a new Laravel project, Basic routing, Call a controller method from a route, Passing variables from controllers to views</p> <p>HTML Template to Laravel Blade Template: Template inheritance Blade conditional statements, Blade Loops, Executing PHP functions in blade</p>	15 L
Unit III	<p>Laravel: Displaying Your Views, Creating and using basic views, Loading a view into another view/nested views, Adding assets, Integrating with Bootstrap, Creating contact us form, Validating user input.</p> <p>Flask : Installation, Basic application structure, Templates, webforms, Databases</p>	15 L
<p>Textbook:</p> <ol style="list-style-type: none"> 1. XML in a Nutshell, 3rd Edition, Elliotte Rusty Harold, W. Scott Means, O'Reilly Media, Inc. 2. “React in Action”-by Mark Tielens Thomas, Manning publications 3. Laravel_ Up & Running_ A Framework for Building Modern PHP Apps, 2nd Edition, Matt Stauffer, O'Reilly. 4. Introduction to Flask by Miguel Grinberg 		

Course Code: JUSVSD- DSCPR201	Practical Title: Advanced Web Designing Practical (Credits : 01 Practicals/Week: 01)
	<p>XML:</p> <ul style="list-style-type: none"> a) Design a simple XML document b) Design a XML document and display it in the browser using CSS. <p>React:</p> <ul style="list-style-type: none"> a) Creating an application using react. (Component,State and Props) b) Demonstrating React JSX, React Router. <p>Laravel:</p> <ul style="list-style-type: none"> a) Installing Laravel and also understands the directory structure. b) Create an application to perform routing with different routing methods and also pass parameters as a route parameter. c) Create a form to implement Blade template. d) Create a laravel application and connect it with mysql database to perform insert, update, search and delete operations. <p>Flask:</p> <ul style="list-style-type: none"> a) Create Flask Application b) Show the use of cookies and sessions c) Connect Flask to a Database with Flask-SQLAlchemy

Minor Course

Course Code: JUSVSD-MIN201	Course Title: Computational Mathematics (Credits : 03 Lectures/Week: 03)	
	<p>Objectives:</p> <ul style="list-style-type: none"> • It will develop problem-solving and critical thinking skills and use these skills to solve complex computing problems <p>Outcomes:</p> <ul style="list-style-type: none"> • Understand strategies for effective design and their application in designing computing systems • Develop inductive and deductive skills in reasoning • Formulate and solve abstract mathematical problems • Gain experience in mathematical modelling of real-world phenomena using approximation and hypothesis testing and linear programming. • Learn to acquire problem requirements and specifications from the client and express them 	
Unit I	<p>The Mean, Median, Mode, and Other Measures of Central Tendency: Histogram, types of data ,The Arithmetic Mean , The Weighted Arithmetic Mean ,Properties of the Arithmetic Mean ,The Arithmetic Mean Computed from Grouped Data ,The Median ,The Mode, The Empirical Relation Between the Mean, Median, and Mode, The Geometric Mean G, The Harmonic Mean H ,The Relation Between the Arithmetic, Geometric, and Harmonic Means, The Root Mean Square, Quartiles, Deciles, and Percentiles.</p>	15 L
Unit II	<p>Random Variable and Distribution Function: discrete and continuous distributions, Moments and Moment Generating Functions; Binomial Distribution; Poisson Distribution; Negative Binomial Distribution; Geometric Distribution; properties</p> <p>Statistical Decision Theory: Statistical Decisions, Statistical Hypotheses, Tests of Hypotheses and Significance, or Decision Rules, Type I and Type II Errors, Level of Significance, Tests Involving Normal Distributions, Two-Tailed and One-Tailed Tests, Special Tests, Operating-Characteristic Curves; the Power of a Test, pValues for Hypotheses Tests, Control Charts, Tests Involving Sample Diff Tests Involving Binomial Distributions.</p> <p>Small Sampling Theory: Small Samples, Student's t Distribution, Confidence Intervals, Tests of Hypotheses and Significance, The Chi-Square Distribution, Confidence Intervals for Sigma, Degrees of Freedom.</p>	15 L

Unit III	<p>Curve Fitting and the Method of Least Squares: Relationship Between Variables, Curve Fitting, Equations of Approximating Curves, Freehand Method of Curve Fitting, The Straight Line, The Method of Least Squares, The Least-Squares Line, Nonlinear Relationships, The Least-Squares Parabola, Regression, Applications to Time Series.</p> <p>Linear Programming: Linear optimization problem, Formulation and Graphical solution, Basic solution and Feasible solution.</p>	15 L
<p>Textbook:</p> <ol style="list-style-type: none"> 1. “Fundamentals of Mathematical Statistics” by S. C. Gupta, V. K.Kapoor 2. “Introductory Methods of Numerical Methods” by S. S. Shastri , Vol.2 3. “Elements of Applied Mathematics” by P.N.Wartikar and J.N.Wartikar 		

Course Code: JUSVSD- MINPR201	Practical Title: Computational Mathematics Practical (Credits: 01 Practicals/Week: 01) <ol style="list-style-type: none">1. Introduction of R2. Using R execute the basic commands, array, list and frames.3. Create a Matrix using R and Perform the operations addition, inverse, transpose and multiplication operations.4. Draw histogram using R5. Measures Using R Execute the statistical functions: mean, median, mode, quartiles, range, inter quartile range6. Perform Binomial Distribution;7. Perform Poisson Distribution;8. Perform Negative Binomial Distribution;9. Perform Geometric Distribution10. Import the data from Excel / .CSV and perform the hypothetical testing.11. Perform the Linear Regression using R.
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Open Elective Course

Course Code: JUSVSD- OE201	Course Title: Strategic Management (Credits : 02 Lectures/Week: 02)	
	<p>Objectives:</p> <ul style="list-style-type: none"> • Devise solutions to the externally focused questions facing a company, and effectively formulate and implement an organization's key strategies to achieve key result areas. • It will enable students to learn various levels of corporate strategies and provoke their critical thinking skills. • It will help students to understand the business problems and ways to find solutions, by undertaking strategic management case studies and assignments. <p>Outcomes:</p> <ul style="list-style-type: none"> • Develop critical thinking approach by understanding concepts in Strategic Management • Get to understand strategy formulation, implementation, monitoring and evaluation • Build up problem solving skills and understand brand building through use of strategic decisions • Develop capabilities of the students to analyze industry projects/cases and develop strategic solutions 	
Unit I	Introduction to Strategic Management: Strategic Thinking, Strategic Management, Strategic Planning(Concepts and Scope), Characteristics of Strategic Decision Vision, Mission, Objectives, Goals and Strategy: Mutual Relationships, Approaches to Strategic Decision Making The Strategic Management Process Strategic Management -Merits and demerits.	10 L
Unit II	Environment Scanning and Analysis : Need for Environmental Scanning and Analysis ,External and Internal Environment of the Firm, Recognizing a Firm's Intellectual Assets, SWOT Analysis TOWS Matrix, Kirin Beer: Case Study, SWOT Analysis, Ben and Jerry's Ice Cream: Case Study.	10 L
Unit III	Strategic Formulation and Management Models : Levels of Strategies, Samsung: Case Study , Foxconn Strategy, Models-BCG Model, GE 9 Cell, Porters Model: 5 Force and Porters Diamond Model, StrategyChoice and implementation ,Cultural aspect of Strategic Choice, Functional Strategy. Strategy Implementation, Ethics and Change Management : Project implementation, Control Procedures, Resource allocation, Corporate Ethos, Culture and Ethics, Management of Change, Organizational Creativity and Innovation Process.	10 L

Textbook:

1. Fred R. David, (13th Ed). Strategic Management: Concepts & Cases. New Jersey: PrenticeHall International.
2. Dr. Kazmi, Azhar.(2008) Business Policy & Strategic Management. Mumbai :Tata McGrawHill.
3. Pearce II, John A & Robinson Jr, Richard B. (2015). Strategic Management. Delhi: A.I.T.B.S.Publishers.
4. Upendra Kachru. (2005). Strategic Management Concepts and Cases. New Delhi: Excel Publications.
5. Ansoff H. Igor. (1992). Implanting Strategic Management, Englewood Cliffs. New Jersey, Prentice Hall of India.
6. Glueck, William F. (1988). Strategic Management and Business Policy, New York McGraw Hill.
7. Thomson & Strickland. (2001). Strategic Management Concept and Cases – Tata McGrawHill



Open Elective Course

Course Code: JUSVSD- OE202	Course Title: Digital Marketing (Credits : 02 Lectures/Week: 02)	
	<p>Objectives:</p> <ul style="list-style-type: none"> ● Understand the Digital Marketing tools and techniques to optimize searches, market content on social media and various strategies ● It will teach students how to market their products (tour package or a software program) ● Learning SEO and online business promotion tools are often in demand skills and students will be equipped for the industry <p>Outcomes:</p> <ul style="list-style-type: none"> ● Able to understand Search Engine Optimization, Marketing on Social Media, Affiliate marketing.. ● Key trends in Digital marketing -Email marketing ● Impact of Digital resources in marketing. ● To assess the influence on search behavior. 	
Unit I	Digital Marketing Concept and Scope: Competitor and Website, Analysis Online Buying behavior, Target Audience analysis, List of Free and Premium Digital Marketing Tools. Search Engine Optimization (SEO): Rank Webpage on top of search, ORM, Google Webmaster Tool, Google Analytics, Paid Ads Optimization Strategies. Pay-per-click advertising (PPC): Google Ads Campaign Management, Optimization, and Reporting Content marketing: Designing Content, Choosing Digital Marketing Channels, Blogs, Infographics or Video as per the Target Audience.	10 L
Unit II	Social Media Platforms to serve Ads, Social Networking (Facebook, LinkedIn, etc.)Facebook Marketing Tools, Microblogging (Twitter, Tumblr), Photo sharing (Instagram, Snapchat, Pinterest), Video sharing (YouTube, Facebook Live, Instagram, etc.).	10 L
Unit III	Affiliate marketing: Concept, Referrals can mention your website and backlink it to your own businesses, ,Email marketing: - Cost saving tool, advantages and disadvantages, Display advertising blogs, networks, video ads, contextual data, ads on the search engines, classified or dynamic advertisement ,Manage your Online Reputation	10 L
Textbook:		
<ol style="list-style-type: none"> 1. Koontz, O'Donnell & Wehrich, (1980) Management, Tokyo: McGrawHill Inc 2. Robbins (16th ed) (1979). Organizational Behavior, New Delhi: Prentice-Hall of India. 3. Singh, D. (2001). Emotional Intelligence at work, Response Books, New Delhi: Sage Publication 4. Sissors, Jack Z., Surmanek, Jim. (1976). Advertising Media Planning: Crain books. 		

5. James R Adams. (1977). Media Planning: Business books.
6. D, Nidhi. (ed 2011). E-Commerce Concepts and Applications, Mumbai: International Book House Pvt Ltd.
7. Whiteley, David. (2013). E-Commerce Technologies and Applications, London: McGraw Hill.

Vocational Skill Component

Course Code: JUSVSD- VSC101	Course Title: Introduction to Databases (Practicals/Week: 02, Credits:02)	
	<p>Objectives:</p> <ul style="list-style-type: none"> ● To have a broad understanding of database concepts and database management system software ● To have a high-level understanding of major DBMS components and their function ● To be able to model an application's data requirements using conceptual modeling tools like ER diagrams and design database schemas based on the conceptual model. ● To be able to write SQL commands to create tables and indexes, insert / update / delete data, and query data in a relational DBMS. <p>Outcomes:</p> <ul style="list-style-type: none"> ● This course introduces database design and creation using a DBMS product. ● Emphasis is on data dictionaries, normalization, data integrity, data modeling and creation of simple tables, queries, reports, and forms. ● Upon completion, students should be able to design and implement normalized database structures by creating simple database tables, queries, reports, and forms. 	
	PRINCIPLE FOR PRACTICAL	
Sub Unit	Unit – I:	5P
Theory Component	<p>Introduction : What is Database? What is a Database Management System? Purpose of database system</p> <p>Data models : Types of Data Models</p> <p>Codd's 12 rules</p> <p>ER Diagram</p> <p>Keys : Types of Keys</p> <p>Constraints : What is constraint? Types of constraints</p> <p>Introduction to Relational Algebra and Calculus</p>	
Practical Component	<ol style="list-style-type: none"> 1. Design a Database and create required tables. For e.g. Bank, College Database and insert meaningful values. 2. Implement tables from ER diagram. 	

Sub Unit	Unit – II:	10P
Theory Component	<p>Functional Dependencies Normalization : 1NF, 2NF, 3NF SQL : DML statements, DDL statements, DCL statements, DQL statements, TCL statements Clauses : FROM, WHERE, HAVING, GROUP BY, ORDER BY Aggregate Functions : MIN, MAX, AVG, SUM, COUNT String Functions Operators : LIKE, IN, AS Joins : Inner Join, Left Outer Join, Right Outer Join Subqueries : Single Row & Multiple Row Subquery, Joined relations Views : Introduction to views, data independence, updates on views, comparison between tables and views SQL, Null Values</p>	
Practical Component	<ol style="list-style-type: none"> 3. Apply ALTER, UPDATE and DELETE, DROP statements 4. Apply the constraints like Primary Key, Foreign key, NULL & Check constraint. 5. Apply having, group by and order by clauses 6. Apply having, group by and order by clauses 7. Write the query for implementing the following functions <ol style="list-style-type: none"> i. Numeric functions ii. Character function iii. Date function iv. String functions 8. Write the queries to implement the joins. 9. Write the queries to using operators. 10. Create views 11. Demonstrate Subqueries 	
Theory Component	<p>Transaction management and Concurrency control: Transaction management, ACID properties, serializability and concurrency control, Lock based concurrency control (2PL, Deadlocks), Time stamping methods, Optimistic methods, Database recovery management. Triggers : Row-Level Trigger, Statement-Level Trigger</p>	15P
Practical Component	<ol style="list-style-type: none"> 12. To learn how to use GRANT and REVOKE in MySQL 13. Write the queries to implement transactions concept <ol style="list-style-type: none"> i. COMMIT ii. ROLLBACK iii. SAVEPOINT 	

	<p>iv. RELEASE SAVEPOINT v. SET TRANSACTION</p> <p>14. Implement Shared and Exclusive locks.</p> <p>15. Demonstrate Triggers</p>	
References:	<p>1. A Silberschatz, H Korth, S Sudarshan, "Database System and Concepts", fifth Edition McGrawHill</p> <p>2. Rob, Coronel, "Database Systems", Seventh Edition</p> <p>3. An introduction to Databasesystems-C.J.Date</p>	



Skill Enhancement Course

Course Code: JUSVSD- SEC201	Course Code: Java Programming (Practicals/Week:02, Credits:02)	
Learning objectives	<p>Objectives:</p> <ul style="list-style-type: none"> ● Designs will demonstrate the use of good object-oriented design principles including encapsulation and information hiding. ● The implementation will demonstrate the use of a variety of basic control structures including selection and repetition; classes and objects in a tiered architecture (user interface, controller, and application logic layers); primitive and reference data types including composition; basic Swing components; file-based I/O; and one- dimensional arrays. <p>Outcomes:</p> <ul style="list-style-type: none"> ● Create Java programs that solve simple business problems. ● Construct a Java class based on a UML class diagram. ● Knowledge and implementation of Swing components ● Implementation of accessing database with Java programs 	
	PRINCIPLES FOR PRACTICALS	
SubUnit	Unit I	
Theory Principle	<p>Inheritance: Types of inheritance, concept of super and base class, constructor chaining.</p> <p>Packages: System packages, creating packages, accessing a package with different types of access modifiers.</p> <p>Interfaces: Defining interfaces, implementation of interfaces, inheritance in interfaces.</p>	
Practical component	<p>Write a Java program to demonstrate inheritance by creating suitable classes.</p> <p>2. Write Java program to implement the following</p> <ol style="list-style-type: none"> a. Use of predefined package b. Implement user defined package <p>3. Write Java program to implement interfaces.</p>	
SubUnit	Unit II	
	Exception Handling:	

Theory Principle	<p>Exception-handling fundamentals, Using try and catch, Multiple catch clauses, nested try statements, use of throw, throws and finally keywords, User-defined exception.</p> <p>Introduction to Thread Programming: Introduction to Threads, Creating Threads, Lifecycle of a Thread, Synchronization</p> <p>Streams and File I/O: stream classes, bytestreamclasses: InputStream, and OutputStream, File class, Reading /writing bytes / characters, serialization.</p>	
Practical component	<p>4. Write a program that illustrates the error handling using exception handling.</p> <p>a. Implementation of predefined exceptions</p> <p>b. Implementation of user defined exception and also use of throw and throws.</p> <p>5. Practicals on thread Programming</p> <p>a. By extending thread class</p> <p>b. By Implementing Runnable interface</p> <p>c. Implementation of more than 1 thread to run simultaneously and also perform synchronisation.</p> <p>6. Write a program that illustrates the concepts of stream classes.</p>	
SubUnit	Unit III	
Theory Principle	<p>Swing: Introduction to swing package, Swing components.</p> <p>Event Handling: The Delegation Event Model, Event classes (ActionEvent, ItemEvent, MouseEvent, MouseWheelEvent) and various listener interfaces.</p> <p>JDBC: Introduction To JDBC, JDBC Architecture, Types Of JDBC Drivers, Statement Class & Objects, Getting Information from Database, Obtaining Result Set Information.</p>	
Practical component	<p>7. Write Java code to implement the following swing components</p> <p>a. Basic swing controls (JLabel, JTextfield, JButton, JListbox, JCombobox, JCheckbox, JRadiobutttn)</p> <p>b. Write a program to implement JTee, JTable, JTabbedPane, JMenuBar</p> <p>8. Event Handling</p> <p>a. Write Java program to implement ActionListener</p> <p>b. Write Java program to implement ItemListener</p> <p>c. Write Java program to implement AdjustmentListener</p> <p>d. Write Java program to implement Mouse and MouseMotionListener</p> <p>9. Database connection.</p>	

	<p>a. Create a GUI application to create a form that takes students data and perform CRUD operations. (Connect with Database).</p> <p>10. Create a GUI application that performs user registration and authentication with database.</p>	
<p>References:</p>	<ol style="list-style-type: none"> 1. Chapters 6-11, 15, 17, 19, 21-24, 22, 29-30 from: Java : The CompleteReference, by Herbert Schildt 7th Edition 2. Chapters 2-13, 14, 16, 18, from: Programming with Java A primer, by E.Balagurusamy 3rd Edition. 	

Ability Enhancement Course

Course Code JUSVSD- AEC201	Course Title: English Communication Skill (Credits: 02, Lectures/Week: 02)	
	<p>Objectives It is expected that students:</p> <ul style="list-style-type: none"> ● Become equipped to use communication skills effectively in personal and professional spheres ● Enhance their writing and listening skills ● Apply effective communication skills to become job ready <p>Outcomes: Students would have been able to:</p> <ul style="list-style-type: none"> ● Demonstrate the skills required for effective corporate communication ● Understand and apply the basics of written communication in personal and professional contexts ● Write cogent job applications, resume, formal letters and professional emails 	
	THEORY	(30 Lectures)
Sub Unit	Unit – I: Theory of Communication	10 Lectures
	a) Concept of Communication: Meaning, Process, 7 Cs of Communication, Significance of Communication Skills in personal and professional life b) Methods: Verbal and Nonverbal Communication and their Application c) Cultivating effective listening skills	
	Unit – II: Professional Writing Skills (theory and application)	10 Lectures
	a) Documentation: Minutes and note-making b) Business reports c) Email writing and etiquettes	
	Unit – III: Job Search and Application Skills (Tutorials)	10 Lectures

	<p>a) LinkedIn Profile: Making and Management b) Job Application c) Resume</p>	
	<p>[A] Evaluation scheme for Theory courses -50 Marks</p> <p>I. Continuous Assessment (C.A.) - 25 Marks One or more, MCQ, quiz based, objective type, puzzle, group presentation, case studies, individual projects, debate, model making, poster making, role play</p> <p>II. Semester End Examination (SEE)- 25 Marks</p>	
<p>References:</p>	<ol style="list-style-type: none"> 1. Bellare, Nirmala (1998). Reading Strategies. Vols. 1 and 2. New Delhi. Oxford University Press. 2. Blass, Laurie, Kathy Block and Hannah Friesan (2007). Creating Meaning. Oxford: OUP. 3. Buscemi, Santi and Charlotte Smith (1994). 75 Readings Plus. Second Edition New York: McGraw-Hill. 4. Doff, Adrian and Christopher Jones (2004) .Language in Use (Intermediate and Upper Intermediate). Cambridge: CUP. 5. Glendinning, Eric H. and Beverley Holmstrom (2004). Second edition. Study Reading: A Course in Reading Skills for Academic Purposes. Cambridge: CUP. 6. Grellet, F. (1981). Developing Reading Skills. Cambridge: Cambridge University Press. 7. Hamp-Lyons, Liz and Ben Heasley (2006). Second edition. Study Writing: A Course in Writing Skills for Academic Purposes. Cambridge: CUP. 8. Mohan Krishna & Banerji, Meera (1990). Developing Communication Skills. New Delhi: Macmillan. 9. Mohan Krishna & Singh, N. P. (1995). Speaking English Effectively. New Delhi: Macmillan. 10. Sasikumar, V., Kiranmai Dutt and Geetha Rajeevan (2006). A Course in Listening and Speaking I & II. New Delhi: Foundation Books, Cambridge House. 11. Savage, Alice, et al (2005). Effective Academic Writing. Oxford: OUP. 12. Khanna, Pooja. (2016). English Communication. New Delhi: Vikas Publishing. 13. Khanna, Pooja. (2016). Effective Business Communication. New Delhi: Vikas Publishing. <p>Websites:</p>	

- 1) <http://www.onestopenglish.com>
- 2) www.britishcouncil.org/learning-learn-english.htm
- 3) <http://www.teachingenglish.org.uk>
- 4) <http://www.usingenglish.com/>
- 5) Technical writing, online textbook (David McMurrey):
<http://www.io.comi—hcexres/textbook/>
- 7) <http://www.pearsoned.co.uk/AboutUs/ELT/>
- 8) <http://www.howisay.com/>
- 9) <http://www.thefreedictionary.com/>

Some other useful websites for informative text and audio resources:

- 1) www.nationalgeographic.com
- 2) <http://nobelprize.org/>
- 3) <http://www.bbc.co.uk/>

Value Education Courses

Course Code JUSVSD- VEC201	Course Title: Digital Empowerment (Credits: 2, Lectures/Week: 2)	
Learning	<p>Objectives</p> <ul style="list-style-type: none"> ● Understand the digital world and need for digital empowerment ● Create awareness about Digital India. ● Explore, communicate and collaborate in cyberspace. ● Building awareness on cyber safety and security. <p>Outcomes:</p> <ul style="list-style-type: none"> ● Use ICT and digital services in daily life. ● Develop skills to communicate and collaborate in cyberspace using social platforms, teaching/learning tools. ● Understand the significance of security and privacy in the digital world. ● Evaluate ethical issues in the cyber world 	
	THEORY	30
Sub Unit	Unit – I:	10
	Digital inclusion and Digital Empowerment Needs and challenges Vision of Digital India: DigiLocker, E-Hospitals, e-Pathshala, BHIM, e-Kranti (Electronic Delivery of Services }, e-Health Campaigns Public utility portals of Govt. of India such as RTI, Health, Finance, Income Tax filing, Education	
	Unit – II:	10
	Communication and Collaboration in the Cyberspace Electronic Communication: electronic mail, biogs, social media Collaborative Digital platforms Tools/platforms for online learning Collaboration using file sharing, messaging, video conferencing AI tools: ChatGPT, Smartwriter.ai, Grammarly, Pixlr for photo editing Vision of Digital India: Broadband Highways , Universal Access	

	to Phones , Public Internet Access Programme ,DigiLocker, E-Hospitals, e-Pathshala, BHIM, e-Kranti (Electronic Delivery of Services}, e-Health Campaigns, Ayushman Bharat Digital Mission Target NET ZERO Imports	
	Unit – III:	10
.	Towards Safe and Secure Cyberspace Online security and privacy Threats in the digital world: Data breach and Cyber Attacks Blockchain Technology Security Initiatives by the Govt of India Ethical Issues in Digital World Netiquettes Ethics in digital communication Ethics in Cyberspace	
References	<ol style="list-style-type: none"> 1. David Sutton. "Cyber security: A practitioner's guide", BCS Learning & Development Limited, UK, 2017. 2. https://www.mha.gov.in/document/downloads/cyber-safety-handbook 	