



AUXILIUM COLLEGE (Autonomous)

(Accredited by NAAC with A+ Grade with a CGPA of 3.55 out of 4 in the 3rd cycle)
Gandhi Nagar, Vellore – 6.

Curricula developed and implemented have relevance to the local, national, regional and global developmental needs which is reflected in Programme outcomes (POs), Programme Specific Outcomes(PSOs) and Course Outcomes(COs) of the Programmes offered by the Institution

FOCUS - LOCAL NEEDS

Programme	Course Code	Title of Course	Description	PO	PSO	CO
B.A. English	UATOT20	Allied IV Techniques of Translation	The course caters to the local need of having to translate the history, demography and other relevant data of the villages, townships, municipalities and corporations for civil purposes from the local language to English and vice versa	Attain knowledge and understand the principles and concepts in the respective discipline	Apply the knowledge of form, structure, history and contextual cultural diversity and comprehend the applications of the English Language in practice	Apply theoretical approaches to translate literary and non-literary texts Analyse the practicality of translation and use it to develop awareness of academic writing requirements
B. A History	USHIA416	History of Vellore	Through this skill-based elective the students learn about the importance of Vellore and its role in the freedom struggle	Attain knowledge and understand the principles and concepts in the respective discipline	Develop an understanding of the past life of the people, their culture, their religion, the social	Enumerate the Historical importance of Vellore District

			of India		system to transform into responsible and honest citizens	
B.B.A	UCBAA20	Principles of Management	Course designed to meet the fundamental concepts of management, functions and its principles	To attain knowledge and understand the managerial principles and concepts of the course adopted	To attain the ability to be self-directed towards their career and contribute to the society as responsible citizens	Acquire the knowledge related to management concepts and its principles
B.B.A	UABUA20	Business Communication	Course depicts the basic concepts of communication process	Communicate the general ideas, opportunities and opinions and to become empowered and motivated citizens of the country	Acquire the basic and managerial communications skills to gain professionalism	Impart the importance of Communication and to understand the concepts of Communication
B.B.A	UCBAC20	Organisational Behaviour	Know the fundamental concept of Organizational Behaviour	Adapt towards the positive thinking capacity, to adapt the social values, to exercise leadership qualities and bringing out their capabilities through team work	To get an exposure by applying the theoretical knowledge into practice by carrying out the institutional training and projects in the organizations	Assess the attitudinal and motivational behaviour and group dynamics of an individual
B.B.A	UABEA20	Business Environment and Ethics	To know about the environment and its impact on business Recognize the importance of business ethics and	Mold the students to face the challenges in the global business environment and the	To attain the ability to be self-directed towards their career and contribute to the society as responsible	To know about the environment and its impact on business

			social responsibility in today's business	society	citizens	To recognize the importance of business ethics and social responsibility as an individual to the society
B.B.A	UCBAE20	Marketing Management	Course comprehend the principles, concepts and functions of marketing and to design a marketing strategy for a dynamic marketing and attain the knowledge of Marketing Mix	Mold the students to face the challenges in the global business environment and the society	Acquire the basic and managerial communications skills to gain professionalism	Learn the recent trends in marketing
B.B.A	UCBAF20	Financial Accounting	Course highlights the fundamentals of accounting	Prepare the students to be persistent enough to pull out their own ideas and opinions and to become a strong pillar to the family and society highlighting their feminine power	Acquire the ability to be a future leader, manager and an entrepreneur reflecting ethical and social values	Give them a basic knowledge of accounting principles and practices

B.B.A	UAEBA20	Economics for Business	Course understand the economic concepts and techniques in evaluating business decisions	Attain knowledge and understand the principles and concepts in the respective discipline	To attain knowledge and understand the managerial principles and concepts of the course adopted	Have depth knowledge in the basics of Managerial Economics
B.B.A	UEBAB20	Logistics and Supply Chain Management	To familiarize the students with the basic concepts of logistics and supply chain management	To be stimulated towards the change and to be conscious for sustainable development of the society	To acquire the ability to be a future leader, manager and an entrepreneur reflecting ethical and social values	Be enriched about the activities involved in distribution network planning and Integrated Supply Chain Management
B.B.A	UCBAH20	Cost and Management Accounting	To enable the students, understand the concept of Management and Cost Accounting	Prepare the students to be persistent enough to pull out their own ideas and opinions and to become a strong pillar to the family and society highlighting their feminine power	Acquire the ability to be a future leader, manager and an entrepreneur reflecting ethical and social values	Gain knowledge on the concepts of management and cost accounting techniques
B.B.A	UCBAJ20	Research Methodology	To understand the basic concepts of research	To formulate, to apply the theoretical knowledge into practice by carrying the institutional training and	To get an exposure by applying the theoretical knowledge into practice by carrying out the institutional training and	Know the general definition of research and qualities of research Be able to write

				projects, to adopted sense of creative thinking and learn problem solving skills to take up challenges faced in today's modern world	projects in the organizations	report and do statistical analysis
B.B.A	UCBAK20	Human Resource Management and Development	Course designed to understand the various HR functions like Recruitment, selection, training process and also about performance appraisal	Mold the students to face the challenges in the global business environment and the society	To acquire the ability to be a future leader, manager and an entrepreneur reflecting ethical and social values	Attain the knowledge of the various HR functions and its importance
B.B.A	UAITR20	Institutional Training	Course designed to demonstrate the capability of the student in studying the organization and its process in totality	To formulate, to apply the theoretical knowledge into practice by carrying the institutional training and projects, to adopted sense of creative thinking and learn problem solving skills to take up challenges faced in today's modern world	To get an exposure by applying the theoretical knowledge into practice by carrying out the institutional training and projects in the organizations	The students can acquire the capability of applying the theoretical knowledge into practice covering Production, Human resource, Finance and Marketing to carry out her institutional training with the approval of the department

B.B.A	UCBAL20	Financial Management	Course enable the learners to understand concept of financial management, scope, objectives and time value of money	To be stimulated towards the change and to be conscious for sustainable development of the society	To attain the ability to be self-directed towards their career and contribute to the society as responsible citizens	Be well-versed in the financial decision, functions and organisation of financial managements
B.B.A	UCBAM20	Industrial Relations	Course is designed to cover the basic concepts of Industrial Relations	To communicate the general ideas, opportunities and opinions and to become empowered and motivated citizens of the country	To acquire the ability to be a future leader, manager and an entrepreneur reflecting ethical and social values	Understand the basic concepts of Industrial relations like payment of wages act, factories act, maternity act, Industrial disputes act, Employees state insurance act
B.B.A	UCBAN20	Banking and Insurance	Course impart the knowledge of banking system and its services	To be stimulated towards the change and to be conscious for sustainable development of the society	To attain the ability to be self-directed towards their career and contribute to the society as responsible citizens	Gain the knowledge as to how to open and operate accounts in bank and also maintaining relationship with bankers

B.B.A	UCBAR20	Project	Course is designed to make the students identify a problem in the organization based on the area of specialization and provide solutions and suggestions to the management	To formulate, to apply the theoretical knowledge into practice by carrying the institutional training and projects, to adopted sense of creative thinking and learn problem solving skills to take up challenges faced in today's modern world	To get an exposure by applying the theoretical knowledge into practice by carrying out the institutional training and projects in the organizations	Course includes field studies, surveys, interpretation, planning and designing of the Research Methodology presented in a comprehensive manner with recommendations for solutions based on scientifically worked out data
B.B.A	UCBAS20	Legal aspects of Business	Course designed to make the students learn the fundamental principles underlying in the law of contract	To be passionate about multi-disciplinary approach for problem solving, critical analysis and decision making in their personal and professional life	To acquire the ability to be a future leader, manager and an entrepreneur reflecting ethical and social values	Be thorough in the contractual relationships in business
B.B.A	UCBAT20	Production and Materials Management	The Course enable the students to understand the concept of production management, plant location and plant layout	To communicate the general ideas, opportunities and opinions and to become empowered and motivated citizens of the country	Acquire the ability to be a future leader, manager and an entrepreneur reflecting ethical and social values	Understand the concepts of production management, plant location and plant layout

B.B.A	UEBAC20	Total Quality Management	Course is designed to make the students understand the concepts of total quality management	To communicate the general ideas, opportunities and opinions and to become empowered and motivated citizens of the country	To attain the ability to be self-directed towards their career and contribute to the society as responsible citizens	Evaluate the principles of quality management and to explain how these principles can be applied within quality management systems
B.B.A	UEBAD20	Entrepreneurial Development	Course is designed to develop entrepreneurial way of thinking	To pursue higher knowledge, acquire quality professional education, and to develop entrepreneurial skills and contribute towards the needs of the society	Acquire the ability to be a future leader, manager and an entrepreneur reflecting ethical and social values	Have the ability to discern entrepreneurial traits
B.B.A	UGBAA520	Human Resource Management	The course is designed to understand the basic concepts of HRM	To bring up the economically challenged, socially backward young women To be competent with today's expectation of the competitive world for their sustenance	To attain the ability to be self-directed towards their career and contribute to the society as responsible citizens	Integrate the knowledge of HR concepts

B.B.A	USBAE520/ USBAE620	Campus to Corporate	Course is designed to build confidence, develop self-esteem, and to bring positive changes in the attitude & behaviour of the students	To bring up the economically challenged, socially backward young women to be competent with today's expectation of the competitive world for their sustenance	To acquire the basic and managerial communications skills to gain professionalism	Proactively manage the transition from being the student to the employee
B.B.A	USBAF520/ USBAF620	Applications of GST	Course is designed to enable the students to learn the concepts of GST from the pre-GST period to post-GST period	To be passionate about multi-disciplinary approach for problem solving, critical analysis and decision making in their personal and professional life	To attain the ability to be self-directed towards their career and contribute to the society as responsible citizens	Enable the students to learn the concepts of GST from the pre-GST period to post- GST period
B.B.A	USBAA120/ USBAA220	Life Style Management	Course is designed to understand the concept of self-management	Adapt towards the positive thinking capacity, to adapt the social values, to exercise leadership qualities and bringing out their capabilities through team work	To attain the ability to be self-directed towards their career and contribute to the society as responsible citizens	Be equipped with the talent of self-management
B.B.A	USBAB120/ USBAB220	Winning Through Communication	Course is designed to understand the concept in communication	Adapt towards the positive thinking capacity, to adapt the social values, to exercise leadership qualities and bringing out their	Acquire the basic and managerial communications skills to gain professionalism	To understand the role of communication in Personal and Professional success

				capabilities through team work		
B.B.A	USBAD320/ USBAD420	Hotel Planning and Administration	Course is designed to develop a conceptual understanding of the Hotel Planning and Administration	To formulate, to apply the theoretical knowledge into practice by carrying the institutional training and projects, to adopted sense of creative thinking and learn problem solving skills to take up challenges faced in today's modern world	Acquire the basic and managerial communications skills to gain professionalism	CO 1 Understand the concepts in Hotel Planning and Administration
B.B.A	USBAC320/ /USBAC420	Hospital Planning and Administration	Course enable the students to understand the planning of Modern Hospital	To formulate, to apply the theoretical knowledge into practice by carrying the institutional training and projects, to adopted sense of creative thinking and learn problem solving skills to take up challenges faced in today's modern	Acquire the basic and managerial communications skills to gain professionalism	Be familiarized with Organization Structure and Medical Records of a Hospital

				world		
B. Com	UECOC520,	Banking Law and Practice	Gain in-depth knowledge in the modern technologies for making payments and other technological services	excel as a socially committed individual having empathy for the needs of the society through value-based education	apply ethical principles in promoting values and attitudes and become responsible towards the practice of accounting norms	To update the regulations and technological implementation in modern scenario
B. Com	UCCON20	Income Tax Law and Practice	To enable the students, learn the basic concepts of Income Tax	Enhance the theoretical and practical knowledge gained in the field of auditing, tax filing, and share market	Cater to the needs of the industry/society so as to contribute for the development of the nation	To examine the provisions relating to Income from Business or Profession
B.Sc. Biochemistry	UCBCA20	Bioorganic Chemistry	To provide a clear note on the bioorganic compounds	Appreciate biodiversity and enhance eco-consciousness for sustainable development of the society	Create an awareness of resources and enhance eco consciousness for sustainable development of society	Explain the crucial role of vitamins and minerals for maintaining healthy life
B.Sc. Biochemistry	UCBCC20	Main Practical-I	To provide a wide practical knowledge on Qualitative and Quantitative Analysis	Appreciate biodiversity and enhance eco-consciousness for sustainable	Create an awareness of resources and enhance eco consciousness for	Use the measuring technique to weigh the compounds

				development of the society	sustainable development of society	
B.Sc. Biochemistry	UCBCB20	Cell Biology	To provide a deep knowledge about cell the basic unit of life	Appreciate biodiversity and enhance eco-consciousness for sustainable development of the society	Create an awareness of resources and enhance eco consciousness for sustainable development of society	Describe cell as the basic unit of life, its structural organization and cytoskeleton
B.Sc. Biochemistry	UCBCD20	Biochemical techniques	To study about the principles and applications of biochemical techniques	Appreciate biodiversity and enhance eco-consciousness for sustainable development of the society	Create an awareness of resources and enhance eco consciousness for sustainable development of society	Develop the ability to apply the principles of biochemical techniques
B.Sc. Biochemistry	UCBCE20	Physiology and Nutrition	To understand the homeostatic mechanism of each organ	Appreciate biodiversity and enhance eco-consciousness for sustainable development of the society	Create an awareness of resources and enhance eco consciousness for sustainable development of society	Outline the mechanism of breathing and the circulatory system

B.Sc. Biochemistry	UCBCF20	Main Practical-II	To inculcate practical skill in Biochemistry	Appreciate biodiversity and enhance eco-consciousness for sustainable development of the society	Create an awareness of resources and enhance eco consciousness for sustainable development of society	Implement experimental protocol, and adapt them to plan and carry out simple colorimetric estimation
B.Sc. Biochemistry	USBCBn20	Skill Based Elective Health Care for Women	To provide awareness about common health problems of women and how to overcome certain diseases	Appreciate biodiversity and enhance eco-consciousness for sustainable development of the society	Create an awareness of resources and enhance eco consciousness for sustainable development of society	Describe the function of Estrogen and Progesterone hormone
B.Sc. Biochemistry	UCBCG20	Enzymes & Intermediary metabolism	To impart knowledge about the enzymes and the metabolism of biomolecules and its interrelationship	Appreciate biodiversity and enhance eco-consciousness for sustainable development of the society	Create an awareness of resources and enhance eco consciousness for sustainable development of society	List the major pathways of carbohydrates metabolism and discuss their bioenergetics and regulation
B.Sc. Biochemistry	UCBCH20	Endocrinology	Endocrinology describes in detail the role of endocrine glands, their secretion and its regulatory effect on metabolic activities to maintain homeostasis	Appreciate biodiversity and enhance eco-consciousness for sustainable development of the society	Create an awareness of resources and enhance eco consciousness for sustainable development of society	Know the chemical nature and structure of Hormones
B.Sc. Biochemistry	UEBCA20	Elective IA Immunology	To help the students to understand the components of	Appreciate biodiversity and enhance eco-	Create an awareness of resources and	Outline the cell types and organ present in the

			Immune system	consciousness for sustainable development of the society	enhance eco consciousness for sustainable development of society	immune response
B.Sc. Biochemistry	UEBCB20	Elective IB Environmental Toxicology	To understand the basics in toxicological aspects that effect the environment	Appreciate biodiversity and enhance eco-consciousness for sustainable development of the society	Create an awareness of resources and enhance eco consciousness for sustainable development of society	Explain the properties of pollutants, effects, origin and occurrence in the environment
B.Sc. Biochemistry	UCBCJ20	Main Practical-III	The course is aimed to enhance the practical skill of the student in handling and estimating the components present in the biological samples	Appreciate biodiversity and enhance eco-consciousness for sustainable development of the society	Create an awareness of resources and enhance eco consciousness for sustainable development of society	Predict the biochemical laboratory analysis
B.Sc. Biochemistry	UCBCK20	Main Practical-IV	The course is aimed to enhance the practical skill of the student in handling and estimating the components present in the biological samples	Appreciate biodiversity and enhance eco-consciousness for sustainable development of the society	Create an awareness of resources and enhance eco consciousness for sustainable development of society	Apply the safety measures in the laboratory
B.Sc. Biochemistry	USBCCn20	Skill Based Elective III Entrepreneurial Biochemistry	To understand the concept of entrepreneurship	Appreciate biodiversity and enhance eco-consciousness for sustainable development of the	Create an awareness of resources and enhance eco consciousness for sustainable	Explain the theory of entrepreneurship and its practical implementation

				society	development of society	
B.Sc. Biochemistry	UCBCI20	Molecular Biology	To make a study on life and the information centers called genes	Appreciate biodiversity and enhance eco-consciousness for sustainable development of the society	Create an awareness of resources and enhance eco consciousness for sustainable development of society	Demonstrate the nature of Genes
B.Sc. Biochemistry	UEBCC20	Elective IIA Clinical Biochemistry	To understand the biochemical basis of various diseases and disorders	Appreciate biodiversity and enhance eco-consciousness for sustainable development of the society	Create an awareness of resources and enhance eco consciousness for sustainable development of society	Discuss the disorders of carbohydrate metabolism
B.Sc. Biochemistry	UEBCD20	Elective IIB Pharmacology	To make detailed study of drugs, and their actions on living systems	Appreciate biodiversity and enhance eco-consciousness for sustainable development of the society	Create an awareness of resources and enhance eco consciousness for sustainable development of society	Classify different dosage forms of drug

B.Sc. Biochemistry	UEBCE20	Elective IIIA Biotechnology	To explore the applications and future potential of Biotechnology	Appreciate biodiversity and enhance eco-consciousness for sustainable development of the society	Create an awareness of resources and enhance eco consciousness for sustainable development of society	Outline the role of vector in gene technology and explain the construction of Genomic and cDNA library and their importance
B.Sc. Biochemistry	UEBCF20	Elective IIIB Plant Biochemistry	To explore the applications of plant and their products	Appreciate biodiversity and enhance eco-consciousness for sustainable development of the society	Create an awareness of resources and enhance eco consciousness for sustainable development of society	Describe the structural features of plant cell and phytohormones
B.Sc. Biochemistry	USBCDn20	Skill Based Elective IV- Medical Laboratory Technology	To make detailed study of the organization and functions of a laboratory	Appreciate biodiversity and enhance eco-consciousness for sustainable development of the society	Create an awareness of resources and enhance eco consciousness for sustainable development of society	Outline the organization of a laboratory for its efficient functioning
B.Sc. Biochemistry	USBCAn20	Skill Based Elective II Nutritional Biochemistry	To make a note on nutrients and its role on metabolism	Appreciate biodiversity and enhance eco-consciousness for sustainable development of the society	Create an awareness of resources and enhance eco consciousness for sustainable development of society	1 Explain the functions of specific nutrients in maintaining health

B.Sc. Biochemistry	UABCA20	Allied Biochemistry I	To acquire knowledge on the structure and the function of biomolecules	Appreciate biodiversity and enhance eco-consciousness for sustainable development of the society	Create an awareness of resources and enhance eco consciousness for sustainable development of society	Write about the properties and biological importance of carbohydrates
B.Sc. Biochemistry	UABCB20	Allied Biochemistry II	To understand the basic of metabolic pathway	Appreciate biodiversity and enhance eco-consciousness for sustainable development of the society	Create an awareness of resources and enhance eco consciousness for sustainable development of society	Provide a deeper insight into the fundamentals of structure, function and kinetics of enzymes
B.Sc. Biochemistry	UABCC20	Allied Biochemistry Practical	To acquire knowledge on the structure and the function of biomolecules	Appreciate biodiversity and enhance eco-consciousness for sustainable development of the society	Create an awareness of resources and enhance eco consciousness for sustainable development of society	Understand the various identification tests for carbohydrates
B.Sc. Biochemistry	UGBCAn20	NME Disease and Treatment	To provide a basic knowledge about common diseases and its treatment	Appreciate biodiversity and enhance eco-consciousness for sustainable development of the society	Create an awareness of resources and enhance eco consciousness for sustainable development of society	Understand the concept of immune system, blood and bone diseases

B.Sc. Biochemistry	UCBCBn20	NME Therapeutic Agents	To impart knowledge on action of drugs in treating diseases	Appreciate biodiversity and enhance eco-consciousness for sustainable development of the society	Create an awareness of resources and enhance eco-consciousness for sustainable development of society	Analyze the drug dosage forms and its mechanism of action
B.Sc. Chemistry	USCHA320	Skill Based Elective III Industrial Chemistry	This course enhances the reasoning skills and enables students to understand the working of industrial processes	Pursue higher knowledge, qualify professionally, enhance entrepreneurial skills and contribute towards the needs of the society	Demonstrate a firm foundation in fundamentals and gain an in-depth knowledge in different fields of Chemistry such as Inorganic Chemistry, Organic Chemistry, Physical Chemistry, Analytical Chemistry, Pharmaceutical Chemistry, Food Chemistry and Small-Scale Chemistry	Explain the various process involved in the manufacture of leathers and leather products 3 describe the importance of natural and synthetic fibers in textile industry
B.Sc. Chemistry	USCHB420	Skill Based Elective IV Agricultural chemistry	This course imparts elementary ideas of soil chemistry and emphasizes the importance of fertilizers in farming to students	Pursue higher knowledge, qualify professionally, enhance entrepreneurial skills and contribute towards the needs of the	Demonstrate a firm foundation in fundamentals and gain an in-depth knowledge in different fields of Chemistry such as Inorganic	Understand the scope of agriculture in India and Tamil nadu Explain the physical and chemical

				society	Chemistry, Organic Chemistry, Physical Chemistry, Analytical Chemistry, Pharmaceutical Chemistry, Food Chemistry and Small-Scale Chemistry	properties of soil Describe the types of farming
B.Sc. Chemistry	USCHC520	SBE V Small Scale Chemistry	This course enables students to acquire skills in the manufacture of various small-scale products	Pursue higher knowledge, qualify professionally, enhance entrepreneurial skills and contribute towards the needs of the society	Demonstrate a firm foundation in fundamentals and gain an in-depth knowledge in different fields of Chemistry such as Inorganic Chemistry, Organic Chemistry, Physical Chemistry, Analytical Chemistry, Pharmaceutical Chemistry, Food Chemistry and Small-Scale Chemistry	Acquire skills to prepare soaps and detergents Describe the characteristics and uses of cosmetics and perfumes 4Gain skills in the manufacture of selected small-scale products

B.Sc. Chemistry	UECHE20	Elective III A Applied Chemistry	This course helps the students to acquire knowledge on dairy, leather, soil and dye chemistry	Pursue higher knowledge, qualify professionally, enhance entrepreneurial skills and contribute towards the needs of the society	Demonstrate a firm foundation in fundamentals and gain an in-depth knowledge in different fields of Chemistry such as Inorganic Chemistry, Organic Chemistry, Physical Chemistry, Analytical Chemistry, Pharmaceutical Chemistry, Food Chemistry and Small-Scale Chemistry	Recall the definition, constituents and physio-chemical properties of milk and indicate the composition of creams, butter, ghee and ice creams Demonstrate the chief processes involved in leather manufacture and treatment of tannery effluents
B.Sc. Chemistry	USCHD620	SBE VI Food Chemistry	This course imparts elementary ideas of various types of food, food additives, food poisons, food adulteration to the students	Pursue higher knowledge, qualify professionally, enhance entrepreneurial skills and contribute towards the needs of the society	Demonstrate a firm foundation in fundamentals and gain an in-depth knowledge in different fields of Chemistry such as Inorganic Chemistry, Organic Chemistry, Physical Chemistry, Analytical Chemistry,	Apply simple analytical techniques for detecting food adulterants Describe the role of food additives, preservatives, flavors, colors and antioxidants Detect food poisons and

					Pharmaceutical Chemistry, Food Chemistry and Small-Scale Chemistry	apply first aid techniques 4 Distinguish between alcoholic and nonalcoholic beverages
B.Sc. Chemistry	UGCHA520 /620	Food and Nutrition Chemistry	This course enables students to learn about the importance of food and its impact on human health	Pursue higher knowledge, qualify professionally, enhance entrepreneurial skills and contribute towards the needs of the society	Demonstrate a firm foundation in fundamentals and gain an in-depth knowledge in different fields of Chemistry such as Inorganic Chemistry, Organic Chemistry, Physical Chemistry, Analytical Chemistry, Pharmaceutical Chemistry, Food Chemistry and Small-Scale Chemistry	Explain the sources, classification, functions, deficiency diseases and metabolism of carbohydrates Explain the sources, classification, functions, deficiency diseases and metabolism of proteins and fats Outline the sources, functions and deficiency diseases of fat soluble and water soluble vitamins Describe the sources, functions, and

						deficiency diseases and RDA of essential and trace minerals Appreciate the nutritive values and evaluate the chemical changes and loss of nutrients during cooking and storage of fruits and vegetables
B.Sc. Chemistry	UGCHB520/620	Cosmetics and Dyes	This course enables students to gain a broad overview on the disadvantages of using synthetic cosmetics and the applications of dyes in various industries	Pursue higher knowledge, qualify professionally, enhance entrepreneurial skills and contribute towards the needs of the society	Demonstrate a firm foundation in fundamentals and gain an in-depth knowledge in different fields of Chemistry such as Inorganic Chemistry, Organic Chemistry, Physical Chemistry, Analytical Chemistry, Pharmaceutical Chemistry, Food Chemistry and Small-Scale Chemistry	Define and classify cosmetics, deodorants, antiperspirants, perfumes, aerosols and identify the pros and cons of synthetic cosmetics Describe the safety assessment methods used by FDA Prepare and use fruits and vegetables based herbal

						cosmetics and evaluate the significance of aromatherapy and apply it to human health and beauty Explain the properties of natural and synthetic dyes Understand the impact of dyes used in textile and leather industry to environmental pollution and analyse the importance of dyes in pharmaceutical and food industry
B.Sc. Computer Science	UCCSA20	Programming in C	Develop a greater understanding of the issues involved in programming language design and implementation	Acquire and apply analytical, critical and creative thinking, and problem-solving skills	Ability to attain knowledge and understand the mathematical and logical concepts, algorithmic principles and computer fundamentals	To learn the fundamental programming concepts and methodologies which are essential to build good C programs

B.Sc. Computer Science	UCCSB20	Practical IC	Develop an in-depth understanding of functional, logic and object-oriented programming paradigms	Exercise with basic structure of the C program, declaration and usage of variable	Demonstrate the knowledge on appropriate theory, practices and tools for the specification, design and implementation	Exercise with basic structure of the C program, declaration and usage of variable Resolve mathematical and scientific problem
B.Sc. Computer Science	UCCSC20	Practical II Digital Logics and Fundamentals	The course will help in design and analysis of the digital circuit and system	Acquire and apply analytical, critical and creative thinking, and problem-solving skills	Demonstrate the knowledge on appropriate theory, practices and tools for the specification, design and implementation	Simulate digital circuits and implement them using hardware component
B.Sc. Computer Science	UCCSF20	Practical-IV Microprocessor	To develop background knowledge and core expertise of microprocessor	Acquire and apply analytical, critical and creative thinking, and problem-solving skills	Demonstrate the knowledge on appropriate theory, practices and tools for the specification, design and implementation	Understand the Architecture of a typical microprocessor
B.Sc. Computer Science	UECSB20	Elective-I B Data Mining	To understand expose to various Data Mining techniques	Attain knowledge and understand the principles and concepts in the respective discipline	Ability to attain knowledge and understand the mathematical and logical concepts, algorithmic principles and computer	Understand Data Warehouse fundamentals and Data Mining Principles

					fundamentals	
B.Sc. Microbiology	USMBA20	Mushroom Technology	The course is designed to provide adequate hands-on experience in handling and cultivation of edible mushrooms to start a small-scale Mushroom unit	Pursue higher knowledge, qualify professionally, enhance entrepreneurial skills and contribute towards the needs of the society	Attain higher knowledge by developing competency in the field of Microbiology assuring and enhancing entrepreneurial skills for the betterment of the society	Communicate information about scope and importance of mushrooms Formulate media used for cultivation of mushroom and select the appropriate methods for spawn production Demonstrate mushroom cultivation technology and its preservation Compile in detail about edible and poisonous mushrooms Utilize the nutritional and medicinal values of mushrooms

B.Sc. Microbiology	USMBC20	Diagnostic Microbiology	The course provides the learners an overview on clinical Microbiology, laboratory organization and various diagnostic approaches from traditional to molecular methods	Effectively communicate general and discipline-specific information, ideas and opinions	Realize the application-oriented aspects of Microbiology and assimilate the technical skills in basic, medical and applied microbiology	Explain general safety regulations and guidelines of microbiology laboratory Apply procedures in the collection and transport of clinical specimens Examine and identify the pathogenic microorganisms from clinical specimens Perform serological and molecular methods for the diagnosis of diseases Determine the sensitivity and resistance pattern of bacterial pathogens to various antibiotics
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B.Sc. Microbiology	USMBD20	Nutraceuticals and Functional foods	To course is designed to familiarize the learners on the basic nutraceutical constituents of different foods; its role in health benefits and to start small scale production of food products as per the local demand market	Pursue higher knowledge, qualify professionally, enhance entrepreneurial skills and contribute towards the needs of the society	Attain higher knowledge by developing competency in the field of Microbiology assuring and enhancing entrepreneurial skills for the betterment of the society	Explain the historical perspective, classification, scope and future prospects of nutraceuticals Discuss the nutraceuticals constituents present in various food products and the role of probiotics and prebiotics as nutraceuticals Analyze food as remedies for the common disorders Outline genetically modified plants which are commercially available and their applications Communicate the pharmaceutical applications of genetically
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						engineered plants
B.Sc. Microbiology	UEMBE20	Cyano bacteriology	The syllabus facilitates the learners on the mass cultivation and applications of Cyanobacteria	Appreciate biodiversity and enhance eco-consciousness for sustainable development of the society	Understand and explain the diversity of microorganisms and its interaction with the environment for sustainable development	Comprehend the mass cultivation and applications of Cyanobacteria
B.Sc. Microbiology	UGMBA20	Food Microbiology	The course is designed to provide an in-depth knowledge on the significance microorganisms associated with food	Effectively communicate general and discipline-specific information, ideas and opinions	Realize the application-oriented aspects of Microbiology and assimilate the technical skills in basic, medical and applied microbiology	Prepare fermented dairy products and formulate the traditional Indian fermented products Communicate the significance of food borne diseases in association with public health Explain about the genetically modified plants which are commercially available and

						their applications
B.Sc. Microbiology	UGMBB20	Waste Water Microbiology	To provide in depth knowledge on the significance of waste water and on waste water and its treatment cum recycling methods	Effectively communicate general and discipline-specific information, ideas and opinions	Realize the application-oriented aspects of Microbiology and assimilate the technical skills in basic, medical and applied microbiology	Use the available technologies for physical, chemical and biological treatment of municipal water Demonstrate the microbiological analysis of potable water and brief out water borne diseases Outline bioremediation of pesticides, heavy metals and oil spills Explain the sewage treatment process Utilization of solid and liquid waste

B.Sc. Visual Communication	UCVCF20	Practical III Computer Graphics	To equip the students to design basic layout designs in print media using Adobe Photoshop software	Pursue higher knowledge, qualify professionally, enhance entrepreneurial skills and contribute towards the needs of the society	To get equipped with ICT competencies including Digital literacy	Creating print advertisements like brochures, pamphlet, banners and magazine with the usage of proper techniques
B.Sc. Visual Communication	UASWA20	Allied Script writing	To make students understand the guidelines and techniques of script writing and to give them practice in writing scripts for various media	Acquire and apply analytical, critical and creative thinking, and problem-solving skills	To become competent enough to undertake the professional job as per the demands and requirements of the media and Entertainment Industry	Learning the various forms of writing for visual mediums
B.Sc. Visual Communication	UCVCG20	Media, Culture and Society	To enable the students to understand the theories of media and the impact of media on society and culture	Appreciate biodiversity and enhance eco-consciousness for sustainable development of the society	To become a socially responsible citizen with a global vision	Analyze the various models of media and Categories the ecological perspective of media audience
B.Sc. Visual Communication	UAJLA20	Allied-IV Journalism	To introduce the field of Visual Nature of journalism in various media and to develop journalistic skills in students	Emulate positive social values and exercise leadership qualities and team work	To become ethically committed media professionals and entrepreneur by adhering to human values, Indian, and the Global culture	Evaluating the role of journalist in the stream of electronic media

B.Sc. Visual Communication	UCVCK20	Digital Public Relations	To initiate students to the field of Public Relations by giving them a background, trends and techniques in PR	Emulate positive social values and exercise leadership qualities and team work	To become competent enough to undertake the professional job as per the demands and requirements of the media and Entertainment Industry	Evaluating the Process of PR and acquiring the profound knowledge in public relation writing
B.Sc. Visual Communication	UCVCN20	Project1 Documentary Production	To train students in short-film making or documentary making by putting into practice the techniques learned in television production and script writing through team work	Emulate positive social values and exercise leadership qualities and team work	To make women professionals in media and attain professional portfolios to become entrepreneurs to increase employability	Presenting the Documentation with Master Copy
B.Sc. Visual Communication	USCMC520	Skill-Based Elective E-Content Production	To enable students, know about the production process and techniques of e-content development, implementing effective e-content material for education field	Effectively communicate general and discipline-specific information, ideas and opinions	To get equipped with ICT competencies including Digital literacy	Executing and publishing the E-contents for formal education

B.Sc. Visual Communication	UCVCP20	Introduction to ICT and New Media	To give students a brief idea of the evolution of the Communication and Information Technology, its effects on Economics and working in the New Media	Effectively communicate general and discipline-specific information, ideas and opinions	To get equipped with ICT competencies including Digital literacy	Implementing the ICT tools and techniques in New Media
B.Sc. Visual Communication	UCVCQ20	Practical VII Web Designing	To teach students the art of designing basic websites using Adobe Dreamweaver software	Pursue higher knowledge, qualify professionally, enhance entrepreneurial skills and contribute towards the needs of the society	To get equipped with ICT competencies including Digital literacy	Creating the Webpage and Making Links
B.Sc. Visual Communication	UEVCA20	Elective II AE-Content Development	To enable students, know about the production process and techniques of e-content development, implementing effective e-content material for education field	Effectively communicate general and discipline-specific information, ideas and opinions	To get equipped with ICT competencies including Digital literacy	Evaluating the E-learning platforms and technologies
B.Sc. Visual Communication	UCVCR20	Project2 Short Film Production	To train students in short-film making or documentary making by putting into practice the techniques learned in television production and script writing	Emulate positive social values and exercise leadership qualities and team work	To make women professionals in media and attain professional portfolios to become entrepreneurs to increase	Presenting the Documentation with Master Copy

					employability	
B.Sc. Visual Communication	USCMD620	Skill-Based Elective Digital Publishing	To learn the basic principles of printing and methodologies used for printing and print finishing	Attain knowledge and understand the principles and concepts in the respective discipline	To get equipped with ICT competencies including Digital literacy	Acquiring the Knowledge in final Printing Process
B.Sc. Zoology	UEZOF20	Elective III B Parasitology	Enable the students to understand the various dimensions of human health with reference to human parasites	Attain knowledge and understand the principles and concepts in the respective discipline	Undertake further studies in Zoology or Multidisciplinary areas	Discuss about parasites Describe host parasite interaction Discuss pathology of protozoan parasites Describe the pathology of Helminth parasites Explain Arthropod role as parasites and vectors
B.Sc. Zoology	USZOA120/ USZOB220	SBE Public Health and Hygiene	Enable the students to understand the various dimensions of human health with reference to nutrition and Health	Attain knowledge and understand the principles and concepts in the respective discipline	Undertake further studies in Zoology or Multidisciplinary areas	Impart knowledge about health and diseases Acquire knowledge

						<p>about nutrition and classification of food</p> <p>Analyze the interaction and impact of the environment on health</p> <p>Expand knowledge about communicable diseases and its prevention</p> <p>Improve the quality of life through prevention and treatment of non-communicable disease</p>
B.Sc. Psychology	UAVCB21	Media, culture and society	To understand the theories of media and the impact of media on society and culture	Pursue higher knowledge, qualify professionally, enhance entrepreneurial skills and contribute towards the needs of the society	Use effective and fluent written, oral and visual communication to convey ideas and concept	<p>Comprehend interaction between individuals in different social groups</p> <p>significant physical, psychological and social transitions in growth</p>

B.Sc. Psychology	UEPYD22	School counselling	To impart knowledge and to equip students with basic skills required to counsel in school	Emulate positive social values and exercise leadership qualities and team work	Ability to gain employment and be successful in their chosen occupation which benefits the recipients, the workforce, the community and themselves	Recognise the character and functions of a school counsellors and to explore the common issues faced by school children
B.Sc. Psychology	USPYF22	Consumer behaviour	To understand the nature, attitude, and behaviour of consumers and their communication process	Pursue higher knowledge, qualify professionally, enhance entrepreneurial skills and contribute towards the needs of the society	Ability to gain employment and be successful in their chosen occupation which benefits the recipients, the workforce, the community and themselves	Define consumer behaviour and the different kinds of consumers and to relate factors influencing consumer behaviour to exist marketing strategies of brands and advertisements
B.Sc. Psychology	UCPYA20	General psychology-I	To introduce students to the basic concepts of the field of psychology with an emphasis on application of psychology in everyday life	Attain knowledge and understand the principles and concepts in the respective discipline	Define major concepts in psychology and explain the theoretical perspectives of the fields in psychology	Define the concepts and explain sensation, perception and attention

B.Sc. Psychology	UCPYB20	Biological psychology-I	To develop an appreciation of the neuro biological basis of psychological function and dysfunction	Attain knowledge and understand the principles and concepts in the respective discipline	Capability of demonstrating comprehensive knowledge of psychology and understanding of one or more disciplines which form a part of the undergraduate program of study	To understand the fundamental processes of memory
B.Sc. Psychology	UAPMA20	Principles of management	To enables the students to study the evolution of management, to study the functions and principles of a management	Graduates will be able to understand and fundamental concepts in psychology	Graduates will be motivated towards ethical and social responsibilities in this complex world,	Demonstrate an understanding of effective motivational strategies utilized by managers and leaders
B.Sc. Psychology	UCPYC20	General psychology-II	Provide an overview of the basics concepts in psychology to help in better communication and enhance adjustment in life work	Graduates will be able to acquire basic knowledge and skills in psychology	Capability of demonstrating comprehensive knowledge of Psychology and understanding of one or more disciplines which form a part of the undergraduate programme of study	Explain the underlying principle of psychological basis of emotion and stress

B.Sc. Psychology	UCPYD20	Biological psychology-II	To develop an appreciation of the neurobiological basis of psychological function and dysfunction	Graduates will be able to grow in awareness of self and apply the knowledge acquired to improve self and others	Ability to work independently and do in-depth study of various concepts of Psychology	Demonstrate the brain development, understand the biological basis of emotions
B.Sc. Psychology	UCPYE21	Developmental psychology- I	To introduce the concepts and process of human development across the life span	Attain knowledge and understand the principles and concepts in the respective discipline	Ability to handle various life situation confidently and competently	Understand the developmental stage of conception through birth, infancy and babyhood, developmental process of early and late childhood
B.Sc. Psychology	UCPYG21	Developmental psychology-II	To facilitate the process of self-discovery and the development of emotional, cognitive and interpersonal competencies for personal growth and effectiveness using the experiential learning paradigm	Acquire and apply analytical, critical and creative thinking, and problem-solving skills	Ability to work independently and do in-depth study of various concepts of Psychology	Understand the developmental process of puberty and adolescence, young adulthood and middle age till old age
B.Sc. Psychology	UCPYH21	Introduction to Theories of Personality	To understand the different theories in personality and to restate in own words the main approaches to personality	Attain knowledge and understand the principles and concepts in the respective discipline	Define major concepts in psychology and explain the theoretical perspectives of the	Understand the concepts, assessments, measurements and research methods

					fields in Psychology	pertaining to personality
B.Sc. Psychology	UCPYI22	Social psychology-I	This course helps the students to understand the behaviour of an individual in social situations and helps to gain knowledge about the social forum	Attain knowledge and understand the principles and concepts in the respective discipline, and apply analytical, critical and creative thinking and problem-solving skills	Define major concepts in psychology and explain the theoretical perspectives of the fields in Psychology	To state and relate the theories of social psychology
B.Sc. Psychology	UCPYM22	Social psychology-II	This course gives a deeper understanding about human behaviour and mental process in a social context	Attain knowledge and understand the principles and concepts in the respective discipline	Ability to work independently and do in-depth study of various concepts of Psychology Learn independently through self-reflection and evaluation of one's strengths and weaknesses	To demonstrate the consequences of group antagonism and group influence on individuals

B.Sc. Psychology	UAPYA21	Statistics in psychology	To introduce the basic concepts of statistics and to apply statistical methods in psychological research	Acquire and apply analytical, critical and creative thinking, and problem-solving skills	Ability to handle various life situations confidently and competently, Capability for inquiring about appropriate questions relating to the concepts in various fields of Psychology	Understand the concepts related to statistics
B.Sc. Psychology	UCPYJ22	Abnormal psychology-I	To introduce the fundamental knowledge in the field of clinical psychology with emphasis on critical understanding of diagnostic criteria and treatment	Attain knowledge and understand the principles and concepts in the respective discipline	Define major concepts in psychology and explain the theoretical perspectives of the fields in Psychology	Explain the differences between and biological and psychosocial model of treatment for abnormal behaviour
B.Sc. Psychology	UCPYK22	Introduction to Research Methodology	To equip students with the knowledge and ability to produce research papers	Attain knowledge and understand the principles and concepts in the respective discipline	Ability to handle various life situations confidently and competently, Capability for inquiring about appropriate questions relating to the concepts in various fields of psychology	Understand the meaning of research and the principles that govern it and acquire knowledge on research process to write the structured report

B.Sc. Psychology	UCPYL22	Experimental Psychology-I	To provide practical exposure to assess, analyse and interpret various psychological concepts	Attain knowledge and understand the principles and concepts in the respective discipline	Capability of demonstrating comprehensive knowledge of Psychology and understanding of one or more disciplines which form a part of the undergraduate programme of study	Explain the logic of the psychology experiment and describe the features of experimental methodology intended to satisfy that logic
B.Sc. Psychology	UCPYN22	Abnormal Psychology II	To introduce students to various disorders related to mood, psychotic, personality and substance use disorders	Attain knowledge and understand the principles and concepts in the respective discipline	Define major concepts in psychology and explain the theoretical perspectives of the fields in Psychology	Summarize the concepts, symptoms and treatments of various disorders
B.Sc. Psychology	UCPYO22	Experimental Psychology-II	To provide practical exposure to assess, analyse and interpret various psychological concepts and to understand the mental status examination	Acquire and apply analytical, critical and creative thinking, and problem-solving skills	Capability of demonstrating comprehensive knowledge of Psychology and understanding of one or more disciplines which form a part of the undergraduate programme of study	Explain the logic of the psychology experiment and describe the features of experimental methodology intended to satisfy that logic

B.Sc. Psychology	UCPYP22	Project	To equip students with professional competence based on their core subjects learnt	Acquire and apply analytical, critical and creative thinking, and problem-solving skills	Use effective and fluent written, oral and visual communication to convey ideas and concept	To understand and apply the learnt knowledge through practically derived studies,
B.Sc. Psychology	UCPYF21	Health Psychology	To introduce the relationship between psychological factor and physical health	Appreciate biodiversity and enhance eco-consciousness for sustainable development of the society	Learn independently through self-reflection and evaluation of one's strengths and weaknesses	Understand theoretical models relating to health and change to healthy habits
B.Sc. Psychology	UEPYB22	Positive Psychology	To introduce the basic concepts of the growing approach of positive psychology and understand its applications in various domains	Attain knowledge and understand the principles and concepts in the respective discipline	Define major concepts in psychology and explain the theoretical perspectives of the fields in Psychology Ability to handle various life situations confidently and competently	Define positive psychology and its related concepts
B.Sc. Psychology	UAOBA20	Organizational Behavior	Understanding the fundamental concepts connected with organizational behaviour	Pursue higher knowledge, qualify professionally, enhance entrepreneurial skills and contribute towards the needs of the society	Ability to gain employment and be successful in their chosen occupation which benefits the recipients, the work force, the community and themselves	Improves a person's ability to understand and respond to events that take place in a work setting

B.Sc. Psychology	UEPYC22	Substance Use and Counseling	To develop an understanding on various substances used, addiction and gain skills used in managing substance abuse	Appreciate biodiversity and enhance eco-consciousness for sustainable development of the society and to Emulate positive social values and exercise leadership qualities and team work	Ability to work independently and do in-depth study of various concepts of Psychology and to learn independently through self-reflection and evaluation of one's strengths and weaknesses	Explain theories and concepts related to addiction and describe the management techniques and therapy
B.Sc. Psychology	USPYE522	Communication Skills	To equip the students with necessary competence in communication skills for today's professional world	Effectively communicate general and discipline specific information ideas and opinions	Use effective and fluent written, oral and visual communication to convey ideas and concept	Understand basic components of communication and skills required for communication and different modes of communication efficiently
B.Sc. Psychology	UEPYA22	Guidance and Counseling Psychology	To give students a comprehensive overview of counseling with theoretical and practical components	Acquire and apply analytical, critical and creative thinking, and problem-solving skills	Ability to work independently and do in-depth study of various concepts of Psychology Learn independently through self-reflection and evaluation of one's strengths and weaknesses	Describe different areas in counseling and summarize the nature, goals and fields of counseling

B.Sc. Psychology	UCPYF21	Health Psychology	To introduce the relationship between psychological factor and physical health	Appreciate biodiversity and enhance eco-consciousness for sustainable development of the society	Learn independently through self-reflection and evaluation of one's strengths and weaknesses	Understand theoretical models relating to health and change to healthy habits
B.Com (B &I)	UCBIO20	Project	To carry out the research in specialized areas like banking and insurance sector Transmit their knowledge to the society	Effectively communicate general and discipline-specific information, ideas and opinions	Acquire competence to efficiently handle technology and communicate in the field of Banking and Insurance Sector through internship and project	To demonstrate the capability of the students to solve the practical problems in today's Business or Industry
B.B.A (Hospital Administration)	UCHAE20	Health Care Laws	To understand the structure of judiciary in India and its functions	Attain knowledge and understand the principles and concepts in the respective discipline	Attain practical experience through analyzing the past and existing trends	Recognize the applicability of Laws on Hospital Administration and understand the obligations pertaining to the implementation of Laws applicable to hospitals
B.B.A (Hospital Administration)	UCHAF20	Hospital Operations Management I	To understand the hospital organization and management model	Effectively communicate general and discipline-specific information, ideas	Attain practical experience through analyzing the past and existing trends	Understand the classifications of hospitals, roles of hospital administrators,

				and opinions		essential hospital operations indicator and current trends in healthcare
B.B.A (Hospital Administration)	UAHCE20	Allied III Health Care Economics	To analyze how health care outcomes are influenced by changing market forces, social forces, and government forces and its impact on the economy	Attain knowledge and understand the principles and concepts in the respective discipline	Understand the ethical implications of decision-making and recognize ethical dilemmas in managerial and healthcare domain	Acquire the ability to evaluate health economics and understand the concept of healthcare market and health insurance
B.B.A (Hospital Administration)	UEHAA20	Elective I A Business Environment	To understand the nature of business environment and acquire knowledge about strategic decision making in business environment	Acquire and apply analytical, critical and creative thinking, and problem-solving skills	Understand the ethical implications of decision-making and recognize ethical dilemmas in managerial and healthcare domain	Understand the concepts in business environment globally and in Indian context
B.B.A (Hospital Administration)	UCHAH20	Human Resource Management and Development	To integrate the understanding of various HR concepts along with the domain concept to make correct business decisions	Attain knowledge and understand the principles and concepts in the respective discipline	Demonstrate managerial knowledge and analytical skills in healthcare sector through reflective learning	Gain knowledge in basic concepts of Human Resource Management and enable in drafting an HR planning model
B.B.A (Hospital Administration)	UCHAI20	Hospital Operations Management II	To understand the roles and functions of materials	Effectively communicate general and	Attain practical experience through analyzing the past	Understand the factors responsible for

			management, public relations, support services and engineering services in hospital	discipline-specific information, ideas and opinions	and existing trends	good public relations and discuss on common problems of public relations in the hospitals
B.B.A (Hospital Administration)	UCHAL20	Quality in Health Care	To understand the basic concepts and importance of healthcare quality	Attain knowledge and understand the principles and concepts in the respective discipline	Contribute to the sustainable development to the society through professional and entrepreneurial skills	Analyze the need for healthcare quality management in hospitals and identify the variation in medical practice and implication for quality
B.B.A (Hospital Administration)	UEHAC20	Elective II Health Care Insurance	To understand the evolution of Health Insurance in India, the basics of Insurance and its role in economic development	Pursue higher knowledge, qualify professionally, enhance entrepreneurial skills and contribute towards the needs of the society	Demonstrate managerial knowledge and analytical skills in healthcare sector through reflective learning	Understand the various types of health insurance policies offered to individuals in India and the rules that govern and protect policy holders

B.B.A (Hospital Administration)	UEHAD20	Elective II B E - Banking	To familiarize the students with the fundamentals of E-banking such as ATM, Internet banking, ECS, EFT Tele banking, Electronic Cheques, Credit cards, Debit cards, MICR, etc.	Attain knowledge and understand the principles and concepts in the respective discipline	Attain practical experience through analyzing the past and existing trends	Understand the need for computerization in banks and describe the advantages and disadvantages of online banking
B.B.A (Hospital Administration)	UCHAA20	Fundamentals of Management	To understand the evolution and fundamental concepts related to business	Attain knowledge and understand the principles and concepts in the respective discipline	Possess the basic knowledge and skills in managerial domain and healthcare domain	Understand the management theories, functions and responsibilities of managers
B.B.A (Hospital Administration)	UCHAB20	Foundation in Hospital Administration	To understand the overall healthcare systems	Attain knowledge and understand the principles and concepts in the respective discipline	Possess the basic knowledge and skills in managerial domain and healthcare domain	Understand the functions of various healthcare systems and learn relevant medical terminology
B.B.A (Hospital Administration)	UCHAD20	Medical Terminology for Administration	To understand and implement right usage of medical terms	Attain knowledge and understand the principles and concepts in the respective discipline	Possess the basic knowledge and skills in managerial domain and healthcare domain	Recognize and learn the meanings of Standard Medical Abbreviations

B.B.A (Hospital Administration)	UEHAB20	Elective IB Logistics and Supply Chain Management	To acquire insight in the fundamentals of supply chain management	Attain knowledge and understand the principles and concepts in the respective discipline	Possess the basic knowledge and skills in managerial domain and healthcare domain	Develop the conceptual knowledge about the process of supply chain and its drivers
B.B.A (Hospital Administration)	UAHSM20	Allied IV Health Services Marketing	To identify critical issues in service design including the nature of service products & markets, building the service model and creating customer value	Effectively communicate general and discipline-specific information, ideas and opinions	Demonstrate managerial knowledge and analytical skills in healthcare sector through reflective learning	Understand the similarities and differences in service based and physical product-based marketing activities
B.B.A (Hospital Administration)	UCHAM20	Organizational Behavior	To analyze individual and group behavior, and understand the implications of organizational behavior on the process of management	Emulate positive social values and exercise leadership qualities and team work	Possess the basic knowledge and skills in managerial domain and healthcare domain	Analyze and compare different theories used to explain individual behavior
B.B.A (Hospital Administration)	UCHAN20	Global Healthcare System	To understand, recognize and compare the governance, finance and technology aspects of healthcare systems of various countries	Attain knowledge and understand the principles and concepts in the respective discipline	Possess the basic knowledge and skills in managerial domain and healthcare domain	Realize the challenges faced by hospitals which have implemented medical tourism in their system

B.B.A (Hospital Administration)	UGHAA521	Non-Major Elective I Management Information System	To analyze operational and tactical information systems in functional areas of business	Attain knowledge and understand the principles and concepts in the respective discipline	Demonstrate managerial knowledge and analytical skills in healthcare sector through reflective learning	Evaluate operational and tactical information systems in functional areas of business including marketing, finance and human resource
B.B.A (Hospital Administration)	UCHAQ20	Materials and Equipment Management	To develop, organize and implement the materials management system in the hospital	Attain knowledge and understand the principles and concepts in the respective discipline	Possess the basic knowledge and skills in managerial domain and healthcare domain	Recognize the importance of value and inventory management in materials management and select the appropriate methods for sustainable economic functioning
Allied Botany	UNEVS20	Environmental Studies	Course is designed for students to learn biodiversity and to conserve the environment and for their future They are also exposed to projects on environmental issues	Acquire and apply analytical, critical and creative thinking, and problem-solving skills Effectively communicate general and discipline-specific information, ideas and opinions		1Gain knowledge on multidisciplinary nature of environmental studies 2Understand the Ecosystem, its structure and function 3Understand

				Appreciate biodiversity and enhance eco-consciousness for sustainable development of the society		the conservation of biodiversity 4 Gain knowledge on Environmental pollution, causes and its effects 5Apply the laws in prevention of environment
Foundation Course Tamil	ULTAA20	Tamil Paper I	To improve Students Human Rights values and awareness to Humanity	To develop students as human rights thinkers and humanitarians	Learning to read, Compassionate and observe beyond the classroom	Creating social awareness through literature Inculcation of life values of witnesses through biography
Foundation Course Tamil	ULTAB20	Tamil Paper II	To Aware to the students religious Harmony	The way of literature is to develop a sense of religious harmony among the students	Cultivating the mind of students with religious ethics to love all living beings, do no harm	The way of devotional literature is to promote the spirit of equality and brotherhood
Foundation Course Tamil	ULTAC20	Tamil Paper III	Individual behaviour to cultivate via of Sangam literature to the students	Nurturing students through education to overcome the evils found in the society	To develop students as moralists to develop a good society	To lead a moral life through moral literature

Foundation Course Tamil	ULTAD20	Tamil Paper IV	To develop students creative thinking and Job Oriented skills (LSRW)	Creating basic skills among students and creating employment	Facilitate self-sufficiency in life and lead a self-reliant life	Facilitating personality acquisition in language skills and creative skills
MSW	PCSWA20	Introduction to Social Work and Sociology	To gain an understanding of the concepts and the different processes of Social Work with special reference to Indian Society	Integrate issues of social relevance in the field of study	To utilize the available resources for the empowerment of vulnerable groups and critically analyze the problems, needs to create impact in society	Able to understand Social Work as a Profession
MSW	PCSWB20	Social Case Work	Dealing with individuals in solving problem using skills and techniques	Assimilate and apply principles and concept towards skill development and Employability	To enhance the individuals to help themselves with the scientific knowledge about the dynamics of problem and social issues	Effectively understand the scope of Social Work
MSW	PCSWC20	Social Group Work	To acquire knowledge on Group Dynamics	Integrate issues of social relevance in the field of study	To utilize the available resources for the empowerment of vulnerable groups and critically analyze the problems, needs to create impact in society	Acquire knowledge, skills and values in practicing Social Work with Groups through Programme Planning

MSW	PESWA20	Social Problems	Develops an understanding about various social problems, helps to find out the problems of weaker sections and educate the students about various social problems from various cultural backgrounds	Apply critical and scientific approaches to address problems and find solutions	It brings a change in attitudes and values of individual irrespective of their class, caste or gender	Analyze social problem and highlight the significance of social work intervention in the Indian context
MSW	PISWA20	Disaster Management	To provide students an exposure to disaster management, their significance and type	Integrate issues of social relevance in the field of study	To prepare the individual in understanding the human behaviour with the relation to society	Understanding the process of Disaster Management and the various types of disasters
MSW	PCSWD20	Concurrent Field Work-I	To analyse the social system and its impact on individuals, groups, family, community and understand the role and functioning of organisation Government and Non-Governmental	Apply critical and scientific approaches to address problems and find solutions	To prepare the individual in understanding the human behaviour with the relation to society	Understand the role of a Social Worker in an agency and in the community
MSW	PCSWE20	Human Growth and Personality Development	Helps to obtain an understanding of human behaviour in relation to the society	Apply critical and scientific approaches to address problems and find solutions	To prepare the individual in understanding the human behaviour with the relation to society	Summarize the relevance of psychology in social work practice

MSW	PCSWF20	Social Work Research	To understand the nature and importance of the scientific method and appreciate the principles of Social Work Research	Integrate issues of social relevance in the field of study	To utilize the available resources for the empowerment of vulnerable groups and critically analyze the problems, needs to create impact in society	Appropriately apply statistical techniques in Social Work Research
MSW	PCSWG20	Community Organisation and Social Action	To develop an understanding of the concepts related to working with communities	Integrate issues of social relevance in the field of study	To utilize the available resources for the empowerment of vulnerable groups and critically analyze the problems, needs to create impact in society	Able to demonstrate familiarity with Community Organisation and Social Action as method of Social Work Profession
MSW	PESWC20	Social Policy and Social Legislation	To make aware on the different social legislation and its roles	Persist in life-long learning for personal and societal progress	To utilize the available resources for the empowerment of vulnerable groups and critically analyze the problems, needs to create impact in society	Understanding the concepts of Social Policy and Social welfare Policy to emphasize the importance of them
MSW	PISWB20	Women and Development	To develop an understanding of the perspective of Women and Development in Indian Society	Assimilate and apply principles and concept towards skill development and	To utilize the opportunity and of professionalism in the development process	Implement the planning skills on development of women and know about the

				Employability		national policies related to women empowerment
MSW	PNHRA22	Human Rights	Obtain knowledge about Fundamental Human Rights	Persist in life-long learning for personal and societal progress	It brings a change in attitudes and values of individual irrespective of their class, caste or gender	To strengthen the promotion and protection of human rights around the globe
MSW	PSCDA20	Rural Community Development	To develop in students an in-depth understanding of rural communities	Assimilate and apply principles and concept towards skill development and Employability	To utilize the available resources for the empowerment of vulnerable groups and critically analyze the problems, needs to create impact in society	To understand the rural development and panchayat raj system
MSW	PSCDB20	Development Planning	To develop theoretical understanding of development and planning	Persist in life-long learning for personal and societal progress	To utilize the opportunity and of professionalism in the development process	Understand and support the relevance of participation in planning and the tools for enhancing development
MSW	PSHRA20	Labour Legislation	To understand the existing structure and functions of industrial and labour judicial system in India	Persist in life-long learning for personal and societal progress	It brings a change in attitudes and values of individual respective of their class, caste or gender	Obtain knowledge of legislative structure, frame and process of making legislation

MSW	PSMSA20	Medical Social work	To develop a holistic and integrated approach to social work practice in the field of Medicine	Apply critical and scientific approaches to address problems and find out solutions	To utilize the available resources for the empowerment of vulnerable groups and critically analyze the problems, needs to create impact in society	Understand the various dimensions of health to help people with illness manage the psycho-social impact of the same on their lives
MSW	PSMSB20	Introduction to psychiatry and Mental Health	Helps to understand the concept of Mental Health, and acquire knowledge in mental disorders, stress and coping in the context of holistic health	Apply critical and scientific approaches to address problems and find out solutions	To utilize the available resources for the empowerment of vulnerable groups and critically analyze the problems, needs to create impact in society	Understand the context of practice of psychiatric social work
MSW	PESWE20	Project Formulation	To understand the strategies and techniques involved in project formulation	Apply critical and scientific approaches to address problems and find solutions	To utilize the available resources for the empowerment of vulnerable groups and critically analyze the problems, needs to create impact in society	Analyzing the elements and significance of project development

MSW	PISWC20	Counseling	To develop a basic understanding of theories and skills in counseling	Persist in life-long learning for personal and societal progress	To utilize the opportunity and of professionalism in the development process	Understand linkages of counseling and guidance in social work
MSW	PCSWJ20	Concurrent Field Work-III	To enable the students to analyse and understand the social realities and factors influencing individuals in the contexts of the field of specialization	Integrate issues of social relevance in the field of study	To prepare the individual in understanding the human behaviour with the relation to society	Evaluate and understand the role of organization and practice the values, principles and ethics in field of social work
MSW	PSCDC20	Urban Community Development	In-Depth understanding of urbanization and its effects	Apply critical and scientific approaches to address problems and find solutions	To enhance the individuals to help themselves with the scientific knowledge about the dynamics of problem and social issues	Identifying the community development challenges facing urban and regional communities
MSW	PSCDD20	Entrepreneurship Development	Course designed to develop entrepreneurial skills to craft innovative responses to social problems	Assimilate and apply principles and concept towards skill development and Employability	To utilize the opportunity and of professionalism in the development process	Apply social entrepreneurship to both profit and non-profit firms to create social values
MSW	PSHRC20	Labour Welfare and Industrial relations	To enable the students to analyse and understand the social realities and factors influencing individuals in the	Assimilate and apply principles and concept towards skill development and Employability	To enhance the individuals to help themselves with the scientific knowledge about the dynamics of	Acquire appropriate and professional skills require for industrial relations

			contexts of the field of specialization		problem and social issues	
MSW	PSHRD20	Organizational Behaviour	To present a new perspective for management	Develop research skills through multi/inter/trans-disciplinary perspectives	It brings a change in attitudes and values of individual respective of their class, caste or gender	Analyze individual and group behaviour and understand the implication of organizational behaviour on the process of management
MSW	PSMSC20	Rehabilitation strategies and Techniques	Helps to understand about the techniques, strategies and processes followed in the field rehabilitation, to understand about various aspects of health and determinants	Apply critical and scientific approaches to address problems and find solutions	To enhance the individuals to help themselves with the scientific knowledge about the dynamics of problem and social issues	Learn and understand professional rehabilitation strategies and techniques
MSW	PSMSD20	Psychiatric social work	Help to understand the significance of social work in the field of psychiatry	Apply critical and scientific approaches to address problems and find solutions	To enhance the individuals to help themselves with the scientific knowledge about the dynamics of problem and social issues	Explore the emerging trends in the care of Psychiatric social work

MSW	PESWG20	Administration of Service Organization	To acquire knowledge on administration of agencies	Assimilate and apply principles and concept towards skill development and Employability	To utilize the opportunity and of professionalism in the development process	Understand and support about the concepts of social welfare administration
MBA	PCBAA20	Management Process	To understand the functions of management and to strengthen the knowledge about the basic approaches to management.	Attain an in-depth knowledge in the respective domains augmented through self-learning.	At the end of the course the students shall be able to conceptualize, critically analyse, provide solutions to problems challenging real-life situations, gain practical exposure in Business and Management.	Attain the knowledge of the functions and importance of management.
MBA	PCBAB20	Organizational Behaviour	To give a comprehensive view on the behavior of individuals and groups within diverse organizations and on organizational structure and processes.	Persist in life-long learning for personal and societal progress.	The students can function effectively as an individual and in a group with the capacity to be a team leader, as an entrepreneur, and administrator.	Asses an organization and classify the contributing disciplines, approaches to OB
MBA	PCBAC20	Economics for Management	To imbibe awareness about the pricing in the current market which serves as the basic elements of personal and professional life	Persist in life-long learning for personal and societal progress.	The students can function effectively as an individual and in a group with the capacity to be a team leader, as an entrepreneur, and administrator.	Understand the assumption of pricing and Market competition

MBA	PCBAD20	Accounting for Management	To enable the students to understand the principles, concepts, conventions and preparation of financial statements.	Persist in life-long learning for personal and societal progress.	Students will understand the professional, legal, ethical, and environmental responsibilities and will be committed towards them.	Be able to acquire depth knowledge in accounting and will be capable of preparing financial income statement and financial balance sheet.
MBA	PCBAJ20	Financial Management	To enable the learners, understand the concept of financial management, scope, objectives and time value of money. Also, valuation of bonds and shares.	Persist in life-long learning for personal and societal progress.	Students will understand the professional, legal, ethical, and environmental responsibilities and will be committed towards them.	Be well-versed in the financial decision, functions and organization of financial managements. They can also come out with knowledge to value bonds and shares in practice.
MBA	PCBAH20	Marketing Management	To understand the principles, concepts and functions of Marketing and to develop marketing strategies for a dynamic marketing.	Attain an in-depth knowledge in the respective domains augmented through self-learning.	At the end of the course the students shall be able to conceptualize, critically analyse, provide solutions to problems challenging real-life situations, gain practical exposure in Business and	Demonstrate the strong conceptual knowledge in marketing and its functions

					Management.	
MBA	PCBAM20	Business Laws	To Prepare the learners with Legal Knowledge of Business	Attain an in-depth knowledge in the respective domains augmented through self-learning.	At the end of the course the students shall be able to conceptualize, critically analyse, provide solutions to problems challenging real-life situations, gain practical exposure in Business and Management.	Acquire Knowledge on Commercial law
MBA	PIBAA20	Management Concepts in Thiru Kural	To Furnish and Prepare the Learners to expose the students of Management Studies to learn Business Ethics from related Thiru Kural Verses	Attain an in-depth knowledge in the respective domains augmented through self-learning.	Students can objectively research on business and management problems by collecting, analyzing, and interpreting the data and professionally recommend feasible solution/s.	Understand the formation and need for Decision Making Process and Leadership

MBA	PIBAH20	Rural Marketing	To enable students to understand and appreciate the differences and similarities in urban and rural marketing.	Attain an in-depth knowledge in the respective domains augmented through self-learning.	Students can objectively research on business and management problems by collecting, analysing, and interpreting the data and professionally recommend feasible solution/s.	Understand the factors that influences the rural market environment.
MBA	PEMKA20	Retail Marketing	To introduce the student to the role of retailing and rural retailing in the distribution component	Assimilate and apply principles and concepts towards skill development and employability.	At the end of the course the students shall be able to conceptualize, critically analyse, provide solutions to problems challenging real-life situations, gain practical exposure in Business and Management.	Be provided with a comprehensive view of retailing and rural marketing in the distribution component.
MBA	PEMKB20	Service Marketing	To acquire the knowledge of services and marketing mix strategies	Develop research skills through multi/inter/trans-disciplinary perspectives.	Students gain the ability to synthesize knowledge with skills in the areas of Business and Management and can provide innovative and entrepreneurial solutions to job-	Acquires knowledge of services strategies including service product and delivery

					related problems.	
MBA	PEMKC20	Advertising and Sales Promotion	To learn how to design media planning and analyse the creative strategies.	Assimilate and apply principles and concepts towards skill development and employability.	At the end of the course the students shall be able to conceptualize, critically analyse, provide solutions to problems challenging real-life situations, gain practical exposure in Business and Management.	Be able to design an advertising for the different media.
MBA	PEFNB20	Merchant Banking and Financial Services	To acquire the knowledge of various fund based and fee based financial services	Develop research skills through multi/inter/trans-disciplinary perspectives.	Students gain the ability to synthesize knowledge with skills in the areas of Business and Management and can provide innovative and entrepreneurial solutions to job-related problems.	Acquire the financial evaluation technique of leasing, venture capital and hire purchase
MBA	PEFNA20	Security Analysis and Portfolio Management	To gain the knowledge on advanced practical concepts, tools and applications to the Indian Securities	Integrate issues of social relevance in the field of study.	Students develop self-learning skills, and remain updated on contemporary management practices and can	Gain knowledge in the financial market and SEBI regulations.

			Market.		leverage their learning to provide solutions to business problems.	
MBA	PEFNC20	Risk Management and Derivatives	To provide knowledge, understanding of practical investments and corporate financial management strategies using various derivatives in a manner which will allow students to apply these concepts and skills in their careers.	Assimilate and apply principles and concepts towards skill development and employability.	At the end of the course the students shall be able to conceptualize, critically analyse, provide solutions to problems challenging real-life situations, gain practical exposure in Business and Management.	Understand the concepts on risk and its sources
MBA	PEHRA20	Compensation Management	To gain knowledge about the basic concepts of the compensation system and the pay model.	Develop research skills through multi/inter/trans-disciplinary perspectives.	Students gain the ability to synthesize knowledge with skills in the areas of Business and Management and can provide innovative and entrepreneurial solutions to job-related problems.	Understand the concept of the compensation system and the pay model.

MBA	PEHRB20	Training And Development	Identify training plans and effectively implement them.	Assimilate and apply principles and concepts towards skill development and employability.	At the end of the course the students shall be able to conceptualize, critically analyse, provide solutions to problems challenging real-life situations, gain practical exposure in Business and Management.	Understand the concepts, process, models and approaches involved in training
MBA	PEHRC20	Industrial Relations	To acquire knowledge on the contextual and constitutional framework of Industrial relations.	Integrate issues of social relevance in the field of study.	Students develop self-learning skills, and remain updated on contemporary management practices and can leverage their learning to provide solutions to business problems.	Understand the concept, formation, types of Trade Union in India and its Functions
MBA	PEHCA20	Hospital Design and Operation Management	To recognize the importance and need for planning of hospital services and the factors involved	Assimilate and apply principles and concepts towards skill development and employability.	At the end of the course the students shall be able to conceptualize, critically analyse, provide solutions to problems challenging real-life situations, gain practical exposure in Business and Management.	Understand and infer the importance of hospital planning and identify the factors influencing outcomes to identify, understand and differentiate the various steps

						involved in hospital planning
MBA	PELMA20	Logistics Management	The course provides the analytical framework for understanding the basic concepts and evolution of logistics	Develop research skills through multi/inter/trans-disciplinary perspectives.	Students gain the ability to synthesize knowledge with skills in the areas of Business and Management and can provide innovative and entrepreneurial solutions to job-related problems.	Analyze how logistical decisions (e.g., facilities, inventory, and transportation) impact the performance of the firm as well as the entire supply chain.
MBA	PELMB20	Export and Import Management	To impart the knowledge on the key functions in export and import process and procedures.	Assimilate and apply principles and concepts towards skill development and employability.	At the end of the course the students shall be able to conceptualize, critically analyse, provide solutions to problems challenging real-life situations, gain practical exposure in Business and Management.	Understand various import process and procedures and agencies involved in EXIM process and their role in the international trade
MBA	PELMC20	Green Supply Chain and Logistics Management	To provide foundational knowledge associated with the green supply chain.	Develop research skills through multi/inter/trans-disciplinary perspectives.	Students gain the ability to synthesize knowledge with skills in the areas of Business and Management and can provide innovative and entrepreneurial	Understand various procedures in ECO Design with its drivers.

					solutions to job-related problems.	
M.Sc. Biochemistry	PCBCA20	Biomolecules	To understand the salient features of biomolecules in the organization of life	Attain an in-depth knowledge in the respective domains augmented through self-learning	Acquire in-depth knowledge in Biochemistry concepts and life science	Outline the structural features, properties and biological importance of carbohydrates
M.Sc. Biochemistry	PCBCB20	Human Physiology and Nutrition	To study about the Physiological system of human body and Nutrients with their deficiencies	Attain an in-depth knowledge in the respective domains augmented through self-learning	Acquire in-depth knowledge in Biochemistry concepts and life science	Outline the physiological system of the human body
M.Sc. Biochemistry	PCBCC20	Cell Biology	To understand the Cell, Cell organelle's structure, function and metabolism	Attain an in-depth knowledge in the respective domains augmented through self-learning	Acquire in-depth knowledge in Biochemistry concepts and life science	Discuss about the various sub-cellular components of cells and its functions in the biological system
M.Sc. Biochemistry	PCBCG20	Practical I Main Practical-I	To help students to expertise in the Biomolecules, Cell Dynamics and biochemical techniques	Attain an in-depth knowledge in the respective domains augmented through self-learning	Acquire in-depth knowledge in Biochemistry concepts and life science	Discuss qualitative and quantitative analysis of various biomolecules
M.Sc. Biochemistry	PCBCH20	Practical II Main Practical-II	To learn about the analytical techniques and enzymology experiments	Attain an in-depth knowledge in the respective domains augmented through self-learning	Acquire in-depth knowledge in Biochemistry concepts and life science	Explain the basic principle involved in intermediary metabolism

M.Sc. Biochemistry	PEBCA20	Elective IA Biophysical Chemistry	To make the students to understand the concepts of bioenergetics and techniques	Attain an in-depth knowledge in the respective domains augmented through self-learning	Acquire in-depth knowledge in Biochemistry concepts and life science	Describe the spectroscopic techniques NMR, UV and MS
M.Sc. Biochemistry	PEBCB20	Elective IB Pharmaceutical Biochemistry	To make the students aware of uses and abuse of drugs	Attain an in-depth knowledge in the respective domains augmented through self-learning	Acquire in-depth knowledge in Biochemistry concepts and life science	Outline the basic scientific concepts related to mechanism of drug action
M.Sc. Biochemistry	PCBCD20	Analytical Biochemistry	To understand the principles and applications of analytical techniques	Attain an in-depth knowledge in the respective domains augmented through self-learning	Acquire in-depth knowledge in Biochemistry concepts and life science	Identify the behavior of molecules and prioritize related analytical tools
M.Sc. Biochemistry	PCBCE20	Enzymology	To learn the methodology involved in assessing the enzyme activity and mechanism of enzyme action	Attain an in-depth knowledge in the respective domains augmented through self-learning	Acquire in-depth knowledge in Biochemistry concepts and life science	Compare methods for enzyme catalysis and various methods of inhibition
M.Sc. Biochemistry	PCBCF20	Intermediary Metabolism	To make the students to understand the reactions catalyzed by different enzymes and their metabolic pathways	Attain an in-depth knowledge in the respective domains augmented through self-learning	Acquire in-depth knowledge in Biochemistry concepts and life science	Restate in own words how reduced electron carriers are used to generate ATP via Electron Transport System in Mitochondria

M.Sc. Biochemistry	PEBCC20	Elective IIA Ecology, Evolution and Developmental Biology	The course enables the students to understand and analyze the role of ecological and evolutionary modifications in the development of organisms and their survival	Attain an in-depth knowledge in the respective domains augmented through self-learning	Acquire in-depth knowledge in Biochemistry concepts and life science	Outline the concept of ecosystem and its interaction
M.Sc. Biochemistry	PEBCD20	Elective II B Toxicology	The course gives a detailed understanding and identification of toxic substances, dose-response, tests conducted and its impact on cellular activities	Attain an in-depth knowledge in the respective domains augmented through self-learning	Acquire in-depth knowledge in Biochemistry concepts and life science	Outline the scope and factors influencing toxicology
M.Sc. Biochemistry	PCBCI20	Advanced Endocrinology	The course describes in detail about the role of endocrine glands, their secretion, its metabolic effect on target cells involving various signaling pathways and signal chain proteins	Attain an in-depth knowledge in the respective domains augmented through self-learning	Acquire in-depth knowledge in Biochemistry concepts and life science	Identify the difference in the mechanism of cell-to-cell communication
M.Sc. Biochemistry	PCBCJ20	Advanced Immunology	To help the students to understand the components of immune system and it's functioning	Attain an in-depth knowledge in the respective domains augmented through self-learning	Acquire in-depth knowledge in Biochemistry concepts and life science	Outline the cell types and organ present in the immune response

M.Sc. Biochemistry	PCBCK20	Advanced Biotechnology	To learn how to apply the knowledge of genetic engineering in problem solving and in practice	Attain an in-depth knowledge in the respective domains augmented through self-learning	Acquire in-depth knowledge in Biochemistry concepts and life science	Illustrate the tools and strategies used in genetic engineering
M.Sc. Biochemistry	PCBCN20	Practical II Main Practical III	The course is aimed to enable the student interpret hormonal imbalance and clinical conditions and also to provide in-depth practical knowledge and skill in performing immune-techniques and cell culture techniques	Attain an in-depth knowledge in the respective domains augmented through self-learning	Acquire in-depth knowledge in Biochemistry concepts and life science	Analyse the prevalence and impact of endocrine hormone in regulating health
M.Sc. Biochemistry	PCBCO20	Practical II Main Practical IV	To help students to expertise in the molecular biology and clinical Biochemistry techniques	Attain an in-depth knowledge in the respective domains augmented through self-learning	Acquire in-depth knowledge in Biochemistry concepts and life science	Demonstrate various pathological conditions related to abnormal constituents in urine
M.Sc. Biochemistry	PEBCE20	Elective III A Microbiology	To understand the importance of applications of microorganisms	Attain an in-depth knowledge in the respective domains augmented through self-learning	Acquire in-depth knowledge in Biochemistry concepts and life science	Recall the taxonomy, morphological features and division process of microbes

M.Sc. Biochemistry	PEBCF20	Elective III B Research Methodology	To addresses the issues inherent in selecting a research problem and discuss the techniques and tools to be employed in completing a research project	Attain an in-depth knowledge in the respective domains augmented through self-learning	Acquire in-depth knowledge in Biochemistry concepts and life science	Gain an idea on the role of biostatistics in research
M.Sc. Biochemistry	PCBCL20	Molecular Biology	The course will enable the student to learn the molecular events occurring in gene and its application in field of biomedical and genetic research	Attain an in-depth knowledge in the respective domains augmented through self-learning	Acquire in-depth knowledge in Biochemistry concepts and life science	Demonstrate the nature and role of Gene in life activity
M.Sc. Biochemistry	PCBCM20	Advanced Clinical Biochemistry	To gain concepts of assessing the human physiology using biological fluid	Attain an in-depth knowledge in the respective domains augmented through self-learning	Acquire in-depth knowledge in Biochemistry concepts and life science	Communicate the disorders of carbohydrate metabolism
M.Sc. Biochemistry	PEBCG20	Elective IVA Plant Biochemistry	To help the students to understand the plant metabolites and their application in the field of medicine	Attain an in-depth knowledge in the respective domains augmented through self-learning	Acquire in-depth knowledge in Biochemistry concepts and life science	Describe the processes of germination and plant growth
M.Sc. Biochemistry	PEBCH20	Elective IV B Herbal Therapy	To help students to understand the concepts in pharmacognosy and the role of medicinal plants	Attain an in-depth knowledge in the respective domains augmented through self-learning	Acquire in-depth knowledge in Biochemistry concepts and life science	Outline the different parts of plant

M.Sc. Biochemistry	PIBCA20	IEC Organic Farming	To help students to understand the concepts and importance of organic farming and use it as a source of income generation	Attain an in-depth knowledge in the respective domains augmented through self-learning	Acquire in-depth knowledge in Biochemistry concepts and life science	Analyze the importance of organic farming
M.Sc. Biochemistry	PIBCB20	IEC Food Preservation	To enable students to understand the concepts of food preservation and methods involved	Attain an in-depth knowledge in the respective domains augmented through self-learning	Acquire in-depth knowledge in Biochemistry concepts and life science	Outline the role of microbes in food spoilage and methods adopted to overcome microbial food spoilage
M.Sc. Biochemistry	PIBCC20	IEC Horticulture	To emphasis on the significance and concepts of horticulture and the techniques involved	Attain an in-depth knowledge in the respective domains augmented through self-learning	Acquire in-depth knowledge in Biochemistry concepts and life science	Recall the significance of horticulture
M.Sc. Biochemistry	PIBCD20	IEC Cancer Biology	To help students to understand the biology, diagnosis and treatment involved in cancer	Attain an in-depth knowledge in the respective domains augmented through self-learning	Acquire in-depth knowledge in Biochemistry concepts and life science	Describe the latest techniques in the diagnosis and treatment of cancer
M.Sc. Biochemistry	PIBCE20	IEC Nanobiotechnology	The course aims to provide an interdisciplinary knowledge on Nano materials and their applications in biosciences	Attain an in-depth knowledge in the respective domains augmented through self-learning	Acquire in-depth knowledge in Biochemistry concepts and life science	Apply the essential role of Nanoscience

M.Sc. Biochemistry	PIBCF20	IEC Stem cell Technology	The course gives in depth knowledge on stem cell biology, regulation of stem cell differentiation, tools to study and its utilization in treating various disorders	Attain an in-depth knowledge in the respective domains augmented through self-learning	Acquire in-depth knowledge in Biochemistry concepts and life science	Relate the importance of stem cell therapy
M.Sc. Biochemistry	PIBCG20	IEC Psychology	The course is aimed to enhance the psychological skills for the students to acquire factual knowledge and ability to conceptualize and apply in their life	Attain an in-depth knowledge in the respective domains augmented through self-learning	Acquire in-depth knowledge in Biochemistry concepts and life science	Apply the principles of psychology in day-to-day life for a better understanding of oneself and others
M.Sc. Biochemistry	PIBCH20	IEC Entrepreneurial Biochemistry	The course provides detailed knowledge on ideas, opportunities and components necessary for bio-entrepreneurship	Attain an in-depth knowledge in the respective domains augmented through self-learning	Acquire in-depth knowledge in Biochemistry concepts and life science	Identify and implement the role of entrepreneur towards society
M.Sc. Chemistry	PICHA20	Dairy Chemistry	impart knowledge on the principles and practical applications of various dairy products	Integrate issues of social relevance in the field of study	Assimilate and apply principles and concepts towards skill development, employability, critical and scientific approaches to address the problems and find solutions	Summarize the knowledge on dairy products, processing, and their applications Discuss the physical and chemical properties of milk Explain the different

						<p>processing techniques of milk</p> <p>Explain marketing of milk and apply skills in detecting adulterants in milk products</p> <p>Describe the nutritive value of milk and chemistry of dairy products in bone and muscle formation</p>
M.Sc. Chemistry	PICHB20	Quality Control and Chemical Analysis	Apply the standards and specifications involved in quality control	Apply critical and scientific approaches to address problems and find solutions	Demonstrate an ability to conduct experiments and perform accurate quantitative measurements with an understanding of the theory and develop practical skills in handling analytical instruments Interpret experimental results, perform calculations on these results and	<p>Define quality control, quality assurance and describe the necessity of TQM</p> <p>Apply standards and specifications in quality control</p> <p>Discuss the testing methods involved in quality control of food and textile</p>

					draw reasonable, accurate conclusions	industries Evaluate quality analysis of water, soil, and air Demonstrate the basics of good laboratory practices and describe the importance of sampling, documenting and usage of computer aids in QC labs
M.Sc. Chemistry	PECHC20	Pharmaceutical Chemistry	This course fulfills the requirements to be employed in the neighbouring pharmaceutical industries	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability Apply critical and scientific approaches to address problems and find solutions	Attain an in-depth knowledge on advanced concepts in various branches of chemistry augmented through self-learning, persist in life-long learning for personal and societal progress Interpret experimental results, perform calculations on these results and draw reasonable, accurate conclusions	Classify the pharmaceutical drugs and explain the mechanism of drug action and absorption of drugs Elaborate the biological role of important inorganic compounds and the drugs used in the treatment of mental disorders 3 Summarize the methods of

					Assimilate and apply principles and concepts towards skill development, employability, critical and scientific approaches to address the problems and find solutions	drug design and development Review the causes of cancer and its treatment, and to assess the mechanism and the mode of action of anticancer drugs Formulate the different types of Nutraceuticals and their applications, and to justify the role of anticoagulants in the treatment of blood disorder
M.Sc. Chemistry	PECHD20	Medicinal Chemistry	This course enables students to assist in designing novel drugs	Attain an in-depth knowledge in the respective domains augmented through self-learning Apply critical and scientific approaches to address problems and find solutions	Attain an in-depth knowledge on advanced concepts in various branches of chemistry augmented through self-learning, persist in life-long learning for personal and societal progress	Explain the designing of drugs by different approaches Define the physiochemical properties of drug molecules, and illustrate pharmacophore,

					<p>Assimilate and apply principles and concepts towards skill development, employability, critical and scientific approaches to address the problems and find solutions</p>	<p>toxicophoric, melanophore and interchangeable bio isosteres Describe the nature of drug receptors and their binding interactions Explain the stereochemical properties and biological activity of drug molecules, and to identify the properties of drug molecules by quantum mechanics and molecular mechanics Describe the physiological and pathological approaches while designing newer drugs for newer diseases, and to Discuss the biological activity of steroids and</p>
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M.Sc. Chemistry	PICHD20	Water Chemistry	This course helps to gain thorough knowledge on the properties of water and waste water treatment methods	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability	Attain an in-depth knowledge on advanced concepts in various branches of chemistry augmented through self-learning, persist in life-long learning for personal and societal progress Assimilate and apply principles and concepts towards skill development, employability, critical and scientific approaches to address the problems and find solutions	radioisotopes Explain the physical and chemical properties of water Describe the instruments used for water quality monitoring Examine the physical, chemical and biological pollutants in water Demonstrate the treatment methods used for recycling of waste water Explain the policies and laws related to water in Indian constitution
M.Sc. Chemistry	PECHE20	Analytical Chemistry	The students will be able to handle the analytical instruments and interpret the data	Attain an in-depth knowledge in the respective domains augmented through self-learning Develop research skills through multi/inter/trans-	Attain an in-depth knowledge on advanced concepts in various branches of chemistry augmented through self-learning, persist in life-long	Compare different thermal methods of analysis and explain their applications in material science

				disciplinary perspectives	learning for personal and societal progress Demonstrate an ability to conduct experiments and perform accurate quantitative measurements with an understanding of the theory and develop practical skills in handling analytical instruments Interpret experimental results, perform calculations on these results and draw reasonable, accurate conclusions	Elaborate the principle, instrumentation s of the Gas, HPLC and SCF chromatographi c techniques and their applications Examine the identification of metal ions using AAS and photo acoustic spectroscopy Solve simple problems in chemistry using 'C' program Analyze the importance of Green Chemistry and its impact on the sustainable environment and the quality of water
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M.Sc. Chemistry	PECHH20	Organic Farming and Solid Waste Management	This course enables the students to practice organic farming and manage solid wastes in their own neighborhood	Assimilate and apply principles and concepts towards skill development and employability Apply critical and scientific approaches to address problems and find solutions Integrate issues of social relevance in the field of study Persist in life-long learning for personal and societal progress	Attain an in-depth knowledge on advanced concepts in various branches of chemistry augmented through self-learning, persist in life-long learning for personal and societal progress Communicate effectively through report writing, documentation and effective presentations and integrate the knowledge in chemistry for sustainable environment	Elaborate the concept of organic farming Explain the vision and importance of organic farming movements, apply vermicomposting process and prepare bio-fertilizers Evaluate the technology to approach the benefits of organic farming Explain the various aspects of solid waste management Demonstrate the methods to reduce hazards
M.Sc. Chemistry	PICHJ20	Leather Chemistry	Develop indigenous and adaptable technologies related to leather for small scale production and to develop entrepreneurial skills, towards betterment of society	Attain an in-depth knowledge in the respective domains augmented through self-learning Integrate issues of social relevance in the field of study Persist in life-long learning for	Attain an in-depth knowledge on advanced concepts in various branches of chemistry augmented through self-learning, persist in life-long learning for personal and	Outline the tanning processes in leather industry Discuss the cleaner technology in leather industry Illustrate the chrome tanning

				personal and societal progress	societal progress	process Outline the mechanism of tanning and role of surface charge and importance of electrostatic, H-bond, dipole-dipole and hydrophobic interactions Apply waste water management and zero discharge approaches in leather industry
M.Sc. Computer Science	PCCSA20	Java Programming	Course designed to meet the requirements of creating GUI Applications and Web Applications	Assimilate and apply principles and concepts towards skill development & employability	To apply fundamental knowledge of computing and science relevant to the discipline	Understand the basics of Java and AWT
M.Sc. Computer Science	PECSH20	Elective IV B Software Project Management	To highlight different techniques for software cost estimation and activity planning	Assimilate and apply principles and concepts towards skill development & employability	To design, implement, and evaluate a computer-based system, process, component, or program for various applications	Apply quality models in software projects for maintaining software quality and reliability

M.Sc. Computer Science	PICSA20	Software Quality Assurance	To know the behavior of the testing techniques and to design test cases to detect the errors in the software	Assimilate and apply principles and concepts towards skill development & employability	To design, implement, and evaluate a computer-based system, process, component, or program for various applications	Test the software by applying various testing techniques
M.Sc. Electronic Media	PCEMA20	Mass Communication and Journalism	To introduce the broad field of mass communication and journalism to students including the models, theories and ethics in the field of media	Attain an in-depth knowledge in the respective domains augmented	To obtain wide Knowledge in the area of Electronic Media Production and demonstrate Clear and coherent communication skills.	Review the Basics of Communication and Mass Culture.
M.Sc. Electronic Media	PCEMB20	Broadcasting in India	To initiate students to the field of broadcasting by tracing the evolution, and teaching programme formats and convergence of broadcast media	Attain an in-depth knowledge in the respective domains augmented	To obtain wide Knowledge in the area of Electronic Media Production and demonstrate Clear and coherent communication skills.	Examine the Broadcast Regulations and Convergence of Media.
M.Sc. Mathematics	PCMAA20	Modern Algebra	Course designed to demonstrate problem solving skills in the context of Modern Algebra which includes groups and fields	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability	Attain in-depth knowledge in Pure Mathematics through theorems and Applied Mathematics using real-life examples and simulation results Acquire profound knowledge in	Assess the properties of Groups and Sylow's theorem Apply field extension property in Algebraic extensions Get the

				Apply critical and scientific approaches to address problems and find solutions	Mathematics to develop a range of generic skills to qualify for the fellowship examinations approved by UGC like CSIR-NET, JRF, GATE, and SET Develop teaching, research, and technical skills in Mathematics for employment in different sectors and enhance self-learning & life-long learning to compete at the global level and meet social needs	knowledge of Transcendence and roots of polynomial Know about the Galois Theory Have the knowledge on the concepts of solvability by radicals
M.Sc. Mathematics	PCMAB20	Real Analysis I	The course is designed to provide the concepts of Modern analysis which include Euclidean space of n dimension, metric space, functions of bounded variation, R-S integral, and Lebesgue integral	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability Apply critical and scientific approaches to	Attain in-depth knowledge in Pure Mathematics through theorems and Applied Mathematics using real-life examples and simulation results Acquire profound knowledge in Mathematics to develop a range of generic skills to	Understand n-dimensional space R^n and the metric space whose topology is uniquely determined by the algebraic structure Deal with the functions of bounded variations and some of their

				address problems and find solutions	qualify for the fellowship examinations approved by UGC like CSIR-NET, JRF, GATE, and SET Develop teaching, research, and technical skills in Mathematics for employment in different sectors and enhance self-learning & life-long learning to compete at the global level and meet social needs	properties Know about the integral and its properties which is a generalization of the Riemann integral Recognize the necessary and sufficient conditions for the existence of the R-S integral Grasp the class of Lebesgue integrable functions which is defined in terms of upper and lower bounds using the Lebesgue measure of a set
M Sc Mathematics	PCMAC20	Complex Analysis	course designed to demonstrate problem solving skills in the context of Complex analysis which includes analyticity, Cauchy-Riemann relations and harmonic functions	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability	Attain in-depth knowledge in Pure Mathematics through theorems and Applied Mathematics using real-life examples and simulation results Acquire profound knowledge in	Understand the elementary theory of power series and conformality to perform the linear transformation Solve the integration in the complex

				Apply critical and scientific approaches to address problems and find solutions	Mathematics to develop a range of generic skills to qualify for the fellowship examinations approved by UGC like CSIR-NET, JRF, GATE, and SET Develop teaching, research, and technical skills in Mathematics for employment in different sectors and enhance self-learning & life-long learning to compete at the global level and meet social needs	plane by using the fundamental theorems Be familiar with Cauchy's Integral Formula and the properties of analytical functions Determine the local mapping and learn the general form of Cauchy's theorem Have the knowledge on the concepts of solvability by radicals
M Sc Mathematics	PCMAD20	Differential Equations	Course designed to demonstrate problem solving skills in the context of Differential Equation which includes Ordinary differential equation and dynamical problems	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability Apply critical and scientific approaches to	Attain in-depth knowledge in Pure Mathematics through theorems and Applied Mathematics using real-life examples and simulation results Acquire profound knowledge in Mathematics to develop a range of generic skills to	Understand ordinary differential equations of various type, their solutions, and fundamental concepts about their existence Obtain solutions of the Homogeneous equation with

				address problems and find solutions	qualify for the fellowship examinations approved by UGC like CSIR-NET, JRF, GATE, and SET Develop teaching, research, and technical skills in Mathematics for employment in different sectors and enhance self-learning & life-long learning to compete at the global level and meet social needs	constant coefficient and Homogeneous equation with analytic coefficient Comprehend the Bessel functions, Legendre equation, Legendre polynomials and Regular singular points Know Picard's method of obtaining successive approximations of solutions of first order differential equations Understand Eigen values and Eigen functions of Sturm-Liouville systems, and obtain the solutions of initial and boundary value problems
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M Sc Mathematics	PEMAA20	Elective I A Differential Geometry	Course designed to understand the concept of curvature of a space curve, signed curvature of a plane curve and to compute the curvature and torsion of space curves	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability Apply critical and scientific approaches to address problems and find solutions	Attain in-depth knowledge in Pure Mathematics through theorems and Applied Mathematics using real-life examples and simulation results Acquire profound knowledge in Mathematics to develop a range of generic skills to qualify for the fellowship examinations approved by UGC like CSIR-NET, JRF, GATE, and SET Develop teaching, research, and technical skills in Mathematics for employment in different sectors and enhance self-learning & life-long learning to compete at the global level and meet social needs	Understand the line integrals, deal with differential forms and calculate arc length, curvature of surfaces Analyze involutes, evolutes and fundamental existence theorem for space curves Apply problem solving with differential geometry to diverse situations in physics, engineering and in other mathematical contexts Evaluate the fundamental forms of a surface Compute the Gaussian curvature, the mean curvature,
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						the curvature lines and the asymptotic lines
M.Sc. Mathematics	PEMAB20	Elective I B Mathematical Modeling	Course designed to improve the ability to solve problems, including applications outside of mathematics, by means of intuition, creativity, guessing and the experience gained through the study of particular examples and mathematical models	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability Apply critical and scientific approaches to address problems and find solutions	Attain in-depth knowledge in Pure Mathematics through theorems and Applied Mathematics using real-life examples and simulation results Develop a deep interest in Advanced Mathematics and have the capability to understand the outcomes in various branches of Mathematics Have the capability to apply the programming concepts of JAVA, MATLAB, and R language to model, formulate and solve real-life problems Inculcate research-level thinking in the field of pure and applied	Understand the mathematical basis of common algorithms, and the ability to calculate accurately and efficiently Demonstrate the use of mathematical reasoning by justifying and generalizing patterns and relationships between the variables in the mathematical models Formulate and qualitatively analyze mathematical models of a wide range of systems and processes

					<p>mathematics and apply theoretical knowledge to write the dissertation using the Mathematical software LaTeX</p>	<p>Recognize the types of Mathematical models and the complexity in each system Recognize the power of mathematical modelling and analysis and be able to apply their understanding to their further studies</p>
M.Sc. Mathematics	PIMAA20	Independent Elective I A Fundamentals of Group Theory	Course designed to demonstrate problem solving skills in the context of fundamentals of groups which includes groups and subgroups	<p>Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability Apply critical and scientific approaches to address problems and find solutions</p>	<p>Acquire profound knowledge in Mathematics to develop a range of generic skills to qualify for the fellowship examinations approved by UGC like CSIR-NET, JRF, GATE, and SET</p>	<p>Understand the importance of various types of Groups Extend the knowledge in some important groups (Homomorphism and Isomorphism) Understand the concepts of fundamentals of finite abelian groups Acquire benefits of Sylow's</p>

						theorem and classify the Class equations Solve various objective type problems using simple concepts
M.Sc. Mathematics	PIMAB20	Independent Elective I B Quantitative Aptitude for Competitive Examinations-I	Course designed to enhance the problem-solving abilities and improve the basic mathematical skills	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability Apply critical and scientific approaches to address problems and find solutions	Attain in-depth knowledge in Pure Mathematics through theorems and Applied Mathematics using real-life examples and simulation results Acquire profound knowledge in Mathematics to develop a range of generic skills to qualify for the fellowship examinations approved by UGC like CSIR-NET, JRF, GATE, and SET	Understand the concepts of Number System and aptitude problems Recollect the formulae and solve problems on profit and loss, Interest and Time and Work Demonstrate basic understanding on data interpretation and exhibit eloquence in verbal reasoning Identify and respond effectively to questions on clerical ability Recognize the type of

						questions and answer them confidently with efficiency in grammar
M.Sc. Mathematics	PCMAE20	Linear Algebra	Course designed to demonstrate problem solving skills in the context of Linear Algebra which includes linear transformation and finite fields	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability Apply critical and scientific approaches to address problems and find solutions	Attain in-depth knowledge in Pure Mathematics through theorems and Applied Mathematics using real-life examples and simulation results Acquire profound knowledge in Mathematics to develop a range of generic skills to qualify for the fellowship examinations approved by UGC like CSIR-NET, JRF, GATE, and SET Develop teaching, research, and technical skills in Mathematics for employment in different sectors and enhance self-learning & life-long learning to compete at the global level	Have knowledge on Modules and Canonical form Analyze Jordan and Rational canonical form Understand the concepts of linear transformation and apply it on linear operators Understand the concepts of finite division ring Know about division rings having the field in their centers

					and meet social needs	
M.Sc. Mathematics	PCMAF20	Real Analysis II	The course is designed to provide the concepts of Modern analysis which deals with double sequence and series, Fourier series, sequences, and series of functions	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability Apply critical and scientific approaches to address problems and find solutions	Attain in-depth knowledge in Pure Mathematics through theorems and Applied Mathematics using real-life examples and simulation results Acquire profound knowledge in Mathematics to develop a range of generic skills to qualify for the fellowship examinations approved by UGC like CSIR-NET, JRF, GATE, and SET Develop teaching, research, and technical skills in Mathematics for employment in different sectors and enhance self-learning & life-long learning to compete at the global level and meet social needs	Understand the theory of double sequences and double series which is an extension of the single or ordinary sequences and series and identify the convergence and divergence of infinite product Determine the properties of the Fourier coefficient and solve the problem for the orthonormal system of functions Identify the Convergence of a sequence and series of functions Link the multiplication of power series,

						reciprocal of power series, and real power series Deal with the concepts of Directional derivative, Total derivative, Chain rule, Inverse function, and Implicit function theorems
M.Sc. Mathematics	PCMAG20	Partial Differential Equations and Integral Partial Differential Equations	Course designed to apply partial derivative equation techniques to predict the behavior of certain phenomena	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability Apply critical and scientific approaches to address problems and find solutions	Attain in-depth knowledge in Pure Mathematics through theorems and Applied Mathematics using real-life examples and simulation results Acquire profound knowledge in Mathematics to develop a range of generic skills to qualify for the fellowship examinations approved by UGC like CSIR-NET,	Apply specific methodologies, techniques and resources to conduct research and produce innovative results Solve problems of heat conduction equation by using initial and boundary conditions Use the knowledge of PDEs, to solve

					JRF, GATE, and SET Develop teaching, research, and technical skills in Mathematics for employment in different sectors and enhance self-learning & life-long learning to compete at the global level and meet social needs	one dimensional wave equation by canonical equation Solve practical PDE and integral PDE problems with finite difference methods Develop mathematical skills to solve problems involving convolutions
M.Sc. Mathematics	PCMAH20	Mechanics	Course designed to demonstrate problem solving skills in the context of Mechanics which includes Physics concepts and its applications to Mathematics	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability Apply critical and scientific approaches to address problems and find solutions	Attain in-depth knowledge in Pure Mathematics through theorems and Applied Mathematics using real-life examples and simulation results Acquire profound knowledge in Mathematics to develop a range of generic skills to qualify for the fellowship examinations approved by UGC	Define and understand basic mechanical concepts related to discrete and continuous mechanical systems Describe and understand the motion of a mechanical system using Lagrange's equation Use Euler-Lagrange

					like CSIR-NET, JRF, GATE, and SET Develop teaching, research, and technical skills in Mathematics for employment in different sectors and enhance self-learning & life-long learning to compete at the global level and meet social needs	equation to find stationary paths and understanding the theory of variational principles Acquire knowledge on Hamilton's principle and Hamilton's equation Study the concepts of canonical transformations and solve the transformations by using Lagrange and Poisson brackets
M.Sc. Mathematics	PEMAC20	Elective II A LaTeX and MATLAB	Course designed to demonstrate the ability to type research papers in Latex Software in a fluent manner and to use and write the script files using MATLAB software	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability Apply critical and	Have the capability to apply the programming concepts of JAVA, MATLAB, and R language to model, formulate and solve real-life problems	Understand the mathematical basis of common algorithms in Latex Demonstrate the use of mathematical equations, tables and figures in Latex

				scientific approaches to address problems and find solutions		Demonstrate understanding and use of MATLAB software Construct one dimensional array, two dimensional arrays and basic functions in MATLAB Recognize the power of mathematical modeling and analysis using MATLAB and be able to apply their understanding to their further studies
M.Sc. Mathematics	PEMAD20	Elective II B Fluid Dynamics	Course designed to understand the concepts of fluid motion, equations of motion of a fluid, three dimensional flows and viscous flows and apply it in practical situations	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability Apply critical and	Attain in-depth knowledge in Pure Mathematics through theorems and Applied Mathematics using real-life examples and simulation results Acquire profound knowledge in Mathematics to	Understand the concepts of fluid flow Identify pressure of fluid in different kind of Motion Analyse the topics of Axi-Symmetric Flows, Stoke's

				scientific approaches to address problems and find solutions	develop a range of generic skills to qualify for the fellowship examinations approved by UGC like CSIR-NET, JRF, GATE, and SET Develop teaching, research, and technical skills in Mathematics for employment in different sectors and enhance self-learning & life-long learning to compete at the global level and meet social needs	Stream Function Determine the Stream Function, the Complex Potential for Two-Dimensional, Irrotational, Incompressible Flow Explain the concepts the Rate of Strain Quadric and Principal Stresses, Stress Analysis in Fluid Motion, the Coefficient of Viscosity and Laminar Flow, the Navier-Stokes Equations of Motion of a Viscous Fluid
M.Sc. Mathematics	PIMAC20	Independent Elective 2 A Fundamentals of Ring Theory	Course designed to demonstrate problem solving skills in the context of Fundamentals of Ring theory which includes Rings, Sub rings and	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles	Acquire profound knowledge in Mathematics to develop a range of generic skills to qualify for the fellowship	Demonstrate various characteristic of Rings Extend the knowledge in Ideals, Fields of

			Types of Rings	and concepts towards skill development and employability Apply critical and scientific approaches to address problems and find solutions	examinations approved by UGC like CSIR-NET, JRF, GATE, and SET	Quotients and polynomial rings Validate primitive polynomials and Irreducible Polynomials Acquire the knowledge in Field theory Solve various types of problems in finite fields
M.Sc. Mathematics	PIMAD20	Independent Elective 2 B Quantitative Aptitude for Competitive Examinations-II	Course designed to introduce quantitative methods and techniques for effective decisions–making and solve aptitude problems	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability Apply critical and scientific approaches to address problems and find solutions	Attain in-depth knowledge in Pure Mathematics through theorems and Applied Mathematics using real-life examples and simulation results Acquire profound knowledge in Mathematics to develop a range of generic skills to qualify for the fellowship examinations approved by UGC like CSIR-NET, JRF, GATE, and	Understand and solve aptitude problems Identify and develop the techniques to solve the problems using different methods Demonstrate procedural fluency with real number arithmetic operations and use those operations to represent real-world scenarios

					SET	and to solve stated problems Solve linear equations, graph and interpret linear models, and read and apply formulas Ability to face the competitive examinations with a clear approach
M.Sc. Mathematics	PCMAI20	Topology	To introduce the topological spaces which provide a general framework for the study of convergence, continuity, and compactness and to train the students to develop analytical thinking	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability Apply critical and scientific approaches to address problems and find solutions	Attain in-depth knowledge in Pure Mathematics through theorems and Applied Mathematics using real-life examples and simulation results Acquire profound knowledge in Mathematics to develop a range of generic skills to qualify for the fellowship examinations approved by UGC like CSIR-NET, JRF, GATE, and SET Develop	Understand basis as a collection of basic open sets and the concepts of continuous functions and their properties in topological spaces Determine the topology generated by the given basis, connectedness, path connectedness of the product of an arbitrary family of

					teaching, research, and technical skills in Mathematics for employment in different sectors and enhance self-learning & life-long learning to compete at the global level and meet social needs	spaces Grasp the concept of compactness which is the generalization to topological spaces of the property of closed and bounded subsets of the real line Deal with the countability and separation axioms Know the theorems with the conditions under which a topological space can be embedded in metric space
M.Sc. Mathematics	PCMAJ20	Numerical Analysis	To develop the skills in solving Numerical problems and apply them in other disciplines and in wider areas of research	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and	Attain in-depth knowledge in Pure Mathematics through theorems and Applied Mathematics using real-life examples and simulation results Acquire profound	Find the solution in Numerical, Algebraic and transcendental equations Solve the set of algebraic equations by direct and

				employability Apply critical and scientific approaches to address problems and find solutions	knowledge in Mathematics to develop a range of generic skills to qualify for the fellowship examinations approved by UGC like CSIR-NET, JRF, GATE, and SET Develop teaching, research, and technical skills in Mathematics for employment in different sectors and enhance self-learning & life-long learning to compete at the global level and meet social needs	iterative methods Analyze the values of a function for any intermediate value of the independent variable Compute the numerical solution of various types of ordinary differential equations Acquire the numerical solution of Partial Differential Equations
M.Sc. Mathematics	PCMAK20	Probability Theory	To understand the concept of random variables, characteristic functions, probability distribution, and limit theorem and to solve real-world problems	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability Apply critical and scientific	Attain in-depth knowledge in Pure Mathematics through theorems and Applied Mathematics using real-life examples and simulation results Acquire profound knowledge in Mathematics to develop a range of	Characterize probability models and function of random variables based on single and multiple random variables Evaluate and apply expected value, moments

				approaches to address problems and find solutions	generic skills to qualify for the fellowship examinations approved by UGC like CSIR-NET, JRF, GATE, and SET Develop teaching, research, and technical skills in Mathematics for employment in different sectors and enhance self-learning & life-long learning to compete at the global level and meet social needs	and understand the concept of Chebyshev inequality Analyze the concepts of characteristic functions and its properties Apply probability distribution to solve the real world problems Understand the concept of limit theorem and its applications
M.Sc. Mathematics	PCMAL20	Operations Research	To understand the mathematical tools used in Operations Research that are needed to solve the optimization problems which plays important role in business management	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability Apply critical and scientific approaches to address problems and find solutions	Attain in-depth knowledge in Pure Mathematics through theorems and Applied Mathematics using real-life examples and simulation results Acquire profound knowledge in Mathematics to develop a range of generic skills to qualify for the fellowship	Determine the feasible solution using Revised simplex method, Duality and bounded variable algorithm Understand the theoretical background of queuing systems and solve the real-world problems

					examinations approved by UGC like CSIR-NET, JRF, GATE, and SET Develop teaching, research, and technical skills in Mathematics for employment in different sectors and enhance self-learning & life-long learning to compete at the global level and meet social needs	Analyze the Inventory models and solve EOQ models Apply dynamic programming to solve real world problems Solve constrained and unconstrained optimization problems using Hookes and Jeeves algorithm, Gradient projection, Lagrange multipliers, Kuhn-Tucker conditions etc.
M.Sc. Mathematics	PEMAE20	Elective III A Programming with Java	To develop knowledge in a platform-independent High-Level Programming Language Java to handle complex projects in advanced technologies	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability Apply critical and scientific	Have the capability to apply the programming concepts of JAVA, MATLAB, and R language to model, formulate and solve real-life problems	Understand the benefits and applications of OOP and distinguish C++ and JAVA Gain knowledge about operators and its types Define decision making statements and

				approaches to address problems and find solutions		solve problems based on it Develop the program by manipulating classes and methods in the Java programming language Explore the Java programming by using arrays
M.Sc. Mathematics	PEMAG20	Elective III B Programming with R	To learn the advanced language R that performs various complex statistical computations and calculations	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability Apply critical and scientific approaches to address problems and find solutions	Have the capability to apply the programming concepts of JAVA, MATLAB, and R language to model, formulate and solve real-life problems	Familiarize with basics of R software and built in function of R Identify the characteristics of datasets and plot the datasets in R using graphical methods Demonstrate understanding and use of for loop, if statement and break Implement the learning techniques and

						computing environment that are suitable for the applications under consideration Compute vectors and matrices, matrix inverse, eigen values and eigen vectors
M.Sc. Mathematics	PEMAF20	Elective Practical Java	To design and program stand-alone Java applications	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability Apply critical and scientific approaches to address problems and find solutions	Have the capability to apply the programming concepts of JAVA, MATLAB, and R language to model, formulate and solve real-life problems	Implement programs with classes Write programs that perform operations using arrays Develop the program by decision making statements and solve problems based on it Illustrate basic programming concepts such as program flow and syntax of a high-level general-purpose language

						Take a problem, figure out the algorithm to solve it and write the code
M.Sc. Mathematics	PEMAH20	Elective Practical R	To use R for descriptive statistics and write simple programs in R	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability Apply critical and scientific approaches to address problems and find solutions	Have the capability to apply the programming concepts of JAVA, MATLAB, and R language to model, formulate and solve real-life problems	Familiarize with basics of R software and built in function of R Identify the characteristics of datasets and plot the datasets in R using graphical methods Demonstrate understanding and use data frames Implement the learning techniques and computing environment that are suitable for the applications under consideration Compute vectors and matrices, matrix

						inverse, eigen values and eigen vectors
M.Sc. Mathematics	PIMAE20	Independent Elective 3 A Skill Enhancement in Real and Complex Analysis I	To develop in-depth knowledge in analysis and problem-solving skills to work out unsolved problems using various tricks to clear CSIR NET, SET, JRF, and GATE examinations Also, to train the students in self-paced independent learning	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability Apply critical and scientific approaches to address problems and find solutions	Acquire profound knowledge in Mathematics to develop a range of generic skills to qualify for the fellowship examinations approved by UGC like CSIR-NET, JRF, GATE, and SET	Utilize the basics of set theory and number system Acquire the knowledge of Sequences and Series Compute the Limit, Continuity and Differentiation of functions Analyze the Transcendental functions such as Exponential, Trigonometric and Hyperbolic Functions Evaluate the integral by Cauchy's Integral formula
M.Sc. Mathematics	PIMAF20	Independent Elective 3 B Fundamentals of Research Methodology and Statistics I	To develop in-depth knowledge in analysis and problem-solving skills to work out unsolved problems using various tricks to clear CSIR NET, SET,	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles	Attain in-depth knowledge in Pure Mathematics through theorems and Applied Mathematics using real-life examples	Utilize the basic concepts of Research Prepare the review of literature Plan the

			JRF, and GATE examinations Also, to train the students in self-paced independent learning	and concepts towards skill development and employability Apply critical and scientific approaches to address problems and find solutions	and simulation results Inculcate research-level thinking in the field of pure and applied mathematics and apply theoretical knowledge to write the dissertation using the Mathematical software LaTeX	various types of survey studies and sampling design Study the case of Historical methods and Philosophical methods Classify the experimental procedure and case study of various groups
M.Sc. Mathematics	PCMAM20	Functional Analysis	To introduce the main structure theorems of functional analysis and to study the concepts of Banach space, Hilbert space, Banach algebra, and commutative Banach algebra	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability Apply critical and scientific approaches to address problems and find solutions	Attain in-depth knowledge in Pure Mathematics through theorems and Applied Mathematics using real-life examples and simulation results Acquire profound knowledge in Mathematics to develop a range of generic skills to qualify for the fellowship examinations approved by UGC like CSIR-NET, JRF, GATE, and SET Develop	Gain the knowledge of complete normed linear space and the Hahn Banach theorem Understand the open mapping theorem, closed graph theorem, and uniform boundedness theorem and determine the concept of complete inner product space and its properties

					teaching, research, and technical skills in Mathematics for employment in different sectors and enhance self-learning & life-long learning to compete at the global level and meet social needs	Classify the operators into adjoint, self-adjoint, unitary and normal Know the basic properties of Banach Algebra and the spectrum of an element in a Banach algebra Represent commutative Banach algebras as algebras of continuous functions
M.Sc. Mathematics	PCMAN20	Calculus of Variations	To develop an understanding of variational problems with fixed boundaries and moving boundaries	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability Apply critical and scientific approaches to address problems and find solutions	Attain in-depth knowledge in Pure Mathematics through theorems and Applied Mathematics using real-life examples and simulation results Acquire profound knowledge in Mathematics to develop a range of generic skills to qualify for the fellowship	Understand the functional and its applications Also use the Euler-Lagrange equation to find the differential equations for stationary paths Describe Du Bois-Reymond problem and solve it Solve differential equations for

					examinations approved by UGC like CSIR-NET, JRF, GATE, and SET Develop teaching, research, and technical skills in Mathematics for employment in different sectors and enhance self-learning & life-long learning to compete at the global level and meet social needs	stationary paths subject to boundary conditions Give an account of the foundations of calculus of variations and its applications in Mathematics and Physics Apply direct methods to solve variational problems
M.Sc. Mathematics	PCMAO20	Mathematical Statistics	To impart knowledge of statistics in various areas and to apply problem-solving techniques to solve real-world events	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability Apply critical and scientific approaches to address problems and find solutions	Attain in-depth knowledge in Pure Mathematics through theorems and Applied Mathematics using real-life examples and simulation results Acquire profound knowledge in Mathematics to develop a range of generic skills to qualify for the fellowship examinations approved by UGC	Understand the sample moments and their functions and analyze chi-square, Student-t, Fishers-Z distributions Demonstrate the knowledge of the properties of parametric testing procedures Construct tests and estimators,

					<p>like CSIR-NET, JRF, GATE, and SET Develop teaching, research, and technical skills in Mathematics for employment in different sectors and enhance self-learning & life-long learning to compete at the global level and meet social needs</p>	<p>and derive their properties Estimate population parameters from data sets and use the sampling distributions to compute confidence intervals for these population parameters Learn the basic components of hypothesis testing and perform hypothesis test on population means Understand the basic terms used in design of experiments and use appropriate experimental designs to analyze the experimental data</p>
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M.Sc. Mathematics	PCMAP20	Project	Project-based learning gives an opportunity for the students to self-study It encourages critical, analytical, and logical thinking in student, and expand their knowledge to gain an accurate and deep understanding of their work	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability Apply critical and scientific approaches to address problems and find solutions	Attain in-depth knowledge in Pure Mathematics through theorems and Applied Mathematics using real-life examples and simulation results Acquire profound knowledge in Mathematics to develop a range of generic skills to qualify for the fellowship examinations approved by UGC like CSIR-NET, JRF, GATE, and SET Develop teaching, research, and technical skills in Mathematics for employment in different sectors and enhance self-learning & life-long learning to compete at the global level and meet social needs	
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M.Sc. Mathematics	PEMAI20	Elective IV A Graph Theory	To understand the graph theoretical concepts that can model and study many real-world problems which can be applied in a wide range of disciplines and in the area of research	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability Apply critical and scientific approaches to address problems and find solutions	Attain in-depth knowledge in Pure Mathematics through theorems and Applied Mathematics using real-life examples and simulation results Acquire profound knowledge in Mathematics to develop a range of generic skills to qualify for the fellowship examinations approved by UGC like CSIR-NET, JRF, GATE, and SET Develop teaching, research, and technical skills in Mathematics for employment in different sectors and enhance self-learning & life-long learning to compete at the global level and meet social needs	Identify subgraphs, cycles, paths and connection in graphs Analyse the cut vertices, cut edges and bonds in trees Distinguish between the Hamiltonian and Eulerian graph Explain the concepts of matchings and coverings in bipartite graphs Understand the concepts of coloring and planar graphs
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M.Sc. Mathematics	PEMAJ20	Elective IV B Fuzzy Set Theory	To make use of a special fuzzy set to model reality better than traditional theories and to develop a research approach that can deal with problems relating to ambiguous situations	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability Apply critical and scientific approaches to address problems and find solutions	Attain in-depth knowledge in Pure Mathematics through theorems and Applied Mathematics using real-life examples and simulation results Acquire profound knowledge in Mathematics to develop a range of generic skills to qualify for the fellowship examinations approved by UGC like CSIR-NET, JRF, GATE, and SET Develop teaching, research, and technical skills in Mathematics for employment in different sectors and enhance self-learning & life-long learning to compete at the global level and meet social needs	Distinguish between crisp set and fuzzy set through bi-valued logic and infinite-valued logic Know about the most widely used standard fuzzy set operations Formulate the fuzzy number which is a special case of a convex, normalized fuzzy set of the real line Explore the fuzzy relation and its operations which is the generalization of crisp relation Analyze the methods of decision making in fuzzy environment and their applications in LPP
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M.Sc. Mathematics	PIMAG20	Independent Elective 4 A Skill Enhancement in Real and Complex Analysis II	Understand the basic concepts of the research methodology to analyze real-life problems using Statistical concepts Also, to train the students in self-paced independent learning	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability Apply critical and scientific approaches to address problems and find solutions	Acquire profound knowledge in Mathematics to develop a range of generic skills to qualify for the fellowship examinations approved by UGC like CSIR-NET, JRF, GATE, and SET	Analyze the theory of Partial derivatives Compute Riemann Sum and Riemann integral Evaluate the concepts of Lebesgue measure and Lebesgue integral Identify the Connectedness and Compactness Calculate the Residues of functions and improve the knowledge of conformal mappings
M.Sc. Mathematics	PIMAH20	Independent Elective 4 B Fundamentals of Research Methodology and Statistics II	Understand the basic concepts of the research methodology to analyze real-life problems using Statistical concepts Also, to train the students in self-paced independent learning	Attain an in-depth knowledge in the respective domains augmented through self-learning Assimilate and apply principles and concepts towards skill development and employability	Attain in-depth knowledge in Pure Mathematics through theorems and Applied Mathematics using real-life examples and simulation results Inculcate research-level thinking in the field	Analyze the needs and purpose of Experimental design Prepare and Analyze the Questionnaire and compute the Statistical analysis of data

				Apply critical and scientific approaches to address problems and find solutions	of pure and applied mathematics and apply theoretical knowledge to write the dissertation using the Mathematical software LaTeX	Analyze the statistical data and research report Acquire the knowledge of Action research and educational research Understand the basic measures of variability, dispersion and correlation
M.Sc. Physics	PCPHH20	Practical II Electronics	To understand concepts of sequential circuits and to analyze sequential systems	Apply critical and scientific approaches to address problems and find solutions	Gain knowledge about various applications	Develop a digital logic and apply it to solve real life problems
M.Sc. Physics	PCPHK20	Microprocessor and Micro-controller	To design interface circuits and develop Assembly Language programs to meet local needs	Assimilate and apply principles and concepts towards skill development and employability Apply critical and scientific approaches to address problems and find solutions	Understand the various methods in the respective field Gain knowledge about various applications	Describe Hardware, different bus cycles and memory interface to 8085 Microprocessor Develop programs using 8085 Microprocessor Instruction set and addressing modes

						Describe and perform different types of peripheral interfaces to 8085 Microprocessor Explain hardware, instruction set and addressing modes of Microcontroller 8051 and develop programming for basic operations Describe and perform different types of external interfaces to 8051 Microcontroller
M.Sc. Physics	PEPHE20	Elective III A Numerical Methods and C Programming	To develop C programs to solve problems technically and bring ease to our lives	Assimilate and apply principles and concepts towards skill development and employability Apply critical and scientific approaches to address problems	Understand the various methods in the respective field	Develop simple programs using C language along with computational tools

M.Sc. Physics	PCPHO20	Practical III Advanced General Experiments	To provide the student hands-on experiences to conduct advanced general experiments in laboratory in lieu with the theory taught in the class	and find solutions Develop research skills through multi/inter/trans-disciplinary perspectives	Attain interest for higher education and research	Apply acquired knowledge to the analysis of experimental data
M.Sc. Physics	PCPHP20	Practical IV Microprocessor, Microcontroller & C-Programming	To design interface circuits and develop programs using Microprocessor & Microcontroller and C language to meet local needs	Assimilate and apply principles and concepts towards skill development and employability Apply critical and scientific approaches to address problems and find solutions	Understand the various methods in the respective field	Develop assembly language programs on arithmetic and sorting operations using 8085 and 8051 Develop and perform peripheral interface programs with 8085 Microprocessor Perform all code conversions and analog signals into digital and vice versa Also can generate wave forms Write C program for any basic operations

						Solve any physical problems using C language along with numerical techniques
MSc. Zoology	PIZOA20	Independent Elective IA Pet Keeping	Enable the students to gain knowledge about the pet industry	Assimilate and apply principles and concepts towards skill development and employability	Have in-depth knowledge on animal diversity from acellular to multicellular level of organization and apply the learnt concepts in all the fields of Zoology	
MSc. Zoology	PIZOC20	Independent Elective IIA Animal Husbandry	Enable the students to understand the livestock management	Assimilate and apply principles and concepts towards skill development and employability	Have in-depth knowledge on animal diversity from acellular to multicellular level of organization and apply the learnt concepts in all the fields of Zoology	
MSc Zoology	PEZOG20	Elective IV A Fishery Biology	Enable the students to understand fisheries in India and their byproducts and marketing	Assimilate and apply principles and concepts towards skill development and employability	Have in-depth knowledge on animal diversity from acellular to multicellular level of organization and apply the learnt concepts in all the fields of Zoology	Understand about the processing, transportation and marketing of Fishes.

M.Sc. Zoology	PEZOH20	Elective IV B Aquaculture and Farm Management	Enable the students to gain knowledge about cultural practice and method of farming of fishes	Assimilate and apply principles and concepts towards skill development and employability	Have in-depth knowledge on animal diversity from acellular to multicellular level of organization and apply the learnt concepts in all the fields of Zoology	Apply biological criteria and economic significance of cultivable species.
M.Sc. Zoology	PIZOI20	Independent Elective IVC Animal Care	Enable the students to gain knowledge about animal relationship and diseases	Attain an in-depth knowledge in the respective domains augmented through self-learning	Have in-depth knowledge on animal diversity from acellular to multicellular level of organization and apply the learnt concepts in all the fields of Zoology	
M.Sc. Microbiology	PCMBB20	Food, Agriculture and Environmental Microbiology	The course is framed to make the students familiarize on Food, Agriculture and Environmental aspects of Microbiology	Assimilate and apply principles and concepts towards skill development and employability	Acquaint a broader knowledge in the concepts of Taxonomy, molecular biology, immunology, food, environment and agricultural microbiology, nanotechnology, forensic science and genetic engineering	Analyse the principles in food preservation Communicate diseases associated with food Discuss the role of microorganisms in soil and microbial interaction Utilize the knowledge on biogeochemical

						cycles to produce biofertilizers Assess information about microbiological quality of air and water
M.Sc. Microbiology	PCMBD20	Medical Microbiology	To provide an in depth understanding of the pathogenic mechanism of microorganisms, the diseases caused, its laboratory diagnosis and control measures	Attain an in-depth knowledge in the respective domains augmented through self-learning	Attain an in-depth knowledge in the anatomy and physiology of a repertoire of microorganisms with its beneficial and harmful associations	Outline the basics of Medical Microbiology and describe the mode of transmission of various pathogens Select methods to identify the causative agents for clinical diagnosis Analyse pathogenic microorganism of bacteria and its mechanism of pathogenesis Discuss on pathogenic fungi and parasites Compile virus

						structure, multiplication, classification and medical importance
M.Sc. Microbiology	PEMBE20	Bioinoculants Technology	The course structure provides an understanding on the potentials of microbes as fertilizers and their beneficial impacts in soil and agriculture aiding in the mass inoculum production of microbes	Assimilate and apply principles and concepts towards skill development and employability	Attain an in-depth knowledge in the anatomy and physiology of a repertoire of microorganisms with its beneficial and harmful associations	Outline the importance of bioinoculant technology and discuss on the significance of biofertilizers Demonstrate the mass production and applications of bio fertilizer and their impact on plant growth Identify in-depth information on the mycorrhizal taxonomy, occurrence and distribution Explain the types of mycorrhizal associations and quantification Formulate the growth of phosphate

						solubilizing microbes
M.Sc. Microbiology	PIMBA20	Public Health Microbiology	To provide in depth knowledge about significance of public health at theoretical and practical levels	Attain an in-depth knowledge in the respective domains augmented through self-learning	Attain an in-depth knowledge in the anatomy and physiology of a repertoire of microorganisms with its beneficial and harmful associations	Explain the significance of public health Communicate the mode of transmission of human diseases Discuss the role of medically important pathogens and the diseases caused Outline the vector complex interactions between the pathogens and host Create awareness on hospital-acquired infections, prevention and its control measures

M.Sc. Microbiology	PIMBC20	Haematology and blood banking	The syllabus is framed to acquaint students with a clear background on hematology and blood banking procedures	Assimilate and apply principles and concepts towards skill development and employability	Demonstrate practical skills in the use of tools, technologies and methods common to microbiology, and apply the scientific method and hypothesis testing in the design and execution of experiments	Apply techniques to collect and store blood samples Describe the composition of blood and discuss on various blood disorders Perform routine hematological tests
M.Sc. Microbiology	PIMBF20	Cyano bacteriology	The course provides an understanding on the structure, genomics, molecular regulation and applications of Cyanobacteria	Assimilate and apply principles and concepts towards skill development and employability	Attain an in-depth knowledge in the anatomy and physiology of a repertoire of microorganisms with its beneficial and harmful associations	Outline the diversity of cyanobacteria Discuss on the genomics of Cyanobacteria Explain the molecular biology of Cyanobacteria Demonstrate molecular regulation of Cyanobacteria Comprehend the mass cultivation and applications of Cyanobacteria

M.Sc. Microbiology	PCMBM20	Bioethics and Biosafety	The course is designed to educate the learners on Biosafety concerns at the level of individuals, institution, society, region, country and the world	Develop research skills through multi/inter/trans-disciplinary perspectives	Develop ability to independently carry out a complete scientific work process with research ethics, including the understanding of theoretical background, hypothesis generation, collection and analysis of data, and interpretation and presentation of results	Outline the principles of bioethics and explain the biosafety concerns with safeguard measures Compile the BSA statement for the industrial production of pharmaceuticals Adapt the WHO quality standards in food process technology Discuss on the global scenario of patenting Comprehend the forms of patents, patentability and process of patenting
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