



## Criterion I - Curricular Aspects

## 1.3 Curriculum Enrichment

### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

#### Name of the Programme: B.A. ARABIC

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Tajweed - Practical	23UAR1CC2P		✓			The course aims at developing the skill of making conjugation in Arabic and ensures the gender equality
Arabic Morphology	23UAR1AC1			✓		Tajweed and Tarjama focus on developing the Human Values by giving introduction to quranic sciences
Seerathul Anbiyaa - I	23UAR1AC2	✓				To teach the History of early Prophets of Islam: Prophet Ibrahim (Alai) and Prophet Yousuf (Alai) to follow their Ethics
Language Application - Practical	23UAR3CC6P	✓			✓	This course inculcates Professional ethics and encourages us to preserve the environment
Applied Arabic – Practical	23UAR4CC8P	✓			✓	This Spoken Arabic oriented course supports Professional ethics and preserving environment



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#### Name of the Programme: M.A. ARABIC

Course Name	Course Code	Issues Relevant to				Description of the Course
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Tafseer Literature	23PAR1CC2			✓	✓	To teach the students, the chapter of the Quran with full explanation with commentaries.
Drama & Short Stories	23PAR3CC10		✓	✓	✓	The course is the combination of two major literary pieces of Arabic language with rich human values. It also supports the gender equality and safeguarding Environment
Arabic Translation & Interpretation	23PAR3CC12P	✓				The course is well designed with Language development along with Professional ethics
Novel	23PAR4CC14		✓	✓	✓	Novel insists in gender equality, human values Environment to its learners



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#### Name of the Programme: B.Sc. Biotechnology

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Fundamentals of Botany and Zoology	23UBT1CC1	✓			✓	Students to make observations and record the number of different species. Study in biodiversity is an amazing career helping managers and scientists to understand how animals and plants survive in the environment and cope.
Fundamentals of Botany and Zoology- Practical	23UBT1CC2P	✓			✓	Study of following specimens: Balanoglossus, Amphioxus, Hippocampus, and faunal composition of water samples (Lucky drop)
Biochemistry I: General Biochemistry	23UBT1AC1	✓		✓		On successful completion of the course the student should have understood the significance of complex bio-molecules, polysaccharides, lipids, proteins, nucleic acids, vitamins and minerals.
Biochemistry I: General Biochemistry Practical	23UBT1AC2P	✓		✓		To know the principles, theory and calculations of each experiment, hands on preparation of all the solutions and to standardize solutions individually, the concept of p <sup>H</sup> meter and preparation of Buffer solution, Assess the qualitative analysis of carbohydrates, amino acids and lipids and to Ensure students to gain practical knowledge about the chromatographic technique.



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Cell Biology	23UBT2CC3	✓		✓	✓	Basic concepts of cell biology and properties of cells, cell cycle, Cellular membranes and matrices, impact of behavior of cells in their microenvironment in multi-cellular organisms with emphasis on cell-cell interactions.
Cell Biology - Practical	23UBT2CC4P	✓		✓	✓	Structure of cells using microscopy and other analytical techniques, cytochemical methods, Identify the different stages of mitosis and meiosis cell division, and to Design experiments to investigate a scientific problem and present advanced knowledge in the specialized fields of cell biology.
Biochemistry II- Bioenergetics and metabolism	23UBT2AC3	✓		✓		Understand the energy transformation in living system, mechanism of oxidative phosphorylation, the metabolism of carbohydrates, lipid metabolism, amino acids, nucleic acid and porphyrins metabolism.
Biochemistry II- Bioenergetics and metabolism practical	23UBT2AC4P	✓		✓		The subject is about to acquire the knowledge about the estimation of Carbohydrate, proteins, saponification number, Acid number and Iodine value of an edible oil, the content of various bio molecules in food substances and the activity



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		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Bioinstrumentation	23PBT1CCI	✓			✓	Studies of bioinstrumentation engineers develop and investigate many tools to detect, diagnose, and study biological conditions.
Advanced Biochemistry	23PBT1CC2	✓		✓		Advanced Biochemistry has a special focus on how cells work at molecular level. Together with the related field of molecular biology, biochemistry provides important advances in understanding the molecular basis of life, and how alteration or disruption of these molecular pathways leads to disease processes.
Immunology and Immunotechnology	23PBT1CC3	✓		✓	✓	The study of immune system in both healthy and diseased states. It includes the study of how the body fights infections from bacteria and viruses, and the development of medical interventions to treat and prevent diseases.
Bioinstrumentation, Advanced Biochemistry, Immunology and	23PBT1CC4P	✓		✓		Together with the related field of molecular biology, biochemistry, immunology provides important advances in understanding the molecular basis of life engineers develop and investigate many tools to detect, diagnose, and study biological conditions.



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Immunotechnology-Practical						
Research Methodology, IPR and Biosafety	23PBT1DE1B	✓		✓	✓	The subject incorporates different types of intellectual property rights in general and protection of products in biotechnology research and issues related to application and obtaining patents, ethical aspects related to biological, biomedical, health care and biotechnology research.
Enzyme Technology	23PBT2CC5	✓		✓		The course is designed to give students an understanding of procedures involved in purification of enzymes, enzymes assays and quantitative evaluation of the influencing parameters such as concentrations of substrate / enzyme, pH, temperature and effects of inhibitors on enzyme activity.
Molecular Biology	23PBT2CC6	✓		✓		Students will also learn about bacterial viruses, transposons, plasmids and the analysis of recombination, genetic exchange and mutations
Recombinant DNA technology	23PBT2CC7	✓		✓		This course provides theoretical bases to properties and applications of versatile DNA modifying enzymes, cloning strategies, vector types, host genotype specificities for selection



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						and screening of recombinants and/or recombinant transformants.
Enzyme Technology, Molecular Biology and Recombinant DNA Technology Practical	23PBT2CC8P	✓		✓		Recombinant DNA technology involves using enzymes and various laboratory techniques to manipulate and isolate DNA segments of interest. This method can be used to combine (or splice) DNA from different species or to create genes with new functions. students will also learn about bacterial viruses, transposons, plasmids and the analysis of recombination, genetic exchange and mutations
Pharmacognosy, Pharmacology and Nanomedicine	23PBT2DE2B	✓		✓		Study of optimisation of the pharmacological and therapeutic activities of drugs in living organisms and involves identification of the factors influencing their bioavailability.



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#### Name of the Programme: B. Sc. Botany

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Environmental Studies	20UCN3AE2	✓			✓	Students inculcated regarding Environmental issues and ethics with various activities.
Edible Mushroom Cultivation and Commercialization	20UBO3GE1			✓		Developing the skills, cultivation practices of the edible mushrooms to students.
Nursery, Gardening for Entrepreneurship	20UBO4GE2		✓	✓	✓	Developed the skills for constructing gardens. Acquired the theoretical knowledge on propagation technique and also exposure on entrepreneurship.
Plant Systematics and Economic Botany	20UBO5CC9			✓	✓	Realize the morphological and salient features of the various plant varieties and various plant families. Familiarize the economical importance of plants.
Algal Cultivation Techniques for Entrepreneurship	20UBO5SE2A		✓	✓	✓	Students understand the different types of Algal habits and habitats of their culture techniques. Acquired knowledge on seaweed cultivation and their commercialization
Greenhouse Technology	20UBO5SE3A			✓	✓	Understand the alternate technologies for plant growth and development. Recognized the role of greenhouse production and marketing of algal products.





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Plant Ecology and Phytogeography	20UBO6CC13				✓	Students are realize the role of ecological aspects. Understand the knowledge of various pollutions and their mitigation.
Plant Molecular Biology and Biotechnology	20UBO6CC14			✓	✓	Exposure on genome organization, gene expression, rDNA technology and Tissue Culture techniques.
Biological Techniques	20UBO6CC15			✓	✓	Elucidate the Histological, Spectroscopy, Chromatography and Centrifugation techniques.
Industrial Botany	20UBO6DE2A	✓		✓		Realize the values of plants in secondary metabolites production, biofuels and fermentation technology. Acquired knowledge on mushroom cultivation industrial based plant products.
Horticulture and Plant Breeding	20UBO6DE3A			✓	✓	Familiarize the cultivation practices of gardens, ornamental plants & Fruits. Understand the principles of plant breeding practices.



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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Applied Marine Botany	20PBO1DE1A		✓	✓	✓	Understand the basics in marine environment relevant to remote sensing. Realize the cultivation practices of marine algae / seaweed and their products.
Floriculture for Entrepreneurship and Export	20PBO2DE2A	✓		✓	✓	Realize the importance of floriculture and cultivation practices. Acquired knowledge on entrepreneurial and export practices.
Plant Systematics and Ethnobotany	20PBO3CC9			✓	✓	Familiarize the plants of different families and their role in environment sustainability with human values. And scientific study of traditional knowledge and customs of people concerning plants.
Plant Ecology and Conservation Biology	20PBO4CC13			✓	✓	Realize the concept of important ecology, population ecology and biogeographic Techniques.
Plant Biotechnology	20PBO4CC14	✓		✓	✓	Familiarize the role of plant tissue culture and molecular mechanism in plant biotechnology and acquired knowledge on IPR.
Plant Tissue Culture and Secondary Metabolites Production	20PBO4DE4A	✓		✓	✓	Understand the micropagation techniques and fundamentals of metabolic engineering pertains to industrial products preparation.



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**Name of the Programme: B.B.A**

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Business Management	23UBA1CC1			✓		This course introduces students to the fundamental principles of managing business effectively and human values
Managerial Economics	23UBA1AC1	✓			✓	This course inculcates Professional ethics and encourages us to preserve the environment
Business Environment & Ethics	23UBA1CC4			✓		This course focus on developing the Human Values by giving introducing the Code of Ethics



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Name of the Programme: B.B.A – Aviation Management

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Business Management	23UBA1CC1			✓		This course introduces students to the fundamental principles of managing business effectively and human values
Managerial Economics	23UBA1AC1	✓			✓	This course inculcates Professional ethics and encourages us to preserve the environment
Business Environment & Ethics	23UBA1CC4			✓		This course focus on developing the Human Values by giving introducing the Code of Ethics



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#### Name of the Programme: B.C.A

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Programming in C	23UCA1CC1		✓	✓	✓	This course provides an introduction to the C programming language, which is widely used for system and application software development. Students will learn the basic syntax and semantics of C, as well as essential programming concepts such as data types, control structures, functions, arrays, pointers, and file handling.
Programming in C Lab - Practical	23UCA1CC2P		✓	✓	✓	The C Programming Lab course is designed to provide students with hands-on experience in writing, debugging, and analyzing C programs. This practical course aims to reinforce the theoretical concepts learned in the classroom and develop problem-solving skills through a series of programming exercises.
Numerical and Statistical Methods	23UCA1AC1	✓				The Numerical and Statistical Methods course is designed to provide students with an understanding of the mathematical techniques used to solve numerical



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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
						problems and analyze statistical data. This course combines theoretical knowledge with practical applications, enabling students to apply these methods to real-world problems.
Digital Electronics	23UCA1AC2	✓				The Digital Electronics course is designed to provide students with a comprehensive understanding of digital systems, logic design, and electronic circuits. This course covers the fundamental concepts, design principles, and applications of digital electronics, equipping students with the skills needed to design and analyze digital systems.
Programming in Java	23UCA2CC3	✓				The Programming in Java course is designed to introduce students to the Java programming language, focusing on object-oriented programming concepts, design principles, and practical applications. This course aims to equip students with the skills necessary to develop robust and scalable Java applications
Java Programming Lab - Practical	23UCA2CC6P	✓				The Programming in Java Lab course provides students with hands-on experience in writing, debugging, and



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Course Name	Course Code	Issues Relevant to				Description of the Course
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						analyzing Java programs. This practical course is designed to reinforce theoretical concepts learned in lectures and develop problem-solving skills through various programming exercises.
Operations Research	23UCA2AC3	✓				The Operations Research course is designed to introduce students to the fundamental concepts, techniques, and applications of operations research (OR). This course focuses on developing analytical skills to model and solve complex decision-making problems in various industries.



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#### Name of the Programme: B. Sc. Chemistry

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Inorganic, Organic and Physical Chemistry - I	23UCH1CC1				✓	Students are taught how to systematically analyze cations and anions by semi-micro qualitative analysis with environmental consciousness.
Volumetric Estimation and Flame Photometric Identification of Metals - Practical	23UCH1CC2P	✓			✓	Students are trained to estimate the metal ions volumetrically with concordant values and flame photo metrically with environmental consciousness.
Inorganic, Organic and Physical Chemistry - II	23UCH2CC3	✓			✓	Students are taught to ensure safety and promoting environmental sustainability practises in petroleum industry.
Industrial Chemistry- Practical	23UCH2CC4P	✓			✓	Students are trained to estimate the acid value, iodine value and saponification value of commercial oils and also skilled to check the purity of commercial baking soda, washing soda and vitamin-C tablets.





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#### Name of the Programme: M. Sc. Chemistry

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Solvents, Crystal Structures, Metallurgy and Nuclear reactions	23PCH1CC1				✓	Students are taught nuclear power plants producing huge amounts of low-carbon power and requiring less land to do so than any other energy source.
Organic Reaction Mechanisms, Reagents, Terpenoids and Alkaloids	23PCH1CC2	✓				Students are taught that how to suggest a plausible reaction mechanism.
Inorganic Estimation and Complex Preparations - Practical	23PCH1CC3P	✓			✓	Students are trained to estimate the metal ions systematically with environmental consciousness.
Organic Estimation and Preparations - Practical	23PCH1CC4P	✓			✓	Students are trained to estimate the organic compounds systematically with environmental consciousness
Solution Kinetics, Electrode Process and Quantum Mechanics	23PCH1DE1A				✓	Students are taught the prevention of corrosion of metals and also taught catalysis considering atom economy concept.
Stereochemistry, Organic Reactions and Steroids	23PCH2CC5	✓				Students are taught that how to suggest a plausible reaction mechanism.



# Jamal Mohamed College (Autonomous)

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Tiruchirappalli – 620 020

AQAR 2023-2024

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Course Name	Course Code	Issues Relevant to				Description of the Course
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Group Theory and Spectroscopy	23PCH2CC6	✓				Students are taught MRI applications considering empathy, respect and concern for rights, privacy and safety of the patient.
Inorganic Qualitative Analysis and Colorimetric Estimations – Practical	23PCH2CC7P	✓			✓	Students are trained to systematically detect metal ions by semi-micro qualitative analysis and estimate the metal ions by colorimetry with environmental consciousness.
Qualitative Analysis of Organic Mixture and Chromatography Techniques - Practical	23PCH2CC8P	✓			✓	Students are trained to systematically analyze the given mixture of two organic compounds and trained to separate the mixture of amino acids by TLC with environmental consciousness.
Organometallics and Inorganic Spectroscopy	23PCH2DE2A				✓	Students are taught organometallic catalysis with environmental consciousness.
Chemistry of Inorganic Complexes	23PCH2DE2B				✓	Students are taught that how to suggest a plausible reaction mechanism for organometallic reactions following 18-electron rule.



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#### Name of the Programme: B. Sc. Computer Science

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Programming in C and C++	23UCS1CC1	✓				This course is designed to develop an understanding of topics which are fundamental to the study of Programming in C and C++
Programming in C and C++ Lab – Practical	23UCS1CC2P	✓				This course is designed to develop basic programming skills in C and C++
Java Programming	23UCS2CC3	✓				This course emphasis on the fundamentals of object-oriented programming and its various methods in Java
Java Programming Lab – Practical	23UCS2CC3P	✓				This course is designed to develop basic programming and logical skills in Java
Web Programming	23UCS2CC4	✓				This course introduces students to the fundamental concepts and technologies used in modern web development.



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Name of the Programme: M. Sc. Computer Science

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Mathematics for Computer Science	23PCS1CC1	✓				This is designed to give you part of the mathematical foundations needed to work in computer science in any of its strands, from business to visual digital arts, music, games. At any stage of the problem solving and modelling stage you will require numerical and computational tools.
Advanced Java Programming	23PCS1CC2	✓				It is an advanced technology or advance version of Java specially designed to develop web-based, network-centric or enterprise applications. It includes the concepts like Servlet, JSP, JDBC, RMI, Socket programming, etc. It is a specialization in specific domain.
Web Development Tools	23PCS1CC3	✓				Web development courses are designed to teach everything about creating Websites and web applications. They cover topics such as Internet Basics, HTML, CSS, JavaScript and more. The table below is the course curriculum for Web Development Course.
Advanced Java Programming Lab	23PCS1CC4P1	✓				The objectives of the course are outlined as enabling students to implement simple programs using JSP and J2EE, provide knowledge on using servlets and applets, and introduce concepts like JDBC, RMI, and socket programming.
Web Development Tools Lab	23PCS1CC4P2	✓				This course introduces World Wide Web Consortium (W3C) standard markup language. Topics include



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Course Name	Course Code	Issues Relevant to				Description of the Course
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						creating web pages, responsive design, file transfer, deployment, accessibility, and other related W3C topics. Upon completion, students should be able to deploy a hand-coded website created using the Hyper Text Markup Language (HTML) and Cascading Style Sheet (CSS) standards. Topics include HTML, XHTML.
Advanced Computer Architecture	23PCS1DE1A	✓				This course examines the techniques and underlying principles that are used to design high-performance computers and processors. Particular emphasis is placed on understanding the trade-offs involved when making design decisions at the architectural level.
Object Oriented Analysis and Design	23PCS1DE1B	✓				Object-Oriented Analysis and Design (OOAD) is a software engineering methodology that employs object-oriented principles to model and design complex systems.
Database Systems	23PCS2CC5	✓				Database Management is about the monitoring, administration, and maintenance of databases and database groups across an enterprise. Managing a database involves designing, implementing, and supporting stored data, to maximize its value.
Python for Data Science	23PCS2CC6	✓				The Data Science with Python course empowers you to excel in Python programming. In this course, you'll delve into data science, data analysis, data visualization, data wrangling, feature engineering, and statistics. Upon finishing the course, you'll excel in using essential data science tools with Python.



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Design and Analysis of Algorithms	23PCS2CC7	✓				This is an intermediate algorithms course with an emphasis on teaching techniques for the design and analysis of efficient algorithms, emphasizing methods of application. Topics include divide-and-conquer, randomization, dynamic programming, greedy algorithms, incremental improvement, complexity, and cryptography. .
RDBMS Lab	23PCS2CC8P1	✓				Master the basics of SQL and construct queries using SQL. Understand the relational database design principles. Familiar with the basic issues of transaction processing and concurrency control. Familiar with database storage structures and access techniques.
Data Science Lab	23PCS2CC8P2	✓				Data science is the study of data to extract meaningful insights for business. It is a multidisciplinary approach that combines principles and practices from the fields of mathematics, statistics, artificial intelligence, and computer engineering to analyze large amounts of data.
Cloud Computing	23PCS2DE2A	✓				Cloud Computing is a branch of computer science that covers management, storage and processing of data on networks of the internet server. Cloud computing delivers on-demand IT resources over the internet.
Distributed Operating System	23PCS2DE2B	✓				A distributed operating system is system software over a collection of independent software, networked,



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						communicating, and physically separate computational nodes. They handle jobs which are serviced by multiple CPUs.
Principles of Compiler Design	23PCS3CC9	✓				The objective of these courses is to learn basic principles and advanced techniques of compiler design. Both the courses will focus lexical analysis, syntactic analysis, semantic analysis, abstract syntax tree and code-generation as well as basic optimizations.
Machine Learning and R Programming	23PCS3CC10	✓		✓		Learn machine learning origins, principles, and practical applications, as well as implementation via the R programming language. Students will learn to train a model, evaluate its performance, and improve its performance.
Digital Image Processing	23PCS3CC11	✓				This course will introduce various image processing techniques, algorithms and their applications. INTENDED AUDIENCE: BE/ME/MS/PhD. PRE-REQUISITES : Concepts of Digital Signal Processing. INDUSTRY SUPPORT :Defense labs like DRDO, Space ISRO, TCS.
Machine Learning Lab	23PCS3CC12P1	✓		✓		Machine Learning is concerned with computer programs that automatically improve their performance through experience. This course covers the theory and practical algorithms for machine learning from a variety of perspectives.



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Image Processing Lab	23PCS3CC12P2	✓				Image processing is the process of transforming an image into a digital form and performing certain operations to get some useful information from it.
Cryptography and Network Security	23PCS3DE3A	✓		✓		The aim of this course is to introduce the student to the areas of cryptography and cryptanalysis. This course develops a basic understanding of the algorithms used to protect users online and to understand some of the design choices behind these algorithms.
Software Project Management	23PCS3DE3B	✓				Project management software is designed to help businesses and individuals track projects, tasks and schedules. The core value of this kind of software is its ability to bring structure to complexity. It's a great tool for staying organized and ensuring your team remains on task and aligned with project objectives.
Middleware Technologies	23PCS4CC13	✓				Middleware is software that lies between an operating system and the applications running on it. Essentially functioning as hidden translation layer, middleware enables communication and data management for distributed applications.
Web Framework Lab	23PCS4CC14P1	✓				A web development framework is a set of resources and tools for software developers to build and manage web applications, web services and websites, as well as to develop application programming interfaces (APIs).





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### 1.3 Curriculum Enrichment

#### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Middleware Technology Lab	23PCS4CC14P2	✓				Middleware is a technology used to transfer information from one program to one or more other programs in a distributed environment, making it independent from the communication protocols, OS and hardware used



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### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

Name of the Programme: M.C.A

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Programming in Java	23MCA1CC1	✓				Covers basics of object-oriented programming, data structures, algorithms, and application development. Emphasizes practical implementation through assignments and projects, preparing students for software development careers.
Computer System Architecture	23MCA1CC2	✓				Focuses on principles of computer organization, CPU design, memory hierarchy, I/O systems, and parallel architectures. Includes hands-on labs for understanding architecture concepts. Prepares students for designing efficient and scalable computer systems."
Database Systems	23MCA1CC3	✓				Covers relational database design, SQL programming, transaction management, and database administration. Includes practical exercises in database implementation and optimization.
Resource Management Techniques	23MCA1CC4	✓				Focuses on mathematical modeling and optimization techniques for decision-making in complex systems. Covers linear programming, network optimization,



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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
						integer programming, and simulation methods
Management Information Systems	23MCA1CC5	✓			✓	Studies the role of information technology in organizational decision-making and management processes. Topics include system analysis, design, implementation, and strategic use of MIS.
Java Programming Lab – Practical	23MCA1CC6P	✓				Hands-on practice in Java programming concepts covered in lectures. Includes assignments on object-oriented programming, data structures, GUI development, and application debugging.
RDBMS Lab – Practical	23MCA1CC7P	✓				Hands-on exercises cover database design, normalization, SQL queries, transactions, and stored procedures. Emphasizes implementation of database systems to prepare students for database administration and development roles
Communication Skills	23MCA1SE1	✓		✓	✓	Develops verbal, written, and interpersonal skills essential for professional success. Covers effective communication strategies, presentation skills, technical writing, and teamwork.
Data Structures and Algorithms	23MCA2CC8	✓				Covers fundamental data structures (arrays, linked lists, trees, graphs) and algorithms (sorting, searching, recursion).



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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
						Emphasizes analysis of algorithm efficiency (time and space complexity).
R Programming with Statistics	23MCA2CC9	✓				Topics cover data handling, visualization, hypothesis testing, and regression analysis, preparing students for data-driven insights and research applications across various disciplines.
Operating Systems	23MCA2CC10	✓				It covers fundamental concepts and principles of operating systems, including process management, memory management, file systems, and concurrency. It provides hands-on experience with OS installations, configurations, and troubleshooting.
Computer Networks	23MCA2DE1A	✓				It explores the architecture, protocols, and functioning of computer networks. Topics include OSI and TCP/IP models, network topologies, routing, switching, and network security.
Network Security and Cryptography	23MCA2DE1B	✓				It covers cryptographic principles, algorithms, and protocols for securing data. Topics include encryption, decryption, digital signatures, and network security practices.
Mobile Application Development	23MCA2DE1C	✓				It focuses on designing and building mobile apps for various platforms. Topics



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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
						include UI/UX design, mobile frameworks, and development tools.
Data Science	23MCA2DE2A	✓				It covers data analysis, statistical modeling, machine learning, and data visualization. Students learn to handle large datasets, apply analytical techniques, and use tools like Python and R.
Big Data Analytics	23MCA2DE2B	✓				It focuses on processing and analyzing large datasets. Topics include Hadoop, Spark, data mining, and data visualization.
Microprocessors, Interfacing and Applications	23MCA2DE2C	✓				It covers microprocessor architecture, programming, and interfacing techniques. Topics include assembly language, peripheral devices, and real-time applications.
Data Structures Lab – Practical	23MCA2CC11P	✓				It focuses on hands-on implementation of data structures and algorithms. Students practice coding, testing, and analyzing efficiency of structures like arrays, linked lists, trees, and graphs.
R Programming Lab – Practical	23MCA2CC12P	✓				It emphasizes practical application of statistical analysis and data visualization using R. Students learn to write R scripts, manipulate data frames, perform statistical tests, and create graphical representations.



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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Quantitative Aptitude	23MCA2SE2	✓				It covers mathematical concepts and problem-solving skills essential for computational tasks. Topics include arithmetic, algebra, geometry, and quantitative analysis. Students develop proficiency in numerical reasoning and logical thinking



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Name of the Programme: B.Com.

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Financial Accounting	23UCO1CC1		✓			This course helps to understand the basic principles of accounting with reference to Accounting Standards in practice.
Business Organisation & Management	23UCO1CC2			✓		The Course will familiarize you with the introductory aspect of business and business enterprises. You will be acquainted with various dimensions of management, organisation, control, communication, motivation and leadership.
Business Economics	23UCO1AC1	✓			✓	It is a field in applied economics where economic theories and quantitative methods are used to examine business organisations and the elements that contribute to the diversity of organisational structure
Modern Marketing	23UCO1AC2	✓			✓	Learning and comprehending the wants/needs of the consumer through online interaction. Creating products that meet the needs of the target consumer.
Business Accounting	23UCO2CC3	✓				The Introduction to new course titled Business Accounting is a fundamental course for beginners to understand the basics in Partnership accounting, admission, retirement and death and dissolution.



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#### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Legal Aspects of Business & Ethics	23UCO2CC4	✓		✓		This course an attempt is made to introduce the students to certain important legal aspects of business.
Business Environment	23UCO2AC4	✓				The basic objective of the course is: To identify the definable aspects of business environment within which a business organisation has to function.





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Name of the Programme: M.Com.

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Corporate and Economic Laws	23PCO1CC1	✓	✓			It covers essential topics such as corporate formation, structure, governance, and compliance with regulatory standards.
Managerial Economics	23PCO1CC2			✓		It focuses on decision-making processes within firms, covering topics such as demand analysis, production and cost functions, market structure, pricing strategies, and risk analysis.
Cost & Management Accounting	23PCO1CC3	✓				Enhance the abilities to develop the concept of Cost and Management Accounting Techniques and its Significance in the Business Corporate.
Goods & Service Tax	23PCO1CC4	✓				Skill on practical application which will equip them to become GST practitioners
Advanced Income Tax	23PCO2CC5	✓				The course emphasizes practical application through case studies and real-world scenarios, preparing students for careers in



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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
						tax consultancy, corporate tax departments, and public accounting firms



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Name of the Programme: B. A. Economics

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Micro Economic Analysis - I	23UEC1CC1			✓	✓	This course deals with the various micro economic concepts like demand, elasticities and utility
Money and Banking	23UEC1CC2			✓	✓	This course deals with monetary policy and banking regulations in India
Economic Statistics - I	23UEC1AC1					This course deals is designed to educate students about various statistical tools which can be used for research and business practices.
Marketing	23UEC1AC2	✓				This course is designed to impart marketing skills to economics graduates in order to make them employable.
Indian Economy	23UEC2CC3		✓		✓	This course is designed to impart students with the knowledge of Indian economic growth and development
Micro Economic Analysis - II	23UEC2CC4			✓		This course deals with various Micro Economic theories related to production
Economic Statistics - II	23UEC2AC3				✓	This course deals is designed to educate students about various statistical tools which can be used for research and business practices.
Computer Applications in Economics - Practical	23UEC2A4P				✓	This course is designed to train students with latest computer software for economic analysis



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Name of the Programme: M. A. Economics

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Advanced Micro Economic Analysis - I	23PEC1CC1			✓		This course deals with the various micro economic concepts like demand, elasticities and utility
Advanced Macro Economics	23PEC1CC2	✓				This course deals with important macro economic concepts and theories
Environmental Economics	23PEC1CC3			✓	✓	This course deals with various theories related sustainable economic development
Entrepreneurial Development	23PEC1CC4	✓	✓	✓	✓	This course introduces various entrepreneurial development schemes and impart the skills required to become an entrepreneur
Mathematical Applications in Economic Analysis	23PEC1DE1A			✓		This course deals with the application of various mathematical tools in economic analysis.
Financial Economics	23PEC1DE1B	✓				This course deals with various financial instruments which are used as a tool for promoting savings and investment
Advanced Micro Economic Analysis - II	23PEC2CC5	✓	✓	✓		This course deals with various Micro Economic theories related to production and markets
Monetary Economics	23PEC2CC6	✓				This course deals with various monetary tools of the government used for maintaining economic stability



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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
International Economics	23PEC2CC7	✓				This course deals with concepts of international trade and various international organisations
Evolution of Economic Thought	23PEC2CC8	✓	✓	✓	✓	This course deals with economic ideas of important economists of different schools.
Statistical Methods for Economic Analysis	23PEC2DE2A				✓	This course is designed to educate students about various statistical tools which can be used for research and business practices.
Agricultural Economics	23PEC2DE2B				✓	This course deals with the economic principles, policies and other issues related to agriculture in India



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### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

Name of the Programme: B. A. English

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
English for Communication - I	23UCN1LE1	✓	✓	✓	✓	Develops foundational English skills for professional and academic contexts, integrating discussions on ethical communication, gender perspectives, human values, and environmental awareness.
Prose	23UEN1CC1		✓	✓	✓	Explores various forms of prose literature, examines, gender roles, human values, and environmental themes portrayed in narratives.
Short Stories	23UEN1CC2		✓	✓	✓	Analyzes narrative structures and character development in short fiction, exploring gender dynamics, human values, and environmental contexts within stories.
English for Communication - II	23UCN2LE2	✓	✓	✓	✓	Builds advanced communication skills with a focus on ethical practices, gender inclusivity, human values in diverse contexts, and global sustainability challenges.
Poetry - I	23UEN2CC3		✓	✓	✓	Studies poetic forms, themes, and imagery, discussing gender representation, human



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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
						values, and environmental symbolism in poetry.
Fiction - I	23UEN2CC4	✓	✓	✓	✓	Explores narrative techniques and themes in novels and novellas, examining ethical dilemmas, gender portrayals, human values, and environmental issues in fictional narratives.



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Name of the Programme: M. A. English

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
British Literature - I	23PEN1CC1		✓	✓	✓	Explore early British Literature while examining gender roles, and environmental themes from medieval to 18th-century texts.
British Literature - II	23PEN1CC2		✓	✓	✓	Continue the study of British Literature from the Romantic period to the Victorian era, analyzing evolving gender dynamics, and environmental perspectives.
Shakespeare	23PEN1CC3		✓	✓	✓	Study Shakespeare's works through the lens of gender portrayals, and human values, with insights into environmental themes in selected plays.
American Literature	23PEN1CC4		✓	✓	✓	Survey American Literature, exploring changing gender roles, and societal values from colonial times to the present, including environmental reflections in literature.
Mass Media Studies	23PEN1DE1A	✓	✓	✓	✓	Examine ethical considerations, gender representations, and societal values in mass media, with discussions on media ethics and environmental communication.
British Literature - III	23PEN2CC5		✓	✓	✓	Explore modern and postmodern British Literature, analyzing gender identity, and environmental themes in contemporary texts.





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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
British Literature - IV	23PEN2CC6		✓	✓	✓	Engage with contemporary British Literature, examining gender perspectives, and environmental concerns in recent works.
Indian Writing in English	23PEN2CC8		✓	✓	✓	Survey Indian Literature in English, exploring gender dynamics, and cultural values, including environmental themes in literary contexts.
Advanced Communication Skills	23PEN2DE2A	✓				Enhance communication proficiency with a focus on professional ethical communication strategies.



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### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

#### Name of the Programme: B. Sc. Fashion Technology & Costume Designing

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Fashion Designing	23UFT1CC1	✓				The course aims at gaining knowledge in elements of art and principles of design applied in different area.
Fashion Sketching Techniques - Practical	23UFT1CC2P	✓				Acquire basic knowledge about sketching human features and create costumes
Textile Science	23UFT1AC1				✓	Eco friendly methods in the manufacture and processing of fibers
Knitting	23UFT1AC2	✓				Analysing and understanding the elements and principle of knitting technology
Basic Garment Construction	23UFT12CC3	✓				Gaining knowledge in basic garment construction
Basic Garment Construction- Practical	23UFT12CC4P	✓				Acquire the basic knowledge in components of garment construction
Fabric Structure and Design	23UFT12CC4P	✓				Developing fabric design to meet out the new fabric in market
Fabric Structure and Design - Practical		✓				Analysing the fabric design to meet out the consumer demands



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Name of the Programme: M. Sc. Fashion Technology & Costume Designing

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Advanced Textile Science	23PFT1CC1				✓	Eco sustainable methods in the manufacture and processing of fibers
Quality Standards and Specification	23PFT1CC2	✓				Indicating the quality standards and parameters for textile and apparel industry
Fashion illustration- Practical	23PFT1CC3P	✓		✓		Acquire Depth knowledge about sketching human features, garment theme and costume creativity
Fashion Draping – Practical	23PFT1CC4P	✓				Create a design to develop the draping skill and knowledge
Fashion Marketing and Retailing	23PFT1DE1A	✓		✓		Inducing human values and social responsibilities towards fashion business
Computer Aided Design (CAD)	23PFT1DE1B	✓				Preparing the students mind by developing the design along with traditional values
Research Methodology and statistics	23PFT2CC5	✓				Equip student with skills and knowledge necessary to conduct research process and statistical analysis techniques
Advanced Technical Textiles	23PFT2CC6	✓				It explores advancement in technical textiles on high performance materials, innovative manufacturing techniques and applications in textile industries
Computer Aided Design – Practical I	23PFT2CC7P	✓				This applies fundamental of applications in textile design, patterns and development



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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Design with Prints- Practical	23PFT2CC8P	✓			✓	Creates design and develop innovative print design from concept to production
Digital Marketing	23PFT2DE2A	✓		✓		It covers strategies, tactics and tools to promote products, services and brands through digital channels
Entrepreneurship Development	23PFT2DE2B	✓			✓	Idea generation focusing in entrepreneurial process, innovation, risk management and sustainable growth.



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#### Name of the Programme: B. Voc. Apparel & Fashion Design

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Apparel Designing and Clothing Psychology	18BAF1C1	✓	✓	✓		The students are aware about fashion, trend, style, design. Gain Knowledge in elements of art and principles of design applied in different area.
Sewing Techniques - Practical	18BAF1C4P	✓				Inquire the basic knowledge in components of garment construction.
Fiber to Fabric	18BAF2C7				✓	Eco friendly methods in the manufacture and processing of fibres.
Computer Aided Fashion Designing – Practical	18BAF2C9P		✓			Preparing the students mind by Developing the garment design for men and women.
Fabric Structure and Design	18BAF3C12	✓			✓	Understand the structure of the fabric and make a draft for the design.
Apparel Merchandising and Marketing	18BAF4C20	✓		✓		Inducing human values and social responsibilities towards fashion business



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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Garment Quality and Cost Control	18BAF5C25	✓				Ethics in the administration of quality control and specification of apparel industries.
Textile Testing - Practical	18BAF5C29P	✓				Developing the skills to provide good quality textile products by following testing procedures
Home Science	18BAF6C34	✓		✓		Development of professional ethics with human values through <ul style="list-style-type: none"><li>• Food science and Nutrition science</li><li>• Human development</li><li>• Family resource management</li></ul>
Apparel Draping - Practical	18BAF6C35P	✓				Create a design to develop the draping skill and knowledge to students.



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Name of the Department: French

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
General Language French – I	23U1LF1	✓				This course includes a small article, which talks about the punctuality of the French people.
General Language French – II	23U2LF2		✓			This course covers an article, which talks about gender equality in the employment world.



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Name of the Department: Hindi

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Samanya Hindi-I, Short Story and Grammar - I	23U1LH1		✓	✓		This course is designed to teach a basic knowledge of the Hindi language in the students and instill the fundamentals of Hindi literature.
Samanya Hindi-II, Novel and Grammar-II	23U2LH2		✓	✓		This course is designed to understand famous novels in Hindi and also the basic Hindi grammar.





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Name of the Programme: B. Sc. Information Technology with Cyber Security

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
C and C++ Programming	23UIC1CC1	✓				The C is a function-driven language because it is procedural programming. The C++ language, on the other hand, is object-driven because it is OOP (object-oriented programming).
C and C++ Programming Lab-Practical	23UIC1CC2P	✓				To teach the students all the programs that can enable to work independently.
Fundamentals of Cyber Security and Network Security	23UIC2CC3	✓				Cyber security refers to protecting systems, networks, programs, devices, and data from cyber-attacks using technologies, processes, and controls
Linux and Windows Fundamentals	23UIC2CC4	✓				Windows comes in a marketable package, while Linux is free from any price. Thus, Windows is expensive. Also, the Linux package is open supply.
Java Programming	23UIC2AC3	✓				Java is a widely used programming language for coding web applications. It has been a popular choice among developers for over two decades, with millions of Java applications in use today. Java is a multi-platform, object-oriented
Java Programming Lab-Practical	23UIC2AC4P	✓				To teach java programs that can enable to work independently.



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Name of the Programme: B. A. History

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
History of India up to 647 C.E.	23UHS1CC1	✓		✓		This course will map stories about life and civilization in the Indian subcontinent since prehistoric times to the Gupta Empire. Special attention given for the new religious sects such as Ajvikas, Buddhism and Jainism.
History of Tamil Nadu up to 850 C.E.	23UHS1CC2	✓		✓		This course provides knowledge of geography and prehistoric sources of Tamil Nadu. Special attention was given to Sangam literature, polity, society and economy.
Human Rights in India	23UHS1AC1	✓	✓	✓	✓	This course provides information on Philosophical and Historical foundations of the conception of Human Rights, Defining Rights, Generation of Rights, Universal Declaration of Human and Human rights in Indian.
Modern Political Theory	23UHS1AC2	✓	✓	✓		This course emphasizes the critical analysis on ideals like justice, equality, and liberty which has shaped and continues to shape personal and political ethics, decision-making, and social responsibility and action.



## Criterion I - Curricular Aspects

## 1.3 Curriculum Enrichment

### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
History of India from 647 C.E. to 1526 C.E	23UHS2CC3	✓		✓		This course explains the socio- economic and cultural conditions of medieval India. It's Describe the advent of Islam in India and study the traces of Political and cultural expansion of Turks & Afghans. The course Explain the administration, Art and architecture of Vijayanagara Rulers, Mughals and also analyse the emergence of composite culture in India.
History of Tamil Nadu from 850 C.E. to 1529 C.E.	23UHS2CC4	✓		✓		This course examines the political, social and economic history of Cholas during the early medieval period. The course will situate the history second Pandian Empie, The Muslim invasion of Tamil Country, The Vijayanagar rule in Tamilnadu will also be addressed along with a discussion on the temple as an economic and political centre.
Indian Geography	23UHS2AC3		✓	✓	✓	The course aims to acquaint the students with the study of solar system, the earth, the Lithosphere, the Hydrosphere, the Biospheres, Physiographic divisions of India, Drainage of India, Climate of India and Soils of India
Mass Communication	23UHS2AC4	✓		✓		This course is a survey of Mass Communication program is specifically designed to provide students with comprehensive knowledge of mass media functions and processes. This program encompasses all the major components of mass communication.



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### 1.3 Curriculum Enrichment

#### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

Name of the Programme: M. A. History

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Ancient Indian History and Culture	23PHS1CC1	✓		✓		This course will describe stories about life and civilization in the Indian subcontinent since prehistoric times to the Gupta Empire. Special attention given for the new religious sects such as Ajvikas, Buddhism and Jainism.
Tamil Society and Culture - I	23PHS1CC2	✓		✓		This course provides knowledge of geography and prehistoric sources of Tamil Nadu. Special attention was given to Sangam literature, polity, society and economy.
Arab Society and Culture - I	23PHS1CC3	✓	✓	✓		This course provides knowledge of geography and prehistoric sources of Arab society. Special attention was given to Arab literature, polity, society and economy. It includes the Contribution of orthodox Caliph in the field of administration. Attentions are also given to Religious Movement.
Modern Europe	23PHS1CC4	✓	✓	✓		This course emphasizes the critical analysis on ideals like justice, equality, and liberty which has shaped and continues to shape personal and political ethics, decision-making, and social responsibility and action. The course explores the theories propagated by the political philosophers



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## 1.3 Curriculum Enrichment

### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
						like Thomas hopes, John Look, Rousseau, Jeremy Bentham and Gandhi.
Archaeology: Principles and Methods	23PHS1DE1A	✓	✓	✓		This course explain the scopes and aims of Archaeology and its various kinds. The importance of Epigraphy and Numismatics will be also addressed. The course aims to acquaint the students with study of Exploration, excavation, methods of conservation, and dating methods.
Intellectual History of India	23PHS1DE1B	✓	✓	✓		This course examines the political, ideologies of various political leaders, Social reformers, Poets and writers, and other intellectuals, and gives a special references to Tamil Nadu.
History of Science and Technology	23PHS2DE2B	✓		✓	✓	The course aims to acquaint the students with the study of History of Science and Technology throughout ages, and a special reference is given to India. Also, the course inculcate recent development in Science and Technology in India
Medieval Indian History and Culture	23PHS2CC5	✓		✓		This course explain the socio- economic and cultural conditions of medieval India. It's Describe the advent of Islam in India and study the traces of Political and cultural expansion of Turks & Afghans.



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## 1.3 Curriculum Enrichment

### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Tamil Society and Culture - II	23PHS2CC6		✓	✓		The course Explain the administration, Art and architecture of Vijayanagara Rulers, Mughals and also analyse the rise of the Marthas. It Evaluate the establishment of the British rule in India and understand the dangerous consequences disunity at all levels. Analyse the emergence of composite culture in India.
Arab Society and Culture - II	23PHS2CC7	✓	✓	✓		This course provides knowledge of geography and prehistoric sources of Arab society. Special attention was given to Arab literature, polity, society and economy. It includes the Contribution of orthodox Caliph in the field of administration. Attentions are also given to Religious Movement.
History of Tiruchirappalli Through the Ages	23PHS2CC8	✓	✓	✓		The Course aims to sketch out the historical background and significance of the Trichirppalli district throughout ages. A special reference is given to the administration of Vijayanagar Empire. Also the Socio- Economic changes has been concentrated.
Indian Constitution	23PHS2DE2A	✓	✓	✓		The Course provides knowledge of Historical background and significance of Constitution. It also describes the powers and functions of various governmental bodies. And helps students to understand the powers functions of Judiciary.



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## 1.3 Curriculum Enrichment

### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

#### Name of the Programme: B.Sc. Hotel Management & Catering Science

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Basics of Food Production	23UHM1CC1	✓			✓	This course is designed to develop an understanding of various concepts such as preparation techniques, cooking methods, kitchen management, etc.
Indian Cuisine - Practical	23UHM1CC2P	✓			✓	This course focuses on hands on practical learning to equip students with the skills needed to work effectively in various culinary environments including restaurants, hotels, catering companies, and institutional catering establishments.
Fundamentals of Food and Beverage Service	23UHM1AC1	✓	✓	✓		The course is formulated with an intention to equip the students with basic skills required in the service of food and beverages and prepare them to acquire comprehensive knowledge and skills pertaining to food and beverage service operations.
Basics of Restaurant Service - Practical	23UHM1AC2P	✓	✓	✓		The main objective of this course is to enable the students to put into practice the skills they have learnt in food production and beverage service.
Front Office Operations	23UHM2CC3	✓				This course will enable students to handle guest services rendered through Front Office including



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## 1.3 Curriculum Enrichment

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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
			✓	✓		reservation, registration, check in, check out, handling inquiries, billing and cash handling.
Front Office Operations - Practical	23UHM2CC4P	✓	✓	✓		This course imparts key competencies of front office services including receiving and processing reservations, handling computerized reservation system, providing reception services, allotment of rooms and offering bell desk services through hands-on training.
Housekeeping Operations	23UHM2AC3	✓	✓	✓	✓	This course is designed to impart the knowledge, skills and attitude required to work in Housekeeping. It trains the students to provide housekeeping services to guests, prepare rooms for sales, clean premises, lauder linen and guest clothes.
Nutrition and Food Science	23UHM2AC4	✓	✓	✓		This course primarily deals with importance of nutrition in day-to-day life of human beings. It elaborately discusses about food processing, preservation, quality control, food adulteration and ways of controlling contamination.





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## 1.3 Curriculum Enrichment

### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

**Name of the Programme: B. Voc. Tourism & Hospitality Management**

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Introduction to Tourism Industry	20BTH1CC1				✓	The course focuses responsible tourism and thinking about consequences and actions as a tourist on the environment local people and local economy.
Fundamentals of Hospitality Operations	20BTH1CC2				✓	The course lays setting and guiding strategy goals and objectives for sustainability of hotel industry.
Basic Front Office Operations	20BTH1CC3				✓	The course focuses To exhibit good mannerism built good respect for the company and tell the client that the firm upholds ethical business practises.
Principles of Management	20BTH2CC6				✓	The course ethics refers to implementing appropriate business policies and practises with regard to arguably controversial subjects.
Housekeeping Operations	20BTH2CC7				✓	The course focuses To exhibit good mannerism built good respect for the company and tell the client that the firm upholds ethical business practises.
Travel Geography	20BTH3CC9				✓	The course lays on travel for pleasure as well as the infrastructure and organizations that make travel possible.
Basics of Food Production	20BTH3CC10				✓	The emphasis of a food service education is on learning a set of skills.



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## 1.3 Curriculum Enrichment

### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Food and Beverage Service	20BTH3CC11				✓	The course focuses Quality of speech, diplomacy and tact in words and expressions, volume and service standards.
Tourism Transport Operations	20BTH3CC12				✓	The course emphasises accessibility is the primary functions behind the basics of tourism transport to access the pursued destinations.
Tour Packaging and Itinerary Planning	20BTH3CC13				✓	The course lays with moral principles in place and offer an experience that gives educating tourist on responsible travel.
Tourism Marketing	20BTH4CC15				✓	The course emphasises identifying right market and improving sales and Profit
Tourism Ethics, Laws and Regulations	20BTH4CC17			✓	✓	The course focuses on the ethical principles to be followed by Tourism Industry.
Tourism and Hospitality Entrepreneurship	20BTH4CC18			✓	✓	The course emphasises comprehensive set of principles in tourism development central and local Govt. Local communities the tourism industry and its professionals as well as visitors
Tour Guiding and Escorting	20BTH4CC19				✓	The course lays with moral principles in place and offer an experience that gives educating tourist on responsible travel.
Event Management	20BTH5CC22			✓	✓	The course focuses on the attention customer service , Professionalism, engagement being approachable and helpful.
Customer Relationship Management	20BTH5CC23			✓	✓	The course focuses on business ethics and customer relations applies to the way that a business conveys its products and deals with customer complaints.
Human Resource Management	20BTH5CC24				✓	The course lays emphasises on standards of ethical and professional behaviour.



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### 1.3 Curriculum Enrichment

#### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Ecotourism	20BTH6CC27			✓	✓	The course emphasises on minimise physical social behavioural and psychological impacts.
Managerial Accounts and Finance in Tourism	20BTH6CC28				✓	The course lays ethical principles of integrity, objectivity, professional competencies and due care.
Organisational Behaviour	20BTH6CC29			✓	✓	The course focuses on guiding principles intended to ensure a business and its employees act with Honesty and integrity in all facets of its day today operations.



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### 1.3 Curriculum Enrichment

#### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

Name of the Programme: B. Sc. Mathematics

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Classical Algebra with MATLAB	23UMA2CC4	✓				This course integrates the theoretical foundations of inequalities and algebraic equations with practical implementation using the mathematical software MATLAB. It provides a comprehensive introduction to algebraic equations and their applications.
Numerical Methods With Octave	23UMA1AC2	✓			✓	This course would provide students with essential tools and techniques for numerical analysis, crucial for solving a variety of mathematical problems that arise in scientific and engineering contexts.
Statistics	23UMA2AC4	✓			✓	Statistics is the science concerned with developing and studying methods for collecting, analyzing, interpreting and presenting empirical data. Statistics is a highly interdisciplinary field; research in statistics finds applicability in virtually all scientific fields and research questions in the various scientific fields motivate the development of new statistical methods and theory. In developing methods and studying



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### 1.3 Curriculum Enrichment

#### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
						the theory that underlies the methods statisticians draw on a variety of mathematical and computational tools.



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## 1.3 Curriculum Enrichment

### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

#### Name of the Programme: M. Sc. Mathematics

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Classical Dynamics	23PMA1CC3				✓	This course aims to equip students with the mathematical tools and physical insights needed to tackle complex dynamical systems, preparing them for further research or professional work in applied mathematics, physics, or engineering.
Financial Mathematics	23PMA1DE1A	✓			✓	This course covers the traditional basic financial management topics in order to equip with cost of capital, capital structure and dividend distribution with relevant theories.
Combinatorics	23PMA1DE1B	✓				Explore advanced mathematical concepts in "Combinatorics" integrating professional ethics. Understand Multisets and Compositions, Power Series, Product of Generating Function, The cycle Structure of Permutations, uni-modality problems. Emphasize ethical applications in engineering, ensuring responsible, accurate, and principled use of mathematical techniques in professional practice.



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Complex Analysis	23PMA2CC6	✓			✓	This advanced course in complex analysis explores the theory and applications of functions of a complex variable.
Numerical Analysis With Octave	20PMA2CC8	✓			✓	After studied this course the students can familiar with solving problems with professional ethics.
Theory of fuzzy sets & its Applications	23PMA2DE2A	✓				Explore advanced mathematical concepts in "Fuzzy Set theory" integrating professional ethics. Understand on Fuzzy sets Versus Crisp sets, Fuzzy Arithmetic, Fuzzy Logic, Fuzzy Decision making, Fuzzy Relations. Emphasize ethical applications in engineering, ensuring responsible, accurate, and principled use of mathematical techniques in professional practice.
Mathematical Modelling	23PMA2DE2B	✓			✓	Mathematical modelling is the process of describing a real world problem in mathematical terms, usually in the form of equations, and then using these equations both to help understand the original problem, and also to discover new features about the problem.



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### 1.3 Curriculum Enrichment

#### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

Name of the Programme: M. B. A

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Management Concepts and Practices	23MBA1CC1	✓		✓	✓	This course will make the students understand fundamental concepts in management and also the practices in the industry
Organizational Behavior	23MBA1CC2	✓		✓		Organizational behavior, communication, power dynamics, and conflict resolution indirectly relate to ethical behavior and professional conduct within an organization. Understanding values, attitudes, and group behaviors contributes to understanding and appreciating human values within an organizational context.
Managerial Economics	23MBA1CC3	✓				"This course will make the students understand Economic concepts in management"
Quantitative Techniques for Managers	23MBA1CC4				✓	To have the advanced knowledge and application of concepts of Quantitative techniques in Business and Management





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## 1.3 Curriculum Enrichment

### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Information Systems for Business	23MBA1CC5	✓		✓	✓	"This course discusses key issues pertaining to Information systems in the managerial context. Focus is on the functional applications of Information systems and IS practices in organizations."
Accounting for Decision Making	23MBA1CC6	✓		✓	✓	This course will make the students experts in concepts and techniques of different branches of accounting. It also covers the guidelines from professional bodies called accounting standards
Legal Aspects of Business	23MBA1CC7	✓		✓		"This course make the students aware of business legislations and latest amendments and their applications in the business scenario "
Operations Research	23MBA2CC8			✓	✓	This course contain analytical methods of problem-solving and decision-making that is useful in the management of organizations.
Human Resource Management	23MBA2CC9	✓		✓	✓	Professional Ethics; Unit 1:HR and Ethics Human Values: Unit 1-5 Environmental sustainability: Unit 5; Workforce



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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
						demographic and diversity trends, *Trends shaping HR: Digital & Social Media"
Financial Management	23MBA2CC10	✓		✓	✓	This course will make the students excel in designing the capital structure, Minimizing the cost of capital, and budget preparation. It also develops the knowledge of international finance.
Marketing Management	23MBA2CC11	✓		✓	✓	This Course helps the students to understand the current Marketing situation and helps to adopt sustainable marketing
Operations Management	23MBA2CC12	✓		✓	✓	"Operations management is the administration of business structure, practices, and processes to enhance efficiency and maximize profit. It refers to the management of functions that a business needs to run effectively day-to-day, including: Overseeing multiple departments and providing goals."
Business Research Methods	23MBA2CC13	✓		✓		"The course gives an overview of research process including



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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
						research problem definition, research design, data collection, data analysis, writing of reports and ethical issues involved.
Spreadsheet for Managers***- Practical	23MBA2CC14P	✓		✓		This course aims to Familiarize Students with Basic to Intermediate Skills for Using Excel in Business Applications and also to facilitate students to Gain Proficiency in MS Excel Utilities and in Creating Solutions for Data Management and Reporting



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## 1.3 Curriculum Enrichment

### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

#### Name of the Programme: B.Sc. Microbiology

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Fundamentals of Microbiology	23UMB1CC1				✓	This course introduces the basic principles of microbiology examining the microbes that inhabit our planet and their effect on the biosphere. Isolation and cultivation of microorganisms and their economical importance.
Fundamentals of Microbiology - Practical	23UMB1CC2P				✓	The course aims to train students in standard microbiology techniques used on a daily basis in laboratories.
General Biochemistry	23UMB1AC1	✓				This course describe about structure and function of important biomolecules such as carbohydrates, lipids, amino acids, proteins and nucleic acids.
General Biochemistry - Practical	23UMB1AC2P	✓				The course aims to qualitative and quantitative analysis of biomolecules
Bacteriology	23UMB2CC3	✓		✓		The course covers detailed description of bacterial cell structure, nutrition and reproduction.



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## 1.3 Curriculum Enrichment

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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Bacteriology - Practical	23UMB2CC4P	✓		✓		The course covers detailed description of bacterial cultivation methods of bacterial detailed structure analysis and mechanism.
Haematology	23UMB2AC3	✓		✓		This course is intended to provide the student with a foundation of the fundamentals of haematology.
Haematology - Practical	23UMB2AC4P	✓		✓		The course states the principle of each testing procedure performed in haematology.



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## 1.3 Curriculum Enrichment

### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

Name of the Programme: M. Sc. Microbiology

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
General Microbiology	23PMB1CC1	✓			✓	Microbiology is the study of microorganisms that are too small to be observed by the naked eye. The discipline focuses on the structure, function, and classification of these organisms and looks for ways to exploit and control their activities.
Microbial Metabolism	23PMB1CC2				✓	Microbial physiology and metabolism provides information on sources of energy and its utilization by microorganisms. They are also very special considering its ability to degrade different carbon sources and converting them both aerobically and anaerobically to metabolites of commercial value. This diverse metabolic activity is generally not observed in any other group of living organisms.
Virology	23PMB1CC3	✓		✓		Virology is the study of viruses and virus-like agents, including, but not limited to, their taxonomy, disease-producing properties, cultivation, and genetics. Virology is often considered a part of microbiology or pathology.



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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
General Microbiology, Microbial Metabolism and Virology-Practical	23PMB1CC4P	✓		✓	✓	The Microbiology major deals with microscopic organisms, such as bacteria, fungi, algae, protozoa, & viruses. This discipline includes fundamental research on the biochemistry, physiology, cell biology, ecology and evolution.
Cell Biology And Biomolecules	23PMB1DE1A	✓			✓	Cell biology is the study of cell structure and function, and it revolves around the concept that the cell is the fundamental unit of life. Focusing on the cell permits a detailed understanding of the tissues and organisms that cells compose.
Biostatistics And Bioinstrumentation	23PMB1DE1B	✓				This course is an advanced method for biological and clinical data analysis to power the development of disease-fighting technology. Bioremediation is a waste management technique that includes the use of living organisms to eradicate or neutralize pollutants from a contaminated site.”
Molecular Biology and Genetics	23PMB2CC5			✓	✓	Microbial genetics is concerned with the transmission of hereditary characters in microorganisms. Molecular biology also plays a critical role in the understanding of structures, functions, and internal controls within individual cells.



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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Genetic Engineering	23PMB2CC6			✓	✓	Genetic engineering also called genetic modification is a process that uses laboratory-based technologies to alter the DNA makeup of an organism. This may involve changing a single base pair, deleting a region of DNA or adding a new segment of DNA.
Environmental and Agricultural Microbiology	23PMB2CC7			✓	✓	Applications for Sustainability is divided into two parts which embody chapters on sustenance and life cycles of microorganisms in various environmental conditions, their dispersal, interactions with other inhabited communities, metabolite production, and reclamation.
Molecular biology and Genetics, Genetic Engineering, Environmental and Agricultural Microbiology - Practical	23PMB2CC8P	✓		✓	✓	The experiments in this laboratory course give hands on experience in isolation of DNA & RNA from different sources and analyze them by PCR techniques. This hands on experience enable to begin a career in industry that engages in genetic engineering as well as in research laboratories.
Microbial Ecology	23PMB2DE2A	✓		✓		The study of interrelationships between microorganisms and their living and nonliving environments. Understanding the environmental factors controlling microbial growth and survival offers insight into the distribution of





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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
					✓	microorganisms in nature, and many studies in microbial ecology are concerned with examining the adaptive features that permit particular microbial species to function in particular habitats.
Bioremediation and Biodegradation	23PMB2DE2B	✓		✓	✓	Bioremediation is a waste management technique that includes the use of living organisms to eradicate or neutralize pollutants from a contaminated site.



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## 1.3 Curriculum Enrichment

### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

Name of the Programme: B. Sc. Nutrition & Dietetics

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Food Science	23UND1CC1	✓				To enable the students to: 1. Know the basic concepts about different foods and nutrients. 2. Develop the scientific attitude of the students towards the principle of food science. 3. Obtain the knowledge of composition and nutritive value of different foods. 4. Know the impact of cooking on various foods.
Food Science - Practical	23UND1CC2P	✓				To enable the students to: 1. Demonstrate proficiency in conducting food science experiments using appropriate laboratory techniques. 2. Analyze and interpret experimental data to draw scientifically supported conclusions. 3. Apply theoretical knowledge of food science principles to solve practical problems related to food quality, safety, and processing.
Principles of Nutrition	23UND1AC1	✓				To enable the students to: 1. Understand the meaning of nutrition 2. Understand the role of nutrition in human life 3. Increase the ability to overcome deficiency



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### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Principles of Nutrition - Practical	23UND1AC2P	✓				To enable the students to: 1. Apply principles of nutrition to assess dietary intake and analyze nutrient content. 2. Interpret and critically evaluate scientific literature related to nutrition and health. 3. Develop skills in nutritional counseling and communication with diverse populations. 4. Understand the regulatory framework for food and nutrient labeling.
Nutrition through Life Cycle	23UND2CC3	✓		✓		To enable the students to: 1. Understand the nutritional demand in various stages of life cycle. 2. Acquire skills in planning adequate meals in different stages of life cycle.
Nutrition through Life Cycle - Practical	23UND2CC4P	✓		✓		To enable the students to: 1. Understand the physiological changes and nutritional requirements during each life stage. 2. Evaluate the impact of nutrition on health outcomes across the life cycle. 3. Apply principles of nutrition to develop personalized dietary recommendations. 4. Analyze and interpret nutritional research and guidelines.
Human Physiology	23UND2AC3	✓				To enable the students to: 1. Understand the structure and physiology of various organs in the body.



## Criterion I - Curricular Aspects

## 1.3 Curriculum Enrichment

### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
				✓		2. Obtain a better knowledge on the principles of nutrition and dietetics through physiological aspects.
Human Physiology- Practical	23UND2AC4P	✓		✓		To enable the students to: 1. Demonstrate a comprehensive understanding of human physiological systems and their interrelationships. 2. Apply experimental techniques to investigate physiological phenomena and interpret experimental data. 3. Analyze physiological responses to various stimuli and conditions.
Dietetics - I	23UND3CC5	✓				To enable the students to: 1. Understand the principles of diet and diet therapy. 2. Understand the modifications of normal diet for therapeutic purposes. 3. Develop skills and techniques in the planning and preparation of therapeutic diets for febrile conditions and gastrointestinal disorders 4. Develop capacity and attitude for taking dietetics as a profession
Dietetics - I - Practical	23UND3CC6P	✓				To enable the students to: 1. Participate in community outreach programs to promote nutrition education and awareness.



## Criterion I - Curricular Aspects

## 1.3 Curriculum Enrichment

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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
						2. Participate in food service management activities, including menu planning and meal preparation.
Nutritional Biochemistry	23UND3AC5	✓				To enable the students to: 1. Understand the mechanisms adopted by the human body for the regulation of metabolic pathways. 2. Get an insight into interrelations between various metabolic pathways. 3. Become proficient for specialization in nutrition.
Nutritional Biochemistry - Practical	23UND3AC6P	✓				To enable the students to: 1. Demonstrate a thorough understanding of biochemical processes underlying nutrient metabolism and function. 2. Apply experimental techniques to investigate nutrient interactions and biochemical pathways.
Nutrition For Women	23UND3GE1	✓	✓			This course provides a comprehensive exploration of nutrition tailored specifically to the unique needs of women throughout their lifespan. Through a combination of lectures, discussions, case studies, and practical applications, students will gain a deep understanding of how nutrition impacts women's health, from adolescence to menopause and beyond.



**Criterion I - Curricular Aspects**

**1.3 Curriculum Enrichment**

**1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum**

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Dietetics - II	23UND4CC7	✓				This course provides a multidisciplinary approach to understanding the complexities of environmental issues and their global implications. Through exploration of key concepts, case studies, and current research, students will examine the interactions between human societies and the natural environment.
Dietetics - II - Practical	23UND4CC8P	✓				To enable the students to: 1. Understand the pathogenesis of metabolic diseases, cardiovascular and renal diseases and their dietary modification 2. Appreciate the nutritional care in burns and allergy
Fundamentals of Food Microbiology	23UND4AC7	✓			✓	To enable the students to: 1. Plan diet and nutritive value calculation for different disease conditions. 2. Develop diet formulations for HIV and Cancer.
Fundamentals of Food Microbiology - Practical	23UND4AC8P	✓			✓	To enable the students to: 1. Learn about morphological characteristics of different micro-organism associated to food. 2. Learn about the spoilage and factors affecting the growth of microorganisms in food. 3. Impart the knowledge about the role of micro-organisms in fermentation of foods.



## Criterion I - Curricular Aspects

## 1.3 Curriculum Enrichment

### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
						4 Create awareness about hygiene and sanitation in food industry.
Culinary Art	23UND4GE2	✓				To enable the students to: 1. Learn about operational functions of microscope. 2. Examine the movement of live microorganism. 3. Identify the important microorganism present in fermented foods. 4. Study the functions of sterilizing equipments.



## Criterion I - Curricular Aspects

## 1.3 Curriculum Enrichment

### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

Name of the Programme: M. Sc. Nutrition & Dietetics

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Advanced Food Science	23PND1CC1	✓			✓	CO1: Understand the nutrient content and functional properties of Food ingredients CO2: Apply expertise in optimization and utilization of food ingredient systems in processing and packaging techniques to successfully manufacture food products CO3: Explain the different processing techniques for different food ingredient CO4: Evaluate the functions and types of packaging and packaging materials, labelling CO5: Write the legal and practical steps needed to ensure that intellectual property rights remain valid and enforceable
Therapeutic Nutrition - I	23PND1CC2	✓				CO1: Examine the Nutritional screening techniques and nutritional care process CO2: Apply the current concepts of therapeutic diets and critically ill CO3: Appraise the dietary principles on various disorders CO4: Critique the knowledge of diet counseling skills





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## 1.3 Curriculum Enrichment

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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
						CO5: Intervene the nutritional management for disorders and diseases
Macro Nutrients	23PND1CC3	✓				CO1: Describe the importance of macronutrients in human nutrition CO2: Apply the knowledge on functional use of macronutrients in the therapeutic diets CO3: Distinguish the various classifications present in macronutrients along with their functions and food sources. CO4: Summarize the effect of excess and deficiency intake of macronutrients in human health CO5: Develop the knowledge in formulation of macronutrient supplementary products for special conditions
Food Analysis - Practical	23PND1CC4P	✓				CO1: Understand the principles behind in analytical techniques CO2: Apply modern instrumental methods to analyse proximate composition of foods CO3: Analyse the nutrient content of food analysis by standard methods CO4: Evaluate the purposes and methods of food analysis in research, government and food industry



## Criterion I - Curricular Aspects

## 1.3 Curriculum Enrichment

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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
						CO5: Develop skills required in various industries ,food analytical labs and in the field of food
Applied Physiology	23PND1DE1A	✓		✓		CO1: Explain the anatomy and physiology of various levels of organization basic homeostasis mechanisms CO2: Interpret the normal functions and structure of various organs of the human body CO3: Correlate the physiological characteristics of the organs of the human body CO4: Evaluate the knowledge related to physiological basis to analysis clinical situations and therapeutic applications CO5: Formulate the relative contribution of each organ system towards maintenances of health
Nutrition in Life Span	23PND2CC5	✓		✓		CO1: Explain the relationship of physiology and nutrition to different stages of infant development CO2: Identify the nutritional needs for infants and elderly during special condition CO3: Analyse the implications of nutrition in the growth process and in the prevention and treatment of different childhood pathologies



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## 1.3 Curriculum Enrichment

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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
						CO4: Evaluate the dietary pattern and social issues related to old age with treatment measures CO5: Modify the dietary plan for pregnant women, lactating mother and elderly people, based on their nutritional requirements
Micro Nutrients	23PND2CC6	✓				CO1: Differentiate various terms of Human Nutrition, distinguish between various life stages and their nutritional needs CO2: Apply and Practice various ready reckoner such as Dietary reference intakes, exchange Lists, Influencing Factors, Dietary guidelines and Nutritional requirements CO3: Analyze Physiological changes nutritional issues of all the stages of life CO4: Assess growth, development and processes of stages of life CO5: Develop and validate on planning of diet and portion controlling
Therapeutic Nutrition - II	23PND3CC9	✓				CO1: Compare the functions of micro and macro minerals CO2: Justify the role of fat soluble and water soluble vitamins in human health CO3: Identify the micronutrients deficiency symptoms and interpret



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## 1.3 Curriculum Enrichment

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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
						CO4: Compare the toxicity level of the vitamins and minerals CO5: Focus on the inter relationship of Nutrients.
Therapeutic Nutrition - Practical	23PND3CC10	✓				CO1: Apply the principle of diet and nutritional management of disease and disorders CO2: Interpret the Pathophysiology of disease condition CO3: Review the Pathophysiology of degenerative diseases CO4: Assess the nutritional care process CO5: Modify the dietary regimen for life style disorders
Clinical Biochemistry	23PND3CC11	✓				CO1: Apply the principle of diet and plan therapeutic diets for various diseases and disorders CO2: Interpret the Pathophysiology of disease condition and plan the diet CO3: Plan diet for degenerative diseases CO4: Assess the nutritional care process during disease conditions CO5: Modify the dietary regimen for life style disorders



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**1.3 Curriculum Enrichment**

**1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum**

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Nutrition for Sports and Fitness	23PND3CC12P	✓		✓		CO1: Illustrate the basic principles of specimen collection and handling, Immunochemical techniques CO2: Appraise the role of Hormones in blood glucose homeostasis CO3: Discriminate the normal and abnormal Serum electrophoretic pattern in normal and abnormal states CO4: Prioritize the clinical significance of digestion and absorption of Lipids CO5: Invent the normal and abnormal variations of Liver, Gastric and kidney function test
Food Microbiology and Sanitation	23PND3DE3A	✓			✓	CO1: Identify different types of malnutrition CO2: Categorize global trends on nutrition in emergencies and the global significance and impact of under nutrition. CO3: Assess the Nutrition interventions programs CO4: Develop the preventive measures for under nutrition. CO5: Formulate to Monitoring And Evaluation Of Food And Nutrition Responses



## Criterion I - Curricular Aspects

## 1.3 Curriculum Enrichment

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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Research Methodology and Statistics	23PND4CC13	✓				CO1: Determine the nutrition required for sports in order to enhance performance CO2: Integrating the specific activity of macronutrients in Sports nutrition CO3: Demonstrate the role of Lipid and its utilization during sports activities CO4: Appraise the various functions of micronutrients, water balance and Dietary supplements CO5: Construct the eating disorders and deficiencies in Sports individuals
Food Microbiology and Clinical Biochemistry - Practical	23PND4CC14	✓			✓	CO1: Interpreting the characteristics and growth of microorganisms CO2: Organise the techniques of food fermentation and its products CO3: Categorize the principles of food preservation CO4: Perceive the food borne diseases and toxins CO5: Adapt the sanitation methods and standards
Nutraceuticals and Nutrigenomics	23PND4CC15P	✓				CO1: Interpret the types of research and various tools of data collection CO2: Execute the report writing methods based on available data



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## 1.3 Curriculum Enrichment

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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
						CO3: Analyse the Statistical tool for compute the Research data and interpretation CO4: Prioritise the role of biostatistics in research findings CO5: Formulate the importance of data and report writing for a research finding
Institutional Food Management	23PND3CC9	✓			✓	CO1: Experiment with pure culture methods and staining techniques in food products CO2: Appraise the bacterial count in various food products CO3: Acquire skills to analyze various clinical samples CO4: Determine the clinical abnormalities in blood by analysing sugars, Uric acid CO5: Compose the clinical report based on analysis
Community Nutrition and Public Health	23PND3CC10	✓		✓		CO1: Construct the skills to categorize nutraceuticals CO2: Aware about the functional foods and Nutraceuticals of biotics CO3: Utilise the knowledge on functional nature of Nutraceuticals CO4: Execute the concept of Nutrigenomics CO5: Interpret the risk of Nutrigenomics and disease condition and its preventive measures



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## 1.3 Curriculum Enrichment

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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Computer Applications - Practical	23PND3CC11	✓				CO1: Adapt the various packaging concepts and its properties CO2: Make use of various available packaging materials and choose them accordingly CO3: Prioritize various packaging systems, equipments and machineries CO4: Distinguish the appropriate packaging systems for different kinds of foods CO5: Infer the role of FSSAI regulations and development of eco-friendly packaging options





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## 1.3 Curriculum Enrichment

### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

#### Name of the Programme: B. Voc. Food Processing & Safety

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Food Science	18BFP1C1	✓			✓	This course helps the students to understand the nutrient content, different stages of milling process and uses of by products of cereals, millets, pulses and oil seeds utilised in Industry
Bakery and Confectionery-I	18BFP1C2	✓				This course helps the students to understand the science and principles of preparation of different types of bakery and confectionery products
Food Science Practical	18BFP1C3P	✓		✓		This course helps in understanding the nutrient content and cooking methods of cereals, millets, pulses and oil seeds utilised in a kitchen laboratory and importance of various food groups for human body mechanism
Bakery and Confectionery-I Practical	18BFP1C4P	✓			✓	This course helps in understanding the practical preparation of different types of bakery and confectionery products
Principles of Nutrition	18BFP2C6	✓		✓		Solidly based on science, this course will help you to understand how key nutrients affect health, disease, energy balance, and weight control and nutritional requirements during physical activity, and how nutrient needs change during pregnancy and lactation



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## 1.3 Curriculum Enrichment

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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Bakery and Confectionery-II	18BFP2C7	✓				This course helps in Understanding the science and principles of preparation of different types of bakery and confectionery products
Principles of Nutrition Practical	18BFP2C8P			✓		This course integrates biochemical and physiological aspects of nutrient utilization, interactions and metabolic regulation in humans on a practical level
Bakery and Confectionery-II Practical	18BFP2C9P	✓				This course helps in understanding the practical preparation of different types of bakery and confectionery products
Principles of Food Preservation	18BFP3C11	✓			✓	This course helps in dealing with the techniques and principles involved in the processing and preserving the food substances.
Food Processing-I	18BFP3C12					This course helps in dealing with the techniques and principles involved in the processing of cereals, millets, pulses and oil seeds
Food Chemistry	18BFP3C13	✓				Encompasses some of the basic and advance subjects of chemical composition of foods, basic bio molecules and combined with other aspects of chemistry
Food Microbiology	18BFP3C14	✓			✓	This course the characteristic of microbial growth, intrinsic and extrinsic factors and their relationship to microbial growth; the principles of food fermentation and the role of beneficial microbes and food spoilage microorganisms



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## 1.3 Curriculum Enrichment

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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Food Chemistry and Food Microbiology Practicals	18BFP3C16P	✓				Laboratory work includes current biochemical laboratory techniques such as acidity, pH, Iodine value, melting point, smoke point, peroxide value, and preparation of pure culture, staining techniques.
Food Processing-II	18BFP4C18	✓			✓	This course helps in dealing with the techniques and principles involved in the processing and preserving the fruits and vegetables. The various techniques involved to minimise the post harvest losses
General Biochemistry	18BFP4C19			✓		This course focuses on functions and metabolism of nutrients in human body and awareness about deficiency of nutrients
Food Service Management	18BFP4C20	✓				The course provides students with a general knowledge of management in terms of the organizational design, structure, culture, inside and outside stakeholders, and the pattern and discipline of organizational operations.
Entrepreneurship Skill in Food Industry	18BFP4C21	✓		✓		The course covers the role played by entrepreneurs in the restaurant sector and how they innovate and take risks to introduce new products and services
Food Processing-II Practical	18BFP4C22P	✓			✓	This course helps in dealing with the techniques and principles involved in the processing and preserving of fruits and vegetables



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## 1.3 Curriculum Enrichment

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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
General Biochemistry and Food service Management Practicals	18BFP4C23P	✓				Understanding of the structure and functioning of organisms, tissues, and cells including Chemistry and functions of constituents with practical training, gaining knowledge on different cuisine
Food Processing-III	18BFP5C25	✓			✓	This course helps in dealing with the techniques and principles involved in the processing and preserving the food substances of categorised food groups
Food Product Development	18BFP5C26	✓			✓	On successful completion of this course, students will gain a wide range of knowledge and skills that can be applied for the improvement or development of food products to satisfy consumers' changing demands and to improve business related outcomes.
Nutrition through life cycle	18BFP5C27			✓		Nutrition in the Life Cycle will cover nutritional needs of individuals during critical stages of development. Students will learn about the biological basis for nutritional requirements in normal development and maintaining health in adulthood.
Marketing Management	18BFP5C28					Marketing Management is a course that examines the role and importance of marketing in the firm and other organizations. It cover topics such as marketing plans/strategies,



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### 1.3 Curriculum Enrichment

#### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
						marketing research, market segmentation, retailing, advertising, pricing, Internet marketing, etc



## Criterion I - Curricular Aspects

### 1.3 Curriculum Enrichment

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Name of the Programme: B.Sc. Physics

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
PROPERTIES OF MATTER AND ACOUSTICS	23UPH1CC1				✓	This course gives outline to control the sound pollution affecting the acoustics of the buildings
FUNDAMENTALS OF PHYSICS	23UPH1AC1				✓	This course governs to control sound noises in the environment
MECHANICS AND RELATIVITY	23UPH2CC3	✓		✓		Specifically hydro mechanics concept in this course deals to generate renewable sources for electricity like hydro power station for human society



## Criterion I - Curricular Aspects

## 1.3 Curriculum Enrichment

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Name of the Programme: M.S.W

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
ELECTRONIC DEVICES AND CIRCUITS	23PPH1CC3			✓		This course gives outline to generate the renewable energy sources for human society (optoelectronic devices like Photovoltaic Cell and Solar Cell).



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Name of the Programme: B.Litt., Tamil

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
தமிழியல் கல்வி ஆதார வளங்கள்	23U1LT1A			✓	✓	தமிழ்மொழியைக் கற்றல் கற்பித்தலுக்கான புலப்பாட்டு கருவிகள் குறித்த பாடம்
பொதுத்தமிழ் - 1 : தமிழ் இலக்கிய வரலாறு - 1	23U1LT1		✓	✓	✓	இலக்கியம் மொழி அறிவு குறித்தான மொழித்தாள் பாடம்.
நன்னூல் - எழுத்ததிகாரம்	23UTA1CC1					இலக்கணக் கூறுகளுள் எழுத்திலக்கணத்தின் அறிமுகம் மற்றும் பயன்பாட்டிற்கான பாடம்.
கவிதை இலக்கியம்	23UTA1CC2		✓	✓	✓	கவிதை இலக்கியத்தின் நுட்பம் அறிந்து படைப்பாளியாக உதவும் பாடத்திட்டம்
தமிழகவரலாறும் பண்பாடும்	23UTA1AC1			✓	✓	தமிழ்நாட்டின் தொன்மை மற்றும் வரலாற்றினை அறிந்துகொள்ளும் வரலாற்றுப் பாடம்
மக்கள் தகவல் தொடர்பியல்	23UTA1AC2	✓		✓	✓	தகவல் தொடர்பியலின் இன்றியமையாமையை உணர்த்தும் நவீனத்தின் பாடம்
தமிழ் மொழி அமைப்பியல் மொழியியல் அறிமுகம்	23U2LT2A					தமிழ்மொழியின் மொழியியல் கூறுகளை அறியும் பாடத்திட்டம்
பொதுத்தமிழ் - 2 : தமிழ் இலக்கிய வரலாறு - 2	23U2LT2		✓	✓	✓	இலக்கியம் மொழி அறிவு குறித்தான மொழித்தாள் பாடம்.
நன்னூல் - சொல்லதிகாரம்	23UTA2CC3					இலக்கணக் கூறுகளுள் சொல்லிலக்கணத்தின் அறிமுகம் மற்றும் பயன்பாட்டிற்கான பாடம்.





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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
புறப்பொருள் வெண்பாமாலை	23UTA2CC4					திணை – துறை பற்றிய அறிவைப் பெறுவர்.
நாட்டுப்புறவியல்	23UTA2AC3		✓	✓	✓	நாட்டுப்புறவியல் குறித்த அறிமுகம் மற்றும் அறிவைப்பெறும் பாடத்திட்டம்
திரைப்படக்கலை	23UTA2AC4	✓	✓	✓	✓	திரைப்படக்கலையின் நுட்பத்தையும் இன்றியமையாமையையும் பெறும் பாடத்திட்டம்.



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Tiruchirappalli – 620 020

AQAR 2023-2024

## Criterion I - Curricular Aspects

## 1.3 Curriculum Enrichment

### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

Name of the Programme: M.A. Tamil

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
தொல்காப்பியம் - எழுத்ததிகாரம் (இளம்பூரணம்)	23PTA1CC1					இலக்கணக் கூறுகளுள் எழுத்திலக்கணத்தின் அறிமுகம் மற்றும் பயன்பாட்டிற்கான பாடம்.
இக்கால இலக்கியம்	23PTA1CC2	✓	✓	✓	✓	இக்கால இலக்கிய வகைமைகளை விரிவாக வரையறுக்கும் பாடத்திட்டம்.
நாட்டார் வழக்காற்றியல்	23PTA1CC3		✓	✓	✓	மாணவர்களுக்கான ஆய்வியல் அறிமுகத்தை விதைக்கும் பாடத்திட்டம்
இலக்கியத் திறனாய்வியல்	23PTA1CC4	✓	✓	✓	✓	இலக்கியங்களை விமர்சன நோக்கில் அணுகும் பாடத்திட்டம்
இலக்கிய மானிடவியல்	23PTA1DE1A		✓	✓	✓	மானிடவியல் கூறுகளை அறிமுகம் செய்து அதன் இன்றியமையாமையை விளக்கும் பாடம்.
தமிழ் இலக்கிய ஆளுமைகள்	23PTA1DE1B	✓	✓	✓	✓	இலக்கியத்திலும், சமூகத்திலும் ஆளுமைகளின் பங்களிப்பினை விவரிக்கும் பாடம்.
தொல்காப்பியம் - சொல்லதிகாரம் (சேனாவரையம்)	23PTA2CC5					இலக்கணக் கூறுகளுள் சொல்லிலக்கணத்தின் அறிமுகம் மற்றும் பயன்பாட்டிற்கான பாடம்.
இடைக்கால இலக்கியம்	23PTA2CC6		✓	✓	✓	இலக்கிய வளர்ச்சியில் சமயங்களின் தாக்கத்தை விளக்கும் பாடத்திட்டம்
ஒப்பிலக்கியமும் மொழிபெயர்ப்பியலும்	23PTA2CC7	✓	✓	✓	✓	இலக்கியங்களுக்கிடையிலான ஒற்றுமை வேற்றுமைகளைப் பகுப்பாய்வு செய்யும் பாடம்.



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## Criterion I - Curricular Aspects

### 1.3 Curriculum Enrichment

#### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
இஸ்லாமியத் தமிழ் இலக்கிய வரலாறு	23PTA2CC8		✓	✓	✓	இலக்கியவுலகில் இசுலாமிய இலக்கியங்களின் பங்களிப்பினைப் பறைசாற்றும் பாடத்திட்டம்
பழந்தமிழர் அறிவுத்துறைகள்	23PTA2DE2A			✓	✓	பல்வேறு துறைகளில் தமிழர்தம் அறிவுகளை வெளிப்படுத்தும் பாடத்திட்டம்
அகராதியிலும் கலைச்சொல்லாக்கமும்	23PTA2DE2B	✓			✓	அகராதிகள், நிகண்டுகள், கலைச்சொற்கள் மீதான பாடத்திட்டம்



## Criterion I - Curricular Aspects

## 1.3 Curriculum Enrichment

### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

Name of the Department: Urdu

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Nasr Aur Qawaid	23U1LU1		✓	✓		This course includes a story which aims at gender equality and a small topic related to human values.
Nazm Aur Ghazal	23U2LU2			✓		This course covers poetic lines exhibiting human values to a considerable extent.



## Criterion I - Curricular Aspects

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Name of the Programme: B.Sc. Visual Communication

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Introduction to Visual Communication	23UVC1CC1	✓	✓			This course enables the students to communicate through body language and understand the visual process and apply the design principles.
Advertising Basics	23UVC1CC2	✓	✓	✓	✓	Enable the learners to Understand the importance of Advertising Riemann integral, sequences and series of functions, uniformity, and the interchange of limit operations.
Drawing - Practical	23UVC1AC1P	✓	✓	✓		Focus above all on the formal elements of the work, including line, medium, color, light, space, composition, and style.
Graphic Design - Practical	23UVC1AC2P	✓				Graphic design is a craft where professionals create visual content to communicate messages. By applying visual



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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
						hierarchy and page layout techniques, designers use typography and pictures to meet users' specific needs and focus on the logic of displaying elements in interactive designs to optimize the user experience.
New Media	23UVC2CC4	✓		✓	✓	Enable the learners to Know the fundamentals of New Media.
Media, Culture and Society	23UVC2CC3	✓	✓	✓	✓	The course aims at developing the skill of individuals who have a strong interest in media but are also eager to investigate more general media and culture issues and who wish to expand their knowledge and skill set for careers in both the media and other fields, Society and Culture is the ideal course.



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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
Painting - Practical	23UVC2AC3P	✓			✓	painting, the expression of ideas and emotions, with the creation of certain aesthetic qualities, in a two-dimensional visual language. The elements of this language—its shapes, lines, colours, tones, and textures—are used in various ways to produce sensations of volume, space, movement, and light on a flat surface..
<b>Digital Art</b>		✓			✓	Digital art is any artwork that draws upon digital technology as an essential part of its creative process. It encompasses a wide range of techniques, from digital drawings, paintings, and illustration, to photos, videos, and even sculpture..



## Criterion I - Curricular Aspects

### 1.3 Curriculum Enrichment

#### 1.3.1 – Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

#### Name of the Programme: B. Sc. Zoology

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
BIOLOGY OF INVERTEBRATES	23UZO1CC1		✓			To understand the fundamental organization, adaptations and significance of invertebrate animals and to highlight the importance of invertebrate taxonomy
BIOLOGY OF INVERTEBRATES - PRACTICAL - I	23UZO1CC2P			✓		This hands-on laboratory course provides with an in-depth understanding of the biology, diversity, and ecological roles of invertebrate organisms. The practical component is designed to complement theoretical knowledge and includes detailed study and observation of various invertebrate groups, such as arthropods, mollusks, annelids, cnidarians, and echinoderms
BIOLOGY OF CHORDATES	23UZO2CC3	✓	✓		✓	Course explores the evolutionary, anatomical, and physiological characteristics of chordates, including vertebrates and their relatives.





## Criterion I - Curricular Aspects

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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
BIOLOGY OF CHORDATES – PRACTICAL - II	23UZO2CC4P	✓		✓	✓	To study the anatomy and physiology of Chordates and to observe the various biological systems through virtual techniques



## Criterion I - Curricular Aspects

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#### Name of the Programme: M. Sc. Zoology

Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
FUNCTIONAL MORPHOLOGY AND COMPARATIVE ANATOMY OF INVERTEBRATES AND CHORDATES	23PZO1CC1		✓	✓	✓	The course explores the functional morphology and comparative anatomy of invertebrates and chordates, focusing on the structural adaptations that enable survival in diverse environments. It also emphasizes evolutionary relationships, examining how anatomical features have evolved across different species.
DEVELOPMENTAL BIOLOGY	23PZO1CC2		✓	✓	✓	The course explores the functional morphology and comparative anatomy of invertebrates and chordates, focusing on the structural adaptations that enable survival in diverse environments. It also emphasizes evolutionary relationships, examining how anatomical features have evolved across different species.
APPLIED ECOLOGY, EVOLUTION AND PALEONTOLOGY	23PZO1CC3	✓		✓	✓	To study the impact of ecological factors on the distribution and life of organisms. To have a clear



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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
						understanding about the concept and theories of evolution
FUNCTIONAL MORPHOLOGY AND COMPARATIVE ANATOMY OF INVERTEBRATES AND CHORDATES DEVELOPMENTAL BIOLOGY, APPLIED ECOLOGY, EVOLUTION AND PALAEOLOGY - PRACTICAL - I	23PZO1CC4P	✓	✓		✓	This practical course covers the functional morphology, comparative anatomy, developmental biology, applied ecology, evolution, and paleontology of invertebrates and chordates. Students will gain hands-on experience through laboratory and fieldwork to analyze anatomical structures, ecological interactions, and evolutionary processes
BIOPHYSICS, RADIATION BIOLOGY AND NANOTECHNOLOGY	23PZO1DE1A	✓		✓	✓	To enable students learn the nature of chemical constituents of living matter and the transformations of these chemical entities in biological systems. The last two chapters deal with the physical principles and properties involved in biological systems.
OCCUPATIONAL HEALTH AND SAFETY	23PZO1DE1B	✓	✓		✓	The course emphasizes creating safe work environments through effective policies, procedures, and risk management strategies.



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## 1.3 Curriculum Enrichment

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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
MOLECULAR AND HUMAN GENETICS	23PZO2CC5	✓		✓	✓	The Molecular and Human Genetics course covers the molecular mechanisms of genetics, including DNA structure, gene expression, and inheritance patterns. It also explores the genetic basis of human diseases and the application of genetic technologies
CELL & MOLECULAR BIOLOGY AND HISTOLOGY	23PZO2CC6	✓			✓	To elucidate the structure and function of cell organelles and to describe genome organization and regulatory control
COMPARATIVE ANIMAL PHYSIOLOGY	23PZO2CC7	✓		✓	✓	This course examines the physiological processes across different animal species, highlighting adaptations to various environments. It focuses on the mechanisms of systems such as respiration, circulation, digestion, and thermoregulation in diverse organisms.
MOLECULAR AND HUMAN GENETICS, CELL & MOLECULAR BIOLOGY, HISTOLOGY AND COMPARATIVE ANIMAL	23PZO2CC8P	✓		✓		This practical course provides hands-on experience in molecular and human genetics, cell and molecular biology, histology, and comparative animal physiology. Students will conduct



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Course Name	Course Code	Issues Relevant to				Description of the Course
		Professional Ethics	Gender	Human Values	Environment and Sustainability	
PHYSIOLOGY - PRACTICAL - II						experiments and analyses to explore genetic mechanisms, cellular processes, tissue structures, and physiological adaptations across species.
BIOTECHNOLOGY	23PZO2DE2A	✓		✓	✓	To impart knowledge on Modern Biotechnology and the basics of Genetic Engineering and to correlate their applications in Industry and Environmental Protection.
ENDOCRINOLOGY	23PZO2DE2B	✓	✓		✓	The Endocrinology course explores the structure, function, and regulation of hormones in the body, focusing on endocrine glands and their role in maintaining homeostasis. It also covers hormonal disorders and their impact on health and disease.