Isabella Thoburn College, Lucknow

B.A Programme in Geography

Program Educational Objectives (PEOs)	• B.A in geography develops many relevant and transferable skills directly related to a wide range of careers. The development of specific skills of high value include:fieldwork investigation including sampling, data collection, data presentation, statistical techniques and analysis;research and report writing,preparing maps and diagrams, using social survey and interpretative methods,collecting and analysing information using GIS and remote sensing;analysing and problem-solving;numerical skills. • The Program helps students develop Creative problem-solving, good communication skills with a diverse audience and to apply practical analytical and technical skills in a diversity of settings. • The program enables the students to use geographic techniques and perspectives to address a variety of contemporary issues such as demographic changes, economic inequality, environmental justice, urbanization, and more and to understand and appreciate the value of different cultures and perspectives. • The Program enables the students to be ready for a lot of career Opporutnities like ,Remote Sensing,cartography, landscape architects, Town Planning and so many other employment fields and how it is going to enhance problem solving ability. • The program imparts knowledge of geography for solution of the economic,social and poltical problems which helps to bridge the gap and helps in avoiding conflict by bringing about international understanding.
Program Specific Outcomes (PSOs)	PSO1.Acquiring Knowledge of Physical Geography: Student will gain the knowledge of physical geography. Student will have a general understanding about the Physical processes affecting the surface of the earth. They will be able to correlate the knowledge of physical geography with the human geography. PSO2.Acquiring Knowledge of Human Geography: They will be able to acquire the knowledge of different branches of Human Geography and will correlate it with their practical life. PSO3. Ability of Problem Analysis: Student will be able to analyse the problems of physical as well as cultural environments of both rural and urban areas. Moreover they will try to find out the possible measures to solve those problems. PSO4.Conduct Instrumental, geoenvironmental, socio-economic Survey based Project Report: The student will conduct Instrumental, geo-environmental, socio-economic Survey based Project Report which will help them in mapping, analysing and

	interpreting the environment. Students will also be able to learn the application of various modern and traditional instruments and by these they will be able to collect primary data. PSO5. Application of Remote Sensing, Aerial photography and GPS: Students will learn the use of modern tools of mapmaking which will assist them in geographical research. PSO6. Development of Observation Power: As a student of Geography, students will be capable to develop their observation power through field experience and in future they will be able to identify the socioenvironmental problems of a locality. PSO7. Development of Communication Skill and Interaction Power: After the completion of the project they will be efficient in their communication skill as well as power of social interaction. Students will understand effective report writing and and make effective presentations/demonstrations. PSO8.Enhancement of the ability of Management: Demonstrate knowledge and understanding of the management principles and apply these to their own work, as a member and leader in a team, to manage projects. They will perform effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings. PSO9. Understand Environmental Ethics and Sustainability: Understand the impact of the acquired knowledge in societal and environmental contexts, and demonstrate the knowledge of need for sustainable development. PSO10.Life-long learning: Identify the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of societal and environmental change
Program Outcomes (POs)	● Geography mainly concerns changes in spatial attributes in a temporal perspective. The B.A programme in geography is tailored to meet the students' specific educational and professional goals in mind. ● It focuses on spatial studies, qualitative as well as quantitative, and emphasises on human-environment relationship. ● During the first year of the programme, the students are trained on basic concepts of physical and human geography and map making techniques. ● The second year focusses on economic and Resource Geography, Regional planning and development and using the modern tools of remote sensing and GPS to prepare a project report.

	• The third year focusses on specialized branches of Human Geography as well as regional Geography of India .The students also study about disaster management and Preparedness. The Highlight of this year is the surveying and survey based project report.The students are taken on field trips to areas of Physiographic significance where they conduct instrumental and socio- economic surveys. • After completing the course, the students will be amply prepared for professional careers in geography and allied disciplines like GIS and Remote Sensing. They will also be able to pursue M.A. Course in Geography. • The students learn a lot of skills . They Carry out surveying and learn the art of map making and prepare maps for the areas with the help of surveying technique, Gain knowledge of quantitative methods and their ability to use statistical and cartographical methods to solve geographical problems,Construct various types of projections and scales as per requirement of the study,Collect primary and secondary data in the field,Apply various statistical formulas to analyse data.

BACHELOR OF EDUCATION (B.Ed.)

Program Specific Outcomes (PSO)

PROGRAMME SPECIFIC OUTCOME (PSO)	DESCRIPTION
PSO 1	Foster positive attitudes, skill & knowledge among the student-teachers to be socially responsible & competent teachers.
PSO 2	Develop sensitivity to societal issues & concerns.
PSO 3	Foster virtues like compassion, empathy, humility, courtesy etc.
PSO 4	Exhibit leadership competencies to plan, organize & conduct various educational activities
PSO 5	Apply professional ethics, methodologies of teaching & assessment in their subject area
PSO 6	Understand basic concepts and ideas of educational theory.

PSO 7	Build understanding and perspective on the nature of the learner, diversity and learning.
PSO 8	Comprehend the role of the systems of governance and structural – functional provisions that support school education.
PSO 9	Develop understanding about teaching, pedagogy, school management and community involvement.
PSO 10	Build skills and abilities of communication, reflection, art, aesthetics, theatre, self-expression and ICT.
PSO 11	Reflect on the various internship related activities
PSO 12	Write & maintain reflective journal
PSO 13	Prepare a question paper, conduct a test and interpret the results

Course Outcomes (CO)

COURSE-B.Ed.

Objectives

Pupil Teacher will be able;

- To enhance self-confidence, self-esteem and improve overall personality
- To develop skills and techniques for effective communication and public speaking
- To understand to contribute themselves as a responsible member and citizen of their local, national and international community
- To understand the Well Being and Total Physical Fitness in one's life.
- To understand & develop attitude towards neutrality service to all sections of society

COURSE OUTCOME (CO)	DESCRIPTION
CO1 **Education for Well Being**	Become a 21st century teacher with mastery of the course and soft skills required for success.
CO2 **Psychological Perspective of Education**	Develop competencies which enable them to become a responsible, committed, persevering

	and resourceful future teacher.
CO3 **School Management and Hygiene**	Enable students to develop an understanding of issues and challenges of the education system of the 21st century.
CO4 **Philosophical and Sociological Perspective of Education**	Gain knowledge and understanding of the inevitable role of education in resolving issues, malpractices, social evils prevalent in society, thereby transforming society towards peaceful co-existence.
CO5 **Innovations in Education**	Develop an awareness about the recent innovations and future perspectives in the teaching – learning process.
CO6 **Psychological Perspective of Education**	Be able to plan various activities and engage pupils at school level in fostering imagination, creativity and interest.
CO7 **Technological Perspective of Education**	Enable the learner to become an effective user of technology in education and get acquainted with the challenges and opportunities in integrating new technology in teaching learning process.
CO8 **Value and Peace Education**	Examine the role of values in education and understand the concept of world peace from different perspectives.
CO9 **Understanding Disciplines**	Understand the concept of knowledge, its theories, emergence of various disciplines, their classification and unity of knowledge.
CO10 **Education for Wellbeing**	Internalize the physical, psychological, sociological, economical and spiritual aspects of personal and social well-being.
CO11 **Personality Development**	Enhance life skills and personality to be a role model for the younger generation.
CO12 **Philosophical and Sociological Perspective of Education**	Develop sensitivity about appropriate behaviour socially and professionally in formal and informal situations.

DEPARTMENT OF CHEMISTRY
B. Sc. CHEMISTRY
PROGRAM OUTCOMES

Program Educational Objectives (PEOs)	1. The program will help to develop analytical abilities of students 2. It will help to inculcate a practical, problem-solving attitude in students. 3. The students will be eligible for various career opportunities like engineering, medicine, healthcare, analysts, chemists, etc. 4. The various modes of assessment like presentation-making and viva-voce will build confidence in students.
Programme Specific Outcomes (PSOs)	1. The chemistry of elements, atomic structure, ionic solids, structure and properties of some well-known compounds with respect to their applications in synthesis of variety of compounds with varied applications. 2. Principles of organic chemistry which in turn forms the basis of organic synthesis, Pro-chiral and chiral synthesis protocols in brief reactivity and selectivity of reactions. 3. Physical aspects of chemical sciences which when amalgamated with the understanding of inorganic and organic chemistry benefits the design, fabrication measurements and applications of the newly synthesized compounds meant for electrochemical, medicinal, optoelectronic and materials applications
Program Outcomes (POs)	1. The written assignments will help understanding of the subject chemistry at an individual level. The viva and group presentations will help in communication and team building skills 2. It will inculcate scientific aptitude for the subject, resulting in smooth design, conduct, record and analysis of experiments. 3. The course will prepare the students for the industry as well as for entrepreneurial ventures. 4. It would encourage publication of innovative research in the leading journals. 5. The program will help students to develop scientific temper and innovative analytical mindset that sets them apart from students in other comparable program across India.

B.SC. SEMESTER I
PAPER 1: INORGANIC CHEMISTRY
COURSE OBJECTIVES

After the successful course completion, learners will develop following attributes:

COURSE OUTCOME (CO)	**DESCRIPTION**
CO1	To comprehend the concept of atomic structure, electronic configuration, different principles of electronic filling and a general idea of periodic table and different periodic properties.
CO2	To understand the formation and characteristics of covalent bond and hybridization and VSEPR theory for the prediction of structural geometries of inorganic molecules.
CO3	To understand the formation and characteristics of ionic bond, coordination number, defects in ionic crystals and metallic bonding.
CO4	To understand the general characteristics of s block elements, their solvation, complexation tendencies and their role in biological systems. Comprehension of inert gases and their properties with special emphasis to xenon compounds.
CO5	To understand the general characteristics of p block elements, including diagonal relationship, detailed studies of group 13-17 elements and properties of some special compounds of p block elements including fullerenes, silicates and interhalogens.

B.SC. SEMESTER I
PAPER 2: ORGANIC CHEMISTRY
COURSE OBJECTIVES

After the successful course completion, learners will develop following attributes:

COURSE OUTCOME (CO)	**DESCRIPTION**
CO1	Understand the core concepts of organic chemistry i.e. resonance, hyperconjugation, inductive effect etc. and their application.
CO2	Understand different types of reactions & their classification Develop understanding about isomerism and types of isomerism.
CO3	Understand optical isomerism, geometric isomerism and conformational isomerism
CO4	Develop basic knowledge of reactive intermediates and mechanism of organic reactions.
CO5	Study about nomenclature, synthesis, isomerism and physical properties

	of alkanes and cycloalkanes.
CO6	Understand the concept of aromaticity & different Aromatic substitution reactions & be able to differentiate aromatic. anti aromatic & non aromatic compounds
CO7	To appreciate differences in the reactions of alkyl & aryl halides and develop an understanding of various mechanisms of substitution & elimination reactions
CO8	Develop understanding about alkenes, alkynes & dienes & be able to appreciate regioselectivity & stereoselectivity in them

B.SC. SEMESTER II
PAPER 3: PHYSICAL CHEMISTRY
COURSE OBJECTIVES

After the successful course completion, learners will develop following attributes:

COURSE OUTCOME (CO)	**DESCRIPTION**
CO1	Students would gain knowledge regarding the basics of computers and Binary number system
CO2	Students would gain knowledge regarding mathematical concepts, differential and integration of some relevant functions.
CO3	Student will learn all the states of matter, solid, liquid, and gasseous state.
CO4	Student would gain understanding of critical phenomenon, colloidal state and liquid crystals.
CO5	Students will learn recognize the importance of chemical kinetics and catalysis and their theories.

B.SC. SEMESTER II
PRACTICAL CHEMISTRY
COURSE OBJECTIVES

COURSE OUTCOME (CO)	**DESCRIPTION**
CO1	Students will learn about qualitative and quantitative analysis
CO2	Students will learn analysis of inorganic mixtures
CO3	Students will learn the tests for various acidic and basic radicals
CO4	Students will understand and learn to perform volumetric analysis
CO5	Students will understand and learn to perform gravimetric analysis

B.SC. SEMESTER III
PAPER 4: PHYSICAL CHEMISTRY
COURSE OBJECTIVES

After the successful course completion, learners will develop following attributes:

COURSE OUTCOME (CO)	DESCRIPTION
CO1	To study on basic concept of thermodynamics, thermochemistry, and chemical equilibrium.
CO2	To discuss Laws of thermodynamics, importance of entropy, gibbs free energy.
CO3	To enhance knowledge on Basics of electrochemistry, conductometric titrations, Ostwald dilution law. Degree of ionization.
CO4	To learn about electrodes, electrochemical cells, pH , buffer solution, salt hydrolysis.

B.SC. SEMESTER III
PRACTICAL CHEMISTRY
COURSE OBJECTIVES

After the successful course completion, learners will learn to perform experiments:

COURSE OUTCOME (CO)	DESCRIPTION
CO1	To identify various functional groups of organic compounds
CO2	To perform systematic analysis of organic compounds
CO3	To estimate the solubility of given compounds and heat of neutralization of given acids and bases
CO4	To determine properties like surface tension and viscosity of given liquids
CO5	To determine the percentage composition of binary liquid mixtures

B.SC. SEMESTER IV
PAPER 5: INORGANIC CHEMISTRY
COURSE OBJECTIVES

After the successful course completion, learners will develop following attributes:

COURSE OUTCOME (CO)	DESCRIPTION
CO1	Chemistry of transition and inner-transition elements. These insights are

	important as they help in the rational selection of the cations of these elements for tailor-made syntheses of newer complexes
CO2	Concepts of coordination chemistry and their applications
CO3	Importance of different acid-base concepts which forms the basis of rational ligand designing and coordination complex formation for specific bio- inorganic, materials and optoelectronic applications.
CO4	Importance and different chemical aspects of non-aqueous solvents which now-a-days are gaining importance in varied targeted syntheses of drugs and materials for technological applications
CO5	

B.SC. SEMESTER IV
PAPER 6: ORGANIC CHEMISTRY
COURSE OBJECTIVES

After the successful course completion, learners will develop following attributes:

COURSE OUTCOME (CO)	**DESCRIPTION**
CO1	The preparation and chemical reactions of Alcohols and Epoxides - Alcohols Dihydric alcohols: (Ethylene Glycol) Trihydricalcohols : (Glycerol)
CO2	Understanding the order of reactivity of different carboxylic acid derivatives and the reactivity of different carboxylic acid derivatives.
CO3	Able to recognize structures of acid halides, esters, amides, acid anhydrides.
CO4	Able to write down structure of phenol and phenoxide ion and chemical reactions of phenols.
CO5	Know the mechanism of named reactions of carbonyl compounds and condensation reactions as well as their use in food and pharmaceuticals.

B.Sc. SEMESTER V
PAPER 7: ORGANIC CHEMISTRY
COURSE OBJECTIVES

After the successful course completion, learners will develop following attributes:

COURSE OUTCOME (CO)	**DESCRIPTION**
CO1	Use of knowledge about the structure and bonding of simple organo metallic compound
CO2	Reactivity , stability and application of simple organo metallic compound

CO3	Identify the repeat units of particular polymers and specify the isomeric structures
CO4	Able to understand step growth and chain growth polymerisation
CO5	Identify the structure and the difference between fat and oil
CO6	Dyes as a source of different colours obtained from different chemical structure
CO7	Learn the mechanism of cleansing action by soap and detergents
CO8	Understand the difference and advantage of soap and synthetic detergents
CO9	Able to understand the classification, structure and reactions of different amino acids
CO10	Basic structure of protein and its synthesis, importance and structure of DNA and RNA
CO11	Able to distinguish between mono, di and polysaccharides, reducing and nonreducing sugars
CO12	Concept of mutarotation, epimers, anomers and significance of carbohydrates in industry

B.Sc. SEMESTER V
PAPER 8: PHYSICAL CHEMISTRY
COURSE OBJECTIVES

After the successful course completion, learners will develop following attributes:

COURSE OUTCOME (CO)	**DESCRIPTION**
CO1	To learn about basic of quantum chemistry, quantum no, hydrogen spectrum.
CO2	To study on physical properties of molecule like optical activity, dipole moment.
CO3	To study on basics of photochemistry Jablonski diagram. To learn about dilute solution, colligative properties.

B.Sc. SEMESTER VI
PAPER 9: INORGANIC CHEMISTRY
COURSE OBJECTIVES

After the successful course completion, learners will develop following attributes:

COURSE OUTCOME (CO)	**DESCRIPTION**
CO1	To understand the Metal-ligand bonding in Transition Metal

	Complexes.
CO2	To understand the crystal field parameters
CO3	To understand the Magnetic Properties of Transition Metal Complexes
CO4	To understand the modern concepts of magnetic moment of metal complexes
CO5	To understand the theories of electronic absorption of coordination complexes
CO6	Inorganic polymers viz. silicones which find applications in materials pharmaceutical industries and surgery too. Phosphazenes which in last couple of years had witnessed significant development as emerging smart materials
CO7	To understand the modern concept about Acid-Base interaction
CO8	To understand about Class-a and class-b donor-acceptors, symbiotic relationship

B.Sc. SEMESTER VI
PAPER 10: INORGANIC CHEMISTRY
COURSE OBJECTIVES

After the successful course completion, learners will develop following attributes:

COURSE OUTCOME (CO)	**DESCRIPTION**
CO1	To understand the Thermodynamic and Kinetic Aspects of Metal Complexes
CO2	To understand the Substitution reaction of metal complexes
CO3	To understand the Electronic spectra of Transition Metal Complexes
CO4	To understand the fine tuning these two very important parameter lead to the design and fabrication of compounds, metal-organic frameworks, coordination polymers for optoelectronic and single-molecular magnets (SMM).
CO5	To attain knowledge about organometallic compounds and their applications
CO6	To understand about bonding in metal carbonyls
C07	To understand about bioinorganic concepts and inorganic complexes for treatment of various ailments in human

B.Sc. SEMESTER VI
PAPER 11: ORGANIC AND PHYSICAL CHEMISTRY
COURSE OBJECTIVES

After the successful course completion, learners will develop following attributes:

COURSE OUTCOME (CO)	**DESCRIPTION**
CO1	Infrared spectroscopy in which characteristic absorptions of various functional groups.
CO2	Ultraviolet absorption spectroscopy ,Beer Lambert Law, types of electronic transitions and the effect of conjugation and concept of chromophore and auxochrome.
CO3	Nuclear magnetic resonance, interpretation of nmr spectra of simple organic molecule.
CO4	Quantum mechanics as well as of spectroscopy. They will have comprehensive understanding of valence bond model and molecular orbital model.

M.Sc. CHEMISTRY
PROGRAM OUTCOMES

Program Educational Objectives (**PEOs)**	1. The program will help to develop analytical abilities of students 2. It will help to inculcate a practical, problem-solving attitude in students. 3. The students will be eligible for various career opportunities like engineering, medicine, healthcare, analysts, chemists, etc. 4. The various modes of assessment like presentation-making and viva-voce will build confidence in students. 5. Writing of project assignments would encourage publication of innovative research in the leading journals.
Programme Specific Outcomes (PSOs)	1. Focuses on the important application of coordination chemistry and structure of molecules, properties of compounds, structural determination of complexes. using group theory illustration of geometry structure and symmetry. 2. Understand and apply principles of Organic Chemistry for understanding the scientific phenomenon in Reaction mechanisms, Stereochemistry, Organic Synthesis, complex chemical structures, instrumental method of chemical analysis, molecular rearrangements and separation techniques.

	3. Learning the solid state chemistry, electrochemistry, photophysical and photochemical processes and thermodynamics of polymers. 4. Targeted approach for CSIR-UGC – NET-JRF/GRE/GATE examination and discipline specific competitive exams conducted by various service commissions.
Program Outcome (POs)	1. The project work will help develop understanding of the subject chemistry at an individual level, resulting in smooth design, conduct, record and analysis of experiments. 2. The presentations will help in communication and team building skills 3. It will inculcate scientific aptitude for the subject to analyze the results of Chemistry experiments. 4. The course will help the students to face the employment challenges by preparing them for the industry as well as for entrepreneur ventures. 5. Writing of project assignments would encourage publication of innovative research in the leading journals. 6. The program will help students to develop scientific temper and innovative analytical mindset that sets them apart from students in other comparable program across India. 7. The students will become well versed in the mechanisms of all types of high level and complicated chemical reactions. 8. The workshops and hands on training provided to the students will enhance their practical knowledge which would give recognition to them globally.

COURSE OBJECTIVES
M Sc Semester 1
Paper: Inorganic Chemistry

All the post graduate students shall be able:

COURSE OUTCOME (CO)	**DESCRIPTION**
CO1	To have an overview of symmetry elements, stereochemistry, bonding in main group and electronic spectra and magnetic properties of transition elements and isopoly and heteropoly acids.
CO2	To comprehend the concept of symmetry elements, group theory, point group representation, character table and its utility.
CO3	To understand the concept of hybridization and it's energetic, different bonding theories like VSEPR theory, molecular orbital and their applications along with the detailed study of electronic spectra of transition metal complexes.

CO4	To understand the magnetic properties of transition metal complexes, Orgel and Tanabe Sugano diagrams, and assignment of absolute configuration.
CO5	To understand the anomalous magnetic behavior, magnetic exchange coupling and homo and hetero isopolyacids of different transition elements.

M Sc Semester 1

Paper: Organic Chemistry

All the post graduate students shall be able to understand:

COURSE OUTCOME (CO)	**DESCRIPTION**
CO1	The concept of aromaticity, antiaromatic compounds nonaromatic compounds,homoaromatic, chemistry of non-benzenoids compounds.
CO2	Learn what are cyclodextrins and their discovery, structural aspects and their applications.
CO3	To understand details of tautomerism.
CO4	Learn what are crown ethers and cryptands and their uses.
CO5	To know what is aliphatic electrophilic substitution reactions its mechanism and outcome of these reactions.
CO6	Able to understand that properties of a compound are not only due to presence of functional groups but due to different spatial arrangement of the atoms in the molecule
CO7	Student will be able to distinguish between different kind of isomers
CO8	Assign E/Z and R/S configuration, distinguish between mirror images
CO9	Understand the various types of nucleophilic substitution reactions
CO10	Understand molecular orbital symmetries, basis of classification of Pericyclic reactions, different theories, pericyclic reactions and their application

M Sc Semester 1

Paper: Physical Chemistry

Student will learn in this semester will be able:

COURSE OUTCOME (CO)	**DESCRIPTION**
CO1	To get a basic idea of kinetic reaction theories and study on molecular reaction dynamics as well as kinetics of fast reaction.
CO2	To acquire knowledge of surfactants, micelle, and polymers used in day to day life.

CO3	To learn different model of electrochemical double layer and studies on corrosion, polarographic analytical technique.
CO4	To learn basics of X ray diffraction technique.

M Sc Semester 1

Paper: Practical Chemistry

Student will learn in this semester

COURSE OUTCOME (CO)	**DESCRIPTION**
CO1	Qualitative analysis of inorganic mixtures and insoluble salts
CO2	Separation techniques of cations and anions by chromatography.
CO3	Qualitative analysis of three component organic mixture with thin layer chromatography
CO4	The basic knowledge like preparation of solutions standardization of secondary solution, dilution, calibration and handling of some sophisticated electronic related to the practical syllabus.
CO5	The basic knowledge of conductance, e.m.f, pH, kinetics and partition coefficient.

M Sc Semester II

Paper: Inorganic Chemistry

In this semester students will learn the following:

COURSE OUTCOME (CO)	**DESCRIPTION**
CO1	Reaction mechanism and vibrational properties associated with inorganic coordination complexes of importance such as Homogenous catalysts, Electron transfer agents, Sensors to detect ions as well as molecules
CO2	To assess and describe the bonding properties in the targeted compounds of importance by Fourier-Transform IR Spectroscopy and Raman spectroscopy
CO3	The design of different highly reactive but potent organometallic compounds.

M Sc Semester II

Paper: Organic Chemistry

COURSE OUTCOME	**DESCRIPTION**

(CO)	
CO1	To understand what are aromatic electrophilic substitution reactions, what is their mechanism and what can be the products formed, with the help of suitable examples and some named reactions.
CO2	To understand aromatic nucleophilic substitutions and their different mechanisms, as well as products formed, with the help of some examples.
CO3	To understand free radical reactions and their mechanism with the help of suitable examples.
CO4	To have knowledge of the different types of addition reactions between carbon- carbon multiple bonds and carbon- hetero atom multiple bonds.
CO5	To understand the mechanisms involved in addition reactions with the help of some named reactions.
CO6	To understand the different types of elimination reactions and their mechanism with the help of suitable examples.
CO7	To have knowledge of different spectroscopic techniques like UV and IR, their instrumentation, and terms used.
CO8	To interpret spectra of various types of organic molecules and determine their structure using UV and IR spectroscopic techniques.

M Sc Semester II

Paper: Physical Chemistry

The students will be able to understand

COURSE OUTCOME (CO)	DESCRIPTION
CO1	The limitation of classical thermodynamics
CO2	Statistical thermodynamics and Non equilibrium thermodynamics.
CO3	The difference between the classical and quantum mechanics.
CO4	The connections between common approximation methods and standard chemical frame works (e.g. Born Oppenheimer approximation, molecular orbital theory).

M Sc Semester II

Paper: Practical Chemistry

This semester students will get insight into

COURSE OUTCOME (CO)	DESCRIPTION
CO1	Qualitative analysis of two metal ions volumetrically and gravimetrically.
CO2	The preparation of certain inorganic compounds and their

	characterization by spectroscopic method.
CO3	Two steps synthesis of organic compounds involving different name reactions.
CO4	The basic knowledge like preparation of solution, standardization of secondary solution, dilution, calibration, and handling of some sophisticated electronic related to the practical syllabus.
CO5	The basic knowledge of conductance measurement, Ostwald dilution law, solubility of sparingly soluble substance, potentiometery, pH- metery, order of reaction, saponification of an ester, phase diagram of three component system, inversion of sucrose by polarimetry and kinetics using Visible spectrophotometer.

M Sc Semester III

Paper: Inorganic Chemistry

This semester students will get insight into

COURSE OUTCOME (CO)	**DESCRIPTION**
CO1	Bioinorganic enzymatic reactions, synthesis of iron-proteins
CO2	Study of different analytical techniques like nuclear magnetic resonance (NMR) for diamagnetic compounds comprising of ^{19}F, ^{31}P, ^{119}Sn, ^{195}Pt etc.,
CO3	Electron Spin Resonance (ESR) studies of paramagnetic compounds, Mossbauer spectroscopy.
CO4	Students are exposed to various environmental challenges and their management.
CO5	Exposure to techniques like TGA and DTA.
CO6	Biologically important elements in the periodic table and their medicinal importance

M Sc Semester III

Paper: Organic Chemistry

COURSE OUTCOME (CO)	**DESCRIPTION**
CO1	The concept of infrared spectroscopy, working of infrared spectrophotometer, hands on practice of identification of IR spectra.
CO2	To know about the principle of UV spectroscopy, Woodward Fieser

	rule, effect of solvent on UV spectra and hands-on practice of analysing uv spectra.
CO3	Learn and understand the basics of photochemical reactions of alkenes n carbonyl compounds.
CO4	Knowledge about factors effecting chemical shifts and coupling constants
CO5	Advanced NMR techniques like NOE, APT, DEPT and various types of 2D NMR
CO6	Will be able to analyse the structures of organic molecules with the help of their mass spectrum
CO7	Study of different types of mono, di and poly saccharides their structure and reactions
CO8	Be able to study the properties and structure of different types of carbohydrates found in everyday life
CO9	The structure of enzyme active site concept of competitive and non-competitive inhibitors
CO10	Significance of cofactors, factors effecting the activity of enzymes and application of enzymes

M Sc Semester III

Paper: Physical Chemistry

This semester students will get insight into

COURSE OUTCOME (CO)	**DESCRIPTION**
CO1	Student will learn about solid state reactions, photochemical processes and biophysical chemistry
CO2	To learn about kinetics of solid-state reactions.
CO3	To learn how real crystals made and study their defects. They will also study of electronic properties and band theory of solid state.
CO4	To study magnetism of solids, hysteresis loop.
CO5	DNA and RNA, Protein, enzyme and transport phenomenon across cell membrane.
CO6	Importance superconductors and their application, new superconductors.
CO7	To study experimental techniques and various photochemical processes.

M Sc Semester III

Paper: Practical Chemistry

This semester students will get insight into

COURSE OUTCOME (CO)	DESCRIPTION
CO1	Gravimetric estimation of mixture of two or three constituents and analysis of alloys and minerals.
CO2	Volumetric analysis and titrations
CO3	Qualitative analysis of certain organic compounds by acetylation method, saponification value and extraction of natural organic compounds.
CO4	Preparation of solutions, standardization of secondary solution, dilution, calibration
CO5	Freundlich Absorption Isotherm, enthalpy, molecular weight determinations by elevation in boiling point method, depression in freezing point method and viscosity method, surface tension, molecular energy and Parachor of given liquid.

M Sc Semester IV

Paper: Inorganic Chemistry

Bioinorganic and Supramolecular Chemistry

This semester students will learn the following:

COURSE OUTCOME (CO)	DESCRIPTION
CO1	To learn the importance of inorganic molecules and metal ions in biological systems.
CO2	To learn about how metal ions function as catalytic and structural centers in biological systems.
CO3	To learn about the metal ion transport and storage within cells and their role in various diseases.
CO4	To learn about the use of metal ions for medical purposes.
CO5	To study about the metals used for diagnosis and chemotherapy.
CO6	Development of different types of sensors and photochemical molecular devices

M Sc Semester IV
Paper: Inorganic Chemistry
Organotransition Metal Chemistry

COURSE OUTCOME (CO)	DESCRIPTION
CO1	To understand the properties and structures for organometallic compounds from different groups of the periodic table and their trends.
CO2	To know the main synthetic routes to various classes of organometallic compounds.
CO3	To understand the reactivity of organometallic compounds including their application in synthesis.
CO4	To learn methods for the study of organometallic compounds in the gas phase, solution phase and solid state.
CO5	To study common ligand classes in organometallic chemistry, their effects on organometallic compounds, and influence on reactivity and catalysis.
CO6	To understand key mechanistic steps in reactions involving organometallic compounds.
CO7	To learn about synthetically useful transformations like oxidations, reductions, enolate reactions, pericyclic reactions, organometallic reactions, and reactions of electron deficient species.

M Sc Semester IV
Paper: Organic Chemistry
Organic Synthesis

The students will gain knowledge of the following:

COURSE OUTCOME (CO)	DESCRIPTION
CO1	To learn the basic mechanism and reagents used in oxidation of organic compounds.
CO2	To study about different reducing agents and the reduction reactions like complete reduction and selective reduction.
CO3	Learn and understand the reagents that causes selective and complete reduction.
CO4	Learn about the different rearrangement reactions e.g. Pinacol-pinacolone, Wagner Meerwein, Demjanov, Benzil-Benzilic acid, Favorskii, Arndt-Eistert synthesis, Neber, Beckmann, Hofman, Curtius, Schimdt, Baeyer-Villiger and Shapiro reaction.
CO5	To perform retrosynthetic analysis of complex organic molecules

M Sc Semester IV
Paper: Organic Chemistry
Medicinal Chemistry

This semester students will get insight into and will be able to

COURSE OUTCOME (CO)	DESCRIPTION
CO1	Understand the basic classification of drugs
CO2	Learn and know about the structure and synthesis of various drugs e.g. Antineoplastic Agents , Cardiovascular drugs, Local Antiinfective agents, Psychoactive drugs and antibiotics.
CO3	Understand drug designing and development, their SAR and QSAR.
CO4	Understand mode of action of different drugs
CO5	Learn and know about the role of drugs to inhibit the particular enzymes and treatment of disease.
CO6	Learn about recent developments in medicinal chemistry.

M Sc Semester IV
Paper: Physical Chemistry
Polymer Chemistry

COURSE OUTCOME (CO)	DESCRIPTION
CO1	Student will study historical evolution of the polymers.
CO2	Student will learn to learn monomers and polymers.
CO3	Student will learn evaluation of the structure of polymers.
CO4	Student will learn to recognize bonds between polymer chains.
CO5	Student will learn debate thermal character and affecting factors of thermal behaviours.
CO6	Student will learn to use determining method of molecular weights.
CO7	Student will learn to categorize polymers.
CO8	Student will learn to explain polymers production processes.
CO9	Application of polymers in everyday life

M Sc Semester IV

Paper: Physical Chemistry

Electrochemistry

Students will gain better understanding of theoretical and quantitative treatment of:

COURSE OUTCOME (CO)	DESCRIPTION
CO1	Electrokinetic phenomenon, electro-osmosis, streaming potential and sedimentation potential.
CO2	The chemical basis of biological phenomenon, cellular structure and donnan membrane equilibrium.
CO3	The concept of physical chemistry for the study of biological system, e.g. core conductor model, limiting current in semiconductors etc.
CO4	Theories and importance of over voltage and different types of polarography e.g. A.C. and square waves, pulse.
CO5	General principles of semi conductivity, semiconductors, conducting polymers and fullerene-doped conductors.
CO6	Brief idea of fuels cells and their importance.

M Sc Semester IV

Paper: Practical Chemistry

Students will perform experiments which will help them learn:

COURSE OUTCOME (CO)	DESCRIPTION
CO1	Inorganic preparations in aqueous and organic medium.
CO2	Colorimetric and spectrophotometric analysis.
CO3	Three steps synthesis and identification of organic compound by their spectral data.
CO4	The basic knowledge of preparation of solutions, standardization of secondary solution, dilution, calibration and handling of some sophisticated electronic related to the practical syllabus.
CO5	The basic knowledge of kinetics by conductance method, pH determination pk value determination, spectrophotometer experiment, Cryoscopy method and Refractometry.

Department Of Zoology

UG Programme

Programme Educational Objectives (PEOs)	**1.** The programme intended to develop haematology analytical skills, animal handling skills etc. **2.** The programme enhances the communication skills and the ability to work as a team. **3.** The programme is beneficial for society as it offers study of immunology, ecology and toxicology. **4.** The programme is helpful by providing students to study wildlife biodiversity and animal behaviour. **5.** The programme enhances problem solving ability in students. **6.** The programme leads to inculcation of ethical attitude and the ability to engage in lifelong learning in students.
Programme Specific Outcomes (PSOs)	**1.** The programme enhance haematology analytical skills along with skill of using many instruments. **2.** The students learn the basic principles of genetics and prepare karyotypes to study the chromosomes. **3.** The students learn the detailed and conceptual understanding of molecular processes, genetic engineering and basic tools of bioinformatics. **4.** The programme helps in applying knowledge and awareness of the basic principles and concepts of biology, computer science and mathematics existing software effectively**.** **5.** The programme enables the students to solve the biological problems related to environment. **6.** The programme inculcates research skills in students to pursue doctoral programme.
Programme Outcomes (POs)	**1.** The students get the flavour of both classical and modern aspects of Zoology/Animal Sciences. **2.** The programme is relevant to human studies which is a requirement in recent times. **3.** The programme helps students to independently execute a laboratory experiment using the standard methods and techniques. **4.** The programme trains the students to join public or private labs. Students can have their own start-ups as well.

Department Of Zoology

PG Programme

Programme Educational Objectives (PEOs)	**1.** The programme intended to develop haematology analytical skills, animal handling skills etc. **2.** The programme enhances the communication skills and the ability to work as a team. **3.** The programme is beneficial for society as it offers study of immunology, ecology and toxicology. **4.** The programme is helpful by providing students to study wildlife biodiversity and animal behaviour. **5.** The programme enhances problem solving ability in students. **6.** The programme leads to inculcation of ethical attitude and the ability to engage in lifelong learning in students.
Programme Specific Outcomes (PSOs)	**1.** The programme helps students in studying Entomology, Fish and Fisheries, Parasitology and Endocrinology and Reproductive Physiology. **2.** The programme helps students to understand biological sciences in aquaculture, disease producing parasites and related medicines regarding human and animal health. **3.** The programme helps students to identify different species of insects, harmful and useful insects and their application in agriculture. **4.** Help students to understand life-environment interaction. **5.** The programme helps in understanding the intricacies of the subject at advanced level and develop the skills to opt for research programs **6.** The programme helps students to explore newer areas such as conservation and management of animal kingdom **7.** Zoological knowledge and theories are applicable to maintain health and to control the epidemic diseases. **8.** The students can venture into Healthcare department, forest department and museums. **9.** The programme prepares student to pursue career in teaching, research institute and medical college.
Programme Outcomes (POs)	**1.** The programme equips the students with both classical and modern aspects of Zoology **2.** To make students aware of and appreciate the animal

	diversity at different levels **3.** It develops a comprehensive understanding of the field through an array of classes **4.** It helps to cope up with the challenges arising out of the complexities and limitations of biological system. **5.** It helps the students to give a holistic view of subject and prepare them for next level of learning. **6.** The programme enables students to solve the biological problems related to environment**.**

Course: Psychology

COURSE OBJECTIVES:

Students will know the major concepts, perspectives, historical trends, empirical findings, research methods, and ethics in the field of psychology.

Students will be able to demonstrate skills in research, communication, ethical behavior, complex cognitive processes, and professional development.

.

COURSE OUTCOMES (CO):

After the successful course completion, learners will develop following attributes:

COURSE OUTCOME (CO)	DESCRIPTION
CO1 (Basic Psychological Process)	• To provide sufficient knowledge and information about the nature and history of psychology, different fields of psychology, approaches in psychology and methods of psychology. • To provide understanding in biological basis of behaviour. • To explain psychological processes of attention, perception, and forgetting.
CO2 (Psychology of individual differences)	• In psychology, these are called individual differences referring to the extent and kind of variations or similarities among people on some of the important psychological aspects such as intelligence, personality, interest, and aptitude.
CO3 (Statistics and Psychophysics)	• Students will be able to: Organize, manage and present data. Analyze statistical data graphically using frequency distributions and cumulative frequency distributions. Analyze statistical data using measures of central tendency, dispersion and location.
CO4 (Life Span Development)	• Lifespan development explores how we change and grow from conception to death. This field of psychology is studied by developmental psychologists. They view development as a lifelong process that can be studied scientifically across three developmental domains: physical, cognitive development, and psychosocial.

CO5 (Social Psychology)	• Students will be able to: 1 Demonstrate the ability to articulate independently and creatively about human Social Behavior and the cultural influences that affect our behavior. 2 Describe, discuss and analyze major issues and concepts in the field of Social Psychology.
CO6 (Psychological Assessment)	• The course will focus on a small number of widely used norm-referenced tests of intellectual ability, work aptitudes, personality, vocational interests, attitudes and values, and how these tests are used individually and in combination as part of psychological assessment in organisations. • Consideration will also be given to interviewing as an assessment tool and to tests of the environment and organizational culture. Students will become familiar with the strengths, limitations, interpretation and presentation of findings from a variety of assessment instruments and will learn skills in both assessment planning and report writing. • Students will learn about the ethical and social implications of assessment in a variety of contexts including socially and linguistically diverse populations. Opportunities for practice administration of assessment tools will be provided.
CO7 (Abnormal Psychology)	• Students will be able to:- 1. Apply and evaluate critically the most commonly-used diagnostic classification systems and techniques for diagnostic assessment. 2. Demonstrate a strong working knowledge of the causes, presentation, diagnosis and treatment of psychological problems from infancy to old age 3. Apply common approaches to assessing symptoms and signs of psychological disorders. 4. Demonstrate ability to identify appropriate interventions for common psychological disorders, taking into account individual differences.
CO8 (Personality)	• Students should be able to: 1. Analyze the determinants of personality characteristics to better understand their effects on cognitions, emotions, and behavior. 2. Think critically about and apply theoretical and research-based explanations for human behavior in order to successfully negotiate the challenges of daily living. 3. Apply the major personality domains and theories to better understand one's own behavior and the behavior of others.

M. A Programme in Geography

Program Educational Objectives (PEOs)	● Students within the MA program will learn to connect key theories and concepts within the subfields of human and physical geography to real-world practical applications, while simultaneously gaining valuable geographic analytical skills. ● A PG geography degree will provide the student with the knowledge and skills that is needed to begin a variety of rewarding careers in various Fields like Remote sensing , Landscape architechture, GIS MApping , Cartographer. ● The Program helps the students to develop effective communication skills and Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings. ● The program helps the students Understand Environmental Ethics and Sustainability: Understand the impact of the acquired knowledge in societal and environmental contexts, and demonstrate the knowledge of need for sustainable development. ● The Program helps to Identify and assess how geographic concepts apply in the workplace and in everyday life to solve real-world problems. ● The Program enables the students to Recognize different value systems including their own and understand the moral dimensions of their decisions, and accept responsibility for them. ● The Program lets the students indulge in Self-directed and Life-long Learning:Acquire the ability to engage in independent and life-long learning in the social, environmental and technological environment.
Program Specific Outcomes (PSOs)	● At the end of the two-year (four-semester) PG course, students will have comprehensive knowledge about contemporary issues in geography, both physical and human ● Establish the position of Geography as a subject and its importance and interrelationships that reiterate and validate the Man-Environment relationship. ● Physical field surveys enable the students to understand the landforms, geomorphic process and associated hazards. ● Provide training to students in handling modern instruments and methods like Aerial Photographs, Satellite Imagery,

	Total Station and Meteorological instruments. ● Computer-based techniques (RS & GIS) are incorporated in the syllabus which prepares the students for further analytical studies. ● The students are directed towards problem analysis so that they can design and conduct independent research. ● The Dissertations written by the students prepare them to examine social and environmental issues along with the causes, consequences and remedial measures emerging at local and national levels. ● The syllabus is oriented towards emerging job opportunities and future prospects for the students. ● Assistance is given to students in preparing for various competitive exams like NET, SET, SSC etc.
Program Outcomes (POs)	● There is a lot of career opportunities in Geography. Public as well as private sector both sectors provide career opportunity and future building for Geography student. ● Upon completion of the Master of Arts in Geography, students will be able to demonstrate the following: ● PO1: Compare and contrast the theories, philosophies, and concepts in the discipline of geography, including unifying themes of spatial patterns and structures, the interrelationship between people and places, and the interactions between nature and society. ● PO2: Demonstrate an advanced understanding of and ability to differentiate among the various methodologies used in geographic research. ● PO3: Acquire, analyse, evaluate, interpret and critique geographic data and/or research. ● PO4: Identify and assess how geographic concepts apply in the workplace and in everyday life to solve real-world problems.

M. Sc. NUTRITION CO PO

PROGRAM OUTCOME

- On completing M.Sc. with Nutrition, students will understand the role of food and nutrients in health and disease processes and they will be able to prepare and deliver effective presentations on technical information on food science and nutrition at professional level as well as to the general public.
- Students will also be able to provide nutrition counseling and education individuals, groups, and communities through their clear concept and knowledge by applying technical and decision making skills by assessing and evaluating the nutritional status of individuals and communities.
- They can make their outstanding career in big hospitals and clinics as dietitian or nutritionist or can opt to go for food industries and entrepreneurship.

PROGRAM SPECIFIC OUTCOME

- Diverse job opportunities, both Government and private sector job opportunities are available in front of them.
- Government agencies working for social welfare and development, public health departments, NGOs, Teaching and Education sector hire nutritionists and dieticians.
- International Organizations like WHO, UNICEF are also known to hire nutritionists and dieticians. In such a setup, nutritionists have to take care of community nutrition activities
- Registered Dieticians
- Dietician in hospitals
- Nutritionists in community level health clinics and health centers
- Health Product Companies (Pharmaceuticals, nutraceuticals, Nestle, Abbott, etc)
- Health Coach, Fitness Clubs (Gyms and Aerobic centers)
- Sports Nutritionist

COURSE OUTCOME

- On completion of this course, students will be able to understand the physiological processes and functions as applicable to human nutrition.
- The role of beneficial microorganisms in foods and their use in fermentation processes.
- Students able to use appropriate laboratory techniques to enumerate, isolate, and identify microorganisms in foods.
- Understand the basic principles of food preservation methods, including low temperature, heating, using chemicals and food irradiation
- Students will be able to locate and interpret government regulations regarding the manufacture and sale of food products.

- Understand the techniques that can be used to monitor quality of raw ingredients and final products. They can conduct appropriate sensory evaluation tests to answer specific questions regarding food attributes or consumer preferences
- They learn to choose appropriate cooking method to conserve nutrients and thus acquire skills on different methods of cooking. It helps them analyze the factors affecting cooking quality of foods.
- On completion of this course, students will be able to apply statistical tools in various fields in their practical life.
- Students gain knowledge on nutritional programmes and policies to overcome malnutrition.
- Understand the role of national, international and voluntary nutritional organizations to combat malnutrition.

- Describe the biochemical and physiological functions of the nutrients and their integrated role.
- This paper will help them to know the recent concepts in food product development by choosing, characteristics and methods of cooking of Indian and International cuisines
- This course is designed for students to familiarize with hazards and toxicity associated with food and their implications for health.
- After doing dissertation, students gain confidence and become capable of doing researches or writing research and review papers. Students gain confidence and become capable of doing researches or writing research and review papers.
- Students learn about the basic concepts and principles of biochemical techniques namely Spectrophotometry, Fluorimetry, Chromatography and Centrifugation.

Program Educational Objectives (PEOs)	On completing M.Sc. with Nutrition, students will understand the role of food and nutrients in health and disease processes and they will be able to prepare and deliver effective presentations on technical information on food science and nutrition at professional level as well as to the general public. Students will also be able to provide nutrition counseling and education individuals, groups, and communities through their clear concept and knowledge by applying technical and decision making skills by assessing and evaluating the nutritional status of individuals and communities. They can make their outstanding career in big hospitals and clinics as

	dietitian or nutritionist or can opt to go for food industries and entrepreneurship.
Program Specific Outcomes (PSOs)	Diverse job opportunities, both Government and private sector job opportunities are available in front of them. Government agencies working for social welfare and development, public health departments, NGOs, Teaching and Education sector hire nutritionists and dieticians. International Organizations like WHO, UNICEF are also known to hire nutritionists and dieticians. In such a setup, nutritionists have to take care of community nutrition activities Registered Dieticians Dietician in hospitals Nutritionists in community level health clinics and health centers Health Product Companies (Pharmaceuticals, nutraceuticals, Nestle, Abbott, etc) Health Coach, Fitness Clubs (Gyms and Aerobic centers) Sports Nutritionist
Program Outcomes (POs)	On completion of this course, students will be able to understand the physiological processes and functions as applicable to human nutrition. The role of beneficial microorganisms in foods and their use in fermentation processes. Students able to use appropriate laboratory techniques to enumerate, isolate, and identify microorganisms in foods. Understand the basic principles of food preservation methods, including low temperature, heating, using chemicals and food irradiation Students will be able to locate and interpret government regulations regarding the manufacture and sale of food products. Understand the techniques that can be used to monitor quality of raw ingredients and final products. They can conduct appropriate

	sensory evaluation tests to answer specific questions regarding food attributes or consumer preferences They learn to choose appropriate cooking method to conserve nutrients and thus acquire skills on different methods of cooking. It helps them analyze the factors affecting cooking quality of foods. On completion of this course, students will be able to apply statistical tools in various fields in their practical life. Students gain knowledge on nutritional programmes and policies to overcome malnutrition. Understand the role of national, international and voluntary nutritional organizations to combat malnutrition. Describe the biochemical and physiological functions of the nutrients and their integrated role. This paper will help them to know the recent concepts in food product development by choosing, characteristics and methods of cooking of Indian and International cuisines This course is designed for students to familiarize with hazards and toxicity associated with food and their implications for health. After doing dissertation, students gain confidence and become capable of doing researches or writing research and review papers. Students gain confidence and become capable of doing researches or writing research and review papers. Students learn about the basic concepts and principles of biochemical techniques namely Spectrophotometry, Fluorimetry, Chromatography and Centrifugation.

PROGRAME OBJECTIVES (DEPARTMENT OF EDUCATION)

PROGRAMME EDUCATIONAL OBJECTIVES (PEO's)

- PEO-1 The course is meant for future educators and educational administrators.
- PEO-2 The program intends to develop skills to enhance communication and cooperation through various course content.
- PEO-3 Acquire knowledge in the field of social sciences, literature and humanities which make them sensitive and sensible towards societal development.

- PEO-4 Able to appear for various competitive examinations or choose post graduate programs of their choice.
- PEO-5 Be acquainted with the social, economic, historical, geographical, political, ideological and philosophical tradition and thinking.
- PEO-6 Enable the students to acquire knowledge with human values framing their base to deal with various problems in life with courage and humanity.

PROGRAM SPECIFIC OUTCOMES (PSO's)

- PSO-1 Graduates will be able to correlate and apply Education with life situations. The program will be helpful in conceptualization and synthesis of knowledge of educational aspects in relation to Human Development, Human Behavior, Teaching - Learning, Measurement and Evaluation, Society and Nation.
- PSO-2 Develop knowledge and understanding of elementary, secondary and higher education. Understand the meaning, nature, scope and aims of education. Provide opportunities to the students in educational technology and their use in educational system. To become aware of different agencies of education that influence education. To explain the factors of education and their inter-relationship. To be acquainted with the constitutional values and their educational provisions. To create awareness about the Indian education system in different periods of Indian history. To understand practical aspects of different learning theories and stages of child. To differentiate among different schools of philosophy. Analyze the trends of Education running in different educational systems. Understand the Indian cultural and educational heritage. Identify the problems of Indian education at different levels of Education system and understand various factors affecting Indian education. Identify individual differences and understand special need learners. To examine the importance of Mental Health.
- PSO-3 The course content facilitates in pursuing courses of educator and teacher education programs.
- PSO-4 The course content describes the nature, purpose, scope, areas and types of research in education. Explains the characteristics of basic, applied and action research. Understand the characteristics of quantitative, qualitative and mixed research. Explain a sampling design appropriate for a research study. Conduct literature search and develop a research proposal.
- PSO-5 The entire course content of the graduate program enables the students to pursue various teacher education programs in future with ease.

PROGRAM OUTCOMES (PO's)

- PO-1 The graduate course enables students to pursue their higher studies in various fields of education.
- PO-2 Enhance the capacity of students in developing communication skills through preparation and presentation of projects and assignments that are part of the assessment and evaluation of the course
- PO-3 Generate critical thinking regarding issues related to education and society.
- PO-4 Acquaint the students with modern trends in education. Enhance capacities of students in measurement and evaluation of different educational aspects.
- PO-5 Describe the nature, purpose, scope, areas and types of research in Education.
- PO-6 Develop skills in generating better inclusive classroom environment for different categories of the students.
- PO-7 Imparting quality education for quality life.
- PO-8 To appreciate diversity in cultures and how it contributes to different educational experiences and opportunities. Understand the nature and classification of values.
- PO-9 Describe Educational leadership styles. Understand the concept of world peace from different perspectives. Compare approaches of educational planning.
- PO-10 Evaluate the purpose of the program. Develop strong orientation towards lifelong learning and education.

****