

PROGRAMME AND COURSE OUTCOMES

Government Degree College (Women) Kupwara offers BA and B.Sc. Programmes with well defined outcomes. The specific learning outcomes of these programmes are built into the curriculum and are made available to the students through institutional website and other means.

PROGRAMME OUTCOME; B.A.

- ❖ Creating productive, sensitive and sensible human resource by providing knowledge in the field of humanities and social sciences.
- ❖ Obtaining excellence through development of social, economical, political, ethical, ideological and philosophical thinking and tradition.
- ❖ Achieving richness in language spectra at local, regional, national and international levels enabling the learners to express themselves with confidence.
- ❖ Empowering the students to appear in various competitive exams like KAS, KPS, IAS and IPS.
- ❖ Programme provides base for producing social scientists, thinkers, writers, politicians; useful and responsible citizens.

The course outcomes for different subjects offered under the programme are described here.

ENGLISH

The learning outcome for any English Department, in countries where English is spoken as second language, is to equip students with linguistic fluency, to enable students to express themselves with confidence, and to finally develop among students a love for literature.

To quote John Keating from Dead Poets Society “We don’t read and write poetry because it’s cute. We read and write poetry because we are members of the human race. And the human race is filled with passion. And medicine, law, business, engineering these are noble pursuits and necessary to sustain life. But poetry, beauty, romance, love, these are what we stay alive for.”

Let’s take a look at what we think and believe our students would/should be able to do after the completion of each of the courses prescribed in their BG course.

❖ 1st Semester:

We consider the first year of the college as a transition stage for students from closed boundaries of schools into an open and vibrant environment of colleges. So the initial aim is to help students:

- Get acquainted with the dynamics of college life, and the changing realities of the world.
- Overcome stage fear; peer pressure; inferiority complex.
- And to acquaint students with new ideologies/narratives/ which they were not hitherto exposed to.

❖ 2nd semester:

Besides prescribed curriculum by the University, students are invited to give presentations and hold group discussions on random topics decided and agreed upon by the teacher and students. The aim of the exercise is to make students feel comfortable inside classroom, and besides get the students oriented with contemporary issues happening around the globe.

❖ **3rd & 4th semesters:**

During 3rd and 4th semester we aim to get students interested in writing literary write-ups. From 3rd semester onwards, students are taught phonetics, business writing skills, proper pronunciation. Students are shown documentaries, short films, and pronunciation learning videos, in addition to the prescribed curriculum. Tutorial classes are totally dedicated to improve the English communication skills of the students.

❖ **5th & 6th Semesters:**

As the students approach towards the end of their degrees, the teachers aim to equip them for the professional life ahead by:

- ❖ Developing in them basic communicative skills needed for professional jobs.
- ❖ Counselling students about the myriad opportunities in the job market.
- ❖ Developing in students soft skills like: Team work, Time management, problem solving skills, stress management.

ISLAMIC STUDIES

Islamic Studies is the study about religion and civilization which includes compulsory modules on Islam as a religion and way of life, the Islamic humanities, and anthropological approaches to Islam, Islamic spirituality, contribution of Muslim scientists and scholars to world knowledge and sciences and Islam in the modern world. The course as such attempts to study the whole range of Islamic faith, civilization and culture. Its main interests include topics such as the socio-economic structure, military, administration, development of various Islamic traditional sciences (Science of Tafsir, Science of Hadith, Islamic Jurisprudence, Ethics and Kalam) and thought, cultural life, cosmology, mysticism, literature and fine arts, and many other aspects of Islamic civilization. It also focuses on dialogue among religions and civilizations and highlights the contemporary issues related to misunderstandings about Islam and Muslims. The major learning outcomes of the course are:

- ❖ The course pushes students to broaden their understanding of Islam and promote the appreciation of Islamic ethics and code of personal practice.
- ❖ It prepares students to contribute to multi-religious and multi-cultural environments.
- ❖ It familiarizes students with the knowledge of multi-disciplinary subjects like Sociology, History, Political Science, Environment Studies, Economics, Religious Studies, Cultural Studies etc.
- ❖ The bachelor's course provides an Islamic knowledge base enabling students of other disciplines to apply their skills from a Muslim perspective and it offers multiple career options after its completion including further study options.
- ❖ It provides an academic career path in areas such as Islamic Studies, Islamic Theology and Islamic Law.

- ❖ It also gives students an opportunity to make their career in area studies such as West Asian Studies, South Asian Studies, South East Asian Studies and Central Asian Studies.
- ❖ After successful completion of the course, students can also choose to study Islamic Banking and Finance and make their career in this trending field.

ENVIRONMENTAL SCIENCE

Environmental Studies is offered as a compulsory Ability Enhancement Course for 1st and 2nd Semesters across all UG Programmes with the aim of facilitating students' understanding of complex environmental issues and develop appreciation of scientific, ecological, ethical and historical context of various environmental issues and their solutions. Besides, the course is very helpful for students who plan to crack different competitive exams where environment related content is nowadays given a due weightage. The course specific outcomes of the subject are:

CO-01: Understanding Environment:

- ❖ Students get an awareness about the concept of Environment, its Components and Importance.
- ❖ An Understanding of the Concept of Ecosystem- its Structural and Functional Aspects
- ❖ An appreciation of Ecosystem Services and values.

CO-02: Natural Resources:

- ❖ Impart knowledge about the Resources of Nature and the consequences of their over-exploitation on man and environment.
- ❖ Create an awareness about the importance of Water harvesting and water-shed management.
- ❖ Provide information about Conventional and Non-conventional Energy resources; Growing energy needs and alternate sources of energy.

CO-03: Biodiversity and Conservation:

- ❖ A basic understanding about biodiversity, its different levels, values and human threats to biodiversity.
- ❖ Importance of biodiversity conservation and different approaches to conservation.

CO-04: Environmental Issues, Policies and Practices:

- ❖ An awareness and sensitivity towards the causal factors, the consequent effects and control strategies of environmental pollution.
- ❖ An understanding about the burning global environmental issues like Climate Change, Ozone depletion, Acid Rain etc.
- ❖ Inspire students towards environmentalism by exposing them to genesis and success of various environmental movement across the country.

HOME SCIENCE

As a specialized subject, Home Science draws its content from courses in both science and arts thus representing an interdisciplinary field that prepares young learners for the two most important goals of their lives- caring for their home and family and preparing for a career or vocation in life. Hence, its

scope extends to activities associated with setting home-based enterprises as well as consultancies. The key learning outcomes of this subject at UG level would be:

CO-01: Food and Nutrition

- ❖ Basic concepts in food and nutrition are introduced to students
- ❖ Students are made aware of the relationship between food, nutrition and health
- ❖ Students learn selection, nutritional contribution and changes during cooking of different food groups
- ❖ Students also learn different methods of cooking and preventing nutrient losses
- ❖ In their practical sessions, learners come to know about weights and measurements, table settings and preparation of market orders, principles involved in food preparation, nutritional quality and proportion size.

CO-02: Dynamics of Communication and Extension

- ❖ Students are made aware of the historical background, function, types and scope of communication.
- ❖ Learners are taught signs, symbols and codes in human communication
- ❖ Models and barriers of communication are explained to students
- ❖ Students are taught to communicate effectively
- ❖ Methods and media of community outreach are taught to students.

CO-03: Introduction to Textile

- ❖ Concepts of textile fibers and their properties are introduced to the learners.
- ❖ Students are taught basic principles of yarn making and mechanical spinning.
- ❖ Students get to learn about fabric construction: weaving, knitting, dyeing, printing, finishing etc
- ❖ In their practical sessions, students are taught fibre identification tests, thread count and balance, dimensional stability, fibre analysis of light, medium and heavy weight fabrics etc.

CO-04: Human Development (Development in Adolescence and Adulthood)

- ❖ Under this course, the learners are introduced to the concept of adolescence and the changes it brings in its wake: physical and physiological changes, cognitive and language development.
- ❖ Knowledge about the concept of adulthood and its different stages i.e., young, middle and late adulthood is imparted to the students.
- ❖ In their practical sessions, students are taught methods of studying human development and their use.

CO-05: Communication and Extension

- ❖ Students are introduced to the concept of communication, its types, scope etc.
- ❖ Students are trained to develop skills in planning and conducting small group communication.
- ❖ The students learn about entrepreneurship for small catering units.
- ❖ In their practical sessions, students learn market survey for food items both raw and processed etc.

CO-06: Public Nutrition and Dietetics

- ❖ Students are introduced to the concept and scope of public nutrition, common nutritional deficiencies; their prevention and management
- ❖ Students are introduced to the concept of Diet Therapy
- ❖ Students are also made aware about common diseases and disorders like Diarrhoea, underweight, overweight obesity, diabetes and cardiovascular diseases
- ❖ Students are introduced to the concept of gender, gender differentials, concept of gender development and human rights vis-a vis gender and advocacy
- ❖ In their practical sessions, students are taught analysis of gender differentials using a development indicator

ECONOMICS

CO-01: Essentials of Economics

- ❖ Student will be able to understand the links between consumers and producers behavior and the economic models of demand and supply.
- ❖ It will also help in understanding the efficiency and equity implications of market interference, including government policy.

CO-2: Principles of Microeconomics

- ❖ It will help students in understanding the behaviour of individuals and small organizations in making decisions on the allocation of limited resources.
- ❖ It will result in equipping the students in a rigorous and comprehensive manner with the various aspects of consumer behaviour and demand analysis, production theory and behaviour of costs, the theory of traditional markets and equilibrium of firm in modern non-profit maximizing framework.

CO-3: Principles of Macroeconomics

- ❖ To make students aware of the basic theoretical framework underlying the field of macroeconomics.
- ❖ It helps students to study the aggregates and to provide overall idea about national economic policies and its implications.

CO-4: Indian Economy- Perspectives & Challenges

- ❖ It will help in developing the conceptual framework of govt. policies and programmes.
- ❖ It will acquaint students with latest data and will enhance their analytical skills.
- ❖ Student will be able to understand the landscape of Indian economy.
- ❖ After studying the structure aspects of Indian Economy, students will be exposed to economic reforms in India and problems of Indian economy.
- ❖ A basic understanding of Indian and Global economy is also included.
- ❖ To make the students aware of the importance of population in economic development and the various theories that explains the growth of population in a country.

- ❖ The paper also enlightens the students on the quantitative and the qualitative aspects and characteristics of the population through various demographic technique.

CO-5: Money & Banking

- ❖ Understand various concepts of money and money substitutes.
- ❖ Explain and anticipate the consequences of changes in the quantity of money on such economic variables as interest rates, inflation, the exchange rate, and unemployment.
- ❖ It is designed as a contemporary, rigorous, innovative and practical course that aims to infuse the participants with the relevant banking knowledge and skills.
- ❖ To give in-depth knowledge of Banking & Finance to the students of economics with practical inputs and prepare them as responsible customers.

CO-6: Economic Growth and Development

- ❖ It helps in developing understanding of the students related to different sectors of Indian Economy
- ❖ Students will be able to understand how planning and infrastructure support can develop an economy.
- ❖ To explain development economic growth theories, international trade development theories, and related economic development theories.

CO-7: Statistics & Mathematics For Economics & Econometrics

- ❖ This course will help the students understand the issues regarding data collection, organizing, presenting, analyzing and interpreting the issues involved therein.
- ❖ Students will understand the basic concepts of descriptive and inferential statistics
- ❖ The course describes an alternative approach to teaching content by using computer applications that emphasize the empirical testing or applications of the theory.
- ❖ It will help the students in understanding forecasting methods, which can be used in business for sound decision making. It will develop understanding, regarding when and how to apply various forecasting techniques and how to interpret the results.
- ❖ The student is exposed to economic concepts in mathematical format through simple illustrations and prepares the ground for more scientific study.
- ❖ Econometric methods will prove particularly useful for understanding the interrelationships in the economic variables.

CO-8: International Trade and Public Finance

- ❖ The course is helpful to develop a systematic exposition of models that try to explain composition, direction and consequences of international trade.
- ❖ The student will be acquainted with economic concepts and models of international trade.
- ❖ Student will become aware about international trade blocks and their importance.
- ❖ It will help in understanding and analyzing the impact of public policy on the allocation of resources and the distribution of income in the economy and also analysis of public expenditures, taxation, budgetary procedures, stabilization instruments, debt issues.

- ❖ The learners will comprehend the conceptual framework of financial market and institutions of India.
- ❖ Students will be able to understand the nature of financial instruments and their usage.

CO-9: Economic Analysis and Policy

- ❖ Students will learn how to think critically about public policy issues.
- ❖ It will help in understanding how microeconomic concepts can be applied to the analysis of a variety of public policy issues.
- ❖ The course will help in anticipating aggregative economics analyses and establishing the functional relationship between the large aggregates.

EDUCATION

CO-1: Educational Philosophy

- ❖ To know about the concept of Education ,Philosophy ,its branches ,various Philosophers and philosophical thoughts.
- ❖ To develop the reasoning ability to break down the course contents into its component parts so that its organizational structure may be understood.
- ❖ To develop the creative ability to suggest new content/plans by arranging an abstract relationship among elements of course content.
- ❖ To develop the power of judgment to take a proper decision about the qualitative and quantitative value of particular idea, object, and theory of the course content.

CO-2: Sociological Foundations of Education

- ❖ To familiarize the students with the concept of Educational Sociology ,its theories and various Sociologists.
- ❖ To make generalisation of the process of Educational Sociology ,its theories and various thoughts and diagnosis of the weakness of the content.
- ❖ To develop the creative ability to suggest new content/plans by arranging an abstract relationship among elements of course content.
- ❖ To assimilate the power of judgment to take a proper decision about the qualitative and quantitative value of particular idea, object, and theory of the course content.

CO-3: Psychological Foundations of Education

- ❖ To impart knowledge about the concept of Educational Psychology, its theories and various Psychologists.
- ❖ To make generalisation of the process of Education , Psychology ,its theories and various thoughts and diagnosis of the weakness of the content.
- ❖ To develop the reasoning ability to break down the course contents into its component parts so that its organisational structure may be understood.
- ❖ To develop the creative ability to suggest new content/plans by arranging an abstract relationship among elements of course content.

- ❖ To develop the power of judgment to take a proper decision about the qualitative and quantitative value of particular idea, object, and theory of the course content.

CO-4: Indian Education in Historical Prospective

- ❖ To know about the system of education, Methods of teaching, Curriculum, role of teacher and concept of Discipline during Ancient, Medieval and Modern periods .
- ❖ To know about the recommendations and suggestions of various pre independence and post independence education commissions and schemes of education.
- ❖ To explore the system of education during Ancient, Medieval and Modern periods.
- ❖ To understand the history of education in India.

CO-5: Issues and Trends in Education

- ❖ To explore the idea of Adult Education, Distance Education, Inclusive Education, Higher Education and Secondary Education.
- ❖ To know about the recommendations and suggestions of various pre independence and post independence education commissions and schemes of education about Adult Education, Distance Education, Inclusive Education, Higher Education and Secondary Education.
- ❖ To provide knowledge about differently abled students.
- ❖ To train students to learn various techniques of statistics.
- ❖ To understand the meaning and learn about the use of parametric and non parametric statistics.
- ❖ To learn various methods of computation of grouped and un grouped data.

SOCIOLOGY

CO-01: Introduction to Sociology

- ❖ To have a basic and clear understanding of sociology as a subject..
- ❖ To have an understanding of the interdisciplinary nature of sociology with relationship to other social science subjects.
- ❖ To develop among the students the basic social values through teaching them different sociological concepts.
- ❖ To develop the reasoning ability among students to communicate effectively and use sociological knowledge for better society.

CO-02: Sociological Thought

- ❖ To Develop an understanding about different sociologists and their perspective.
- ❖ The course is intended to develop different sociological perspectives among students.

CO-03: Indian Society

- ❖ This course is intended to develop an understanding of diverse nature of Indian society
- ❖ To teach the students about unity in diversity in Indian society
- ❖ Understanding of different social processes within Indian society
- ❖ To develop an understanding about different social institutions and their functions within Indian society.

CO-04: Research Methodology & Techniques Of Social Research

- ❖ This course is intended to make an application of sociological knowledge through the adaptation of social Research
- ❖ To develop scientific temper among students.
- ❖ To make students ready for the understanding and application of different techniques of social research.

CO-05: Social Movements

- ❖ This is an introductory course to know about social movements, their types and importance for various developmental processes and changes.
- ❖ To describe various radical, revolutionary and regional movements with special reference to DMK, Shiva Sena and similar movements in Jharkhand and Telangana
- ❖ To help students understand the importance of women's role in various social movements.
- ❖ To reflect on the impact of social movements on social policy making.

CO-06: Social Stratification

- ❖ The course explains the dimensions and principle types of stratification system - Caste, Class and Estate.
- ❖ The course presents a theoretical perspective like functionalism, conflict and Interactionism with reference to social stratification.
- ❖ It provides an elaborate understanding of relationship between social stratification and social mobility and its different aspects.
- ❖ It also provides a detailed overview about Sanskritization, Westernization and modernization.

POLITICAL SCIENCE

CO-01: An Introduction to theory

- ❖ To understand the basic concepts of Political Theory and discuss the various approaches to the Political Science.
- ❖ To explain the evolution of state and to know the distinction between state, civil society, and nation in context of Marxist, liberal and feminist perspectives.
- ❖ To describe the concepts of liberty, Equality, Justice, Citizenship in great detail.
- ❖ To understand the concept of democracy and how it functions in various parts of the world.
- ❖ To discuss the importance of power and how it works in the realm of Political Science.

CO-02: Indian Political system

- ❖ To help the learners understand the evolution of constituent Assembly and the basic structure and features of Indian Constitution.
- ❖ To provide knowledge about the fundamental rights and directive principles of state policy.
- ❖ To learn about the composition and the powers of parliament, president, prime minister.
- ❖ To understand the judiciary, its composition, role and process of judicial review.

- ❖ To learn about the composition and role of election commission as an independent body and how it conducts elections in India.
- ❖ To describe the concept of federalism in the context of India and the idea of decentralization with reference to local bodies like panchayats and municipalities.
- ❖ To understand the nature of party system, the concept of political polarization , caste and communalism in Indian politics.

CO-03: Comparative Government and Politics

- ❖ The course provides the students with comprehensive knowledge of comparative politics - its nature, significance and development.
- ❖ To discuss the political culture, socialization, communication and participation.
- ❖ To understand the governance and its institutional structure in a detailed manner.
- ❖ To provide knowledge about the various organs of government, their structure and how they function in different political system.
- ❖ To detail out the various political systems and compare the electoral and party system in reference to USA, UK, India and China.

CO-04: Introduction to International Relations

- ❖ To describe the core theories and concepts of International Relations in a comprehensive way with focus on realism, neo realism, liberalism and neo liberalism.
- ❖ To know about the origin of Cold War, its phases and consequences on International politics.
- ❖ To understand the new world order in the context of the emerging centers of power like European Union, China and Japan.
- ❖ To make students familiar with evolution of Indian foreign policy after independence, India's role in non-alignment movement during the cold war.

CO-05: Western Political Thought

- ❖ To learn about the origin of western political thought, its features and significance.
- ❖ To have an in depth comprehension of philosophy of Plato, Aristotle and Machiavelli with respect to state, revolution and secularism.
- ❖ To understand the Social Contract Theory and the concept of utilitarianism.
- ❖ To comprehend the idea of liberty and representative government by J.S Mill.
- ❖ To provide knowledge of class struggle and idea of historical materialism by Karl Marx.

CO-06: Administration and Public policy

- ❖ To comprehend the meaning of Public administration, its scope, significance as a discipline
- ❖ To get an in depth understanding of various administrative theories like classical theory, human relation theory, and scientific management theory.
- ❖ To provide knowledge about the meaning of decision making, its process and the rational bounded theory by Herbert Simon.
- ❖ To make students understand the public policy, its process, formulation, implementation and evaluation.
- ❖ To describe the critical perspective of new public management in the post globalized era.

URDU

CO-01: Urdu Ghazal and Nazam

- ❖ Students will understand the basic art of Ghazal and Nazam -their origin and development.
- ❖ The renowned poets of Urdu language like Ghalib, Wali, Mir, Hamidi Kashmiri etc are taught to students and their contribution to the genre is discussed in detail.

CO-02: Urdu Classical Literature

- ❖ The course provides knowledge of Urdu Marsiya, Urdu Qasida, Urdu Masnavie and Urdu Rubayee.

CO-03: Urdu Ki Afsanavi Nasr

- ❖ Create the interest of Novel, Drama, Dastan and Short Stories of Urdu among Students.

CO-04: Urdu Ki gaer afsanvi Nasr

- ❖ Impart skills to students about how to an write essay, life sketch and other writing skills.

CO-05: Literary History and Criticism

- ❖ To acquaint the students regarding the different literary trends in Urdu and different schools of criticism.

CO-06: Iqbal: Aik Khasoosi Mutala

- ❖ The students become able to understand the thoughts of Iqbal through his poems which give the lessons of humanity, sympathy and brotherhood.

CO-07: Learning Skills of Afsana in Urdu

- ❖ To provide knowledge about the origin and development of Urdu short stories and train the students how to read and write Urdu short stories

CO-08: Learning Skills of Drama in Urdu

- ❖ This courses give detailed information of art of drama, origin of Urdu drama and its stages.

CO-09: Learning skills of Media writing in Urdu.

- ❖ To enable the learners to write scripts, documentary, advertisement and other basic aspects of journalism in urdu.

MATHEMATICS

- ❖ Mathematics is the study of quantity, structure, space and change. The key learning outcomes of the subject are:

- ❖ To impart basic knowledge of Mathematics - its foundations and development in the civilizational context.
- ❖ Enable the learners to use mathematics as a precise language of communication in other branches of human knowledge.
- ❖ To impart students with an ability to provide new solutions using the domain knowledge of mathematics.
- ❖ To Provide the learners sufficient knowledge and skills enabling them to undertake further studies in mathematics and its allied areas.
- ❖ Enable the learners to demonstrate educational skills in areas of geometry, algebra, mechanics, differential equations etc.

PROGRAM OUTCOMES: B.Sc.

- ❖ Building scientific temper among the learners by helping them understand the basic fundamentals of science.
- ❖ Acquire practical knowledge of core science subjects viz. chemistry, zoology, botany and physics.
- ❖ Generate critical thinking among the students to prompt them follow innovations and developments in science and technology.
- ❖ Enables the learners to plan and execute investigations followed by analysis and interpretation of the collected data.
- ❖ Empowering the students to appear in various competitive exams like KAS, KPS, IAS and IPS.

The course outcomes for different subjects offered under the programme are described here.

BOTANY

Botany as a subject has been introduced to equip students with knowledge and skills pertaining to all areas of plant science including evolution, physiology, anatomy, developmental biology, genetics etc. A student after graduating with botany as one of the subjects can have career opportunities in horticulture, agriculture, forestry, pomology, environmental biology etc. The major course outcomes are:

- ❖ To help students develop a conceptual framework of the diverse life forms and enable them to distinguish between prokaryotes and eukaryotes.
- ❖ To impart basic knowledge about the general characteristics, life cycle, structure and classification of Algae, Fungi, Bryophytes, Pteridophytes and Gymnosperms.
- ❖ To introduce the students to basic ecological concepts like trophic structure, productivity, nutrient cycling, energy flow and endemism.
- ❖ To provide an understanding of plant taxonomy, anatomy, morphology and embryology.
- ❖ To impart awareness about plant water relations and transport mechanism in addition to basic physiological processes viz. photosynthesis and respiration.
- ❖ To provide knowledge about the concepts of plant breeding and genetics, biotechnology, economic botany, plant pathology and horticulture.

ZOOLOGY

CO-1: Animal Diversity & Comparative Anatomy

- ❖ To get the knowledge about various phyla along with general body characteristics of organisms and their classification.
- ❖ To make students understand the basic physiological processes of living organisms by using some model organisms.

CO-2: Physiology

- ❖ To give students the idea about various organ systems and various processes associated with them.

CO-3: Taxonomy & Wildlife

- ❖ To make students understand the diversity of animals on earth.
- ❖ To know about various methods of identification, classification and nomenclature of living organisms.
- ❖ To make students aware about laws and acts related to wildlife management.

CO-4: Immunology

- ❖ To know about innate and adaptive immunity.
- ❖ To know the structure of antigens and antibodies and various antigen antibody reactions.
- ❖ To know about various diseases associated with autoimmunity.

CO-5: Biotechnology

- ❖ To know about various tools and techniques in biotechnology and their use in day-to-day life.

CO-6: Biostatistics

- ❖ To understand basic statistical terms and data representation.
- ❖ To understand the application of statistics in biosciences.

CO-7: Animal Behaviour.

- ❖ To give an idea about how living organisms communicate with each other.

CO-8: Cell Biology

- ❖ To know and understand different biochemical pathways and their role in life processes.

CO-9: Biochemistry

- ❖ To introduce the concept of ecosystem and its types and the pattern of energy flow through them.
- ❖ To know about the population and its characteristics.
- ❖ To understand various interactions among living organisms.

CO-10: Ecology

- ❖ To introduce the concept of ecosystem and its types and the pattern of energy flow through them.
- ❖ To know about the population and its characteristics.

- ❖ To understand various interactions among living organisms.

CO-11: Developmental Biology

- ❖ To know about various steps in the development of an organism.
- ❖ To give an elementary knowledge of extra embryonic membranes, competence, determination and differentiation.
- ❖ To know about different patterns of cleavage and Development of chick and frog embryos.

CO-12: Economic & Applied Zoology

- ❖ To understand the economic importance of sericulture, apiculture and aquaculture.
- ❖ To understand the medicinal and agricultural importance of insects.
- ❖ To know about various beekeeping methods and bee diseases.
- ❖ To know the status of sericulture in J&K and diseases of silkworm.

CO-13: Genetics

- ❖ To give the knowledge of Mendelian and Molecular genetics.
- ❖ To understand the process of replication, transcription and translation.

CO-14: Evolution

- ❖ To understand the modern concept of organic evolution along with the phylogeny in horse.
- ❖ To describe the concept of species and its formation.

CHEMISTRY

The core fields of chemistry taught at UG level include organic, inorganic and physical chemistry. The aim is to introduce the students to the concepts and make them better understand the various chemical processes, compositions and manipulations. Students having graduated with chemistry as one of the subjects find wide career opportunities in sectors in chemical engineering, pharmaceutical labs, polymer synthesis etc. The key course outcomes of the subject are:

- ❖ To enable students understand the conceptual aspects about bonding, molecular structure, reactivity stereochemical aspects, aromaticity and Structural and behavioural aspects of matter.
- ❖ To impart knowledge of p-block elements; Saturated and unsaturated hydrocarbons; Organic reaction mechanisms and Chemical kinetics.
- ❖ To provide an understanding of the transition and inner transition elements; Preparation and reaction of alcohols, phenols and ethers; Thermodynamics and its application to chemical and phase equilibria.
- ❖ To enlighten the students about coordination chemistry; Chemistry of carbonyl compounds; Electrochemistry and basic quantum chemistry.
- ❖ To impart knowledge about the nuclear structure, radioactivity and its applications; preparation and chemical reactivity of nitro-compounds, amines, and aromatic heterocycles; the applications of thermodynamic principles to solutions.
- ❖ To understand the electromagnetic spectrum and its interaction with matter; transitions in spectroscopy.