



Office of the Principal  
Govt. Degree College Tral  
Kashmir-192123

گورنمنٹ ڈگری کالج ترال

**Programme Outcomes, Course Outcomes and Course Specific Outcomes**

**Programme Outcomes: Bachelor of Arts**

On the completion of undergraduate degree programme in Arts, students are able to:

- Study and understand knowledge of various fields of study in core disciplines in the humanities and social sciences.
- Develop critical and analytical skills for the identification and resolution of problems within complex changing social, linguistic and literary context.
- Inculcate human values that resulted into transformation of behaviour.
- Analyze the problems and apply their knowledge to solve them.
- Work with self-esteem, self-reliance, self-reflection and creativity to face adversities in work and personal life.
- Express thoughts and ideas effectively in writing and orally; Communicate with others using appropriate media; confidently share one's views and express herself/himself; demonstrate the ability to listen carefully, read and write analytically, and present complex information in a clear and concise manner to different groups.
- Acquire knowledge and skills, including "learning how to learn", that are necessary for participating in learning activities throughout life,

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aimed at personal development, meeting economic, social and cultural objectives, and adapting to changing trades and demands of work place through knowledge/skill development /re skilling.

## **BACHELOR OF COMMERCE (B.COM)**

### **PROGRAMME OUTCOMES**

<b><i>PO-01</i></b>	After completing three years for Bachelors in Commerce (B.Com) program, students would gain a thorough grounding in the fundamentals of Commerce, management, finance and economics.
<b><i>PO-02</i></b>	Students will be able to recognize features and roles of businessmen, entrepreneur, managers, consultant, which will help learners to possess knowledge and other soft skills and to react aptly when confronted with critical decision making.
<b><i>PO-03</i></b>	This program could provide Industries, Banking Sectors, Insurance Companies, Financing companies, Transport Agencies, Warehousing etc., well trained professionals to meet the requirements.
<b><i>PO-04</i></b>	Capability of the students to make decisions at personal & professional level will increase after completion of this course.
<b><i>PO-05</i></b>	Students will be able to demonstrate progressive learning of various tax issues and tax forms related to individuals.
<b><i>PO-06</i></b>	Students will demonstrate progressive affective domain development of values, the role of accounting in society and business.
<b><i>PO-07</i></b>	Learners will be able to prove proficiency with the ability to engage in competitive exams like CA, CS, ICWA and other courses.
<b><i>PO-08</i></b>	Learners will acquire the skills like effective communication, decision making, problem solving in day to day business affairs.

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## **Programme outcomes: Bachelor of Science**

### **Enable the Students to:**

- Acquire the basic knowledge of various subjects in pure Sciences viz Physics , Chemistry , Botany, Zoology, Mathematics etc
- Understand the fundamental principles and scientific theories related to various natural and scientific phenomena and their importance in day to day life.
- Learn the skill of handling scientific instruments, planning and performing experiments in laboratory.
- Attain the ability to analyse the data obtained during the experiments and to draw conclusions out of the data so obtained.
- Acquire the ability to think creatively and to propose new ideas while explaining the problem.
- Realize how various science subjects are related to each other and how interdisciplinary approach helps in providing better solutions and new ideas for sustainable development.
- Imbibe ethical, moral and social values in personal and social life leading to highly cultured and civilized personality.
- Realize that pursuit of knowledge is never ending activity and discipline and positive attitude leads to a successful life.

## ARABIC

### COURSE AND COURSE SPECIFIC OUTCOMES

Arabic in addition to being an important language in many countries is taught as an important subject cum Language at all levels especially in Muslim majority countries. Most of the Islamic literature is found in Arabic script. Arabic language is integral part of Persian literature too. It has Global existence as Holy Quran and other authentic books of Hadith are in same language.

### COURSE OUTCOMES

S.no	Semester	Title of Course	Type of Course	credits	Course out come
01	<b>Ist Sem.</b>	Arabic Text and Grammar-I	DSC-I	06	To impart knowledge on basic principles of Arabic Grammar and its role in Arabic Language. Also teaching all basics of Arabic Grammar used in day to day Life
		Reading and Writing Arabic-I	MIL-Arabic-I	06	
02	<b>2<sup>nd</sup> Sem.</b>	Reading and writing Arabic-II	MIL – Arabic-II	06	Basic knowledge on Arabic Grammar and its use in reading, writing and in day to day activities and enhancing vocabulary.
		Arabic Text and Grammar-II	DSC-II	06	
03	<b>3<sup>rd</sup> Sem.</b>	Spoken Arabic-I	SEC-I	04	To teach basics of Arabic Speaking skills and usage of Grammatical skills in prose and poetry
		Arabic Text and Grammar -III	DSC-III	06	
04	<b>4<sup>th</sup> Sem</b>	Arabic Text and Grammar-IV	DSC-IV	06	To enable the students how to use different grammatical rules while speaking and in prose and poetry at different situations etc
		Spoken Arabic-II	SEC-II	04	

05	<b>5<sup>th</sup> Sem.</b>	Grammar and Translation-I	DSE-I B	06	<p>To teach rules of translation of Arabic into other language and vice versa. To enable the students to develop vocabulary skills and to learn practical approach towards the Arabic Language.</p> <p>To enable students to learn reading, writing and translation skills regarding Classical poetry, Modern Prose and Modern Poetry as well as the use of Practical aspects of Arabic Language and Grammar like typing, composing and setting of Arabic Language.</p>
		Basic Grammar and Language Comprehension	GE-I	06	
		Arabic Typing , Composing and Setting	SEC-III	04	
		Literary Arabic Text-I	DSE-I A	06	
06	<b>6<sup>th</sup> Sem.</b>	Arabic Text and Applied Grammar	GE-II	04	<p>To enable students to learn Essential Arabic and new Arabic Grammar and also it touches with Arabic Text. To impart education on how to draft Letters of various types and introduction to use of Internet in surfing some important Arabic Sites. To make students well versed with Classical prose, poetry and Modern prose cum poetry. To learn translation of sentences from Arabic into English and vice –versa. To learn the skill of Paragraph writing and Conversation</p>
		Practical and Commercial Arabic	SEC-IV	06	
		Literary Arabic Text-II	DSE-II A	06	
		Grammar And Translation -II	DSE-II B	06	

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## **Bio-Chemistry**

Biochemistry occupies a central niche in the life sciences and encompasses wide range of disciplines such as molecular biology, cell biology and newer areas such as bioinformatics. With the introduction and advent of new techniques the scope of this subject has widened further. Biochemists have always newer and exciting opportunities when it comes to jobs. Be it a clinical laboratory, basic research laboratory, R&D centre or an agricultural industry, the biochemists are always a first choice. Biochemists are always a choice in pharmaceutical and agrochemical companies for testing and development of new drugs. Introduction of Biochemistry at UG and Higher secondary school levels is a great opportunity for those interested in teaching. Students opting for biochemistry need firm qualities like perseverance, dedication and team spirit. By virtue of these qualities the sky is the limit of one's progress and development.

Believing in team spirit, the collective efforts of both teaching and non-teaching staff are key to success, progress and development of this Department in times to come.

### **Learning Outcomes:**

1. Students who Graduate in Biochemistry will be able to:
2. Demonstrate an understanding of basic biochemical principles, such as the structure and/or function of biomolecules, metabolic pathways, and the regulation of biological/biochemical processes.
3. Gain proficiency in basic laboratory techniques in both chemistry and biology, and be able to apply the scientific method to the processes of experimentation and hypothesis testing.
4. Apply and effectively communicate scientific reasoning and data analysis in both written and oral forums.
5. Understand and practice the ethics surrounding scientific research.

6. Establish a diagnostic laboratory

S.No .	Course Code	Course Title	Course Outcome
1.	DSC-1A	Biomolecules	The objective of this course is to introduce the students to biomolecules with an expected outcome to understand the different concepts in later courses of Biochemistry.
2.	DSC-1B	Cell Biology, Microbiology & Immunology	This course aims to introduce the students to basic concepts in cell biology, microbiology and immunology with an expectation to learn how these systems could be lethal once they are dysregulated.
3.	DSC-1C	Enzymology	Via this course students are introduced to concept of biocatalysts (enzymes) with an expectation to learn how they could be used in disease prognoses/diagnoses.
4.	DSC-D	Intermediary Metabolism	Metabolism is central to biochemistry and thus this course aims to introduce the students to Biochemistry with an expectation to learn how biochemistry is central to disease diagnosis, prognosis, therapeutic intervention, biochemical industry and/or medicinal industry.
5.	DSE-1A	Biophysical and Biochemical Techniques	This course introduces the students to basic techniques with an expectation to train/induct them for biological research in academia and industry.
6.	DSE-1B	Molecular Biology	This course introduces the students to flow of information in biological systems with an expectation to learn as how this (information) could be manipulated for better life and healthy ageing.



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## **Botany**

Biology is one of the subjects that help in shaping the professional careers of every person like a doctor, chemist, environmentalist, nurse, physiologist, scientist or other professions that are not inclined to science. Studying the scientific concepts of life and other organisms is going to be a useful tool in achieving success in any chosen field of study. Biology is the subject to understand life and its processes. It provides an in-depth, scientific understanding of what, how, when and where the different life processes work and how living and non-living organisms interact with each other. It provides us insight about the diverse flora and fauna, besides explains the different physiological processes that occur in the living organisms and explains in detail about the different principles and laws to understand the mechanism of heredity.

### **Course Specific Outcomes**

#### **BG 1<sup>st</sup> Semester**

##### **Core Course title: Biodiversity (Microbes, Algae, Fungi and Archegoniate)**

This course aims at to aware the students about the plant diversity, like Algae, Fungi, Bryophytes, Pteridophytes and Gymnosperms that flourishes and dominates in different climatic conditions at different altitudes.

- This course is designed to acquaint the students about the flora of earth and their diversity.
- This course intends to aware students about the general characters, structure, diversity and life cycles of microbes.
- The aim of the course is to acquaint the students about the different types of life cycles of plants.

### **Course Specific Outcomes**

#### **BG 2<sup>nd</sup> Semester**

##### **Core Course title: Plant Ecology and Taxonomy**

This course specifies the ecology of soil, its formation and composition, adaptations of different plant communities and characteristics of different plant communities. The dependency of animals on plants and their interaction provides

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an insight as how they live within the same and different niches in a habitat and how much important it is for their survival. It is difficult to distinguish almost similar types of plants in a field, so rules and regulations have been formulated to do so and thus aim of the course is:

- To help the students to understand the origin and formation of soil.
- To understand the characteristics of different plant communities and their adaptations to different environmental conditions.
- To aware the students about the rules and regulations of plant identification in a field which although appear to be of the same type.
- To aware students about the different types of interactions in an ecosystem and their importance for the ecological balance thus for the balance of nature.

### **Course Specific Outcome**

#### **BG 3<sup>rd</sup> Semester**

##### **Core Course title: Plant anatomy and Embryology**

This course has been included in the syllabus at the under graduate level so as the students come to know about the basics of plant tissues and organs, flowers and embryology and different structures associated with them. Thus the aim of the course is to:

- Aware students about the different types of tissues, functions and modifications associated with them.
- Aware students about the theories that have been formulated to understand the tissue organisations in plants.
- Acquaint students about the general structure of the plant anatomy and adaptation of plants to diverse climatic conditions.
- Acquaint students to know about the flowers and their diverse forms.
- Acquaint students about the formation of fruits, the factors and reasons for the success of a plants survival.

### **Course Specific Outcomes**

#### **BG 4<sup>th</sup> Semester**

##### **Core Course title: Plant physiology and metabolism**

The different types of physiological processes that occur in the living organism, both in plants and animals and their importance can surely helps one to think and

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understand about the nature and thus may prove helpful to develop critical thinking among the students. This course is intends to:

- Aware students about the different physiological processes that occur within the plant like photosynthesis, respiration, transpiration etc.
- Help the students to know as how the different physiological processes help the plant to survive in normal and extreme conditions of environment.
- Aware students about the intricate network of processes that occur and function in different organelles of the cell without interfering one another.

### **Course Specific Outcomes**

#### **BG 5<sup>th</sup> Semester**

##### **Core Course title: Cell and Molecular Biology**

The subject of cell biology provides in depth knowledge about the different cell organelles and their functions. How these different cell organelles function under the guidance and control of different signals. It provides insight as how the different functions performed by these organelles are important for the survival of the living organisms. The aim of the course is to:

- Aware students about the different properties of the cell and different organelles that occur within the cell.
- Aware the students about the characteristics of these cell organelles and their role in the cell.
- Aware the students about the different types of genetic materials that occur within the cell.
- Aware the students about the regulations of the genes.

### **Course Specific Outcomes**

#### **BG 6<sup>th</sup> Semester**

##### **Core Course title: Genetics and Plant Breeding**

Life processes continue till the death of the organism but the traits are being forwarded/ succeeded only if the plant bears the fruit, otherwise the blue print of the organism vanish immediately after its death. This course has been introduced at

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the undergraduate level to understand the basics of genetics and breeding. This course focuses on:

- To aware students about the basic principles of inheritance and drawbacks of Mendelian genetics.
- To aware students about the theories of inheritance and experiments.
- To aware students about the origin, domestication and conservation of Germplasm.
- To aware students about the different methods and techniques for crop improvement.

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## Chemistry

Chemistry is introduced at undergraduate level to develop necessary aptitude and skills among undergraduate students to pursue careers in academia and industry (pharmaceutical, analytical, material, etc.). After this course, students develop aptitude to join Master of Science (M.Sc.) Chemistry course to develop further efficiency in academia and industry. This course develops the understanding of the basic principles of chemical science and widens the wisdom of the undergraduates regarding issues and trends in chemical science. This course develops an understanding of composition, structure and reactivity of chemical systems among the students. Besides, various skill enhancement courses have been introduced in the subject Chemistry to develop skills among the undergraduates related to cosmetic products, drugs, green chemical approaches, etc.

### **Course Specific Outcomes**

#### **BG 1<sup>st</sup> Semester**

**Core Course Code: CH120C**

**Credits: 06**

- ✓ This course intends to develop a basic understanding of chemical bonding and molecular structure, which forms the corner stone of chemical science.
- ✓ Students learn about the composition, structure and properties of s block elements.
- ✓ This course acquaints students with the understanding of the very important concept of aromaticity.
- ✓ Students learn about the stereochemistry and stereochemical aspects of chemical reactions.
- ✓ Students learn about the synthesis, structure and reactions of very important classes of organic compounds including alkenes, dienes, alkynes and alkyl halides.
- ✓ The lab courses help students in learning about the experimentation in inorganic and organic chemistry. Students learn about volumetric analysis, standardization, elemental detection, and chromatography.

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## **BG 2<sup>nd</sup> Semester**

**Core Course Code: DSC-2B**

**Credits: 06**

- ✓ This course aims to develop a basic understanding of thermodynamics, thermodynamic systems, thermodynamic processes and equilibrium among students.
- ✓ Students learn about basics of electrochemistry and the applications of the same in the different chemical and physical processes.
- ✓ This course acquaints students with the understanding of the synthesis, structure and reactivity of the different classes of organic compounds containing oxygen.
- ✓ The lab courses help students in learning about the experimentation in physical and organic chemistry.
- ✓ Students learn about calorimetry, energy changes in neutralization reactions, ionization processes, etc.
- ✓ Students acquire training in pH metry via colorimetry and electrometry.
- ✓ Students learn about the purification of organic compounds by crystallization and distillation, and also learn about the criteria of purity through the determination of melting and boiling points.

## **BG 3<sup>rd</sup> Semester**

**Core Course Code: DSC-2C**

**Credits: 06**

- ✓ This course targets to develop in students a basic understanding of the chemistry of p block elements with special emphasis on boranes, carbides, nitrogen compounds, oxygen compounds, halogen compounds and noble gases.
- ✓ Students learn about the chemistry of transition and inner transition elements.
- ✓ This course acquaints students with the understanding of chemical equilibrium and solution thermodynamics.
- ✓ Students gain in-depth knowledge of chemical kinetics and photochemistry.
- ✓ The lab courses help students in learning about the experimentation in inorganic and physical chemistry.

- ✓ Students learn about qualitative analysis of acidic and basic radicals from unknown mixtures.
- ✓ Students acquire training in paper chromatographic separation and identification of metal ions from mixtures containing two metal cations.
- ✓ Students learn about the construction of phase diagram of binary systems, determination of the critical temperature and composition, etc.
- ✓ The lab course also makes students to learn about the study of the kinetics of different types of chemical reactions such as iodine-persulphate reaction, acid hydrolysis of methyl acetate with hydrochloric acid, saponification of ethyl acetate, etc.

### **BG 4<sup>th</sup> Semester**

**Course Code: DSC-2D**

**Credits: 06**

After the end of this course students will be able to:

- ✓ Recognize the bonding in transition compounds by VBT & CFT theories, predict the geometry of coordination compounds and predict the Spectral and Magnetic properties of coordination compounds.
- ✓ Recognize the biological role of alkali, alkaline earth and transition metal ions.
- ✓ Fully comprehend the chemistry of many heterocyclic products and various chemical properties of ammonia derivatives.
- ✓ Classify matter by its state and bonding behavior using the periodic table references.
- ✓ Explain the quantitative relationship between T, V, n, P as described by Kinetic Theory of Gases.
- ✓ Understand the X-Ray diffraction pattern of various types of crystal structures viz FCC, BCC, Simple Cubic.
- ✓ Explain the various terms used in Rotational, Vibrational, UV & NMR spectroscopy.
- ✓ Understand how various types of spectroscopic techniques are used for structure elucidation.

The lab course intends to familiarize the students about various types of techniques like Gravimetry, Titrimetry, Spectrophotometry, Polarimetry etc which will help them in their future research endeavors.

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**BG 5<sup>th</sup> Semester****Course Code: CH516DA****Credits: 06**

The primary goal of this course is to make students aware of how chemical processes can be designed, developed and run in a sustainable way. Students acquire the competence to think of chemistry as a sustainable activity. Students learn the basic principles of Green Chemistry. They will be able to do and understand stoichiometric calculations and relate them to green process metrics; They learn alternative solvent media and energy source for chemical processes. They learn about renewable feedstock for chemical industry present and under development. They learn how the conventional chemical reactions can be carried out in an environment friendly way using microwaves and ultrasound waves.

They perform laboratory experiments in which they apply some concepts previously learnt (like Atom Economy, Stoichiometry) and they put in practice some of the Principles of Green Chemistry.

**BG 6<sup>th</sup> Semester****Course Code: CH616DA****Credits: 06**

This Course is designed to familiarize the students about various instrumental methods used for Chemical Analysis. Students learn about the electromagnetic spectrum, wave parameters and various phenomenon associated with waves. They will get to learn about the principle of UV-Visible Spectroscopy, IR Spectroscopy, Infrared Spectroscopy, and Atomic Spectroscopy. After the end of course students are supposed to know about the working of modern spectrometers used in above mentioned Spectroscopic techniques.

The students will develop a deep insight of various chromatographic techniques like Gas Chromatography, Liquid Chromatography and their relevance with contemporary research in the subject.



## BACHELORS OF COMMERCE (B.COM)

### *Course Outcomes & Course Specific Outcomes*

<b>B.Com Sem Ist</b>	<i>Financial Accounting</i>	<p>01. To develop conceptual understanding of fundamentals of financial Accounting system and to impart skills in accounting for various kinds of business transactions.</p> <p>02. To equip the students with the preparation of financial statements of non corporate entities and to understand the accounting procedure for consignment and joint ventures</p>
	<i>Business Organisation &amp; Management</i>	<p>01. The course aims to provide basic knowledge to the students about the organisation and management of a business enterprise.</p> <p>02. To enable students to know the importance of employee motivation, leadership and functional areas of management.</p>
<b>B.Com Sem 2nd</b>	<i>Business Laws</i>	<p>01. To impart basic knowledge of the important business legislation along with relevant case law.</p> <p>02. To aware students of various business laws relating to Sale of Goods Act 1930, The Indian partnership Act 1932 and Negotiable instrument Act 1881.</p>
	<i>Business Mathematics and Statistics</i>	<p>01. To familiarize students with the applications of mathematics and statistical techniques in business decision-making.</p> <p>02. To familiarize students with popular Quantitative Tools used in Business, practical exposure on calculation of measures of average, correlation and regression</p>
<b>B.Com Sem 3rd</b>	<i>Company law</i>	<p>01. To impart basic knowledge of the provisions of the Companies Act 2013.</p> <p>02. To provide the knowledge of company, shares and kinds of the company, Memorandum of Association, Articles of Association and prospectus.</p>
	<i>Income Tax Law &amp; Practice</i>	<p>01. To provide basic knowledge and equip students with application of principles and provisions of Income-tax Act, 1961 and the relevant Rules.</p> <p>02. To make students aware about agriculture income, residential status and to understand the provisions and procedure to compute total income under five heads of income i.e. salaries, house property, profits &amp; gains from business &amp; profession, capital gains and other sources.</p>

	<i>Personal Selling and Salesmanship</i>	<p>01. To familiarize the students with the fundamentals of personal selling and the selling process.</p> <p>02. To understand selling as a career option and how to be a successful salesman.</p>
<b>B.Com Sem 4th</b>	<i>Corporate Accounting</i>	<p>01. To enable the students to acquire the basic knowledge of the corporate accounting and to learn the techniques of preparing the financial statements.</p> <p>02. To provide the knowledge of companies accounts including Accounts of Holding Company, Banking Company accounts and liquidation process.</p>
	<i>Cost Accounting</i>	<p>01. To acquaint the students with basic concepts used in cost accounting, various methods involved in cost ascertainment and cost accounting book keeping systems.</p> <p>02. To understand knowledge of cost accounting, single output costing, material cost, labour cost and overhead</p>
<b>B.Com Sem 5<sup>th</sup></b>	<i>Banking and Insurance</i>	<p>01. To impart knowledge about the basic principles of the banking and insurance.</p> <p>02. To familiarize the students with the basic concepts of crossing and endorsement, bank lending, internet banking and principles of insurance.</p>
	<i>Fundamentals of Investment</i>	01. To familiarize the students with different investment alternatives, introduce them to the framework of their analysis and valuation and highlight the role of investor protection.
	<i>Indian Economy</i>	<p>01. To enable the students to grasp the current economic problems in India.</p> <p>02. To acquaint students with the major policy regimes of government to resolve problems in agriculture, industry and service sector of India.</p>
<b>B.Com Sem 6<sup>th</sup></b>	<i>International Business</i>	<p>01. To familiarize the students with the concepts, importance and dynamics of international business and India's involvement with global business.</p> <p>02. The course also seeks to provide theoretical foundations of international business to the extent these are relevant to the global business operations and developments.</p>

	<i>Consumer Protection</i>	<p>01. To familiarize the students with of their rights as a consumer, the social framework of consumer rights and legal framework of protecting consumer rights.</p> <p>02. To provides an understanding of the procedure of redress of consumer complaints, and the role of different agencies in establishing product and service standards.</p>
	<i>Growth and Development</i>	<p>01. To expose the student to the basic concepts of growth and development.</p> <p>02. To familiarize the students with the basic concepts of human development, sustainable development and capital formation.</p>

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## **DISASTER MANAGEMENT**

The course of disaster management was introduced as skill enhancement course in the year 2018, it is common to all the students of undergraduate level taught in 3rd and 4th semesters to arts and medical streams respectively. The aim of this programme is to, through knowledge, experience and research build capacities that will reduce disaster risks and contribute to better and more targeted public health based relief following disasters. The course has the following objectives:

- I. To Increase the knowledge and understanding of the disaster phenomenon, its different contextual aspects, impacts and public health consequences.
- II. To increase the knowledge and understanding of the International Strategy for Disaster Reduction (UN-ISDR) and to increase skills and abilities for implementing the Disaster Risk Reduction (DRR) Strategy.
- III. To ensure skills and abilities to analyze potential effects of disasters and of the strategies and methods to deliver public health response.
- IV. To ensure skills and ability to design, implement and evaluate research on disasters

### **Course specific outcomes**

- **Course title:DM418**

### **Course code:SEC(CBCS)**

The generic outcomes of the course encompass a series of capacities that will allow the student to demonstrate knowledge and understanding of the role of Public Health in disaster situations, including both a broad command of the field and a deeper knowledge of specific areas, together with insight into current research and development work and to demonstrate deeper methodological knowledge related to their chosen study track:

- Capacity to integrate knowledge and to analyze, evaluate and manage the different public health aspects of disaster events at a local and global levels, even when limited information is available.
- Capacity to describe, analyse and evaluate the environmental, social, cultural, economic, legal and organisational aspects influencing vulnerabilities and capacities to face disasters.
- Capacity to work theoretically and practically in the processes of disaster management (disaster risk reduction, response, and

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recovery) and relate their interconnections, particularly in the field of the Public Health aspects of the disasters.

- Capacity to manage the Public Health aspects of the disasters.
- Capacity to obtain, analyse, and communicate information on risks, relief needs and lessons learned from earlier disasters in order to formulate strategies for mitigation in future scenarios with the ability to clearly present and discuss their conclusions and the knowledge and arguments behind them.
- Capacity to analyse and evaluate research work on the field of emergencies and disaster while demonstrating insight into the potential and limitations of science, its role in society and people's responsibility for how it is used.

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## Economics

Education is an investment in the human resource and can be termed as human resource capital formation. Education seeks transformation and realization of inherent capabilities in human beings. Subject of Economics makes students learn the basic theme of life that is, “making choice in scarcity” and to prioritise what is most important. This is all what basically economics dealt with. Learning and understanding economics at a young age is a lifetime achievement and it teaches us What we face in our daily life and help us in decision making. Role of Economics is very much vibrant, well understood and visible in the society. However a bachelors/UG course in economics equips students with basic theory of the subject as well as applied statistics and mathematics complementary to it.

- The students learn the qualities of leadership and decision making at a young age, helping them though out their life in their respective pursuits and professions.
- The students develop a good theoretical knowledge and technical knowhow of applied mathematics, statistics and computers and are trained to face the tough competitive job market.
- The students develop analytical thinking and research temper to see the real world in their own way and to develop a different perspective and opinion.
- Skill development courses introduced in the college curriculum will definitely help the students to divert their minds from mere Government or private jobs and will help them explore other lucrative ventures as well.

### Economics Courses Offered in GDC Tral

1<sup>st</sup> Semester Principles of Microeconomics-I CR-ECO-I

2<sup>nd</sup> Semester Principles of Microeconomics-II CR-ECO-II

3<sup>rd</sup> Semester Principles of Macroeconomics-I CR-ECO-III

4<sup>th</sup> Semester Principles of Macroeconomics-II CR-ECO-IV

5<sup>th</sup> Semester Public Finance ECO516DB

6<sup>th</sup> Semester Economic Development and Policy in India-II ECO616DB

### Course Attainment

There is no dearth of jobs for students pursuing course in economics in the job market. Students with economics are easily absorbed in state administrative and statistical services, accounts, academics etc.

They are hired as research analysts, entrepreneurs, innovators, planners and policymakers.

The detailed prospective for students with the subject of Economics at UG level are as:

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1. The subject of economics has a wider scope as compared to other social science subjects.

2. The students of economics are very dynamic and can be appointed in various departments of Government and private sector as they can qualify various prestigious exams like IES, KES, IAS, KAS and various state level exams such as SA, JSA, Accounts related jobs, Finance related jobs, Bank jobs etc; where bachelors in economics is the basic eligibility.

3. People knowing economics well have started their own private business and have made their lives independent in today's world of job scarcity.

4. Most of the students enrolled in the college belong to orchard owning families. The subject of economics helps the families through their kids to realize the benefits of effective demand, demerits of glut and search for new markets and efficient technology. The application part begins from their families first.

This way the subject of economics provides boost to the horticulture sector through its application. Also through this subject the students become a source of income for their families.

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## EDUCATION

The subject Education is introduced at undergraduate level to develop necessary skills and aptitude among the undergraduate students to pursue teaching as profession. After this course, students develop an aptitude to join Bachelor of Education (B. Ed) course to develop further efficiency in teaching. This course develops the basic understanding of accepted principles of teaching and learning and widens the understanding of the undergraduates regarding issues and trends in Indian education. This course develops an understanding of sociological, psychological, and philosophical bases of education among the students. Besides, various skill enhancement courses have been introduced in the subject Education to develop the skills among the undergraduates related to early child hood care and guidance and counselling.

### **Course Specific Outcomes**

#### **BG 1st Semester**

**Core Course Code: ED116**

**Core course title: Educational Sociology**

**Credits: 6**

- This course intends to develop a basic understanding of concept, aims and functions of education among the undergraduates.
- It also enables the students to understand the concepts of sociology, educational sociology and the relationship between the two.
- This course also acquaints the students with the concept of social change, factors responsible for social change and role of education in bringing about social change.
- This course makes an attempt to enable the students to understand the concept of culture, its types, characteristics and the relationship between Education and Culture.
- It also enables the students to understand the concept and types of social processes.
- It also acquaints them with the major social problems facing Indian society viz Poverty, Illiteracy, Gender Discrimination and Child Labour.

#### **BG 2nd Semester**

**Core Course Code: ED216**

**Course title: Educational Psychology**

**Credits: 6**

- This course is introduced to enable the students to understand the meaning and scope of psychology & educational psychology and relationship between education and psychology.
- This course is intended to acquaint the students with the nature and theories of learning viz. trial & error, Class Conditioning, Operant Conditioning and gestalt theories of learning.



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- It also acquaints the students with the basic understanding of the concepts of intelligence, intelligent quotient, intelligence tests and the theories of intelligence.
  - It also enables the students to understand the concept and theories of personality viz Sigmund Freud's Psychoanalytic theory , Allport's and Cattell's Trait theory.

### **BG 3rd Semester**

**Core Course Code: ED316**

**Course title: Educational Philosophy**

**Credits: 6**

- This course is introduced to acquaint the students with the nature and scope of philosophy, and its relationship with science, religion and education
- It enables them to understand the major philosophies of education i.e. Idealism and Pragmatism and their bearings on education.
- It also enables the students to understand the educational contribution of John Dewey, R.N. Tagore, Maulana Abul Kalam Azad, Dr. Iqbal and M.K.Gandhi with special reference to the concept, aims, curriculum, methods of teaching and role of teacher.

### **Skill Enhancement Course: Early Childhood Care and Education**

**Course Code: ECC316**

**Credits: 4**

- This course is designed to acquaint the students with meaning and importance of ECCE in the current scenario.
- It enables them to understand the method of child study viz observation and case study.
- It also acquaints them to understand the developmental characteristics of early childhood stage in different domains of development viz physical, mental, social and emotional.
- It equips the students with the measures for fostering creativity among young children.
- It enables them to understand the role of ICDS in the all round development of the child.
- It also acquaints them to understand the role of NGO's like Pratham in ECCE.

### **BG 4th Semester**

**Core Course code: ED 416**

**Course title: History of Education System in India**

**Credits: 6**

- This course intends to enable the students to gain knowledge about the system of Indian Education during Vedic, Buddhist and Medieval periods.
- Influence of Britishers on Indian Education. Impact of British commissions and committees on Indian education.
- Growth and development of Education in Post-Independence Era.

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- Growth and development of Education in J& K with special reference to kazmi committee report and Bagwan Sahi committee report.

### **BG 5th Semester**

**Core course code: ED516**

**Course title: Issues and Trends in Contemporary Indian Education - I**

**Credits: 6**

- This course is designed to acquaint the students with meaning and objectives of secondary education.
- It enables them to understand the role of RMSA in the Secondary Education.
- It also acquaints them with the nature and objectives of higher education and role of RUSA in Indian higher education system.
- It also enables them to understand the issues related to women education, value education and environmental education.

### **BG 6th Semester**

**Core Course Code: ED616**

**Course title: Issues and Trends in Contemporary Indian education- II**

**Credits: 6**

- This course is designed to acquaint students with the need and objectives of adult education.
- It enables to understand the types of exceptionality, identification and educational provisions for gifted, mentally retarded and delinquents.
- It also acquaints them to understand the fundamental principles of guidance and counselling.
- It also enables them to understand and compute the measures of percentile and relationships.

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## English

### **Programme Objectives for General English & English Literature at Under-Graduate Level:**

- To enable students develop a broad range of skills including general communicative competence and sophisticated reading and writing skills through inter-disciplinary, intra-disciplinary and skill based courses.
- To enable students hone their critical processes for the comprehension, appreciation and evaluation of English Literature in general and literary texts in particular.
- To enable students assimilate historically informed and geographically diverse perspectives on English Literature
- To expose students not only to an exciting range of texts from across the spectrum of canonical English Literature and Language Writing but also to indigenous languages and literatures.
- To prepare students for employment not only in academic institutions but also other organisations enhancing academia-industry linkages thereby.

### **Course Objectives:**

#### **1. 1<sup>st</sup> Semester:**

##### **A. Subject: General English-I (GEN120):**

- **Unit I: One Act Play:**

The unit provides an opportunity to students to read and appreciate genre of Drama, especially its sub-type One Act Play. Besides helping them in understanding the basic structure of drama, it enables them to know and appreciate the richness and variety of drama and its different forms.

- **Unit II: Essays:**

Besides improving the reading and listening skill of the students, this unit aims to acquaint students with some pertinent issues of contemporary relevance.

- **Unit III: Poetry:**

To introduce students to the important genre of poetry and its different sub-genres. A thorough analysis of texts enhances their reading and critical skills and enables them to acquire competence to understand difficult texts.

- **Unit IV: Short Story:**

To introduce students to the genre of prose, an important form of writing across ages. This unit also helps students understand the distinction between the stylistic/thematic differences between different prose writers.

## **B. English Literature: British Poetry-I**

- To introduce students to the important genre of poetry and great English poets like Chaucer, Shakespeare and Milton. A thorough analysis of texts enhances their reading and critical skills and enables them to acquire competence to understand difficult texts.

## **C. Ability Enhancement Compulsory Course-I**

### **Unit I: Essays:**

Besides improving the reading and listening skill of the students, this unit aims to acquaint students with some pertinent issues of contemporary relevance.

### **Unit II: Short Story:**

To introduce students to the genre of prose, an important form of writing across ages. This unit also helps students understand the distinction between the stylistic/thematic differences between different prose writers.

- **Unit III: Poetry:**

The unit is aimed to introduce the students to the genre of English poetry. It helps them acquire and develop sophisticated reading skills and understand the creative use of English language

- **Unit IV: Science Fiction:**

The students gain an understanding of the contemporary form of novel writing by reading an extract from two Science Fiction novels. Through this course, the students gain an understanding of global literatures by addressing the specificities of various cultural positions. Students gain an insight into the broadening of the subject matter of the canonical English novel.

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## 2. 2<sup>nd</sup> Semester:

### A. General English-II

- **Unit I: Travelogue:**

The unit focuses on the area of travel writing and such related concepts as memoir, diary, travelogue etc. The students gain an insight into the intersection between journeying and literature. The course also benefits the students by enriching their creative, imaginative usage of language.

- **Unit II: Prose:**

To introduce students to the genre of prose, an important form of writing across ages. This unit also helps students understand the distinction between the stylistic/thematic differences between different prose writers.

- **Unit III: Poetry:**

The unit is aimed to introduce the students to the genre of English poetry. It helps them acquire and develop sophisticated reading skills and understand the creative use of English language.

- **Unit IV: Autobiography:**

The unit introduces the students to the genre of autobiography which has gained importance in the present postcolonial and postmodern times. The students are made to understand the diverse forms of autobiographical writing like autobiography, memoir, testimonial, personal blogs, and conversion narrative. It also explores the ways in which writers construct and represent memory and the impact these narratives have on our understanding of the political and cultural context in which they are produced.

### B. English Literature: British Drama:

The said course provides an opportunity to students to read and appreciate some more texts of English Drama. It enables them to know the historical and socio-political context of the respective ages in which these plays were written.

## 3. 3<sup>rd</sup> Semester:

### A. General English: EN320: English-I

- **Unit I: One Act Play:**

The unit provides an opportunity to students to read and appreciate genre of Drama, especially its sub-type One Act Play. Besides helping them in understanding the basic structure of drama, it enables them to know and appreciate the richness and variety of drama and its different forms.

- **Unit II: Memoir:**

The unit introduces the students to the genre of memoir. The students are made to understand the diverse forms of autobiographical writing like autobiography, memoir, testimonial, personal blogs, and conversion narrative. It also explores the ways in which writers construct and represent memory and the impact these narratives have on our understanding of the political and cultural context in which they are produced.

### **B. English Literature: British Poetry- II**

- To introduce students to the important genre of poetry and great English poets like William Wordsworth, Shelley, Keats, Tennyson and W.B. Yeats. A thorough analysis of texts enhances their reading and critical skills and enables them to acquire competence to understand difficult texts.

## **4. 4<sup>th</sup> Semester:**

### **A. General English: EN420: English-II**

- **Unit I: Prose:**

To introduce students to the genre of non-fiction, a very important form of writing in the contemporary world. Non-fictional writing, especially essays, provides students an in-depth knowledge of some contemporary issues of importance and also helps them understand the difference between fictional and non-fictional modes of writing.

- **Unit II: Group Discussion, Interview, Presentation, Telephonic Conversation:**

The unit focuses on the use of English in various situations and for varied purposes like Group Discussion, Interview,

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Presentation, Telephonic Conversation. Students from diverse streams are taught important communication skills keeping their needs in mind. Active participation of students is ensured so that they are equipped with necessary skills.

**B. English Literature: British Novel (EL420C):**

The course, is aimed to introduce them to some important novels in English. This proves immensely useful as students are exposed to different cultural contexts and experiences. It allows them to learn the English language through its creative usage at the hands of novelists.

**C. Skill Enhancement Course:**

**English language Teaching (ELT) EN418S:**

- The course, meant for students of other departments, helps them understand the various dimensions of Communication Skills. This course gives them enough opportunity to hone their proficiency in various communication skills and become effective speakers, readers and writers of the English language. Besides, the course aims to introduce students to the scientific study of language, that is linguistics, with a special focus on the branches of linguistics, traditional grammar, phonetics and sociolinguistics. The course helps students develop a conscious scientific knowledge about language in general and English language in particular which ultimately helps them to become effective language teachers.

**5. 5<sup>th</sup> Semester:**

**A. General English: English III**

• **Unit I: One Act Play:**

The unit provides an opportunity to students to read and appreciate genre of Drama, especially its sub-type One Act Play. Besides helping them in understanding the basic structure of drama, it enables them to know and appreciate the richness and variety of drama and its different forms.

• **Unit II: Memoir:**

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The unit introduces the students to the genre of memoir. The students are made to understand the diverse forms of autobiographical writing like autobiography, memoir, testimonial, personal blogs, and conversion narrative. It also explores the ways in which writers construct and represent memory and the impact these narratives have on our understanding of the political and cultural context in which they are produced.

**B. English Literature: American Literature (Option 1)/  
Literary Criticism (Option 2):**

- **Option 1:** To introduce students to literature other than the British canon. It helps to trace the history of American literature especially the novel and enables the students to connect America's political and cultural evolution with its literature. A thorough analysis of texts enhances their critical and linguistic skills and broadens their perspective. It further exposes students to the developments in American poetry and Drama. Students gain a critical understanding of American literary modernism through an exposure to seminal poems, plays of the modern era in American literature
- **Option 2:** To introduce students to the fundamentals of literary theory and criticism. It takes the students to the world of ideas and inculcates a critical sense in them. The course enables them to appreciate literature better and relate it to other discourses like philosophy, psychology, sociology and politics. It exposes students to the progression of thought from classical to modern times regarding various aspects of literature.

**C. Skill Enhancement Courses (SEC):**

**English Writing Skills (EN517S):**

The course focuses on the use of English in various situations and for varied purposes. Students from diverse streams are taught important communication and writing skills keeping their needs in mind. Active participation of students is ensured so that they are equipped with necessary skills.



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## **D. English Literature: Generic Elective:**

### **English Literature: (EL516CG): British Poetry:**

To introduce students to the important genre of poetry and great English poets like Chaucer, Shakespeare and Milton. A thorough analysis of texts enhances their reading and critical skills and enables them to acquire competence to understand difficult texts

## **6. 6<sup>th</sup> Semester:**

### **A. General English: English-IV:**

- **Unit I: Prose:**

To introduce students to the genre of prose, an important form of writing across ages. This paper also helps students understand the distinction between the stylistic/thematic differences between the prose writers recommended in this course.

- **Unit II: Letter Writing:**

The course, meant for students of other departments, focuses on the use of English in various situations and for varied purposes. Students from diverse streams are taught important communication and writing skills keeping their needs in mind. Active participation of students is ensured so that they are equipped with necessary skills.

### **B. English Literature:**

- **Option 1: English Literature: Indian Writing in English (EL620DA):**

To introduce students to the important field of Indian Writing in English as a significant example of postcolonial, nationalist writing. Students not only acquire a knowledge of Indian political and cultural history but are also exposed to the creative handling of the English language at the hands of Indian writers.

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- **Option 2: English Literature: Postcolonial Literatures (EL620DB):**

An intensive course that focuses on feminist and nativist writing from colonial cultures in order to expand the students' notion of postcolonial literary representation. Students gain an understanding of textual strategies other than English and American by a reading of some important writers from Africa, India and Australia.

### **C. Generic Elective**

#### **British Drama (EL616CG):**

- The said course provides an opportunity to students to read and appreciate some more texts of English Drama. It enables them to know the historical and socio-political context of the respective ages in which these plays were written.

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## **Environmental Science**

The subject of environmental studies introduced at Undergraduate level in 1st and 2nd Semesters as an ability enhancement course to orient the students regarding environmental issues and preservation thereof. It imparts knowledge regarding ecological well being and environmental sustainability. It also acquaints the students with the natural resources and its conservation. It also enables them to understand the measures for mitigating environmental pollutions.

### **Course Specific Outcomes**

#### **BG Ist Semester**

**Course Code: Evs120A**

**Couse title: 1AECC**

**Credits:4**

The Compulsory course on Environmental Science at Undergraduate level (AECCI) aims to train students to cater to the need for ecological citizenship through developing a strong foundation on the critical linkages between ecology-society-economy.

#### **a) Disciplinary knowledge**

Enable students to develop a comprehensive understanding of various facets of life forms, ecological processes and how humans have impacted them during the Anthropocene era.

#### **b) Critical thinking**

Capability to identify relevant environmental issues, analyse the various underlying causes, evaluate the practices and policies, and develop framework to make informed decisions.

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c) Moral and ethical awareness/reasoning

Develop empathy for various life forms and appreciate the various ecological linkages within the web of life.

## **BG 2nd Semester**

**Course code: Evs220A**

**Course Title 1AECC**

**Credits 4**

The course will empower the undergraduate students by:

- I. Gaining in-depth knowledge on natural processes that sustain life and govern economy.
- ii. Predicting the consequences of human actions on the web of life, global economy and quality of human life.
- iii. Developing critical thinking for shaping strategies (scientific, social, economic and legal) for environmental protection and conservation of biodiversity, social equity and Sustainable development.
- iv. Acquiring values and attitudes towards understanding complex environmental, economic, social challenges, and participating actively in solving current environmental problems and preventing the future ones.
- v. Adopting sustainability as a practice in life, society and industry.

### **Qualification Description**

Graduates will evolve into ecologically informed and socially responsible citizens who are empowered to protect the natural resources while ensuring sustainable lifestyle.

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## Functional English

### **Programme outcome**

The UG programme for functional English has been set out to equip the students with skills that will help them in establishing private enterprise as tutorial centres, consultancy services, human centres for service industry, video filming centres, small radio program production centres and print and graphic art centres; in seeking employment such as in the capacity of interviewer with T.V./radio/newspaper, news reader/script writer with T.V./radio/newspaper, commentator or announcer with T.V./radio, documentary narrator/script writer with T.V./radio, feature writer with newspaper/magazine, receptionist (with the Government such as Public Relations Department resource or with the private sector such as the tourism industry), secretary, desk officer/office assistant, sales representatives, etc.

Moreover, to equip the students with the nuances of the English language which includes proficiency in grammar and its effective usage in speaking and writing. It further helps them to prepare for various competitive exams and to keep up with the increasing demand for English in Indian society and at the global level. It also develops their overall confidence and personality.

### **Course Outcomes**

Semester I

#### **LINGUISTICS**

- To familiarize the students with the origin and development of language with special reference to English
- To introduce the students to various levels of linguistic analysis Phonology, morphology, Syntax and Semantics
- To provide a brief historical survey of the development of Modern Linguistics
- To sensitize the students to the application of Linguistics in different areas

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## Semester II

- To familiarize students with the functions of grammatical items used in spoken /written language.
- To train students to use the language with confidence and without committing errors.

## Semester III

### Business English

To enable the students:

- To learn Fundamentals of Business Correspondence.
- To acquire practical knowledge in Business correspondence.
- To introduce the students to the role, features and use of English for business purposes

## Semester IV

### Listening and Reading

- To equip students to use English Text Books, Reference materials and other sources, in print or on-line for study purposes.
- To develop the reading skills of the students to identify what is important in the text.
- To compare different sources of information and to read critically.
- To improve the listening and speaking skills to enable them to freely Participate in debates discussions etc.

## Semester V

### Translation Studies

- To make students familiar with the basic theories of translation
- To make the study of language inter-lingual by initiating the students to translate texts from regional languages into English and from English into regional languages.
- To equip the students for the profession of translator in diverse fields by imparting training in translation

## Semester VI

### English Language Teaching

- To know the role of teaching English-its methods and techniques

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- To understand the different theories of language learning
  - To have an understanding of problems involved class management and its solutions
  - To have an understanding of the chief varieties of English today

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## **Geography**

Geography mainly concerns changes in spatial attributes in a temporal perspective. The undergraduate 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 advanced concepts of physical and human geography. The third year allows them to concentrate on specific areas of the subject, on which they complete their field reports. After completing the course, the students will be amply prepared for professional careers in geography and allied disciplines like GIS and Remote Sensing.

### **BG 1st Semester**

**Course Title :Physical**

**Course Code: 116**

**Credits :04**

1. Students will understand the concept of place and how it is connected to people's sense of belonging to the physical environment, landscape and culture.
2. Students will understand the fundamental concepts of spatial interaction and diffusion, which explain how human activities are influenced by the concept of distance.
3. Students will be exposed to the nature of physical systems such as geomorphologic processes and natural hazards.
4. Students will be able to read and interpret information on different types of physical features maps.
5. Students will learn how human, physical and environmental components of the world interact.
6. Describing human-environment, and nature-society interactions as well as global human and environmental issues.



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7. Identifying and explaining the planet's human and physical characteristics and processes, from global to local scales.
  8. Evaluating the impacts of human activities on natural environments
  - 9.. Applying knowledge of global issues to local circumstances to evaluate the local effects of the issues
  10. Showing an awareness and responsibility for the environment.

### **BG 2nd Semester**

**Course Code: GG216**

**Course Title: Philosophies and Methodologies in Geography**

**Credits: 04**

1. Gain knowledge about development of geographical thought.
2. Develop an idea about evolution of geographical thinking and disciplinary trends in Germany, France, Britain, and United States of America.
3. Build an idea about between environmental determinism and possibilism, systematic and regional.
4. Know about the trends of geographical thoughts.

### **BG 3rd Semester**

**Course Code :GG316**

**Course Title :Human Geography**

**Credits : 04**

1. Students will develop a solid understanding of the concepts of "space," "place" and "region" and their importance in explaining world affairs.
2. Students will understand general demographic principles and their patterns at regional and global scales.
3. Students will be able to locate on a map major physical features, cultural regions, and individual states and urban centers.
4. Students will understand global and regional patterns of cultural, political and economic institutions, and their effects on the preservation, use and exploitation of natural resources and landscapes .

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1. Students will acquire an understanding of and appreciation for the relationship between geography and culture.
  2. Students will read, interpret, and generate maps and other geographic representations as well as extract, analyze, and present information from a spatial perspective.
  3. Students will have a general understanding of global human population patterns, factors influencing the distribution and mobility of human populations including settlement and economic activities and networks, and human impacts on the physical environment.
  4. Students will be able to think in spatial terms to explain what has occurred in the past as well as using geographic principles to understand the present and plan for the future.

### **BG 4th Semester**

**Course Code : GG416**

**Course Title : Geography Of India**

**Credits : 04**

1. Students will get an introduction to the main regions of the India in terms of both their uniqueness and similarities.
2. Students will be exposed to historical, economic, cultural, social and physical characteristics of India.
3. Students will learn the relationships between the global, the regional and the local, particularly how places are inserted in regional and global processes.
4. In addition to the ability of understanding and reading maps, students will develop cartography skills and will be able to create maps on their own.
5. Students will be introduced to demographic, social and cultural attributes such as migration, social relations and cultural identity.
6. Identifying and explaining the Indian Geographical Environment, from global to local scales.

7. Applying geographical knowledge to everyday living.
8. Applying knowledge of global issues to a unique scientific problem.
9. Showing an awareness and responsibility for the environment and India.
10. Evaluating the impacts of human activities on natural environments special reference to India.

**BG 5th Semester**

**Course Code : GG516**

**Course Title : Economic Geography**

**Credits : 04**

1. This course offers an introduction to the ways in which economic activities are organized over the earth's surface.
2. We all are witnessed to rapidly increasing integration of state economies.
3. The economic processes operating at different geographical scales are depending on the complex economic-political-social interactions that are framed at the global level.
4. The course explores the processes of globalization.
5. Seeks to provide understanding of today's increasingly interdependent world.
6. Recognize the significance of geographic concepts for understanding socio-economic processes and outcomes.
7. Appraise the different ways in which time and space interact and constrain each other with regards to economic activities and articulate how economic processes can be broken down into changes over time and variations across space.
8. Assess how society and economic actors organize themselves in space, the factors driving these complex spatial patterns, and the implications these spatial configurations have for the socioeconomic well-being of affected groups and societies.
9. Appreciate the complexity of economic development processes taking place across the world and how these are influenced by space.

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10. Relate course content to current economic, social, and political events, and identify some of the geographical trends in economic processes and likely outcomes for societies.

**BG 6th Semester**

**Course Code : GG616**

**Course Title : Disaster Management**

**Credits : 04**

1. Understand the definition, classification of hazards and disasters
2. Gain knowledge about approaches to hazard study.
3. Develop an idea about factors, consequences and management of earthquake, landslide, flood and riverbank erosion.
4. Acquire knowledge about human induced disaster.

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## **HISTORY**

History is the record of the past actions of humans based on surviving evidence that shows that all patterns and problems in human affairs are the product of a complex process of growth. By throwing light on that process, history provides a means to benefit from human experience. History teaches us about ourselves and makes us understand and develop proper respect for our collective past. It transmits to us specific skills like asking the right questions, seeking right answers, how to think logically and purposefully. The teaching of history is a social necessity and it shows us our identity. Along with the sense of narrative, it provides us with tools for explanation and analysis. It shows how humanity and society have changed through the course of time. Moreover, it contributed enormously to the maintenance of peace and security, peaceful settlements of international disputes and worldwide improvement of economic and social standards.

### **COURSE OUTCOME**

#### **BG 1<sup>st</sup> SEMESTER**

**CORE COURSE CODE : CR-HS-I**

**CORE COURSE TITLE: ANCIENT INDIA/ANCIENT KASHMIR**

This course deals with the remote past of the Ancient Indian sub-continent. The students of history will acquire knowledge about the primitive life and cultures of the people of ancient India. They will get information about different civilizations, kingdoms and empires that flourished during this period. It focuses on the achievements of rulers in different fields like polity, economy, culture, architecture etc. The students will develop knowledge about the glorious past of ancient Kashmir.

### **COURSE OUTCOME**

#### **BG 2<sup>nd</sup> SEMESTER**

**CORE COURSE CODE : CR-HS-II**

**CORE COURSE TITLE: MEDIEVAL INDIA/MEDIEVAL KASHMIR**

The course discusses the establishment of Delhi Sultanate, its sources, polity and administration besides the causes and consequences of its decline. The unification of Indian sub-continent under Mughal rule fostered a uniform pattern of governance that the paper highlights. The paper also offers an insight to the functioning of state institutions. This course also throws light upon medieval Kashmir right from the establishment of Sultanate up to Sikh period. In this course,

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students will identify the prominent sources, nature of state and politics of medieval India.

#### COURSE OUTCOME

BG 3<sup>rd</sup> SEMESTER

CORE COURSE CODE : CR-HS-III

CORE COURSE TITLE: MODERN INDIA/MODERN KASHMIR

This course aims at developing a basic understanding of how India was colonized and its impact on the Indian economy and society. The course also underlines how the Indians responded to policies of the British. With respect to Modern Kashmir, the students will learn the existence of Jammu and Kashmir state, partition of India and issue of accession. The students are also expected to appreciate the contribution of common masses in bringing major changes.

#### COURSE OUTCOME

BG 4<sup>th</sup> SEMESTER

CORE COURSE CODE : CR-HS-IV

CORE COURSE TITLE: THEMES IN INDIAN ECONOMY AND SOCIAL HISTORY

This course tries to impart among the students the knowledge of Indian economy and social history since the beginning of human settlements. In this course there is a discussion about the forever growing and evolving economy of India during different periods. The students also get knowledge about social and religious changes that occurred at some point in the history like the growth of new religious developments, modern education, various social movements etc.

#### COURSE OUTCOME

BG 5<sup>th</sup> SEMESTER

CORE COURSE CODE : DSE-HS-I

CORE COURSE TITLE: HISTORY OF INDIA SINCE 1947

This course intends to enable the students to gain knowledge about some of the most important political and economic developments in India since 1947. The course also aims to highlight the legacies of Indian National Movement. So far as Kashmir history is concerned, students get information about major political and economic developments that took place after 1947. The students are made to

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understand the intricacies of constitutional arrangement between Centre and the State of Jammu and Kashmir.

## COURSE OUTCOME

BG 6<sup>th</sup> SEMESTER

CORE COURSE CODE : DSE-HS- II

CORE COURSE TITLE: THEMES IN WORLD CIVILIZATION

This course aims to inculcate among the students knowledge about the causes of emergence and significance of different world civilizations that shaped the course of world history. The positives and negatives of various revolutions are emphasized upon to make the students to critically engage with different events of historical significance. At the completion of the course, the students are expected to have developed a complete understanding of different historical events and their impact on the world at large.

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# Kashmiri

Kashmiri Language and Literature subject is introduced at undergraduate level to develop necessary skills and aptitude among the undergraduate students to know and learn about Language, Literature & Culture of main land Kashmir i.e., Kashmiri. It is true that History presents facts but Literature presents truth. It laid readers to the same situation in which the character of the writing live. Hence literature is a powerful tool for behavioural change of human beings. Students who enrol for this course gain a good knowledge about Culture, Language and Geography of Kashmir, which lead them to develop the aptitude towards their life style and helps them to achieve there gaols of life in managed manner. It also preserves Language, literature& Culture and provides a platform for Language development. Besides main course literature, Generic and Skill enhancement courses are familiarized to develop several skills among learners, which service them in several stages of life.

## **Course Specific Outcomes**

### **BG 1<sup>st</sup> Semester**

**Course Code: KLR120C**

**Course title: Kashmiri Literature-I**

**Credits: 6**

- This course intends to develop a basic understanding of concept, terminology, aims and functions of Literature among the undergraduates.
- It also enables the students to understand the Language of literature, Language of daily use.
- This course also acquaints the students with different genres of literature and their style writing, origin and present scenario.
- This course makes an attempt to enable the students to understand the concept of culture, its types, characteristics and importance of different customs which is an essential part of culture in a society.



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- It also enables the students to know about the basic geography of Kashmir.
  - It also acquaints them with the great minds of Kashmiri literature and their work.

### **BG 1<sup>st</sup> Semester**

**Course Code: KRM119L**

**Course title: Kashmiri Language & Literature-I**

**Credits: 6**

- This course is designed to acquaint those students with different forms of poetry who are interested to learn about Kashmiri and literature but have not chosen Kashmiri as main disciplined subject.
- It equants students an introduction of what language is and what is the importance of language in human life.
- It gives a deep introduction to learners about origin and development of Kashmiri Language, its phonology and relation with other language.
- The courses provide learners a platform to learn Kashmiri language wither he/she have learnt it in his/her previous studies or not.
- It enables learners to know about impacts of different languages on Kashmiri language & literature.
- This course also equants learners to learn writing style of Kashmiri language.

### **BG 2<sup>nd</sup> Semester**

**Course Code: KLR220C**

**Course title: Kashmiri Literature-II**

**Credits: 6**

- This course intends to develop deep understanding Kashmiri Literature among the undergraduates.
- It also enables the students to understand Poem and its characteristics and Modern poem in Kashmiri Literature.

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- This course introduces students with a different and very famous genre of literature i.e Gazil with its basic concept and origin and progress of Gazil writing in Kashmiri Literature.
  - This course also enhances the students with classical short story writing in Kashmiri.

### **BG 2<sup>nd</sup> Semester**

**Course Code: KRM219L**

**Course title: Kashmiri Language & Literature-II**

**Credits: 6**

- This course is designed to acquaint those students with different forms of poetry who are interested to learn about Kashmiri and literature but have not chosen Kashmiri as main disciplined subject.
- It equants students with basic grammar of Kashmiri Language (Sentence and its different forms).
- It gives a deep introduction to learners about literary trends of 19<sup>th</sup> century of whole world as well as in Kashmiri Language and literature.
- It also enables learners to learn form, origin and development of Watshun, Gazil, Mathnavi and Sufi poetry.
- It also enables learners to learn about Kashmiri prose, its writing style and different forms prose in Kashmiri literature.

### **BG 3<sup>rd</sup> Semester**

**Core Course Code: KLR320C**

**Course title: Kashmiri Literature-III**

**Credits: 6**

- This course presents a good couplet of Knowledge about History and Culture of Kashmir.
- It enables them to understand different views of expression in Literature..
- It also enables the students to know the difference between classical and modern Kashmiri poems and short stories.

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**BG 4<sup>th</sup> Semester****Core Course code: KLR420C****Course title: Kashmiri Literature-IV****Credits: 6**

- This course acquaints learners about History, Language and Culture of Kashmir with different pieces of literary writings.
- It enables them to understand modern Kashmiri Poem & Short story with their unique style.
- It also introduces students with a new genre of writing i.e., Essay which is an essential tool of catharses.

**Skill Enhancement Course: Kashmiri- Tarjama Kari****Course Code: KR418S****Credits: 4**

- This course is designed to acquaint both students whether they have chosen Kashmiri as a main disciplined subject or not.
- This course boosts learners translating skills from source to target language whom learner is familiar with.
- It inculcates different skills among learners which helps them in translating process.
- The courses provide learners a practical platform to learn different cultural pedagogy while translating a source text to target language.
- It enables learners to learn different methods to translate both forms of expression prose and poetry in target language.

**BG 5<sup>th</sup> Semester****Core course code: KLR520DA****Course title: Kashmiri Literature: Nasar te Nazam-I****Credits: 6**

- This course is designed to acquaint the students with both forms of expression Prose and Poetry.

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- It enables them to understand Classical Kashmiri Poetry with its unique style.
  - It introduces students with a new view of life style (Sufism) which is a fundamental pillar of Kashmiri Literature. It inculcates good values in Students and helps them to understand the truth of universe and uniqueness of God.
  - The course also enables students with translation technique which helps them to know and translates a text from source language to target language.
  - This course also enables students about the shape/presentation of Kashmir in Kashmiri Literature.

**Generic Elective: Kashmiri literature: Kashri Adbuk Taruf-I**

**Course Code: KR520G**

**Credits: 6**

- This course is designed to acquaint those students with different forms of poetry who are interested to learn about Kashmiri and literature but have not chosen Kashmiri as main disciplined subject.
- It acquaints students a deep introduction of origin and development of Kashmiri Language.
- The courses provide learners a platform to learn about origin and development of classical and modern Kashmiri short story.
- It enables learners to learn form, origin and development of Drama in Kashmiri literature.
- It also enables learners to learn form, origin and development of Novel fiction in Kashmiri literature.

**BG 6<sup>th</sup>Semester**

**Core Course Code: KLR620DA**

**Course title: Kashmiri Literature: NasarteNazam-II**

**Credits: 6**

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- This course is designed to acquaint students what is word and how did language functions in a scientific manner.
  - It enables to understand what Linguistics is in general.
  - It also acquaints students to understand Semantics in general and Kashmiri semantics in particular.
  - It also enables them to also understand Phonology of Kashmiri language.
  - The course also enables students about Post Modern Kashmiri literature.

**Generic Elective: Kashmiri literature: Kashri Adbuk Taruf-II**

**Course Code: KR620G**

**Credits: 6**

- This course is designed to acquaint those students with different forms of poetry who are interested to learn about Kashmiri and literature but have not chosen Kashmiri as main disciplined subject.
- The courses provide learners a platform to learn about classical forms of Kashmiri literature (Wakh&Shuruk), form, origin and development.
- It also enables learners to learn form, origin and development of Watshun, Gazil, Mathnavi.

**Skill Enhancement Course: Zaban te Bawath**

**Course Code: KR617S (3<sup>rd</sup>Sem)**

**Credits: 4**

- This course intends to develop a basic understanding about Kashmiri Language and literature.
- It also enables the students to understand basic grammar of Kashmiri language.
- This course also acquaints the students about basic Kashmiri linguistics.
- This course also makes an attempt to enable the students about writing style of Kashmiri language.

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## Mathematics

Mathematics opens doors in engineering, business, finance, computing, data sciences, health sciences, environmental sciences and public policy. Recent discoveries in the mathematical sciences have played an essential role in internet search algorithms, disease control, communications technology, climate modelling and much more. Mathematics is among the most important disciplines in today's complex world, in part because they serve as the common language of science.

### **Course Outcomes**

#### **Differential Calculus**

Upon completion Differential Calculus student will be able to:

Compute limits, derivatives, and definite & indefinite integrals of algebraic, logarithmic and exponential functions,

Analyze functions and their graphs as informed by limits and derivatives, and

Solve applied problems using differentiation and integration.

#### **Differential Equations**

Upon successful completion of Differential Equations, a student will be able to:

Solve differential equations of first order using graphical, numerical, and analytical methods, Solve and apply linear differential equations of second order (and higher), Solve linear differential equations using the Laplace transform technique,

Find power series solutions of differential equations, and

Develop the ability to apply differential equations to significant applied and/or theoretical problems.

#### **Real Analysis**

Upon successful completion of Real Analysis, students will be able to:

Describe the real line as a complete, ordered field,

Determine the basic topological properties of subsets of the real numbers,

Use the definitions of convergence as they apply to sequences, series, and functions,

Determine the continuity, differentiability, and integrability of functions defined on subsets of the real line,

Apply the Mean Value Theorem and the Fundamental Theorem of Calculus to problems in the context of real analysis, and

Produce rigorous proofs of results that arise in the context of real analysis.

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Write solutions to problems and proofs of theorems that meet rigorous standards based on content, organization and coherence, argument and support, and style and mechanics.

### **Abstract Algebra**

Upon successful completion of Abstract Algebra, students will be able to:

Assess properties implied by the definitions of groups and rings

Use various canonical types of groups

Analyze and demonstrate examples of subgroups, normal subgroups and quotient groups

### **Linear Algebra**

Upon successful completion of Linear Algebra, students will be able to:

Solve systems of linear equations,

Recognize the concepts of the terms span, linear independence, basis, and dimension, and apply these concepts to various vector spaces and subspaces,

Use matrix algebra and the related matrices to linear transformations,

Compute and use determinants,

Compute and use eigenvectors and eigenvalues,

Determine and use orthogonality, and

Use technological tools such as computer algebra systems or graphing calculators for visualization and calculation of linear algebra concepts.

### **Plane and Solid geometry**

Upon successful completion Plane and Solid geometry, students will be able to: understand geometrical terminology for angles, triangles, quadrilaterals and circles.

Solve problems related to Parabola Ellipse and Hyperbola

Solve problems in Cone, Cylinder and Sphere

# Persian

Prog.	Semester	Course name	Course code	Unit	Course outcome
B.A with Persian as a subject	I	Applied Persian grammar and prose	PRL116C	Credit 1	To acquaint the students with a skills of correct usage of grammar especially Noun, Verb, aorist.
				Credit 2	To understand the tenses and their usage.
				Credit 3	To understand the skills of translation, reading and writing.
				Credit 4	To develop the Persian language and translation skills.
				Credit 5	To understand the skills of translation, reading and writing.
				Credit 6	To develop the Persian language among students



# Persian

Prog.	Semester	Course name	Course code	Unit	Course outcome
B.A with Persian as a subject	I (MIL)	Reading and writing Persian	L-1701	Credit 1	To understand concepts of alphabets, long and short vowels of Persian.
				Credit 2	To learn the infinitives and their usage, meaning.
				Credit 3	To help the students in using present, past tenses in day to day life.
				Credit 4	To enhance the Persian vocabulary among students and counting.

## Persian

Prog.	Semester	Course name	Course code	Unit	Course outcome
B.A with Persian as a subject	II	Persian grammar and prose	DSC-1B	Credit 1	To acquaint the students with a skills of correct usage of grammar especially Noun, Verb, aorist,
				Credit 2	To help the students in using Past, Present and Future tenses in day to day life.
				Credit 3	To understand the skills of translation, reading and writing.
				Credit 4	To develop the taste of Persian language among students.
				Credit 5	To understand the skills of translation, reading and writing among students.

# Persian

Prog.	Semester	Course name	Course code	Unit	Course outcome
B.A with Persian as a subject	II (MIL)	Reading and writing Persian	MIL-II	Credit 1	To enable the students to use adjectives in Persian.
				Credit 2	To learn the use of conjugations in formation of compound and complex sentences.
				Credit 3	To develop the skill of writing guided essays.
				Credit 4	Help students to learn the names of months and days in Persian language.

# Persian

Prog.	Semester	Course name	Course code	Unit	Course outcome
B.A with Persian as a subject	III	Persian prose and unseen translation and literary history	DSC-IC	Credit 1	To develop translation skills among students.
				Credit 2	To enable the students to learn translation skills.
				Credit 3	To develop translation skills among students.
				Credit 4	To learn translation skills among students.
				Credit 5	To develop the skills of translation, reading and writing.
				Credit 6	To understand about prose writers of Gaznavid period.

## Persian

Prog.	Semester	Course name	Course code	Unit	Course outcome
B.A with Persian as a subject	III	Skill enhancement course	SEC	Credit 1	To acquaint the students with a skills of correct usage of grammar especially Noun, Verb, Past, Present, Future and aorist.
				Credit 2	To develop the taste of Persian language among students.
				Credit 3	To enable the students to use adjectives in Persian.
				Credit 4	To develop the skill of writing guided essays.

# Persian

Prog.	Semester	Course name	Course code	Unit	Course outcome
B.A with Persian as a subject	IV	Persian prose and unseen translation	DSC-ID	Credit 1	To enable the students to learn translation skills.
				Credit 2	To learn the skills of translation.
				Credit 3	To develop the translation skills from Persian to Urdu or English among students.
				Credit 4	To understand the skills of translation, reading and writing among students.
				Credit 5	To understand the skill of translation.
				Credit 6	To know about the prose writers of Persian language.

# Persian

Prog.	Semester	Course name	Course code	Unit	Course outcome
B.A with Persian as a subject	IV	Translation of prescribed text into English or Urdu and exercise	SEC	Credit 1	To use degrees of adjectives in Persian.
				Credit 2	To enable the students to write dialogue in Persian language and uses of present indicatives.
				Credit 3	To develop the concept of time among students.
				Credit 4	To understand the uses of imperative and negative verbs.

# Persian

Prog.	Semester	Course name	Course code	Unit	Course outcome
B.A with Persian as a subject	V	Classical and modern Persian poetry	PR516D	Credit 1	To understand the classical and modern poetry.
				Credit 2	To develop the taste of poetry and creative writing among students.
				Credit 3	To understand the classical and modern poetry.
				Credit 4	To know about the eminent writers of Saljok period.



# Persian

Prog.	Semester	Course name	Course code	Unit	Course outcome
B.A with Persian as a subject	V	Skill enhancement course	SEC	Credit 1	<ol style="list-style-type: none"><li>1. Formation of sentences from given words.</li><li>2. Use of past imperfect.</li></ol>
				Credit 2	<ol style="list-style-type: none"><li>1. To know about the seasons of Iranian year.</li><li>2. Understand past participle tenses in Persian.</li></ol>
				Credit 3	Formation of sentences from given words.
				Credit 4	To know basic computer knowledge, Persian words like typing, browsing and searching.

# Persian

Prog.	Semester	Course name	Course code	Unit	Course outcome
B.A with Persian as a subject	VI	Classical and modern Persian prose	PR616D	Credit 1	To understand the skills of translation, reading and writing.
				Credit 2	To comprehend the textual lessons.
				Credit 3	To develop the Persian language and translation skill.
				Credit 4	To know about the history of Saljok Period with eminent Persian prose writers.

# Persian

Prog.	Semester	Course name	Course code	Unit	Course outcome
B.A with Persian as a subject	VI	Skill enhance course	SEC	Credit 1	To acquire the knowledge of grammar like present subjective, past present progressive and formation of sentences.
				Credit 2	Formation of sentences from given words and uses of adjective, noun.
				Credit 3	To provide knowledge of relative clause, abstract known, present participle.
				Credit 4	To help the students to speak correct pronunciation of Persian and to develop fluency.

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## **POLITICAL SCIENCE**

The subject Political Science is introduced at undergraduate level to develop necessary knowledge about the State and rights and duties of citizens. This course develops the understanding of various functions of state. This course also develops the students for the role of common citizens of peace building.

### **Course Specific Outcomes**

#### **BG 1<sup>st</sup> Semester**

**Core Course Code: PS120**

**Core course title: Political theory**

**Credits: 6**

1. To understand the concept of State, Nation and Civil Society.
2. To know about the meaning Sovereignty, types and Characteristics.
3. To compare with procedure of various social institutions and government institutions.

### **Course Specific Outcomes**

#### **BG 2<sup>nd</sup> Semester**

**Core Course Code: PS220**

**Core course title: Indian government and politics**

**Credits: 6**

1. To understand the philosophy of Indian constitution.
2. To appreciate the various phases of Indian national movement.
3. To create value in youth regarding the patriotism.

### **Course Specific Outcomes**

#### **BG 3<sup>rd</sup> Semester**

**Core Course Code: PS320**

**Core course title: Comparative government and politics**

**Credits: 6**

1. Tracing the evolution of comparative politics as a discipline and drawing a distinction between comparative politics and government.
2. Critically looking at the rights of the citizens of U.K, USA and India from a comparative perspective.
3. Discussing the features of a federal system with special reference to USA.

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**Course Specific Outcomes**

**BG 4<sup>th</sup>Semester**

**Core Course Code: PS420**

**Core course title: International Relations**

**Credits: 6**

1. TO understand the concept of power, national regional, global and peace security.
2. To understand the emerging area in international relations.
3. To identify various issues and challenges towards international relations.
4. To learn about issues of diversity and internationalism.

**Course Specific Outcomes**

**BG 5<sup>th</sup>Semester**

**Core Course Code: PS520**

**Core course title: Western Political Thought**

**Credits: 6**

1. Providing an insight into the dominant features of Ancient Western Political Thought.
2. Evaluating the renaissance; political thought of reformation and Machiavelli.
3. Examining the several of non- Marxist socialism.

**Course Specific Outcomes**

**BG 6<sup>th</sup>Semester**

**Core Course Code: PS620**

**Core course title: Public Administration**

**Credits: 6**

1. Analysing the Administrative Process, decision making, communication and control leadership coordination.
2. Studying the organization of the union government and state government.
3. Examining the institutions of local self-government.

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## Physics

Physics is introduced at undergraduate level for understanding of core knowledge of this subject including the major premises of classical mechanics, electrodynamics, special theory of relativity, optics, thermodynamics, statistical physics, modern physics, and solid state physics. Students learn how to design and conduct an experiment (or a series of experiments) demonstrating their understanding of scientific methods and processes. The students are also expected to have an understanding of analytical methods required to interpret and analyze results and draw conclusions as supported by their data. Students shall develop the proficiency in acquisition of data using a variety of laboratory instruments and in the analysis and interpretation of such data. Students learn the applications of numerical techniques for modeling physical systems for which analytical methods are inappropriate or of limited utility. Students will realize and develop an understanding of the impact of physics and science on society. Apply conceptual understanding of the physics to general real-world situations. Learn to minimize contributing variables and recognize the limitations of equipment. Application of concepts of physics in other disciplines such as mathematics, computer science, engineering and chemistry.

### Course Specific Outcomes

#### **Course Code: PH116**

#### **(i)a Classical Mechanics**

1. Learn the basics of vector calculus.
2. Understand the concepts for solving various types of differential equations.
3. Grasp the fundamentals of different types of frames of references and transformation laws.
4. Learn conservation laws of energy and linear and angular momentum and apply them to solve problems.
5. Acquire fundamental ideas of special theory of relativity.
6. Learn the basics of Gravitation field and keplers laws.
7. To study the elasticity of solids.

#### **(i b) Mechanics Lab.**

The practical component acquaints the students regarding the basic knowhow of measurements of length by using vernier calipers, screw gauge and travelling

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microscope. It further determines the height of building using Sextant. To determine the acceleration due to gravity by using bar pendulum and Katers pendulum. Modulus of rigidity by Maxwell needle and optical lever method.

**Course Code: PH216**

**(ii a) Electricity and Magnetism**

1. Understand the concepts of gradient, divergence and curl.
2. Learn the different applications of Gauss's law.
3. Know the relationship between electrical charge, electrical field, electrical potential and magnetism.
4. Entail Understand the concept of electromagnetic induction.

**(ii b) Electricity and Magnetism Lab.**

The practical component gives the student awareness regarding measurement of electrical quantities like measurement of resistances, ac and dc voltages by using multimeter. The measurement of charge and current sensitivity, critical damping resistance, self inductance by Ballistic galvanometer. Study of Carey foster bridge and De Sauty bridge for determination of unknown resistance and unknown capacitance respectively. Study of LCR circuits for determination of characteristics and resonant frequency and quality factor Q.

**Course Code: PH316**

**(iii a) Thermal Physics and Statistical Mechanics**

1. To study the laws of thermodynamics.
2. Acquire the knowledge about reversible and irreversible process and working of carnot engine and calculating the change in entropy for various processes.
3. To gain knowledge of Transport phenomena in liquids and gases.
4. Realize the importance of thermodynamical functions and applications of Maxwell's relations.
5. Familiarize with statistical distribution and have basic ideas about Maxwell-Boltzmann, Bose-Einstein, and Fermi-Dirac statistics and their applications.

**(iii b) Thermal Physics and Statistical Mechanics Lab.**

Determination of Stefans and Plancks constant. Determination of coefficient of thermal conductivity of copper by Searle's apparatus and Angstrom's method.

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To determine the coefficient of thermal conductivity of bad conductor by Lee and Charlton disc method. To study the probability distribution using dices/coins.

### **Skill Enhancement Course: Renewable Energy and Energy Harvesting**

#### **Course Code: PHY3U16**

The aim of the course is to acquaint the students with the importance of different forms of energy viz. fossil fuels as non-renewable source of energy and renewable sources of energy which encompasses Solar energy, Wind energy, Geothermal energy and Piezoelectric energy. These renewable sources are viable alternate sources to the depleting non-renewable energy sources.

#### **Course Code: PH416**

##### **(iv a) Waves and Optics**

1. Understand the basic concepts of wave optics with ability to compute basic quantities in optics.
2. Learn the graphical and analytical methods for understanding of Lissajous figures.
3. Learn to use methods for solving differential equations.
4. Learn the fundamentals of harmonic oscillator model, including damped and forced oscillators.
5. Study the general equation of wave motion and travelling and standing waves in stretched strings and longitudinal waves in gases.
6. Learn the fundamentals of interference, diffraction and polarization.
7. Familiarize with general terms in acoustics like intensity, loudness, reverberation and study in detail about production, detection, properties and uses of ultrasonic waves.

##### **(iv b) Waves and optics Lab.**

To determine the frequency of an electrically maintained tuning fork by Melde's experiment. Study of Lissajous figures. To determine the refractive index and dispersive power of Prism in dark room by using different monochromatic sources of light.



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## **Skill Enhancement Course: Weather Forecasting**

### **Course Code: PHY4U16**

The objective of the course is to give an idea to the students regarding our atmosphere and an understanding about Global warming its causes and effects on our planet. Further it is an attempt regarding awareness of science students to know causes and effects of weather phenomenon and basic forecasting techniques.

### **Course Code: PH516**

#### **(v a) Modern Physics**

1. To become familiar with blackbody radiation, ultraviolet catastrophe, photoelectric effect, and Compton effect.
2. Gain a clear knowledge about wave properties of matter, De Broglie waves, and its implications on the uncertainty principle.
3. Understand the concepts of angular momentum and coupling schemes.
4. Study in detail rotational, vibrational and rotation-vibration spectra in molecules.
5. Study of Nuclear properties like size, spin, magnetic moment.
6. Study of different nuclear models in detail like liquid drop model, Shell model.
7. To acquaint with quark theory of elementary particle quantum numbers.

(v b) To determine the Boltzmann constant by using V-I characteristics on PN diode. To determine Planck's constant. Photoelectric effect. Millikan oil drop experiment. Study of Zeeman effect. Wavelength of Hydrogen atom.

## **Skill Enhancement Course: Basic Instrumentation Skills**

### **Course code: PHY518S2**

This course is to get the students an exposure with various aspects of instruments and their usage through hands-on mode. This course deals with the basics of measurement through various electronic devices.

### **Course Code: PH616**

#### **(vi a) Solid state Physics**

1. Learn the basic concepts of Bravais lattice and reciprocal lattice systems.

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2. Understand the specific heat and Einstein and Debye models.
  3. Familiarize with the concept of Phonon.
  4. Grasp the concept of Fermi surface and effects of Fermi surface .
  5. To understand the Kronig-Penny model of one dimensional periodic potential .
  6. To learn the concept of Brillion zone.
  7. To study the Hall effect.
  8. To learn the band theory of solids.
  9. To study the Characteristics of Transistor, Field Effect Transistor (FET) and MOSFET.
  - 10.To study the two stage RC coupled amplifier.

(vi b) Study of Goniometric of crystal faces. Determination of dielectric constant. Hysteresis curve of a ferromagnetic substances. Hall effect. JFET characteristics. MOSFET characteristics. Study of Zener diode as voltage regulator.

### **Skill Enhancement Course: Electrical Circuits and Network Skills**

**Course code: PHY618S1**

The aim of this course is to enable the students to design and trouble shoots the electrical circuits, networks and appliances through hands on mode.

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## **PUBLIC ADMINISTRATION**

Public Administration is a newly introduced discipline in the colleges of Jammu and Kashmir. It has been introduced at the undergraduate level with a broader objective to create administrative qualities among students and makes them capable personalities for both public and private sectors. The subject urges the students to study the administrative systems of different countries with their strengths and problems, which enables students to take rational decisions about the changes, which they want to bring in their respective administrative systems through various means e.g. researches. The subject also stresses upon the responsibility of students, as officials and citizens in the fields of public policy, local government, disaster management, good governance etc.

### **Course specific Outcomes**

#### **BG 1st SEMESTER (4 -credits)**

#### **Title: Public Administration: Principles of Public Administration**

##### **Unit 1: Introduction**

The unit aims to make the students aware about the meaning, nature, scope of public administration. It also unveils the contribution of eminent thinkers in the growth and development of public administration. Students become acquainted about the basic differences of public and private administration with the choice of new public administration.

##### **Unit 2: Principles of Organization**

The unit intends to make the students aware about the basic principles of organization like span of control, hierarchy, unity of command and delegation etc. It also develops an understanding of the working of different agencies, bases of organizations and different theories of organization.

##### **Unit 3: Structure of Administration**

This unit springs a basic understanding among students regarding the basic structure of executive branch of government. It also throws light on various departments, Independent Regulatory Commissions and Public Corporations.

##### **Unit 4: Control over Public Administration**

In this unit the students become familiar about the various controls on public administration that are exercised by public, judiciary, legislative, executive branches. It also highlights the role of Comptroller and Auditor General of India.

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## **BG 2nd SEMESTER (4- credits)**

### **Title: Public Administration with administrative thinkers**

The objective of this paper is to acquaint students with the ideas of key administrative thinkers, prominent theories of organization and administrative behaviors. Besides, the course intends to enhance the analytical capacity of students with regards to the understanding of subject matter.

#### **Unit 1: Classical Theories**

In this unit the students become aware about the contribution of classical theorist Like Henry Fayol and F W Taylor and the importance of these two theories in the organizations of modern world.

#### **Unit 2: Neo Classical theories**

The unit highlight the major findings of Elton Mayo's experiments and their contribution in the welfare of organizations. The unit also make students mindful about the system approach of organization and the influence of environment on different administrative systems.

#### **Unit 3: Decision making approach and Motivational theory**

Students learn the importance of decision making in organizations with its different stages and also becomes aware about various aspects of motivation. The students learn different ways as how to how to motivate employee.

#### **Unit 4: Contribution of Fred W Riggs and Chris Argyris**

The unit make students conscious about ecological approach with the help of models of Fred W Riggs and also high lights the contribution of Chris Argyris in the field of motivation and organization.

## **BG 3rd SEMESTER (4- credits)**

### **Title: Contemporary Development in Public Administration**

#### **Unit 1**

This unit provides a clear understanding to students about the different attributes of New Public Administration and New public management, depicts the weaknesses of classical public administration in the contemporary era and highlights the needs for New Public Administration and New public management.

#### **Unit 2**

The unit makes students aware about the basic attributes of Good Governance and the Center state relationships.

#### **Unit 3**

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In this unit, the students learn the significance and impact of digital E- governance with the issues of Corporate Governance.

**Unit 4**

In this unit, students are taught the impact of globalization, liberalization and privatization on public administration. The students also analyses the changing behavior of administrative systems to face the modern challenges.

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## PUNJABI

The subject punjabi is introduced at undergraduate level to develop the necessary language skills & aptitude among the students to pursue teaching as a profession.

At U.G level (B.A punjabi) is the specialization on primary concentration of one's degree. Punjabi as a course is study & investigation of literature, linguistics and philosophy of the punjabi language, which includes study of drama, poetry, story writing, fiction, literary history and literary criticism novel etc. This program after specialization in concerned subject offers a wide variety of jobs

### COURSE SPECIFIC OUTCOMES

BG IST SEMESTER

CORE COURSE CODE (PJLIZOC)

**CORE COURSE TITLE: Adhunikpunjabikavita( modernpunjabi poetry)**

Credits- 06

This course provides the students basic knowledge of theory history & various tendencies of modern punjabi poetry.

SUFI SAHIT: This course makes an attempt to enable the students to understand the concept of sufisahit, history & tendencies of punjabisufi poetry to inculcate secular heritage of medieval india

The course also introduces the learners to the concept of modern punjabi poetry which consists of gazal, rubai, kavita & mahakar. Besides this puts emphasis on history, theory, & tendencies of modern punjabi poetry.

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BG: 2nd semester.

Core course code-( P JL2ZOC)

Core course title- Adhunikpunjabikhani( Punjabi literature)

Credits- 06

The concept of story reading in class introduces the students to rich traditional culture of punjabihistory.This introduces the students to the concept of story writing & reading , taking the inspiration from famous story writers of punjabi language

BG: 3rd semester.

Core course code-( P JL3ZOC)

Core course title- punjabilitrature Punjabi prose)

Credits- 06

This course aims to enable the students to understand the basis knowledge & concept of medieval & modern punjabipose ,it also emphasis on history theory and tendencies of medieval and modern pose.

VAAR KAR- The course also provide in depth knowledge & history of medieval punjabi ballads poetry (i.e VEER KAR) to U.G students

BG: 4th semester.

Core course code-( P JL4ZOC)

Core course title- punjabi literature

Credits- 06

This course will introduce students to the concept of modern punjabi novel, novel writing & reading

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The course introduces students to the history theory & various tendencies of modern punjabi fiction which includes punjabi Novel & short stories.

This course makes an attempt to enable the students to understand the concept of literature ,its characteristics ,relationship between literature & society , literature and psychology.

BG: 5th semester.

Core course code-( PJ516DBB)

**Core course title-sahit&ithhas( history of punjabilitrature)**

Credits- 06

This course includes;

- basic knowledge of theory ,history & various tendencies of jammu&kashmirpunjabi literature( poetry, play, prose,story ,novel)
- basic knowledge of theory ,history & various tendencies of jammu&kashmirpunjabi drama & one act play writing
- basic knowledge of theory ,history & various tendencies of jammu&kashmir fiction which include punjabi novel & short stories

BG: 6thh semester.

Core course code-( PJ616DBB)

**Core course title- Adhunikpunjabikhani**

Credits- 06

This course aims to enable the students to understand the basic knowledge of theory ,history& various tendencies of jammu&kashmirpunjabi literature , as well as comparative indainlitrature translated in punjabi.



## URDU

Jammu and Kashmir has honour to have Urdu as its official language for a long time .Also this language served as source of communication for the whole region.i.e.Jammu, Kashmir and Ladakh .Urdu language is known as second mother tongue of Jammu and Kashmir as it is used in day to day life at everywhere. As a result the people of region give esteemed regard to this language and played a vital role for its development in every field. Seeing the great response and interest of the common people towards Urdu language and literature, besides other languages, Urdu language was introduced in the universities and colleges of the Kashmir .From then a large number of students came out with flying colours from these institutions and play important role in different fields .At present Urdu is being taught almost in every college of Kashmir.

### **COURSE OUTCOME AND COURSE SPECIFIC OUTCOMES**

#### **BG 1<sup>ST</sup> SEMESTER**

#### **URDU LITERATURE**

#### **DISCIPLINE SPECIFIC COURSE(CORE )**

**COURSE CODE :URL120C**

**COURSE TITLE:URDU NAZAM AND GHAZAL CREDITS :06**

This course deals with the classical as well as modern genres of Urdu poetry such as Ghazal and Nazam .Besides it deals with the life history and works of poets of Classical and Modern era. Through this course students get information about social, political and cultural trends of that period. The main motive of this course is to inculcate literary taste among the students.

#### **BG 2<sup>ND</sup> SEMESTER**

#### **DISCIPLINE SPECIFIC COURSE(CORE )**

**COURSE CODE:URL220C**

**COURSE TITLE:Classical Urdu Literature CREDITS :06**

It deals with some classical genres of Urdu poetry i.e Masnavi, Marsiya and Qaseedah.The main motive of the course is to inform the learners about the richness of classical literature.

#### **BG 3<sup>RD</sup> SEMESTER**

#### **DISCIPLINE SPECIFIC COURSE(CORE )**

**COURSE CODE:URL320C**

**COURSE TITLE: Urdu ki Afsanvi NasrCREDITS :06**

This course is related to Urdu fiction. In this course students get aware about the different types of fiction such as Dastan ,Novel ,Afsana and Drama. Moreover, students understand the diction of the different writers.

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**BG 4<sup>TH</sup> SEMESTER**

**DISCIPLINE SPECIFIC COURSE(CORE )**

**COURSE CODE:URL420C**

**COURSE TITLE: Urdu Ki Gaer Afsanvi Nasr                      CREDITS :06**

This course gives the knowledge of Non fictional Prose to the learners. It also provides information of Non Fictional Prose writers of Urdu literature. Further this course depicts the true picture of the society where its concept has been evolved.

**BG 5<sup>TH</sup> SEMESTER**

**DISCIPLINE SPECIFIC ELECTIVE(DSE )**

**COURSE CODE: URL520DA**

**COURSE TITLE: Adabi Tareekh WA Tanqeed                      CREDITS :06**

This course enables the students to learn about the different literary movements and trends of the Urdu literature .It also give the knowledge of literary history and development of criticism. Moreover this course will help the students to go through the western thoughts of criticism. As a result it will enhance the different mental horizons of the students.

**BG 6<sup>TH</sup> SEMESTER**

**DISCIPLINE SPECIFIC ELECTIVE (DSE)**

**COURSE CODE: URL620DA**

**COURSE TITLE: Mirza Ghalib Ka Khasoosi Mutala                      CREDITS :06**

The main aim of this course is to give knowledge to the students about the life history and literary contribution of Ghalib .This course also introduces students with new methods and techniques/tools of letter writing.

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## ZOOLOGY

The subject Zoology is introduced at undergraduate level to develop necessary skills and aptitude among the undergraduate students to pursue teaching profession. From animal lovers to sustainability warriors, zoology attracts all kinds of students in love with the natural world. Combining Zoology teaches you how to care for and conserve animal life. Whether you're interested in trips to remote and exotic locations, or late nights in laboratories trying to master evolution and extinction, zoology has a wide variety of specializations for you to follow. The science, research, data, analysis, and behavioural skills you'll learn can make you attractive to a wide variety of organisations including charities, government agencies, universities, and research centres.

After this course, students develop an aptitude to join Masters (M.Sc) and Ph.D in Zoology to develop further efficiency in teaching & Research. This course develops the basic understanding of various aspects of Zoology like Genetics, Embryology Evolution, Environmental Biology, Animal behaviour, Ecology, Entomology, Parasitology etc. Besides, various skill enhancement courses have been introduced in the Zoology subject to develop the skills among the undergraduates related to multiple dimensions so that Zoology graduates can also pursue jobs as: animal technician, nature reserve warden, environmental scientist, Bee Keepers, Diagnostic technicians, Sericulture Assistants, veterinary nurse, gamekeeper, Poultry farm manager etc.

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## **Course Specific Outcomes**

**BG 1st Semester**

### **CORE COURSE I**

**Core course title: ANIMAL DIVERSITY**

**Credits: 4**

- This course intends to develop a basic understanding of Identifying traits that are common to all animals as well as traits that can be used to distinguish among related groups of animals among the undergraduates.
- It also enables the students to understand the concepts of the animal classification system which characterizes animals based on their anatomy, morphology, evolutionary history, features of embryological development, and genetic makeup.
- This course also acquaints the students with the concept of the classification scheme which is constantly developing as new information about species arises.
- This course makes an attempt to enable the students to understand the evolutionary history of the animal kingdom
- It also enables the students to understand Chart animal phylogeny.
- It also acquaints them with the various types of body plans that occur in animals.
- It also enables the students to understand the tissue structures found in animals
- This course also acquaints the students with the methods and features of animal reproduction.

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**BG 2nd Semester**

**CORE COURSE II**

**Core course title: COMPARATIVE ANATOMY AND DEVELOPMENTAL BIOLOGY OF VERTEBRATES**

**Credits: 4**

- To help students gain a knowledge base for understanding vertebrate anatomy and evolution by explaining to them the basic structures and organization of anatomical systems, their development and function and their modifications in the major transitions in vertebrate evolution.
- To help students gain the knowledge base and learning skills for pursuing further educational and career goals including taking more courses in evolution, vertebrate biology and comparative anatomy; teaching courses in general biology, evolution and comparative anatomy; pursuing veterinary and medical programs; and doing postgraduate research in vertebrate comparative anatomy and evolution.
- To help students appreciate comparative vertebrate morphology as a dynamic and integrative science by exposing them to current research by developmental anatomists, functional morphologists, paleontologists, and developmental geneticists, and demonstrating how this research impacts our understanding of vertebrate history and evolution.
- To help students appreciate the importance of comparative vertebrate biology in understanding our own biology by learning about the organization, function and adaptive strengths and weaknesses of our own bodies.
- This course provides students with the basic knowledge in vertebrate anatomy and biology from both functional and evolutionary points of view. Students also gain knowledge about fundamental steps in vertebrate development from fertilization to organogenesis. The students will be able to describe the vertebrate structures and relate morphology, function.

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## **Course Specific Outcomes**

**BG 3rd Semester**

### **CORE COURSE III**

**Core course title: PHYSIOLOGY AND BIOCHEMISTRY**

**Credits: 4**

The course enables students to:

- have an enhanced knowledge and appreciation of Animal physiology;
- understand the functions of important physiological systems including the cardio-respiratory, renal, reproductive and metabolic systems;
- understand how these separate systems interact to yield integrated physiological responses to challenges such as exercise, fasting and ascent to high altitude, and how they can sometimes fail;
- be able to perform, analyse and report on experiments and observations in physiology;
- be able to recognise and identify principal tissue structures.
- Students will explain/describe the synthesis of proteins, lipids, nucleic acids, and carbohydrates and their role in metabolic pathways along with their regulation at the epigenetic, transcriptional, translational, and post-translational levels including RNA and protein folding, modification, and degradation. Regulation by non-coding RNAs will be tied to the developmental and physiological functioning of the organism.
- Students will use current biochemical and molecular techniques to plan and carry out experiments. They will generate and test hypotheses, analyze data using statistical methods where appropriate, and appreciate the limitations of conclusions drawn from experimental data. Trouble-shooting will be stressed in classes and labs.
- Students will undertake original and publishable research studies with faculty mentors. In this process, they will demonstrate skill in relevant literature analysis, experimental design, actual use of experimental techniques, teamwork, statistical analysis of results and oral and written communication of conclusions and their defense

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## **Course Specific Outcomes**

### **BG 4th Semester**

### **CORE COURSE IV**

### **Core course title: GENETICS AND EVOLUTIONARY BIOLOGY**

### **Credits: 4**

The students are expected to have achieved the following skills and capabilities.

- Comprehensive, detailed understanding of the chemical basis of heredity
- Comprehensive and detailed understanding of genetic methodology and how quantification of heritable traits in families and populations provides insight into cellular and molecular mechanisms.
- Understanding of how genetic concepts affect broad societal issues including health and disease, food and natural resources, environmental sustainability, etc.
- Understanding the role of genetic mechanisms in evolution.
- The knowledge required to design, execute, and analyze the results of genetic experimentation in animal and plant model systems.
- The ability to recognize the experimental rationale of genetic studies as they are described in peer-reviewed research articles and grant proposals to federal and other funding agencies.
- The ability to evaluate conclusions that are based on genetic data.
- Students will be able to describe the history and development of evolutionary thought.
- Students will be able to describe the mechanisms by which evolution occurs. Provide detailed explanations of the processes of evolution by mutation, migration, genetic drift, non-random mating, and natural selection.
- Students will be able to describe the history of life on earth. Identify major evolutionary transitions over time, and explain the tools and evidence that support current hypotheses of the history of life.

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## **Course Specific Outcomes**

**BG 5th Semester**

**DSE 2**

**Core course title: APPLIED ZOOLOGY**

**Credits: 4**

The course enables students to:

- Identify various methodology and perspectives of applied branches of zoology for the possibilities of self-employment.
- Learn the basic principles involved in the culture and breeding of common edible and ornamental fishes and the art of aquarium keeping.
- To define the concepts of the applied subjects like Fisheries, Aquaculture, Cattle, Poultry farming and Pest Control.
- To understand Life history and pathogenicity of various parasites.
- To explain the tools and techniques used in aquaculture and agricultural practices.
- To describe the fish species commonly used in fishery business.
- Describe the common agricultural pests from nearby area.
- Illustrate the diseases in aquaculture and agriculture.
- Host- parasite Relationship and epidemiology.
- Categorize economically important fish species.
- . • To understand Insects of Economic importance and Insects of Medical importance.



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## **Course Specific Outcomes**

**BG 6th Semester**

**DSE 4**

**Core course title: IMMUNOLOGY**

**Credits: 4**

The course enables students to:

- Compare and contrast innate and adaptive immunity.
- Design a model of Immunoglobulins
- Which cell types and organs are present in the immune response.
- Illustrate various mechanisms that regulate immune responses and maintain tolerance
- Exemplify the adverse effect of immune system including Allergy, hypersensitivity and autoimmunity
- Apply basic techniques for identifying antigen antibody interactions.
- Explain the stages of transplantation responses
- Recall the success of various transplant procedures
- Describe the immunological response against tumor and blood transfusion
- Elucidate the reasons for immunization and aware of different vaccination