

J.J. College of Arts and Science (Autonomous)

J.J. Nagar, Sivapuram Post, Pudukkottai – 622 422

Internal Quality Assurance Cell

1.3.1. Institution integrates crosscutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability, Human Values into the Curriculum.

All UG Programmes						
Name of the course	Code	Gender	Environment and Sustainability	Human Values	Professional Ethics	Description
U3R1VE	Value Education			✓		The objective of this course is to inculcate human, social and ethical values among the Students.
U2R1ES	Environmental Studies		✓			To sensitize students about the need for environmental sustainability and human rights
UGGS	Gender Studies	✓				This course addresses how gender conditions the experiences of men and women in society, and also explores how gender impacts human behaviour, opportunities for men and women, and knowledge itself.
B.Sc. Biotechnology						
Name of the course	Code	Gender	Environment and Sustainability	Human Values	Professional Ethics	Description
Vermicomposting	U4RBTSBE				✓	The course aids in the student's understanding of the external and internal features of earth worm, methods of vermicomposting, vermiculture, vermicast and vermin-wash.

Pharmaceutical Biotechnology	U5R1BTMBE1		✓			The student will gain knowledge concerned with medicinal drugs obtained from plants or natural sources and understand the general principles of drug action and handling of drugs by the body and the factors affecting the drug action in body and drugs used in disorders.
Biofertilizers	U5RBTIDC1				✓	The course will support the student's learning outcomes of understanding and ability to define biofertilizers and will aid on what types of microbes constitute potential biofertilizer candidates.
Organic farming	U5RBTSBE2				✓	The objective of the course tends to be student understanding the environmental, economic and political issues concerning organic farming and explaining the role of living organisms and decomposing organic matter in creating and maintaining an appropriate soil condition for successful organic farming.
Biostatistics, Bioinformatics, Bioethics and IPR	U6RBTCC13				✓	It helps the student to understand the basics of Bioinformatics and Biostatistics and the application of biological software's fields. It gives an understanding about research, IPR & Legal Protection and the process of Patent Filing, Infringement and also knowledge on the ethical

						implications in biotechnological applications.
Food Biotechnology	U6RBTMBE2				✓	The course helps the student to understand the principles of food processing, preservation and manufacture. The student will be able to explore the origins of biotechnology, the legislation and social issues related to biotechnology in food, the immune system and role of antibodies.
Industrial Biotechnology	U6RBTMBE3				✓	This course enables the student to study the overall industrial bioprocess so as to help them to manipulate the process to the requirement of the industrial needs and to study the bulk production of commercially important Bioproducts.
Mushroom Cultivation and Value Addition	U6RBTSBE3				✓	The course aims to enable the students to get the nutritional and medicinal value of mushroom, theoretical and practical understanding on the methods of cultivation of the selected mushrooms for a possible application of mushrooms in medicines, health and food products.

Personal Hygiene and health	U6RBTIDC2	✓				Through this course, student will be able to pass personal hygiene information to his family and community and thus, leading to a better lifestyle, which can potentially increase his social hygiene profile.
Gender Studies	U6RG6	✓				The course helps the student to understand the intricacies of other cultures, races, sexualities and genders which is essential when working with the public, either in government jobs or as an advocate.

B.Sc. Microbiology

Name of the course	Code	Gender	Environment and Sustainability	Human Values	Professional Ethics	Description
U4R1MBCC7	Environment and Agricultural Microbiology		✓			It aims to address problems in agricultural practices usually caused by a lack of biodiversity in microbial communities. Introduces students to the diversity of microbial populations and their important roles in environmental processes

B.Sc Biochemistry

Name of the course	Code	Gender	Environment and Sustainability	Human Values	Professional Ethics	Description
U2R1BCCC3	Analytical Biochemistry				✓	This course contents ensure that the use of ionizing radiation and nuclear energy India does not cause undue risk to the health of people and the environment.

U4R1BCCC7	Clinical Biochemistry				✓	This course contents ensure that the professional ethics there are appropriate procedures to ensure that treat human samples, tissues or remains according to relevant legal requirements and confidentiality of information is maintained.
U5R1BCCC9	Molecular Biology				✓	This course contents make sure to high ethical, professional and scientific standards in both conducting and reporting their research activities in molecular lab
U6R1BCCC14	Plant Biochemistry		✓			Applying principles of this course contents for the protection of environment is the main concern of plant biochemistry. The main themes include managing water quality and air resources, protection from radiation, to maintain industrial hygiene etc.
U3R1BCAC4	Fundamentals of Biology - I		✓			The objective of this course provide the knowledge and skills needed to identify and analyze the economic, legal, and scientific dimensions of environmental problems, and to employ an evidence-based approach to develop rational policy options for addressing those problems.

MBE	Microbiology				✓	The ethical issues of microbiological characterization techniques in controlling the infectious diseases and Avoiding the spreading include both individuals and public at large.
MBE	Pharmaceutical Biochemistry				✓	This course contents ensure that developing drug safety data in Pre-clinical, Clinical phases of drug development and post market surveillance.
SBE	Hospital and First Aid Management				✓	Knowledge of this course contents promotes a healthy, secure and a safer environment, and in stills confidence amongst people, their families, their colleagues and associates.
SBE	Public health and Hygiene				✓	This course contents ensure that Informing, educating, and empowering people about health issues. Conducting research for new insights and innovative solutions to community health problems.
MBE	Biotechnology and Genetic Engineering				✓	This course promotes ethical issues that arise from modern biotechnologies include the availability and use of privileged information, potential for ecological harm, access to new drugs and treatments, and the idea of interfering with nature.

B.Sc. Botany

Name of the course	Code	Gender	Environment and	Human Values	Professional Ethics	Description
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			Sustainability			
U6RBOCC12	Ecology & Phyto-geography		✓			It aims to address significant solution for Geographically isolated plants. It makes understanding the students about the diversity and distribution of plants and their important role in eco-balance. The students could have understand the need and importance of the conservation of plants
U6RBOMBE(5)	Eco-tourism		✓			The objective of the course is to inculcate the importance of ecological parks in society through which the medicinally and traditionally importance plants are protected.
U6RBOIDC(3)	Herbal Botany			✓		This course is aimed to inculcate the values and need of the herbal plants and its derivates for the betterment of mankind.
B.Sc. Physics						
Name of the course	Code	Gender	Environment and Sustainability	Human Values	Professional Ethics	Description
U6R1PHMBE4	Energy Physics		✓			It's aims to address of the problems in conventional and non-conventional energy. Introduces students to the experimental procedure of collecting solar energy and to apply the knowledge to fabricate solar cells for energy storage purpose.

U4R1PHSBE	Laser Physics and Spectroscopy				✓	By employing monochromatic laser radiation, quantum transitions can be induced between specific atomic and molecular energy levels. By contrast, spectroscopy based on non laser light sources studies spectra resulting from transitions between an enormous number of quantum states of atoms and molecules.
U5R1PHSBE2	Bio Medical Instrumentation				✓	Bioinstrumentation or Biomedical Instrumentation is an application of biomedical engineering, which focuses on the devices and mechanics used to measure, evaluate, and treat biological systems. It focuses on the use of multiple sensors to monitor physiological characteristics of a human or animal.
U5R1PHSBE3	Electrical Home appliances	✓				Home appliances are electrical/mechanical appliances which accomplish some household functions, such as cooking or cleaning. Household appliances are the important appliances which are used in our household for the various day to day functions like cooking, cleaning, exercising, purifying, food preservation etc.

U5R1PHSBE4	Photography				✓	Photography is the art, application and practice of creating durable images by recording light or other electromagnetic radiation, either electronically by means of an image sensor, or chemically by means of a light-sensitive material such as photographic film.
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B.Sc. Chemistry

Name of the course	Code	Gender	Environment and Sustainability	Human Values	Professional Ethics	Description
U4R1CHSBE1	Chemistry of Everyday Life					To understand essential of consumer products and its applications
U5R1CHMBE1	Polymer Chemistry					To know the basic concept, various polymerization technique, polymer processing and uses.
U5R1CHSBE2	Agricultural Chemistry					It aims to address problems in agricultural practices. Introduces students to the diversity of agricultural products and their important roles in environmental processes
U6R1CHMBE3	Analytical Chemistry					Perform chromatography techniques, TGA and DTA instruments and identify elements using spectral analytical techniques.
U6R1CHCSBE3	Food Chemistry and Technology					An understanding the food adulteration, food additives and identify the causes of food poisoning.

B.Sc. Mathematics

Name of the course	Code	Gender	Environment and Sustainability	Human Values	Professional Ethics	Description
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U3R1MTCC4	Number Theory				✓	One of the important applications of number theory is keeping secrets. Prime numbers and composite numbers play an important role in modern cryptography or coding systems.
U6R1MTCC12P	Numerical methods with MATLAB		✓			MATLAB is widely used for applied numerical analysis is engineering computational biology.
U6R1MTCC14	Linear Algebra		✓			It can be optimized budgets, diet and our route to work using linear programming and this only scratches the surface of the applications.

Computer Science

B.Sc. Information Technology

Name of the course	Code	Gender	Environment and Sustainability	Human Values	Professional Ethics	Description
U5R1ITCC11	DBMS				✓	This course provides the data storage for the particular fields of organization.

Computer Application

Name of the course	Code	Gender	Environment and Sustainability	Human Values	Professional Ethics	Description
U2R1ES	Environmental Studies		✓			It gives the insight about the ecosystem. This course enlightens the students about the necessity of a rescue of our environment.
U3R1VE	Value Education			✓		The Purpose of this course is cultivating the human values. It helps to enhance the moral values of the students.
U4R1CACC7	Python Programming				✓	This course presents the overview of python and it gives insight about the list, dictionary, and tuples

						in python.
U2GS	Gender Studies	✓				It provides the opportunity to obtain promotion of equity across social, political, and economic spheres. The discipline of gender studies critically examines how gender shapes our identities, our social interactions. It shows the way to improve the human values.
U6R1CACC12	Software Engineering				✓	This course provides the overall methodologies of development of a software system
M.B.E - 2	Internet Of Things				✓	It showcases the concepts of IOT and its technologies.
M.B.E - 4	E-Commerce				✓	It refers to the sale of physical products online, but it can also describe any kind of commercial transaction that is facilitated through the internet
S.B.E - 4	Web services				✓	It provides a common platform that allows multiple applications built on various programming languages to have the ability to communicate with each other.

S.B.E - 6	Computer Networks				✓	It discovers that we are vulnerable to their malfunction and misuse, creating problems such as computer crime, software theft, ethical hacking, viruses, and invasions of privacy, an over- reliance on intelligent machines and workplace stress, each of which has created one or more ethical dilemmas for the computer profession.
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B.Sc. Visual Communication

Name of the course	Code	Gender	Environment and Sustainability	Human Values	Professional Ethics	Description
U5R1VCCC9	Visual Analysis Tools			✓		The objective of this paper is to set high standards for visual reality by understanding the social concerns and becoming socially conscious media makers.
U4R1VCAC6	Media Laws and Ethics				✓	The objective of the course is to enable the students to understand on the ethical issues, laws and the Social responsibility of media as they are going to be the creators of the media text.

B.Sc. Hotel Mngement & Catering Science

Name of the course	Code	Gender	Environment and Sustainability	Human Values	Professional Ethics	Description
U2RVE	Value Education			✓		The objective of this course is to inculcate human, social and ethical values among theStudents.

U2R1ES	Environmental Studies		✓			To sensitize students about the need for environmental sustainability and human rights
U6R1HMMBE2	Human Resource Management			✓		To invite students in the mode of human resources procedures and policies
U6RHMSBE3	Eco- Tourism		✓			To give the depth knowledge on our ecological system. To know the concept of environment pollution and causes.
U6RHMSBE4	Sustainable Tourism		✓			To understand the practices and procedures in developing the tourism Without much negative impacts.

B.Sc. Physical Education, Health Education and Sports.

Name of the course	Code	Gender	Environment and Sustainability	Human Values	Professional Ethics	Description
U1R1PECC1	Foundation and History of Physical Education and Sports				✓	The main purpose of the course is to understand the ancient Olympics and Modern Olympics and their origin. The sport peoples disciplines and their sports ethics.
U2R1PECC2	Sports Management			✓		The objective of this course is to inculcate human, manpower planning, management ethics and various responsibilities of Physical Education teachers. Preparing various play fields and maintaining.
U1R1PEAC1	Theories of Yoga and Gymnastics			✓		The objective of the course is to teach the History of Yoga and Need and importance of an individual. It will recommend various pranayamas for healthy living. It will teach Human values in

						the field of Yoga.
U2R1PECC4	Methods in Physical Education			✓		The main purpose of this course to impart knowledge of conducting various tournaments and drawing fixtures for the knock out, league and combination tournaments. It gives knowledge of conducting standard sorts meet and non standard sports meet.
U3R1PEAC4	Human Anatomy and Physiology				✓	To familiarise students to understand basic structure of various body parts and their inter relationship. It is the study of the functions of the body. It is the science dealing with the study of human body functions.
U3R1PECC5P	Major Games Practical				✓	The objective of the course is to indulge students to the basic rules and regulations and students' knowledge of officiating the various games with the help of this practical.
U4R1PECC6	Sports Physiotherapy			✓		It aims to aware of the various sports injuries and treatment for that injuries, introduction of various physiotherapy instrument and their uses. Various Rehabilitation exercises were explained in this core course.

U5R1PECC8	Theories of Track and Field				✓	The objective of the course is to Track Marking for Standard and Non Standard Track and Field Events. They acquire rules and regulation of the various track and field events.
U5R1PECC9	Sports Psychology and Sociology				✓	The gain the knowledge about sports man psychology and its helps to identify the problem of athletes and problematic athlete. It will help the athletes to improve the performance.
U5R1PECC10	Health Education				✓	The objective of this course is to understand the various health problems and their causes, treatment and prevention.
U5R1PEMBE1	Sports Kinesiology				✓	To acquire knowledge about various muscles in human body and their functions. And analyze the various movements of human body.
U6R1PECC12	Theories of Major Games				✓	The objective of this course is to teach History and development of various Major games and their rules and fundamental skill.
U6R1PECC13	Sports Training				✓	The objective of this course is to teach various training programmes in detail.
Commerce With C.A.						
Name of the course	Code	Gender	Environment and Sustainability	Human Values	Professional Ethics	Description

U1R1CMCC1	Financial accounting - 1				✓	The main purpose of the course is to prepare different types of accounting statements depending on the matter dealt with and the procedures thereof and how the financial accounting application to prepare for the modern business.
U1R1CMCC2	Management principles and practices				✓	The objective of this course is to inculcate human, manpower planning, management ethics and various responsibilities of management practices.
U1R1CMAC1	Computer application in business theory				✓	The objective of the course is to identify the document format by reference to the file extension, word processor and customize the application toolbar in computer technologies.
U3R1CMAC4	Marketing management				✓	The main purpose of this course is to impart knowledge of marketing management which is needed for pricing decisions, sales promotion techniques and how salesmen must act to achieve target.
U3R1CMAC5	Business communication				✓	To familiarise students to read, write, understand and respond to various types of business communication and their developing skills to handle computerized communication in business.

U4R1CMCC8P	Accounting packages practical				✓	The objective of the course is to indulge students to the basic accounts in usage of tally and students' knowledge of auditing the accounts with the help of tally.
U4R1CMAC6	Legal aspects of business				✓	It aims to aware of the provisions of various business laws and amendments thereof and also they develop the skill to relate legal concepts with real business situations.
U5R1CMCC9	Corporate accounting				✓	The objective of the course is to enable the importance of corporate accounting methods from different types of companies.
U5R1CMCC12	Income tax theory, law and practice				✓	The gain of the aim is to acquire the ability to apply an indepth knowledge of the provisions of income tax Act with various heads of income.
U6R1CMCC14	Human Resource management				✓	The objective of this course is to expose students realise the psychological and organisational factors that form the basis of sound human resource management.
MBE1:2	Entrepreneurial development				✓	To acquaint students the need for entrepreneurship development and various incentives and subsidies offered by Government.
MBE1:3	Practical auditing				✓	The objective of this course is to inculcate the principles and procedure of auditing for students and to make the points to be noted in vouching and social audit in business

						world.
U1RCMCC1	Principles of Accountancy				✓	The main purpose of the course is to prepare different types of accounting statements depending on the matter dealt with and the procedures thereof and how the financial accounting application to prepare for the modern business.
U1RCMAC1	Computer Skills theory				✓	The objective of the course is to identify the document format by reference to the file extension, word processor and customize the application toolbar in computer technologies.
U2RCMCC2	Marketing management				✓	The main purpose of this course is to impart knowledge of marketing management which is needed for pricing decisions, sales promotion techniques and how salesmen must act to achieve target.
U3RCMCC4	Advanced Accountancy				✓	The objective of the course is to inculcate the Accounting Treatment adopted for raising of funds by using sources of long term funds. It enables the students to prepare partnership accounts.

U4RCMAC6	Business Law				✓	This Course is to understand the legal aspects of business. It enable the basis provision of partnership Act and aware of applying legal provisions by using IT Act 2000.
U5RCMCC9	Income Tax Theory, Law and Practice				✓	The gain of the aim is to acquire the ability to apply an indepth knowledge of the provisions of income tax Act with various heads of income.
U5RCMCC10	Computerized accounting practical				✓	The main aims of the course invention of Computer software helped the business in improving the economy. It also provides the prepare of final account, accounting voucher and VAT rates.
U6RCMCC12	Management Accounting				✓	The main purpose of Management Accounting is to inculcate application of accounting tool and techniques managerial decisions. It also acquires the knowledge from marginal cost and capital budgeting.
U6RCMCC13	Human Resource management			✓		The objective of this course is to expose students realise the psychological and organisational factors that form the basis of sound human resource management.
U6RCMCC14	Entrepreneurship Development				✓	The objective of this course is aware of classification of entrepreneur, Entrepreneurship, project identification, incentives and subsidies. It also

						creates to become an Entrepreneur.
U1NCMCC1	Principles of Accountancy				✓	The main purpose of the course is to prepare different types of accounting statements depending on the matter dealt with and the procedures thereof and how the financial accounting application to prepare for the modern business.
U1NCMAC1	Computer Application Package theory				✓	The objective of the course is to identify the document format by reference to the file extension, word processor and customize the application toolbar in computer technologies.
U2NCMCC2	Marketing management				✓	The main purpose of this course to impart knowledge of marketing management which is needed for pricing decisions, sales promotion techniques and how salesman must act to achieve target.
U3NCMCC4	Business Accounting				✓	The objective of the course is to inculcate the Accounting Treatment adopted through Branch Accounts. It enable the students to prepare partnership accounts.
U4NCMCC6	Programming C				✓	The objectives of the course are to create programming procedures in C its modern application software to business.

U5NCMCC10	Income Tax Theory, Law and Practice				✓	The gain of the aim is to acquire the ability to apply an in-depth knowledge of the provisions of income tax Act with various heads of income.
U5NCMCC11	Web Designing				✓	The main aim of web designing practical practices by using pay roll application, student mark list, student bio data and html pages.
U6NCMCC12	Management Accounting				✓	The main purpose of Management Accounting is to inculcate application of accounting tool and techniques managerial decisions. It also acquires the knowledge from marginal cost and capital budgeting.
U6NCMCC14	Banking theory, Law and Practice				✓	The objective of the course an insight in to the banking operations and functions. It also provides knowledge of banker and customer relationship and loans and advances.
U6NCMMBE2	Stock Exchange Practices				✓	The present objective of the course is to understand the types of stock exchanges, methods of trading in stock exchanges and kinds of intermediaries in the capital market.

Business Administration

Name of the course	Code	Gender	Environment and Sustainability	Human Values	Professional Ethics	Description
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U6R1BACC12	Effective Business Communication				✓	<p>1.To acquaint the students with appropriate language skills with the purpose of improving the existing ones</p> <p>2. To make the learners understand the importance and effective use of non-verbal communication</p> <p>3.To guide and teach the students to utilize the principles of professional business and technical writing for effective communication in the global world</p> <p>4.To make the learner capable of creating official content digitally for further communication in the corporate environment</p>
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English

Name of the course	Code	Gender	Environment and Sustainability	Human Values	Professional Ethics	Description
UAEG	B.A				✓	Ethics of Journalism - one of the subunits in the syllabus
UAEG	B.A				✓	Ethics of Journalism - one of the subunits in the syllabus
UAEG	B.A				✓	Ethics of Journalism - one of the subunits in the syllabus
UAEG	B.A				✓	Ethics of Public Relations

M.Sc. Biotechnology

Name of the course	Code	Gender	Environment and Sustainability	Human Values	Professional Ethics	Description
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Environmental Biotechnology	P3R1BTCC13		✓			The course acts as a medium where the student will know the basic concept and issues of environmental pollution biotechnological treatment to clean up polluted environments and to create valuable resources for the human society..
Plant Biotechnology	P3R1BTCC11			✓		The course will make the student to understand the principles and techniques involved in plant tissue culture and to learn the concepts of transformation and other achievements in Plant Biotechnology.
Stem Cell and Nanobiotechnology	P1R1BTEC1		✓			The course provides an in-depth learning to the student in field of nanotechnology and developing awareness & knowledge of different organization requirement and subject knowledge through varied subjects and training methodology in him.

M.Sc. Microbiology

Name of the course	Code	Gender	Environment and Sustainability	Human Values	Professional Ethics	Description
P3R1MBCC11	Environment and Agricultural Microbiology		✓			It aims to address problems in agricultural practices usually caused by a lack of biodiversity in microbial communities. Introduces students to the diversity of microbial populations and their important roles in environmental processes

P4R1MBEC7	Bioethics, Biosafety and IPR (Elective Paper)				✓	The objective of the course is to inculcate the importance of scientific ethics in research and appraisal of how our values, desires and actions affect others, including animals and the environment.
M.Sc Biochemistry						
Name of the course	Code	Gender	Environment and Sustainability	Human Values	Professional Ethics	Description
P1R1BCCC2	Analytical Biochemistry				✓	This course contents ensure that the use of ionizing radiation and nuclear energy does not cause undue risk to the health of people and the environment.
P1R1BCCC4	Bioinformatics				✓	This course contents raised ethical concerns with regard to privacy. A person could potentially be identified through his or her genetic data in a bioinformatics computer system. This could lead to the exposure of confidential medical information.
MBE	Microbiology				✓	This course contents ensure that the ethical issues of microbiological characterization techniques in controlling the infectious diseases and avoiding the spreading include both individuals and public at large.

P2R1BCCC6	Plant Biochemistry		✓			Applying principles of this course contents for the protection of environment is the main concern of plant biochemistry. The main themes include managing water quality and air resources, protection from radiation, to maintain industrial hygiene etc.
P2R1BCEC3	Pharmaceutical Biochemistry				✓	This course contents ensure that developing drug safety data in Pre-clinical, Clinical phases of drug development and post market surveillance.
P3R1BCCC9	Clinical Biochemistry				✓	This course contents ensure that the professional ethics there are appropriate procedures to ensure that treat human samples, tissues or remains according to relevant legal requirements and confidentiality of information is maintained.
P3R1BCCC13	Molecular Biology				✓	This course contents make sure that high ethical, professional and scientific standards in both conducting and reporting their research activities in molecular lab.
P3R1BCCC14	Biotechnology and Genetic Engineering				✓	This course objective promotes ethical issues that arise from modern biotechnologies include the availability and use of privileged information, potential for ecological harm, access to new drugs and treatments,

						and the idea of interfering with nature.
MBE	Medicinal Plants and Phytotherapy			✓		This course contents ensure that Informing, educating, and empowering people about health issues using phytotherapy. Conducting research for new insights and innovative solutions to community health problems using medicinal plants.
MBE	Evolutionary and Environmental Biology		✓			This course provides the knowledge and skills needed to identify and analyze the economic, legal, policy and scientific dimensions of environmental problems, and to employ an evidence-based approach to develop rational policy options for addressing those problems.
M.Sc. Botany						
Name of the course	Code	Gender	Environment and Sustainability	Human Values	Professional Ethics	Description
P3R1BOCC9	Plant Ecology, Conservation Biology, Phytogeography & Forestry		✓			It aims to address significant solution for Geographically isolated plants. It makes understanding the students about the diversity of plants and their important role in eco-balance. The students could have understand the need and importance of the

						conservation of plants
P2R1BOEC1-2	Ethno Botany and Pharmacognosy			✓		This course is aimed to inculcate the values and need of the herbal plants and its derivatives for the betterment of mankind.
P4R1BOEC1-4	Recyclic Technology			✓		It is aimed to convert the waste product into useful products by the process called recycling.
P4R1BOEC1-4	Organic Farming			✓		This course is concentrated to inculcate the message called hygienic and organic vegetable and food supplements production
M.Sc. Physics						
Name of the course	Code	Gender	Environment and Sustainability	Human Values	Professional Ethics	Description
P4R1PHEC5	Medical Physics				✓	The objective of the course is to inculcate the importance of scientific ethics in research and appraisal of how our values, desires and actions affect others including, Human and environment.

P2R1PHEC2	Crystal growth and thin films				✓	Crystal growth involves a variety of research fields ranging from surface physics, crystallography, and material sciences to condenser mater physics. ... Two speakers, as mentioned above, were invited to discuss electron growth of metal overlayers on semiconductor substrates and the attempt of synthesis of hard materials.
P3R1PHEC3	Nano Science and Nano Technology				✓	Nanoscale science and technology refers to the understanding and controlled manipulation of structures and phenomena that have nanoscale dimensions. Scientists have adopted the Greek word nano as a prefix to mean one billionth of a unit of measure.
P2R1PHCC8	Microprocessor and Microcontroller				✓	Microprocessor is an IC which has only the CPU inside them i.e. only the processing powers such as Intel's Pentium 1,2,3,4, core 2 duo, i3, i5 etc. ... Microcontroller has a CPU, in addition with a fixed amount of RAM, ROM and other peripherals all embedded on a single chip

P3R1PHEC4	Advanced Physics	✓				<p>1. Improve the fundamental concepts and advanced techniques of physics and scientific methodology</p> <p>2. Enhance intellectual, computational, experimental, communication and analytical skills of the students</p> <p>3. Provide the students with the currently modern techniques in physics</p> <p>4. Enhance the ability of the students to seek, acquire and process data from different sources using the library and the internet</p>
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M.Sc. Chemistry

Name of the course	Code	Gender	Environment and Sustainability	Human Values	Professional Ethics	Description
P2R1CHEC2	Industrial Chemistry				✓	The objective of the course is to inculcate the importance of industrial products, scientific ethics in research and applications to the environment
P3R1CHCEC3	Quality Control and Environmental Chemistry		✓			Understand the environmental pollution and recycling technique, know the quality control measurements
P4R1CHCEC4	Instrumental Methods of Analysis				✓	Perform the Various Instrumental Analysis for identification of compounds

M.Sc. Mathematics

Name of the course	Code	Gender	Environment and Sustainability	Human Values	Professional Ethics	Description
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P1R1MTEC1	Fuzzy Mathematics and its application				✓	This course puts forward the idea and methods for establishing single factor evaluation and integrated evaluation models by applying fuzzy mathematics.
P2R1MTCC5	Algebra- II				✓	A specific application of linear maps is for geometric transformations such as those performed in computer graphics, where the translation, rotation and scaling of 2D (or) 3D objects is performed by the use of a transformation matrix.
P3R1MTCC10	Functional Analysis				✓	It plays an important role in the applied sciences as well as in mathematics itself. Problems related to ordinary and pde, numerical analyze, calculus of variations, approximation theory, integral equations and so on.
P4R1MTCC4	Graph Algorithms				✓	Matching in graphs has been an important topic in computer science and has a lot of applications for solving optimization problems. It is used to solve the task assignment problem and stable matching in marriage problem (or) roommates matching.
P4R1MTCC13	Stochastic Processes				✓	The term random function is also used to refer to a stochastic processes (or) random processes, because a stochastic process can also be interpreted as a random element in a function space.

Computer Science						
M.Sc. Information Technology						
Name of the course	Code	Gender	Environment and Sustainability	Human Values	Professional Ethics	Description
P2R1ITEC2:1	Network Security			✓		The objective of the course is to provide the importance of scientific ethics in Network Security and Attacking.
Computer Application						
Name of the course	Code	Gender	Environment and Sustainability	Human Values	Professional Ethics	Description
P1R1CACC1	Digital Computer Fundamentals				✓	It shows the operations, logic functions, combinational logic analysis of the computer.
P3R1CACC14	Compiler Design				✓	This course teaches the techniques that are used to construct the compiler.
P4R1CAPS2	Soft Skill Development Course			✓		This course instructs the consequence of personal traits that influence the relationship communication, interaction with others. The objective of this course is inducing the people skills. It is used to develop the etiquette of the students.
P4R1CACC20	Mobile Communication				✓	It helps to understand the basic principles of mobile communication systems, basic principles of the modern mobile and wireless communication systems, operation of mobile communications systems and their generation divisions.

P5R1CACC26	Data Mining And Warehousing				✓	It showcases the scope and essentiality of data mining and data warehousing.
P5R1CACC27	Network Security				✓	The objective of this course is to cultivate the significance of security and protection mechanism in various kinds of networks.
P5R1CAEC4	Software Quality Assurance And Testing				✓	It enlightens the importance of software quality metrics and also it instructs the pivotal role of testing to deliver the defect free software. Major objective of this course is showcasing how testing can maintain the code ethics.
P2R1CACC11	Data Communication Networks				✓	It seeks to gain unauthorized access to the resources of the networks
P5R1CACC27	Network Security				✓	Cyber security protects the data and integrity of computing assets belonging to or connecting to an organization's network.
P4R1CAEC3	E-Commerce				✓	It provides technologies such as m-commerce, electronic funds transfer, supply chain management, Internet marketing, online transaction processing, EDI, inventory management systems, and automated data collection systems.
Commerce with C.A.						
Name of the course	Code	Gender	Environment and Sustainability	Human Values	Professional Ethics	Description

P1R1CMCC1	Managerial economics			✓		The objective of this course is to create the applications of modern economic factors, principles of economics and business decisions.
P1R1CMCC4	Strategic management				✓	The objective of the course is to explore students strategic management has become indispensable in the present day corporate world and the main aim is to develop a clear understanding of SWOT/SWOC analysis to business growth.
P2R1CMCC6	Business research methods				✓	The objective of the course is to design the research proposal and the importance of scientific research and how to collect the data and interpretation of the data. Expose the students to statistical tools and packages also art of writing the reports to be cautious of plagiarism.
P2R1CMCC7	C++ theory				✓	It aims to address problems in C++ usually lot of result oriented programming problems.
P3R1CMCC10	Security analysis and portfolio management				✓	The present objective of the course is to inculcate the concept of investment opportunities and portfolio management in share market and how to invest money under the guidance of SEBI regulations with portfolio analysis.

P4R1CMCC13	VB Net and SQL theory				✓	The objective of the course is to understand DOT Net framework in the integrated environment. It provides to know about SQL queries and its applications.
EC2	Business ethics and corporate governance				✓	It aims to create the knowledge and professional skill in corporate governance in India. Student's knowledge of ethical issues on employee and his rights and duties.
EC6	Business intelligence				✓	The present objective of the course is to develop human knowledge of business intelligence system. It imparts the skills of decision of various framework for business analytics overview.
P1RCMCC1	Managerial Economics				✓	The objective of this course is to create the applications of modern economic factors, principles of economics and business decisions.
P1RCMCC3	Financial Management				✓	The basic concept of financial management by using source of finance, Capital structure and dividend policy. It also creates the needs for working capital management of essential situation.
P2RCMCC5	Enterprise recourse planning				✓	The main aim of the course is to inculcate the structure of ERP with helps to supply chain management. It also encourage to benefits of ERP implementation life cycle in ERP.

P2RCMCC7	Oops with C++				✓	It aims to address problems in C++ usually lot of result oriented programming problems.
P3RCMCC9	Oracle and RDBMS				✓	The objective of the course is to provide the knowledge related to relational data base management system.
P3RCMCC11	Research Methodology				✓	The objective of the course is to design the research proposal and the importance of scientific research and how to collect the data and interpretation of the data. Expose the students to statistical tools and packages also art of writing the reports to be cautious of plagiarism.
P4RCMCC13	Java and Internet Theory				✓	The aims address to expertise in creating application with Java it enlighten the students knowledge on the internet concept.
P4RCMCC14	Security analysis and portfolio management				✓	The present objective of the course is to inculcate the concept of investment opportunities and portfolio management in share market and how to invest money under the guidance of SEBI regulations with portfolio analysis.
P1NCMCC1	Managerial Economics				✓	The objective of this course is to create the applications of modern economic factors, principles of economics and business decisions.

P1NCMCC2	Fundamentals of information technologies				✓	The objective of the course is to know about on type of information, programming languages, DBMS and system analysis. It provides the knowledge of positive and negative aspects of IT on business organization
P2NCMCC7	Human Resource management				✓	The objective of this course is to expose students realise the psychological and organisational factors that form the basis of sound human resource management.
P3NCMCC9	Oracle and RDBMS				✓	The objective of the course is to provide the knowledge related to relational data base management system.

Business Administration

Name of the course	Code	Gender	Environment and Sustainability	Human Values	Professional Ethics	Description
P1R1BACC5	Communication Skills				✓	1. To familiarize the students with industry safety norms, disposal of expiry product, advertisemental procedure, various industrial departments and their ethical role in pharma industry. 2.To comprehend behavioural characteristics and 3Cs of ethics. 3.To realize the importance of different professional ethics, 4.To acquaint ethical role in leadership
P2R1BACC7	Production and Operations Management		✓			Understanding of the optimum usage of resources, Production process and Plant Maintenance

P3R1BAECH2	Compensation Management			✓		Understanding the methods of manpower planning required for execution of proposed project
English						
Name of the course	Code	Gender	Environment and Sustainability	Human Values	Professional Ethics	Description
MAEG	M.A				✓	Ethics of Public Relations