



Q.M. 1.3.1

CROSSCUTTING ISSUES

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PROFESSIONAL ETHICS

Programme	Class	Semester	Course	Total Unit	No. of Units Covering the Area	Topic	% of Coverage	
B.A.	F.Y.B.A	I	Indian political system	4	4	Introduction to the constitution, Citizen and constitution, Legislature and judiciary, Executive	100%	
	S.Y.B.A.	III	Principle & concepts of Political Theory	4	3	State, Civil Society and Market, Power Authority and Legitimacy, concept of Law and political Obligation	75%	
			Public Administration	4	4	Introduction to Public Administration, Theories of Administration, Basic Principles and Theories of Organisation, Contemporary techniques and practices in administrations	100%	
			Economics -Paper IV Public Finance	4	4	Introductions, Fiscal Policies: Budget & Taxation, Fiscal Policy: Public Expenditure & Debt, Indian Public Finance	100%	
			Foundation Course	4	1	Soft Skills for effective interpersonal communication	25%	
		IV	Political values and Ideologies	4	4	Rights, Basic Political Values, Democracy, Political Ideologist	100%	
			Macroeconomics II	4	1	Economic Policy	25%	
	T.Y.B.A. (Political Science)	V	Political Thought Western Political Thought	4	2	Modern State, Liberty and Justice	50%	
		VI	Indian political Thought	4	1	Rational and Radical Reform	25%	
	T.Y.B.A. (Economics)	V	Economics of Growth and development	4	4	Meaning of economics growth and development, theories of economics development, structural issues in development process, planning, technology and economic development	100%	
			Indian Financial system I	4	2	Performance, progress and issues in Indian Banking, Financial Instruments: Traditional, modern and Hybrid	50%	
	T.Y.B.A. (Economics)	VI	Indian Financial system II	4	4	Money market and debt market, capital market, derivatives market, financial services in India	100%	
	B.Com.	F.Y.B.Com	I	Commerce I	4	4	Business environment, project management and entrepreneurship	100%
				Business Communication	4	2	Theory of communication and Business correspondence	50%
II			Foundation Course	5	2	Indian constitution, significant aspects of political processes	40%	



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			Commerce II	4	3	Concept of services, recent trends in service sector and E-commerce	75%	
			Business Communication II	4	3	Group communication, Business correspondence, language and writing skills	75%	
			Foundation Course II	5	2	Understanding stress and conflicts, Managing and conflict in contemporary society	40%	
	S.Y.B.Com	III	Commerce III	4	4	Introduction to management, Planning and decision making, Organizing, directing and controlling	100%	
			Advertising I	4	1	Economic and social aspects of advertising	25%	
			Business Law I	5	5	Indian contract act, special contracts, sell of goods, negotiable instruments	100%	
		IV	Advertising II	4	1	Fundamentals of creativity in advertising	25%	
	T.Y.B.Com	V	Commerce V	4	4	Introduction to marketing, marketing decisions, key marketing dimensions	100%	
		VI	Commerce VI	4	4	Human resource management, Human resource development, Human relations, Trends in human resource management	100%	
	M.Com.	Part I	I	Strategic Management	4	4	Introduction to strategic management, strategic formulation, implementation and evaluation, Business, corporate and global strategies, Emerging strategic trends	100%
Business ethics and corporate social responsibilities				4	4	Introduction to business ethics, Indian ethical practices and corporate govern, Introduction to corporate social responsibilities, Area of CSR and CSR policy	100%	
II			Corporate finance	4	1	Time value of money	25%	
			E-commerce	4	4	Introduction to E-commerce/ evaluation and models, worldwide web and E enterprise, E marketing and electronic payment system, Legal and regulatory environment and security issues of E-commerce	100%	
Part II (Business management)			III	Human resource management	4	4	Human resource management, human resource development, latest development in HRM and labor legislation, Emerging issues in HRM	100%
				Entrepreneurial Management	4	4	Entrepreneurship development perspective, creating entrepreneurial venture, Project management, Assistance	100%



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						and incentives for promotion and development of Entrepreneurship	
			Organizational Behaviour	4	4	Organizational setting, Foundation of individual behavior, Group dynamics and behavior and Emerging challenges	100%
		IV	Advertising and sales management	4	2	Sales management, Sales planning and controlling	50%
	Part II (Advance Accountancy)	IV	Financial Management	4	1	Financial planning, Financial policy and Corporate strategy	25%
B.A.F.	F.Y.B.A.F.	I	Commerce I(Business Environment)	4	1	Business environment, Business and Society Business Ethics: Nature and Scope of Ethics Consumerism and Consumer Protection	25%
			Financial Accountancy-I	4	1	Accounting Standards Issued by ICAI and Inventory Valuation MODULE – 1 Accounting Standards AS 1, AS 2, AS 9.	25%
			Financial Management-I	4	1	Types of Financing Module IV : Sources of Finance - Long term Sources (Term Debenture Bonds, Zero Coupon bonds, Convertible Bonds) - Equity shares , Preference shares	25%
	S.Y.B.A.F	IV	Financial Accountancy-IV	5	2	Redemption of Preference Shares, Redemption of Debentures: MODULE – 2 Redemption of Preference shares Companies governed by Section 133 of the Companies Act, 2013 and comply with the accounting standards prescribed for them. Hence, the balance in security premium account not to be utilized for premium payable on redemption of preference shares. MODULE – 3 Redemption of Debentures Provisions of Section 71 (1) and (4) of the Companies Act, 2013, Creation and investment of DRR including The Companies (Share Capital and Debentures) Rules, 2014, the methods of writing-off discount/loss on issue of debentures; Terms of issue of debentures.	40%



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			Taxation-III	8	1	Tax Planning & Ethics in Taxation: Module 8 Professional Ethics of Financial Planner, and Job and Responsibilities of financial Planner	13%
			FC in Management	5	1	Introduction to Basic Management Concepts: Module 1 Basic Management Concepts Module 5 Leadership traits and styles	20%
T.Y.B.A.F.	V		Financial Accounting -V	5	2	MODULE – 2 Buy Back Of Shares. Company Law / Legal provisions (including related restrictions, power, transfer to capital redemption reserve account and prohibitions). MODULE – 4 Internal reconstruction. Methods including alteration of share capital, variation of shareholder rights, sub division, consolidation, surrender and reissue / cancellation, reduction of share capital with relevant legal provisions and accounting treatment for same.	40%
			Financial Accounting -VI	5	1	MODULE – 1 Banking Final Account. Legal provision in Banking Regulation Act, 1949 relating to Accounts. Statutory reserves including Cash Reserve and Statutory Liquidity Ratio. Bill purchase and discounted, rebate of bill discounted.	20%
			Financial Management-II	5	1	Strategic Financial Management: Role and Responsibilities of financial manager and professional ethics of Financial Manager Credit Control	20%
			Taxation	6	1	Introduction to Indirect Taxation and GST: Legislative framework of GST GST Registration, GST Network, Role of Central Board of Indirect Tax , Implementation of GST	17%
			Management Application-II	4	1	Professional Ethics and Human Values MODULE – 4 Human Resource Development Methods of Developing Human Resource Leadership- Traits, Styles	25%
		VI	Financial Accountancy-VII	5	1	Module - 5 Introduction to IFRS	20%



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						Role/objectives of accounting standards, Development of accounting standards in India - Requirements of international accounting standards - International organizations engaged in accounting harmonization - IASB - FASB - Role of IASB in developing IFRS, Applicability, Interpretation, Scope and compliance of Accounting Standards	
B.M.S.	F.Y.B.M.S	I	Introduction to financial accounts	4	1	Introduction (accounting concepts and convections)	25%
			Business Law I	4	4	Contract act and sale of goods act, Negotiable instrument act and consumer protection act, Company law, Intellectual property rights	100%
			Business communication	4	2	Theory of communication and Obstacles to communication in business world	50%
			Foundation of human skills	4	1	Organizational change, creativity and development and work stress	25%
			Business Economics-I	5	1	Pricing Practices	20%
		II	Industrial Law	4	4	Laws Related to Industrial Relations and Industrial disputes, Laws Related to Health, Safety and Welfare , Social Legislation , Laws Related to Compensation Management	100%
			Business Communication -II	4	2	group communication, Business correspondence	505%
			Business Environment	4	1	Introduction to Business Environment	25%
			Principles of Management	4	4	Nature of Management , Planning and Decision Making , Organizing , Directing, Leadership, Co- ordination and Controlling	100%
		S.Y.B.M.S	III	Information Technology in Business Management - I	4	2	Introduction to IT Support in Management , E-Security
	Strategic Management			4	1	Introduction to strategic management	25%
	Advertising			4	1	Introduction to Advertising	25%
	Recruitment & Selection			4	4	Recruitment, Selection , Induction , Soft Skills	100%
	Motivation and Leadership			4	1	Motivation-II	25%
IV	Information Technology in Business	4	1	Management	25%		



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			Management-II			Information system	
			Foundation Course (Ethics & Governance)-	4	3	Introduction to Ethics and Business Ethics , Ethics in Marketing, Finance and HRM , Corporate Governance ,	75%
			Business Research Methods	4	1	Advanced techniques in Report Writing	25%
			Business Research Methods Business Research Methods				
			Financial Institutions & Markets	4	1	Financial Regulators & Institutions in India (detail discussion on their role and functions)	25%
			Auditing	4	4	Introduction to Auditing , Audit Planning, Procedures and Documentation , Auditing Techniques and Internal Audit ,Introduction , Auditing, Techniques: Vouching &Verification	100%
			Integrated Marketing Communication	4	1	Evaluation & Ethics in Marketing Communication	25%
			Training & Development in HRM	4	1	Performance measurement, Talent management & Knowledge Management	25%
	T.Y.B.M.S	V	Logistics & Supply Chain Management	4	1	Overview of Logistics and Supply Chain Management	25%
			Corporate Communication & Public Relations Corporate Communication & Public Relations Corporate Communication & Public Relations	4	1	Foundation of Corporate Communication	25%
			Wealth Management	4	1	Introduction to wealth management	25%
			Services Marketing	4	1	Marketing of Services	25%
			Finance for HR Professionals & Compensation Management	4	4	Compensation Plans and HR Professionals, Incentives and Wages , Compensation to Special Groups and Recent Trends , Legal and Ethical issues in Compensation	100%



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			Performance Management & Career Planning	4	1	Ethics, Under Performance and Key Issues in Performance Management	25%
			Industrial Relations	4	1	Industrial Relations- An overview	25%
		VI	Operation Research	4	4	Introduction to Operations Research and Linear Programming, Assignment and Transportation Models, Network Analysis , Job Sequencing and Theory of Games	100%
			Retail Management	4	3	Retail Management- An overview, Retail Consumer and Retail Strategy, Merchandise Management and Pricing ,	75%
			Media Planning & Management	4	2	Overview of Media and Media Planning, Media Mix & Media Strategy,	50%
			HRM in Global Perspective	4	1	International HRM Trends and Challenges	25%
			Organisational Development	4	1	International HRM Trends and Challenges	25%
			Human Resource Accounting & Audit	4	4	Human Resource Accounting: An Overview , Methods and Human Resource Accounting Practices in India, Human Resource Audit: An Overview , HR Audit for Legal Compliance and Safe Business Practices	100%
B.Sc.	F.Y.B.Sc	II	Foundation Course II	5	1	Ethics, agent of socialization	20%
	S.Y.B.Sc.	III	Chemistry Practical	3	1	Percentage Purity of Commercial Aspirin	33.33%
	S.Y.B.Sc.	IV	Chemistry-III (USCH403)	3	1	Statistical treatment of analytical data	33.33%
	T.Y.B.Sc.	V	Analytical chemistryUSCH504	4	1	Quality control in Analytical Chemistry	25%
		VI	Applied Components D.D USACDD601	4	1	Drugs and environmental aspects	25%
	B.Sc. (Biotech)	F.Y.B.Sc. (Biotech)	I	AEC- Communication Skills	3	3	Employment communication, Job Interviews, Group Discussions, Personality Development, Emotional Intelligence, Etiquettes and amp, mannerism, Communication, Ethical issues, Decision Making and amp, Negotiations
S.Y.B.Sc. (Biotech)		II	Research Methodology	3	3	Introduction to Research Methodology and amp, Research Problem, Research Design, Data Collection and Processing, Interpretation and Report Writing	100%



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B.Sc. (IT)	F.Y.B.Sc. (IT)	I	Technical Communication Skill	5	5	Fundamentals of Technical Communication, The Seven Cs of Effective Communication: , Active Listening , Business writing, Communication across Functional areas	100%
		II	Green IT	5	2	Toxins, Regulatory Environment pollutants	40%
	T.Y.B.Sc. (IT)	VI	Cyber Law	5	3	Power of Arrest Without Warrant Under the IT Act, 2000:, Contracts in the InfoTech World, Battling Cyber Squatters and Copyright Protection in the Cyber World:	60%
B.Sc. (CS)	F.Y.B.Sc	I	Open source Technologies	3	2	Introduction to Open-Source, Introduction to Open-Source:	67%
			Soft Skills	3	3	Introduction to Soft Skills, Basic Skills in Communication, Academic and Professional Skills	100%
		II	E Commerce & Digital marketing	3	1	Introduction to E-Commerce and E- Business:	33%
	S.Y.B.Sc	III	Creative Content Writing	3	1	Ethical and Legal aspects of content writing	33%
		IV	Research methodology	3	1	Publishing the Paper:	33%
	T.Y.B.Sc	V	Project Management	3	1	Advanced Topics in Project Management	33%
B.Voc. (MLT)	F.Y.BVOC MLT	I	General & Human Anatomy , Physiology –I	4	2	Formal & Informal Writing, Report Writing, Use of Articles and Prepositions; Need, basic guidelines, content and process for Value Education, Self-Exploration, Happiness and Prosperity, understanding and living in harmony at various levels, Basis for Humanistic Education, Humanistic Constitution and Humanistic Universal Order, Competence in professional ethics,	50%
			Routine Laboratory Techniques-I	4	1	NABL and SOP, Functional components of clinical laboratories, basic needs of clinical laboratory technician, awareness of soft skills.	25%
		II	General & Human Anatomy , Physiology –II	4	2	Data, information, properties, Types of information. Computing files, internet, server; Making new document, editing. formatting the text; Business Communication; Elements of Communication, The Principles of Communication-Introduction	50%
	S.Y.BVOC	IV	Biochemical Techniques	4	1	Radio Isotopic Techniques: Radio Isotopic Techniques,	25%



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	MLT					Biological hazards of radiation and safety measures in handling radioisotopes	
	T.Y.BVOC MLT	V	Medical Genetics and Microbiology-II	4	1	Ethics and legality in use of laboratory animals; Virology; Toxicological investigation & Therapeutic drug monitoring	25%
		VI	Food and Industrial Microbiology	4	1	Food Microbiology :Qualitative and Quantitative analysis of food components, Microbiological examination of food products including dairy products, food poisoning caused by bacteria and fungi, Contamination,	25%
B.Voc.(MP)	F.Y.B.Voc.	I	Effective Communication,	4	4	Reading ,Writing, Oral Communication, Communication skill development: Skimming and Scanning , Presentation Skills	100%
			Creative Writing	4	4	Introduction to creative Writing, Understanding poetry, Drama & Media Conversion;	50%
			Introduction to Photography	4	3	History & Principles of Photography, Colour & black & white photography, Composition, Camera &, Lighting in photography	75%
			Introduction to Editing	4	2	Concepts of Editing, Interface Introduction/Photoshop, Process of Editing in Post production,	50%
			Graphics Design Practical::l	4	4	Photo editing, Photoshop, Corel Draw, Rudimentary Cameras & Software's for photo Editing: Practical Graphic designing and Logo making for TV & OTT programs	100%
		II	Introduction to writing for Visual Media	4	1	Think & Visualize story telling :Structure	25%
			Art & Science of Cinematography (S.C.)	4	2	Intro to Cinematography & lighting, Grammar of Cinematography: Understanding basics working of Camera, Understanding aesthetics, rules of composition and framing	50%
			New Digital Media	4	1	Basic concepts of New Media: Ethical issues of Media	25%
			Art of Storyboarding	4	3	Intro to Storyboarding techniques, Storyboard for Animation & special effects, Storyboarding for commercial & New media: Perspective and Lighting and overall cinematic look(, Structure of Animation films, Special effects, Creating Environment	75%
			Basics of Practical Filmmaking-II & Internship	4	4	Practical Script writing, Practical shot division , Production & Shooting, Post production & Editing: Project of making 5 to 7 minute short film, Documentary or Docudrama	100%



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	S.Y.B.Voc. (Media)	III	Current Affairs	4	1	Universal Human rights: Secularism	75%
			Media Theory	4	1	Media Theories :The definition and Need of Society & mass culture	25%
			Cinematography	4	2	Mood & Colour lighting theory , Understanding requirements of a director	50%
			Direction for films	4	4	Intro to direction for films, Identifying the best story & Screenplay, Film Production , Director's preparation for directing an action scene: Learning the work of famous film directors Understanding and viewing the story from a movie maker's eyes. Directing the crew & Cast	100%
			Practical film Making III	4	3	Script & Screenplay writing, Practical shooting, Practical editing:Scripting, Shooting & Editing of a 30 minute short film	75%
		IV	Media Laws	4	2	Media Laws, copyright & I.P. Laws, Role & Importance of Business ethics: Intellectual property rights(P.E), Business ethics	50%
			Concepts of Ad. Film making	4	2	Understanding needs of Cinematographer, Art & Science of advertisement : Understanding the needs of cinematographer Principles of copywriting and advertising design	50%
			Concepts of Direction for T.V.	4	2	Importance & Role of a TV director, Director & hands on tools of a director: Role of a Director, Aesthetics of painting & spatial art. Understanding the roles and responsibilities of the crew. Understanding emotional and technological aspects of cast & crew	50%
			Visual Special Effects & Compositing	4	1	Intro to 3D space, Polygonal box modeling & Shell modeling	25%
			Practical Filmmaking IV	4	4	Ad film making, Product shoot, Corporate AV, Multiple Character & Location short film: Practical Ad. film, Corporate film and AV making	100%
TY Bvoc(Media)	V	Media Project Management	4	3	Production Management, Business creation Conflict resolution,	75%	



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			Marketing & Publicity Design	4	1	Intro to marketing,	25%
			Media Business	4	3	Indian media Industry overview, Challenges facing Television & radio, Animation, gaming and VFX industry :Ethics on media business, Growth and challenges	75%
			Post Production & Computer Graphics – II	4	4	Television Aspect ratio, Contemporary Editing styles, Editing Complex Dramatic Scene, Animation: Parallel and cross and action editing, editing advertisement & promotional videos. incorporating Animation & live action	100%
			Sound & Special Effects	4	1	Production of sound track for film project: Discussing the sound design strategy with the director of the film	25%
		VI	Final Film Project, Black book & Thesis	4	4	Development & Screenplay writing, Planning & Pre production, Production & Principle photography, Post production & Thesis submission: Concept, Script & Screenplay development. Planning and Final shooting. Editing and publicity	100%
M.Sc. (Chem)	Part I	I	Analytical chemistry PSCH104	4	1	Quality in Analytical Chemistry	25%
			Organic Chemistry Practical	2	1	Safety aspect including material safety data sheet	50%
	Part II	III	Organic Chemistry Practical 2	1	1	Safety aspect including MSDS	100%
			Research methodology PSCHOEC-II 404	4	2	Methods of scientific research & writing , chemical safety & ethical handling of chemicals	50%
		IV	Organic Chemistry Practical 1	1	1	Safety aspect including MSDS	100%
			Research project	1	1	Research project	100%
M.Sc. (IT)	Part I	I	Research in Computing	5	1	Beginning Stages of Research Process	20%
	Part II	III	Technical Writing and Entrepreneurship Development Intelligence	5	1	The role of corporate culture in ethical and legal obligations. Understanding ethical and legal issues related to social media	20%
M.Sc. (Biotech)	Part I	I	Emerging Technologies & Molecular Diagnostics	4	1	CRSP-CAS & Molecular Cytogenetics	25%
		II	Intellectual Property Rights & Bioethics	4	4	Introduction to IPR, Patents, Patentability of Biotechnology Inventions, Bioethics	100%
	Part II	III	Biologics & Regulatory Affairs	4	4	Introduction to Biologics & Biosimilars, Production of Biologics & Biosimilars, Characterizations of Biologics & Biosimilars, QA & regulatory	100%



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						affairs of Biologics & amp; Biosimilars	
	IV	Drug Discovery & amp; Clinical Studies	4	1		Pharmacovigilance	25%



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M.Voc (MLT)	Part I	I	Fundamentals of Medical Laboratory Technology	4	1	Basic Laboratory Principle : Role of medical laboratory technician - Safety measures;hospital and clinic borne infection and personnel hygiene;	25%
	Part II	III	Blood Banking & Blood Transfusion	4	2	Blood Banking ,Blood donation record book	50%
			Histopathology & Modern Diagnostics	4	1	Cervical Cytology & Organ Transplantation:Cytological techniques, Special collection method, Clinical applications	25%
		IV	Forensic Science, Pharmaceutical Chemistry, Toxicology	4	2	Forensic Toxicology, DNA Profiling: Safety evaluations, followed by efficacy studies; DNA typing systems	50%
			Visual Special Effects & Compositing	4	1	Medical Imaging : Fundamentals of radioactivity; Mammography	25%
			Modern Diagnostics – Separation Techniques & Non-invasive Techniques	4	2	Medical Imaging, NMR, Ophthalmology, Mammography: fundamentals of radioactivity; Mammography	50%
			Hospital & Laboratory Management, Modern Clinical Practices & Ethics	4	4	Management : Principles, Practices & HR, Material Management & Inventory Control, Clinical & Non-Clinical Services, Accreditation, Reproduction, Bioethics, Therapy, Contemporary Ethical Issues :concepts of Management, Organizational behavior - personality and attitudes, motivation, formation of teams and team work, Materials Planning,	100%
			Research Methodology & Biostatistics	4	4	Research Methodology- Research Field, Review of Literature, Methodology, Analysis & Discussions, Research Methodology- Project Proposal, Biostatistics – Descriptive Statistics, Correlation & Regression, Biostatistics – Statistical inference, Significance Tests, Analysis of Variance	100%



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GENDER

Programme	Class	Semester	Course	Total Unit	No. of Units Covering the Area	Topic	% of Coverage
B.A.	F.Y.B.A	I	Foundation course	4	3	Overview of Indian society, concept of disparity	75%
	S.Y.B.A.	III	Demography I	3	3	Introduction, Sources of demographic data, Basic concepts and measures	100%
		IV	Demography II	3	3	Basic concepts, Migration and Urbanization, Population Policy in India	100%
	T.Y.B.A (Political Science)	V	Political Thought Western Political Thought	4	1	Feminism and Multi Cultureless	25%
		VI	Political process in modern Maharashtra, Determinants of Politics of Maharashtra	4	1	Contemporary issues and movements	25%
B.Com.	F.Y.B.Com	I	Foundation course	5	3	Overview of Indian society, concept of disparity I & II	60%
B.A.F.	FYBAF	I	Foundation Course I	5	2	MODULE-1 Overview of Indian Society Understanding the Concept of Diversity Difference Regional Variations MODULE-2 Concept of Disparity Declining Sex Ratio Understand The Issues of People with Physical and Mental Disabilities	40%
B.M.S.	F.Y.B.M.S	I	Foundation of Human Skills	4	1	Introduction to Group Behaviors	25%
			Foundation Course - I	4	1	Concept of Disparity- 1	25%
	S.Y.B.M.S	III	Business Planning & Entrepreneurial Management	4	1	Types & Classification Of Entrepreneurs	25%
			Consumer Behaviors	4	1	Environmental Determinants of Consumer Behaviour	25%
	T.Y.B.M.S	V	Customer Relationship Management	4	1	CRM Initiatives, Customer Service and Marketing Data Management	25%
		VI	HRM in Global Perspective	4	1	Managing Expatriation and Repatriation	25%
B.Sc.	F.Y.B.Sc.	I	Foundation Course - I	5	1	Declining gender ratio	20%
B.Sc. (Biotech)	S.Y.B.Sc. (Biotech)	IV	Research Methodology	3	3	Introduction to Research Methodology & Research Problem Research Design, Data collection and processing, Interpretation & Report Writing	100%



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	T.Y.B.Sc. (IT)	VI	Cyber Law	5	1	Power of Arrest Without Warrant Under the IT Act, 2000	20%
B.Voc. (MP)	F.Y.B.Voc	I	Understanding Cinema	4	1	History of Cinema & Genres of films :Themes of Indian Cinema	25%
		II	Introduction to writing for Visual Media	4	1	Production formats : Character development	25%
			TV Programming types & Execution techniques	4	1	Nature of Drama in T.V : Various shows(G), formats , Genres	25%
	SY Bvoc (Media) T.Y Bvoc (Media)	III	Current Affairs	4	1	Universal Human rights	25%
		V	Marketing & Publicity Design	4	1	Segmentation targeting & Positioning	25%
	Part II	IV	Scientific Writing & Food Biotechnology	4	2	Basic Scientific Writing & Plagiarism, Advanced Scientific writing	50%
M.Voc (MLT)	PART I	I	Human Anatomy & Physiology	4	1	Pregnancy, Fetal and Neonatal Physiology & Pediatric Diseases, Pathology: female infertility; Hormone replacement therapy (HRT),Menopause and post menopause. hormonal factors in pregnancy,	25%
		II	Clinical Techniques & Organ Function Tests	4	1	Urino-Genital System Function – Male & Female: diseases of cervix, cervical carcinoma, vulva, vagina, ureter, uterus, fallopian tubes, ovaries including tumors of these organs (benign breast diseases, inflammatory diseases, carcinoma breast etc)	25%
	PART II	III	Community Medicine, Epidemiology & Life Style Disorders	4	1	Reproductive and Child Health & Health Education	25%
		IV	Hospital & Laboratory Management, Modern Clinical Practices & Ethics	4	1	Reproduction, Bioethics, Therapy, Contemporary : Abortion,	25%



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Programme	CLASS	Semester	Course	Total Unit	No. of Units Covering the Area	Topic	% of Coverage
B.A.	F.Y.B.A	I	Indian political system	4	4	Introduction to the constitution, Citizen and constitution, Legislature and judiciary, Executive	100%
			History of modern india	4	3	Growth of political awakening, trends in Indian nationalism, Gandhian movement	75%
			Foundation I	4	4	Overviews of Indian society, Concept of disparity, Significant aspects of political processes	100%
		II	History of modern india; Society and economy	4	3	Social religious reform movements, Education press and transport, Nationalism and social groups	75%
			Indian political process	4	2	Social dynamics, Challenges to national security	50%
			Foundation II	4	3	Globalization an Indian society, Human rights, Understanding stress and conflict management	75%
	S.Y.B.A.	III	Principles and Concepts of Political Theory	4	3	State, Civil Society & Market	25%
			Foundation course	4	1	Human rights provision, violations and redressal	25%
		IV	Foundation Course II	4	1	Significant contemporary rights of citizens	25%
	T.Y.B.A. (Political Science)	V	International Relation World Politics	4	1	Conflict, Peace and Security	25%
			Political Thought Western Political Thought	4	3	Liberty and Justice, Revolution and Hegemony, Feminism and Multiculturalism	75%
			Political process in modern Maharashtra, Politics of modern Maharashtra	4	2	sub-regionalism, regional disparity and development, cast and politics in Maharashtra	50%
		VI	Indian Political Thought	4	3	Nationalism, Rational and Radical Reform, Socialism	75%
			Political process in modern Maharashtra, Determinants of Politics of Maharashtra	4	1	Contemporary issues and movements	25%
	T.Y.B.A. (Economics)	V	Advance MicroeconomicsIII	4	1	Welfare Economics	25%
	F.Y.B.Com	I	Business communication	4	1	Language and writing skills	25%
			Foundation course	5	1	Overview of indian society	20%
Business communication II			4	1	Language and writing skills	25%	



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	S.Y.B.Com		Foundation course II	5	2	Globalization and indian society, Human rights	40%
		III	Foundation course III	4	2	Human rights provision, violations and redressal, Softskill for effective interpersonal communication	50%
		IV	Foundation course IV	4	1	Significant contemporary rights of citizens	25%
B.A.F.	F.Y.B.A.F	II	Foundation Course-II	5	2	MODULE -2 Human Rights Concept of Human Rights • The Universal Declaration of Human Rights • Fundamental Rights stated in the Constitution Environment and Sustainability MODULE -4 Understanding Stress and Conflict • Significance of values, ethics • Aggression and violence as the public expression of conflict	40%
	S.Y.B.A.F	IV	FC in Management	5	1	Module 5 Leadership traits and styles	20%
	T.Y.B.A.F	V	Management Application-II	4	1	MODULE – 4 Human Resource Development • Methods of Developing Human Resource • Leadership- Traits, Styles	25%
B.M.S.	F.Y.B.M.S	I	Business Law I	4	4	Contract act and sale of goods act, Negotiable instrument act and consumer protection act, Company law, Intellegtual property rights	100%
			Foundation of Human Skills	4	3	Understanding of Human Nature , Introduction to Group Behaviour , Organizational Change, Creativity and Development and Work Stress	75%
			Foundation Course - I	4	1	Concept of Disparity- 2	25%
		II	Industrial Law	4	4	Laws Related to Industrial Relations and Industrial, Laws Related to Health, Safety and Welfare, Social Legislation , Laws Related to Compensation Management Disputes	100%
			Foundation Course-II	4	1	Human Rights ,	25%
	S.Y.B.M.S	III	Business Planning & Entrepreneurial Management	4	1	Types & Classification Of Entrepreneurs	25%
		IV	Human Resource Planning & Information	4	2	Overview of Human Resource Planning (HRP), Job Analysis,	50%



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			System			Recruitment and Selection	
	T.Y.B.M.S	V	Customer Relationship Management	4	2	CRM Marketing Initiatives, Customer Service and Data Management , CRM Strategy, Planning, Implementation and Evaluation	50%
			Strategic Marketing Management	4	1	Segmenting, Targeting, Positioning and Creation of Value in the context of Strategic Marketing	25%
			Performance Management & Career Planning		1	Career Planning and Development	25%
		VI	HRM in Service Sector Management	4	2	Managing Human Element in Service Sector, HRP Evaluation, Attrition, Retention & Globalization	50%
B.Sc	F.Y.B.Sc.	II	Foundation Course - II	5	1	Basic human values, significance of value	20%
B.Sc. (Biotech)	F.Y.B.Sc. (Biotech)	I	Fundamentals of Biotechnology - I	3	2	Intro. & Scope of Biotechnology :U1- Public perception, prevention of misuse of Biotechnology, Applications of Biotechnology: GM Crops, GM Animals	67%
			AEC- Communication Skills	3	2	Soft skills: Personality development, Emotional intelligence , Etiquettes & mannerism, Professional skills: - Ethical issues, decision making & negotiations	67%
		II	Fundamentals of Biotechnology - II	3	2	Medical Biotechnology: Vaccines, Genetic Engineering: Genetic engineering	67%
			Cell Biology & Microbiology -II	3	1	Virology: Virus, Case studies	33%
	S.Y.B.Sc. (Biotech)	IV	Research Methodology	3	3	Introduction to Research Methodology & Research Problem, Research Design, Data collection and processing, Interpretation & Report Writing	100%
	T.Y.B.Sc. (Biotech)	V	Genomes & Molecular Biology	4	4	Genetic engineering of plants, Transgenic animals, Tools in Molecular Biology: Expression of cloned DNA molecules, , Gene sequencing & editing:Human genome mapping, implications in health & diseases	100%
IT	F.Y.B.Sc. (IT)	I	Technical Communication Skill	5	4	The Seven Cs of Effective Communication, Active Listening , Business writing, Communication across Functional areas	80%



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	T.Y.B.Sc. (IT)	VI	Business Intelligence	5	1	Ethics and Business intelligence	20%
	T.Y.B.Sc. (IT)		Cyber Law	5	2	E-Commerce Taxation: Real Problems in the Virtual World, The Indian Evidence Act of 1872 v. Information Technology Act, 2000	40%
B.Sc. (CS)	F.Y.B.Sc. (CS)	I	Soft Skills	3	3	Introduction to Soft Skills, Basic Skills in Communication, Academic and Professional Skills	100%
B.Voc. (MLT)	F.Y.BVOC MLT	I	General & Human Anatomy , Physiology –I	4	1	Human Values and Professional Ethics : Natural acceptance of human values, Definitiveness of Ethical Human Conduct	25%
			Routine Laboratory Techniques-I	4	1	Laboratory Preparation in Hematology : Basic causes of accidents, common types of laboratory accidents. First aid in laboratory, medical care in India, Medical Laboratories of developing countries, Importance of Biomedical Waste.	25%
		II	General & Human Anatomy , Physiology –II	4	1	Communication Skills : The Medium of Communication, Accuracy, Brevity, Clarity, Courtesy, Conclusion	25%
	S.Y.BVOC MLT	III	Hematology and Blood Banking-I	4	2	Special Hematological Tests, Haemostasis & Bleeding Disorders: Clinical significance of blood transfusion; Collection & Processing of blood for transfusion; Blood Bank	50%
		IV	Histology & Cytology –I	4	1	Tissue Processing: Lab techniques in histology: Tissue Processing	25%
			Biochemical Technique	4	1	Radio Isotopic Techniques : Radio Isotopic Techniques, Biological hazards of radiation and safety measures in handling radioisotopes	25%
B.Voc. (MP)	FY B.Voc (Media)	I	Effective Communication	4	2	Oral Communication, Communication skill development : Group Discussions, Thinking and Listening Skills	50%
			Understanding Cinema	4	3	History of Cinema & Genres of films, Indian Cinema & Hollywood films , Understanding storytelling techniques of cinema masters: History Of World and Indian Cinema	75%
			Creative Writing	4	2	Intro to Indian literature, Intro to Novella & Short story	50%
		II	Introduction to writing for Visual Media	4	2	Understanding basic structure of Story, Production formats : Story, Screenplay, Character development	50%
			New Digital Media	4	7	Basic concepts of New Media, Internet & Various new medias, Intro to various news portals: Blogs, Intellectual Property	75%



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						Rights	
SY Bvoc(Media)	III	Current Affairs	4	1	Indian Constitution :Fundamental rights & duties in Indian	25%	
		Media Theory	4	1	Normative Theories : Attitude change, Selective exposure	25%	
	IV	Media Laws	4	1	Indian Contract act: Remedies for breach of contract	25%	
T.Y Bvoc(Media)	V	Marketing & Publicity Design	4	3	Intro to marketing, Marketing research & Human behavior, Packaging for film & TV: Marketing Mix, Targeting, demographics, Positioning	75%	
M.Sc. (Biotech)	Part I	I	Emerging Technologies & Molecular Diagnostics	4	1	CRSP-CAS & Molecular cytogenetics	25%
		II	Plant & Animal Biotechnology	4	3	Plant tissue culture & animal tissue culture, Plant genetic manipulation, Animal reproductive biotechnology & vaccinology	75%
	Part II	IV	Nanobiotechnology	4	4	Introduction to Nanotechnology & Nanomaterials, Synthesis of Nanomaterials, Nanotechnology in drug delivery, Applications of nanotechnology & Nano toxicology	100%
			OMICS & Systems Biology	4	3	OMICS-OMICS technology- a broad outlook, Transcriptomics, Lipidomics & Metabolomics, Introduction to systems biology	75%
			Drug Discovery & Clinical Studies	4	3	Clinical research informatics in drug discovery, Clinical trial design & Indian regulations, Pharmacovigilance	75%
			Scientific Writing & Food Biotechnology	4	4	Basic Scientific Writing & Plagiarism, Advanced Scientific writing, Food Biotechnology-Nutraceuticals, Food biotechnology in management of health & disease	100%
	M.Voc (MLT)	Part I	I	Fundamentals of Medical Laboratory Technology	4	1	Basic Laboratory Principles : Medical laboratory professional and professionalism in laboratory workers
Human Anatomy & Physiology				4	1	Pregnancy, Foetal and Neonatal Physiology & Paediatric Diseases, Pathology: response of the mothers body to pregnancy,	25%
II			Clinical Immunology & Immunopathology	4	1	Immunodiagnostics & Prophylactic Immunization: Monoclonal antibodies production, characterization & application in diagnosis, therapy & basic research ;Autoimmunity & Immunodeficiency Disorders; Immunodiagnostics: Precipitation techniques & its application;	25%



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	Part II	III	Community Medicine, Epidemiology & Life Style Disorders	4	4	,Reproductive and Child Health & Health Education, Life Style Disorders : Diseases & Mental Health	100%
			Blood Banking & Blood Transfusion	4	1	Blood Group, Transfusion ology: Quality assurance in Transfusion Service. Storage of blood ; changes in blood after storage, Special investigations in Transfusion technology,	25%
		IV	Forensic Science, Pharmaceutical Chemistry, Toxicology	4	1	DNA Profiling: Biological testing of drugs;	25%
			Hospital & Laboratory Management, Modern Clinical Practices & Ethics	4	2	Management : Principles, Practices & HR, Material Management & Inventory Control :-National Health Policy, National Health Programmes,	50%



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ENVIRONMENTAL SUSTAINABILITY

Programme	Class	Semester	Course	Total Unit	No. of Units Covering the Area	Topic	% of Coverage
B.A.	F.Y.B.A	II	Foundation course	4	1	Ecology	25%
	S.Y.B.A.	III	Foundation Course	4	1	Dealing with environmental concerns	25%
		IV	Foundation Course II	4	1	Approaches to understanding ecology	25%
	T.Y.B.A. (Economics)	V	Environmental Economics I	4	4	Introduction to Environmental Economics, The design and implementation of environmental policy, measuring benefits of environmental improvements, global environmental issues	100%
		VI	Environmental Economics II	4	4	Environmental degradation, environmental accounting, sustainable development and India, Environmental policy in India	100%
B.Com.	F.Y.B.Com	I	Environmental studies	4	4	All modules are related to environment and sustainability	100%
		II	Environmental studies	4	4	All modules are related to environment and sustainability	100%
			Foundation course II	5	1	Ecology	20%
	S.Y.B.Com	III	Foundation course III	4	1	Dealing with environmental concerns	25%
		IV	Foundation course IV	4	1	Approaches to understanding ecology	25%
B.A.F.	F.Y.B.A.F	I	Commerce-I (Business Environment)	4	1	Business and its Environment :MODULE – 3Contemporary Issue • Ecology and Business, Carbon Credit	25%
		II	Foundation Course-II	5	1	MODULE -3 Ecology • Environmental Degradation • Sustainable development • Environment as natural capital and connection to quality of human life Human Values	20%



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BMS	F.Y.B.M.S		Business Communication-I	4	1	Corporate Social Responsibility (CSR) newly added	25%	
			Foundation Course-II	4	1	Ecology	25%	
	S.Y.B.M.S.	III		Information Technology in Business Management - I	4	2	Introduction to IT Support in Management, Email, Internet and its Applications	50%
				Foundation Course (Environmental Management) - III	4	1	Innovations in business- an environmental Perspective	25%
				Business Planning & Entrepreneurial Management	4	1	Entrepreneur Project Development & Business Plan	25%
				Foundation Course (Ethics & Governance)- IV	4	1	Corporate Social Responsibility (CSR)	25%
				Production & Total Quality Management	4	4	Production Management , Materials Management, Basics Of Productivity & TQM , Quality Improvement Strategies & Certifications	100%
				Rural Marketing	4	1	Rural Market	25%
	T.Y.B.M.S.	V		Logistics & Supply Chain Management	4	1	Recent Trends in Logistics and Supply Chain Management	25%
				International Marketing	4	1	International Marketing Environment and Marketing Research	25%
		Media Planning & Management	4	1	Media Measurement, Evaluation	25%		
B.Sc.	F.Y.B.Sc	I	Modern Physics	3	1	Basic properties of nuclei radioactivity(Carbon dating, age of earth)	33%	
	S.Y.B.Sc.	III	Chemistry-III (USCH303)	3	2	Classical Methods of Analysis, Instrumental Methods –I	67.00%	
		IV	Chemistry-II (USCH402)	3	1	Use and environmental aspects of oxoacids	33.00%	
			Chemistry-III (USCH403)	3	1	Instrumental Methods	33.00%	



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			Foundation Course -IV	3	1	Approaches to understand ecology	33%
	T.Y.B.Sc.	V	Organic chemistry USCH503	4	2	Agrochemicals (Use of bio pesticides), Synthesis of organic compounds (Green Chemistry)	50.00%
			Analytical chemistry Practical	2	1	Non – Instrumental Determination of Chemical Oxygen Demand	50%
		VI	Physical chemistryUSCH601	4	1	Renewable energy resources	25%
			Organic chemistry USCH603	4	1	Biodegradable Polymer	25%
			AppliedComponentsD.D USACDD601	4	1	Drugs and environmental aspects	25%
B.Sc. (Biotech)	F.Y.B.Sc. (Biotech)	I	Fundamentals of Biotechnology - I	3	3	Intro. & Scope of Biotechnology :Applications of Biotechnology in various fields-Environment, Animal, Plant, Microorganisms, Marine, Applications of Biotechnology: - GM crops, GM Animals, Pollution abatement through GMOs, Fermentation Technology: Microorganism in fermentation	100%
			Microbiology - I	3	2	Intro. to Microbiology: Applications of Microbiology in environment, role of microbes in diseases, Sterilization Techniques: Sterilization & Disinfection techniques	67%
			Biochemistry - Concept of Biomolecules	3	2	Water, Standard solutions & Buffers: Properties & functions of water, U2- Industrial applications of carbohydrates in fermentation, pharmaceutical and food industry, Basics of Carbohydrate Chemistry,	67%
			Genetics	3	3	Genetics fundamentals:Mendelian Genetics, Microbial genetics: Prototrophic, Auxotrophic bacteria, , Population genetics: Genetic studies : Natural selection, genetic drift, Migration	100%
			Molecular Biology -I	3	1	Mutation & repair: Gene mutation	33%
		II	Fundamentals of Biotechnology - II	3	2	Food Biotechnology:Microorganisms in food, Single cell proteins, food spoilage, food preservation, Genetic Engineering: Genetic engineering	67%
			Cell Biology & Microbiology - II	3	2	Microbiology:Preservation & maintenance of microorganisms, Virology:Virus	67%
			Physiology & Immunology	3	2	Plant physiology:Photosynthesis, Plant secondary metabolites, Animal physiology:Body fluids, Excretionin vertebrates	67%



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			Basic Computers & Biostatistics	3	1	Biostatistics:Applications of in Environmental studies	33%
			AEC- Sustainable Development & Environmental Biotechnology	3	3	Ecological interactions & Biodiversity:Biodiversity, Pollution & Climate change:Pollution & climate change, , Renewable sources of energy:Renewable sources of energy	100%
S.Y.B.Sc. (Biotech)	III		Biophysics	3	2	Optics & Electromagnetic Radiations:- Light- Radiations, Heat, Sound, Magnetism & Fluid Dynamics	67%
			Applied Chemistry-I	3	2	Organic chemistry:-Elements & role of metals in Biological system, Green Chemistry & Synthesis:	67%
			Bioprocess Technology	3	3	Fermenter design, media & sterilization: -Microorganisms & fermentation process, Inoculum development & process Parameters: Bacterial inoculum development for fermentation, Fermentation process-I: Industrial production from microorganisms	100%
			Research Methodology	3	3	Introduction to Research Methodology & Research Problem, Research Design, Data collection and processing, Interpretation & Report Writing	100%
			Applied Chemistry - II	3	3	Sampling & Separation Techniques:Sampling of compounds (Solids, Liquids, Gases), Natural Product Chemistry, Polymers & Nanomaterials	100%
	IV		Medical Microbiology	3	3	Infectious Diseases,Medical Microbiology - Causative Organisms -I:Bacteria, fungus, viruses causing airborne & water borne diseases	100%
			Environmental Biotechnology	3	3	U1-Environmental pollution U2- Environmental problems & issues U3-Bioremediation	100%
			Bioinformatics & Biostatistics	3	1	Biostatistics: Applications of in Environmental studies	33%
			Molecular Diagnostics	3	3	Basics of Molecular Diagnostics ,Nucleic Acid amplification, Molecular Biology based diagnostics	100%
			Cell Biology	4	1	Developmental Biology:DevelopmentalBiology through multidisciplinary approach	25%
T.Y.B.Sc. (Biotech)	V		Medical Microbiology & Instrumentation	4	2	Virology,Chemotherapeutic drugs:Antiviral, antifungal drugs,	50%
			Genomes & Molecular Biology	4	4	U1- Genetic engineering of plants, U2- Transgenic animals, U3-Expression of cloned DNA molecules, U4- Human genome mapping, implications in health & diseases	100%



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			Marine biotechnology	4	4	Marine Biotechnology Introduction & Bioprospecting ,Marine drugs & enzymes, Marine functional foods & Nutraceuticals, Marine Bioresources & cosmetics	100%
			Biosafety (Applied Component)	4	4	U1- Hazardous microorganisms, Biological risk, U2- Good laboratory practices, U3- Detection & testing of contaminants, U4- Biosafety	100%
		VI	Industrial Microbiology	4	4	Dairy technology:- microorganisms in milk, Down-stream processing, Fermentation process:Antibiotic production from bacterial & fungal sources, Good manufacturing practices	100%
			Basic Pharmacology & Neurochemistry	4	1	Basic toxicology& regulatory toxicology	25%
			Environmental Biotechnology	4	4	U1- Renewable energy sources U2- Industrial effluent treatment, U3- Wastewater treatment, U4-Hazardous waste management	100%
			Agribiotechnology (Applied Component)	4	4	Precision Agriculture & Agriculture systems:Agricultural practices, , Plant stress biology:Biotic, abiotic stress agents, toxins, pathogens, Molecular Markers in plant breeding:Plant breeding,Biofertilizers & Biopesticides	100%
B.Sc. (IT)	F.Y.B.Sc. (IT)	I	Digital Logic and Applications	5	1	Boolean algebra and Gate level minimization	20%
		II	Green IT	5	4	Overview to Green IT, Minimizing Power Usage, Greening IT, Recycling, Greening Your Information Systems	80%
B.Sc. (CS)	F.Y.C.S	I	Digital System & Architecture	3	1	Simplification of Logic circuits	33.33%
B.Voc. (MLT)	F.Y.BVOC MLT	I	Routine Laboratory Techniques-I	4	3	Human Healthcare and Safety Regulations, Introduction to Haematology and Routine tests, Specimen Collection:Basic causes of accidents, common types of laboratory accidents. First aid in laboratory,medical care in India, Medical Laboratories of developing countries, Importance of Biomedical Waste.	75%
			Special Laboratory Techniques-I	4	1	Biochemical Test Profile – bacteriological filtration, irradiation, tantalization	25%
			Cell Biology and Biodiversity– I	4	3	Microscopy and Organization of Cell -II , Systematic study of Animals - I , Systematic study of Animals - II : An elementary idea of cell transformation in Cancer. An elementary idea of cellular basis of immunity. Detailed study of the animal types.	75%



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			Fundamentals of Microbiology	4	3	Introductory Microbiology-1, Morphology and Structure of Microorganisms , Recombinant DNA Technology , Microbial Ecology and Biotic Interactions :scope and applications of Microbiology.Nature of Microbial World; Recombinant DNA technology,genetic engineering, Genetic engineering for human welfare (a) Production of pharmaceuticals. (b) Insect pest control. (c) Use of Genetically Engineered Micro-organisms (GEMs) for control of pollutio; Sewage (waste-water) treatment, waste water treatment processes	75%
		II	Special Laboratory Techniques-II	4	2	Serological Tests , Staining Techniques: monoclonal antibodies and its uses, Serological test for syphilis,Agglutination- C-reactiveprotein test, Rheumatoid arthritis,HBsAg, HIV-1(Rapid TriDot test) Widal test, Tuberculine test	50%
			Ecology and Biodiversity-I	4	4	Systematic study of Animals - III , Systematic study of Animals - IV, Ecosystem-I ,Ecosystem-I: Detailed study of the following animal types, Classification up to orders with ecological notes and economic importance; Ecology, Ecosystem, Ecological factors, Natural resources, Environmental Degradation	100%
			Microbial Physiology - Metabolism	4	1	Microbial Nutrition, Cultivation, Isolation and Preservation	25%
	S.Y.BVOC MLT	III	Hematology and Blood Banking-I	4	4	Special Hematological Tests, Hemostasis & Bleeding Disorders,Immunohaematology & Blood Transfusion: bone marrow smear for microscopic examination, Screening for Anemia's, Leukemia's, Miscellaneous disorders; Laboratory diagnosis of bleeding disorders; Routine Lab Procedures in Blood Bank	100%
			Microbiology and Serology	4	4	Laboratory Diagnosis of Mitotic and Emerging Infections, Diagnostic Microbiology , Serology ,Bacteriology	100%
			Pathogenic Microbiology	4	4	Infectious Diseases, Microbes of Medical Importance, Mode of Microbial Infections, Antimicrobial Drugs: infectious Diseases; Microbes of Medical Importance; Mode of Microbial Infections; Antimicrobial Drugs	100%
		IV	Clinical Biochemistry and Microbiology	4	2	Body Fluid Specimen Processing, Blood Banking: Diagnostic Test profile; Hormonal studies & Clinical Endocrinology; Body Fluid Specimen Processing; Blood Banking, government regulation (FDA)	50%
			Histology &Cytology -I	4	1	Tissue Processing: Lab techniques in histology: Tissue Processing	25%
			Parasitology and Blood Cell Disorders-I	4	4	Medical Parasitology, Common Intestinal worm, Malarial parasites, Filarial parasites, Lab. diagnosis of Parasitic infections : Medical Parasitology;	100%



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					Common Intestinal worms, Malarial parasites, Filarial parasites;Lab. diagnosis of Parasitic infections		
			Biochemical Techniques	4	1	Radio Isotopic Techniques, Biological hazards of radiation and safety measures in handling radioisotopes	25%
			Immunology	4	4	Introduction to Immunology , Humoral Immunity , Cell Mediated Immunity , Antigen-Antibody Interactions	100%
	T. Y.BVOC MLT	V	Medical Genetics and Microbiology-II	4	4	Genetics , CLIA techniques , Immunology and Virology, Toxicology	100%
			Histology Cytology –II	4	1	Exfoliative Cytology- Benign and Malignant Cells: Charecteristics of benign and malignant cells	25%
			Parasitology and Blood Cell Disorders-II	4	3	Descriptive study of RBC abnormalities , Disorders related to RBC, Normal White Cell Count & Physiological variation, Disorders related to WBC	75%
			Pathogenic Microbiology	4	4	Diagnosis, Prevention and Control , Prevention and Control of Viral Diseases ,Human Mycotic Infections, Mechanisms and Control of Parasitic Infections :Pathogenic Microbes, Diagnosis, Prevention and Control; Prevention and Control of Viral Diseases; Mycotic Infections; Mechanisms and Control of Parasitic Infections	100%
		VI	Clinical Laboratory Operations and Management	4	2	Reagent preparation,Clinical sample collection, Quality Management system,Biomedical waste management,Calibration and Validation	50%
			Food and Industrial Microbiology	4	4	Food Microbiology, Contamination, Preservation and Spoilage of Food, Production Strains Isolation and Screening Techniques,Fermentation Products : Preservation and Spoilage of Food,Fermentation Products, Production Strains Isolation and Screening Techniques.	100%
B.Voc. (MP)	S. Y B. Voc (Media)	III	Current Affairs	4	1	Environmental issues	25%
			Trends & Technology	4	1	Evolving Technology : Positive & Negative impact of Digital revolution	25%
M.Sc. (Chem)	Part I	I	Organic Chemistry Practical	2	1	Safety aspect including material safety data sheet	50%
		II	Inorganic Chemistry PSCH202	4	1	Environmental chemistry (Toxicity of metallic Species, Case studies)	25%
			Organic Chemistry Practical	1	1	Separation of binary mixture using micro scale technique	100%



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	Part II	III	Medicinal, biogenesis & green chemistry PSCHO304	4	1	Green chemistry	25%
			Organic Chemistry Practical 1	1	1	Identification & Derivative preparation using micro scale technique	100%
			Organic Chemistry Practical 2	1	1	Safety aspect including MSDS	100%
		IV	Organic Chemistry Practical 1	1	1	Safety aspect including MSDS	100%
M.Sc. (Biotech)	Part I	I	Emerging Technologies & Molecular Diagnostics	4	2	CRSP-CAS & Molecular cytogenetics, Diagnostic microbiology	50%
		II	Plant & Animal Biotechnology	4	4	Plant tissue culture & animal tissue culture, Plant genetic manipulation, Animal reproductive biotechnology & vaccinology, Molecular mapping & marker assisted selection	100%
			Bioprocess Engineering & Technology	4	4	Basic principles of biochemical engineering, Production of proteins from recombinant microorganisms, Applications of enzyme technology in food processing, Applications of microbial technology in food process operations & production, biofuels & biorefinery	100%
			Bioinformatics & Biostatistics	4	2	Biostatistics, Biostatistics	50%
	Part II	III	Applied Virology & Microbiology	4	4	Pandemic diseases, pathogenesis, diagnosis & treatment, Epidemiology of infectious diseases, Medical microbiology, Biofilms & Antimicrobial activity	100%
			Environmental Biotechnology	4	4	Air, Soil, Water, Biodiversity & Environmental monitoring	100%
			Biologics & Regulatory Affairs	4	4	Introduction to Biologics & Biosimilars, Production of Biologics & Biosimilars, Characterization of Biologics & Biosimilars, QA & regulatory affairs of Biologics & Biosimilars	100%
		IV	Nano biotechnology	4	4	Introduction to Nanotechnology & Nanomaterial's, Synthesis of Nanomaterial's, Nanotechnology in drug delivery, Applications of nanotechnology & Nano toxicology	100%
			OMICS & Systems Biology	4	3	OMICS-OMICS technology- a broad outlook, Transcriptomics, Lipidomics & Metabolomics, Introduction to systems biology	75%
			Drug Discovery & Clinical Studies	4	3	Clinical research informatics in drug discovery, Clinical trial design & Indian regulations,	50%



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			Scientific Writing & Food Biotechnology	4	4	Basic Scientific Writing & Plagiarism, Advanced Scientific writing, Food Biotechnology-Nutraceuticals, Food biotechnology in management of health & disease	100%		
M.Voc (MLT)	Part I	I	Principles of Biochemistry & Clinical Biochemistry	4	1	Disorders and Inborn Errors of Carbohydrate Metabolism, Protein Metabolism, Lipid Metabolism,	25%		
			Human Anatomy & Physiology	4	2	Human Reproductive System : Male Reproductive System & Hormonal Function, Female Reproductive System & Hormonal Function, Pregnancy, Foetal and Neonatal Physiology & Pediatric Diseases, Pathology	50%		
			Medical Parasitology, Mycology & Virology	4	3	Medical Bacteriology, Medical Virology, Medical Mycology & Medical Parasitology: Classification and general properties of medically important bacteria. Properties of viruses - Detection of viruses and antigens, detection and recovery of fungi from clinical specimens, Culture Media, Staining Methods, Biochemical Tests, Antibiotic Tests	75%		
				II	Clinical Immunology & Immunopathology	4	3	Complement System & Hypersensitivity, Autoimmunity & Immunodeficiency Disorders, Immunodiagnostics & Prophylactic Immunization: Monoclonal antibodies production, characterization & application in diagnosis, therapy & basic research; Autoimmunity & Immunodeficiency Disorders; Immunodiagnostics: Precipitation techniques & its application;	75%
			Clinical Pathology, Cytogenetics & Molecular Biology		4	4	Blood & Inflammatory Disorders, Hemodynamic Disorders, Genetic Disorders, Recombinant DNA Technology, Nucleic Acid Analysis: Types of Anemia; Bleeding disorders of man; General inflammatory markers and specific therapeutic bio indicators; Hemodynamic Disorders; Genetic Disorders; DNA modifying enzymes; Cloning vectors plasmids; Cosmids; Bacteriophages; Genome sequencing	100	
			Hematology, Fluid Analysis & Human Disorders		4	1	Neurological Disorders, Vitamin Deficiencies: Neurological disorders and Vitamins deficiencies : Alzheimer's disease, autism, Canavan's disease, Parkinson's disease, Carpal tunnel syndrome, Lesch- Nyhan syndrome, Lyme disease, Multiple sclerosis	25%	



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	Part II	III	Community Medicine, Epidemiology & Life Style Disorders	4	4	Basic Epidemiology, Environment and Health, Reproductive and Child Health & Health Education, Life Style Disorders : Diseases & Mental Health	100%		
			Endocrinology, Metabolic & Nutritional Biochemistry	4	2	Metabolism & Diseases, Nutrition & Diseases: Concepts of hormones assay; Endocrinal imaging, Diseases related to the hormones of these glands, functions, deficiency states, dietary source, RDA, deficiency diseases	50%		
			Blood Banking & Blood Transfusion	4	4	Blood Banking, Storage & Transport, Blood Group, Trans fusion ology, Blood Bank Records: Quality assurance in Transfusion Service. Storage of blood ; changes in blood after storage, Special investigations in Transfusion technology,	100%		
					Histopathology & Modern Diagnostics	4	1	Cervical Cytology & Organ Transplantation; Kidney transplant - Tissue typing	25%
		IV	Forensic Science, Pharmaceutical Chemistry, Toxicology	4	4	Forensic Pharmacology, Forensic Toxicology, Drug: Drug, Designing & Screening, DNA Profiling's Pharmacology and its branches, scope of forensic toxicology; Different types of poisons commonly encountered;	100%		
			Modern Diagnostics – Separation Techniques & Non-invasive Techniques	4	1	NMR, Ophthalmology, Mammography	25%		
			Hospital & Laboratory Management, Modern Clinical Practices & Ethics	4	1	Clinical & Non-Clinical Services, Accreditation	25%		