Subject Botany

Program Outcomes: Transformed curriculum shall develop educated outcome-oriented candidature, fostered with discovery-learning, equipped with practice & skills to deal practical problems and versed with recent pedagogical trends in education including elearning, flipped class and hybrid learning to develop into responsible citizen for nation-building and transforming the country towards the future with their knowledge gained in the field of plant science.

PO 1	CBCS syllabus with a combination of general and specialized education shall
	introduce the concepts of breadth and depth in learning.
PO 2	Shall produce competent plant biologists who can employ and implement their gained knowledge in basic and applied aspects that will profoundly influence the prevailing paradigm of agriculture, industry, healthcare and environment to provide sustainable development.
PO 3	Will increase the ability of critical thinking, development of scientific attitude, handling of problems and generating solutions, improve practical skills, enhance communication skill, social interaction, and increase awareness in judicious use of plant resources by recognizing the ethical value system.
PO 4	The training provided to the students will make them competent enough for doing jobs in Govt. and private sectors of academia, research and industry along with graduate preparation for national as well as international competitive examinations, especially UGC-CSIR NET, UPSC Civil Services Examination, IFS, NSC, FCI, BSI, FRI etc.
PO 5	Certificate and diploma courses are framed to generate self- entrepreneurship and self- employability, if multi exit option is opted.
PO 6	Lifelong learning is achieved by drawing attention to the vast world of knowledge of plants and their domestication.

	Subject: Botany
	Programme: Certificate Course in Basic Botany
Course Title	Course Outcomes
Microbes,	Course Outcomes
Algae, Fungi and Bryophytes	After the completion of the course the students will be able to: 1. Develop understanding about the classification and diversity of different microbes including viruses, Algae, Fungi & Lichens & their economic importance. 2. Develop conceptual skill about identifying microbes, pathogens, biofertilizers & lichens. 3. Gain knowledge about developing commercial enterprise of microbial products. 4. Learn host –pathogen relationship and disease management. 5. Gain Knowledge about uses of microbes in various fields. 6. Understand the structure and reproduction of certain selected bacteria algae, fungi and lichens 7. Develop critical understanding on morphology, anatomy and reproduction of Bryophytes.
Practical/Lab	Course Outcome
course	After the completion of the course the students will be able: 1. Understand the instruments, techniques, lab etiquettes and good lab practices for working in a microbiology laboratory. 2. Develop skills for identifying microbes and using them for Industrial, Agriculture and Environment purposes. 3. Practical skills in the field and laboratory experiments in Microbiology and Pathology. 4. Learn to identify algae, lichens and plant pathogens along with their symbiotic and parasitic associations. 5. Students would learn to create their small digital reports where they can capture the zoomed in and zoomed out pictures as well as videos in case they are able to find some rare structure or phenomenon related to Bryophytes. 6. Understand morphology, anatomy, reproduction and developmental changes therein through typological study and create a knowledge base in understanding diversity, economic values & taxonomy of bryophytes.

Pteridophytes, Gymnosperm and Angiosperm	After the completion of the course the students will be able to: 1. Develop critical understanding on morphology, anatomy and reproduction of Pteridophytes, Gymnosperms and Angiosperms. 2. Understanding of plant evolution and their transition to land habitat. 3. To learn the major patterns of diversity among plants, and the characters and types of data used to classify plants. 4. To compare the different approaches to classification with regard to the analysis of data. 5. To become familiar with major taxa and their identifying
	characteristics, and to develop in depth knowledge of the current taxonomy of a major plant family. 6. To discover and use diverse taxonomic resources, reference materials, herbarium collections, publications.
	PROGRAMME: Diploma Course in Developmental Botany
Course Title	Course Outcomes
Morphology and Anatomy	 Course Outcomes: Understand morphology and anatomy. Understand role of tissues in plant functions. Understand the composition, modifications, internal structure & architecture of plants.
Practical/ Lab Course	Course Outcomes: 1. Understand cell structure in monocot and dicot plants. 2. Understand cell structure, secondary growth and adaptive anatomy in plants
Embryology and Cytogenetics	Course Outcomes: 1. Understand reproduction and developmental changes in plants. 2. Understand the structure and chemical composition of chromatin and concept of cell division. 3. Interpret the Mendel's principles; acquire knowledge on cytoplasmic inheritance and sex-linked inheritance.
Practical/ Lab Course	Course Outcomes: 1. Understand the pollination and seed dispersal mechanism. 2. Study the structure of ovules and female gametophytes.

	3. Interpret the Mendel's principles; and understand the monohybrid and dihybrid crosses and their ratio and chromosomal changes.
	Programme: Bachelor of Science
Course Title	Course Outcome
Cell and	Course Outcomes:
Molecular Biology, and Biotechnology	 Understand cell structure, nucleic acids, organization of DNA in prokaryotes and Eukaryotes, DNA replication mechanism, genetic code and transcription process. Know about processing and modification of RNA and translation process, function and regulation of expression. Understand the basic tools and techniques used in Plant tissue culture.
Economic	Course Outcomes:
Botany and Plant Breeding	 Know about the importance of medicinal plants and its useful parts, economically important plants in our daily life and also about the traditional medicines and herbs, and its relevance in modern times. Understand the plant breeding systems and heterosis and mutation in plant breeding.
Lab Course	Course Outcome
(BOT503P)	1. Learn the basic structure and function of cells and instruments used in molecular biology.
	 Know about the commercial products produced from plants. Understand about the ethnobotanical details of plants. Learn about the chemistry of plants and herbal preparations.
Plant physiology	Course Outcomes:
and Biochemistry	 Understand the role of physiological and metabolic processes for plant growth and development. Learn the symptoms of mineral deficiency in crops and their management. Assimilate knowledge about Biochemical constitution of plant diversity.

	4. Know the role of plants in development of natural products, nutraceuticals, dietary supplements, antioxidants.
Ecology and Biostatistics	1. Acquaint the students with complex interrelationship between organisms and environment; 2. Make them understand methods for studying vegetation, community patterns and processes, ecosystem functions, and principles of phytogeography. 3. Understanding the strategies for sustainable natural resource management and biodiversity conservation. 4. Practical knowledge of the different statistics tools and techniques.
Practical/Lab Course (BOT603P)	Course Outcomes: 1. Understand the role of different physiological and metabolic processes of plants. 2. Gaining practical knowledge implemented in the biodiversity assessment and conservation. 3. Practical knowledge of the different statistics tools and techniques.

Subject Commerce

	Subject: Commerce
	Programme: Certificate Course in Basic Physics
Course	Course Outcomes
Title	
Financial Accountin	The objective of this paper is to help students to acquire conceptual knowledge of fundamentals of accounting and to impart skills for
g	recording various kinds of business transactions
D. diameter	
Business Regulatory	The objective of this course is to provide a brief idea about the framework of Indian Contract Act, 1872, Negotiable Instrument Act,
Framewor	Competition Act, 2002 and Sale of Goods Act, 1930.
k	,
Business	Course Outcome
Organizati	After completing this course a student will have
on and Managem	After completing this course a student will have:
ent	Ability to understand the concept of Business Organization along with the
	basiclaws and norms of Business Organization.
	Ability to understand the terminologies associated with the field of BusinessOrganization along with their relevance.
	Ability to identify the appropriate types and functioning of BusinessOrganization for solving different problems.
	Ability to apply basic Business Organization principles to solve business andindustry related problems.
	Ability to understand the concept of Sole Proprietorship, Partnership and
	JointStock Company etc.
	PROGRAMME: Diploma in Commerce
Course	Course Outcomes
Title	
Basic	Course Outcomes:
Business Finance	

	This course is to help students understand the conceptual framework of Business Finance.
Business Statistics	Course Outcomes: The purpose of this paper is to inculcate and analytical ability among the students.
Rural Marketing	After completing this course a student will have: Ability to understand the concept of Rural Marketing. Ability to understand the terminologies associated with the field of Rural Marketing Ability to identify the appropriate method and techniques of Rural Marketing
Cost Accountin g	Course Outcomes: This course exposes the students to the basic concepts and the tools used in cost accounting.
	Programme: Degree in Commerce
Course Title	Course Outcome
Company Law	Course Outcomes: The objective of this course is to provide basic knowledge of the provisions of the Companies Act 2013 along with relevant cases.
Income Tax Law and Accounts	Course Outcomes: It enables the students to know the basics of Income Tax Act and its implications.
Public Finance	Course Outcomes: It enables the students to know the basics of Public Finance and its

Indian	Course Outcomes:	
Economy	Th purpose of this paper is to enable the student to grasp the major economic problems in India and their solutions. It also seeks to provide an understanding of modern tools of macro-economic analysis and policy framework.	
	Measurement precision and perfection is achieved through Lab Experiments.	
Corporate Accountin	Course Outcomes:	
g	This course enables the student to develop awareness about corporate accounting in conformity with the provisions of company act.	
	Programme: Bachelor (Research in Physics)	
Course Title	Course Outcome	
Goods and Services Tax	To provide students with the working knowledge of principlesand provisions of GST to understand the relevance of GST in the present Indian tax in scenario and its contribution for economic development.	
Accountin g for	Course Outcomes: After completing this course a student will have:	
Manageri al Decision	 AbilitytounderstandtheconceptofManagerialAccountingalongwit hthebasicformsand norms of Managerial Accounting. Ability to understand the terminologies associated with the field of Managerial Accounting and control along with their relevance. Ability to identify the appropriate method and techniques of Managerial Accounting for solving different problems. Ability to apply basic Managerial Accounting principles to solve business and industry related issues and problems. 	
	Ability to understand the concept of Budgetary Control, Cash Flow Statement, Fund Flow Statement, Break Even Analysis etc.	
Advertisin g & Sales	The objective of this paper is to familiarize the students with the basic concepts, tools and techniques of advertising used in marketing.	

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Subject: Computer Science

Program Outcomes: Computer Science is the study of computers and technology. Computers have been shaping the future of mankind with the great surge in technologies like machine learning and IoT in the last decade. The curriculum of our subject aims to provide any pupil in the course to understand the architecture, theory, and math behind the technologies that drive our modern world forward.

UG and PG in Computer Science facilitate the knowledge about the science behind computers and provide a platform to develop skills like programming, networking, and database administration. It also focuses on the ethics of developing and working with new technologies by providing strong arguments for green computing, security, and user privacy protection.

PO 1	Gain a complete exposure to the theories and practices of Computer science.
PO 2	Get transformed into a skilled learner and active programmer, enabling the students to focus on their higher studies.
PO 3	Value computer professionals and programmers.
PO 4	Explore how the concepts and applications of Computer science lead to innovative thinking with a problem-solving attitude.

	Subject: Physics
	Programme: Certificate Course in Computer Science
Course Title	Course Outcomes
Computer	Course Outcomes
Computer Fundamentals & ProblemSolving	Course Outcomes 1. Bridge the fundamental concepts of computers with the present level of knowledge of the students.
	Familiarize operating systems, programming languages, peripheral devices, networking, multimedia and internet
	3. Understand binary, hexadecimal and octal number systems and their arithmetic.
	4. Understand the difference between the top-down and bottom-up approach and concepts of object-oriented programming in connection with C++.
	5. Illustrate the process of data file manipulations using C++ and solve complex programming situations
Lab: Computer Fundamentals &	Course Outcome:
Problem Solving	On completion of the course, the student will be able to:
	Develop programs with reusability.
	2. Construct programs for file handling Handle exceptions in programming.
	3. Apply applications for a range of problems using object-oriented programming Techniques
Data Structures & Algorithms	On completion of the course, the student will be able to:
Algorithms	Understand concepts such as Data Organizations, Need of Data Structures, Types of Data Structure, Algorithm Complexity, and Time-Space trade-off.
	2. Understand and apply data structures such as Stacks, Queues, Arrays, and Linked List.
	3. Understand the concept of different searching and sorting algorithms.

Lab: Data Structures & Algorithms	Course Outcome:
& Algorithms	On completion of the course, the student will be able to:
	1. Implement various data structures in C++
	2. Implement various Searching and Sorting algorithm in C++ and understand their performance in term of Space and Time complexity.
	3. Implement tree and graphs in C++
	PROGRAMME: Diploma in Computer Science
Course Title	Course Outcomes
Digital Electronics &	Course Outcomes:
Computer System Architecture	1.Understand Digital Computer and Digital Systems.
	2.Understand the logic and applications of Boolean algebra and logic gates.
	3.Remember and understand the basics of computer organization and Design.
Database Management	Course Outcomes:
System with Python	Remember fundamentals of Database Management System Understand RDBMS Concepts like Normalization and Functional Dependencies
	3. Apply Normalization Concepts to create Redundancy Free Databases.
	4. Understand Programming with Python
	5. Create MySQL database and Evaluate MySQL queries through Python
Lab: Database Management	Course Outcomes:
System in Python	1.Solve Computer Problems using Python.
	Create and Analyze MySQL Databases with/without python.
	Drogramma, Pachalar of Calanca
	Programme: Bachelor of Science
Course Title	Course Outcome

Computer Graphics	Course Outcomes:
with JAVA	 Remember the fundamentals of generating graphics using a computer Understand various 2D shapes drawing Algorithms. Analyze various Computer Graphics Transformation Operations. Remember the fundamentals of JAVA programming. Understand the workings of JVM. Create programs to demonstrate the various Computer Graphics Algorithms.
Computer Networks	Course Outcomes:
	1. Remember the fundamentals of Networking
	2. Understand Networking Models.
	3. Evaluate various Networking Devices and understand their workings.
	4. Analyze Technologies and Protocols of First Four Layers of OSI Models.
Lab: Computer Graphics in Java	Course Outcomes:
	1.Solve Computer Problems using Java.
	2. Implement various Computer Graphics Algorithm using Java Graphics API.
Operating System & System Administration	Course Outcomes: 1.Understand fundamental operating system abstractions such as processes,
	threads, files, semaphores, IPC abstractions, shared memory regions, etc.,
	2.Analyze important algorithms eg. Process scheduling and memory management algorithms
	3.Categorize the operating system's resource management techniques, dead lock management techniques, memory management techniques
	4.Demonstrate the ability to perform System Administration tasks in LINUX

Information	Course Outcomes:
Security	 Formulate information security governance, and related legal and regulatory issues. Able to device how threats to an organization are discovered, analyzed, an dealt with. Evaluate network security threats and countermeasures. Understand network security and Acquire the knowledge of advanced
Lab: Operating	security issues. Course Outcomes:
Systems & System Administration	 Use of Linux operating system and able to write shell programs. Simulate and demonstrate the concepts of operating systems.

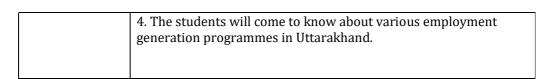
Subject: Economics

Program Outcomes: Economics subject enables the learners to build up a professional carrier as economists, financial advisors, economics planners and policy makers. It prepares them to cope up with the stress and strain involved in the process of economic development.

	Subject: Economics
	Programme: Certificate Course in Fundamentals of Economics
Course Title	Course Outcomes
Basics of Microeconomics	 Study of micro economics enables the students to have an understanding of theoretical aspects of the subject. Students are able to understand and define the basic concepts like consumer behavior, production, demand and supply etc. Students will learn about the price and output determination of the firm and industry under different market forms. They also learn about the Welfare concept in modern Economics.
Basics of Macroeconomics	 Students learn about macroeconomics and different theories regarding the determination of income and employment by different economists. They learn about the consumption and investment functions. And also, about the functioning of multiplier process. Students learn about money and banking and become able to know about the theories of inflation and Unemployment etc.
Course Title	PROGRAMME: Diploma in Economics
	Course Outcomes
Basics of Public Finance	 The students will familiar with Maximum Social Advantage. The students get enabled to know Public Expenditure, Public Revenue and Public Debt.

Money, Banking & International Trade	Course Outcomes: 1. The students will understand the concept of money and banking. 2. The students will learn Indian monetary system and its working.
	Programme: Bachelor in Economics
Course Title	Course Outcome
Indian Economy	Course Outcomes:
	 The students will come to know the Features of Indian Economy. The students will Learn Agriculture, Industrial and Service Sectors of the economy.
	3. The students will get familiar with various Poverty Alleviation and Employment Generation Schemes.
Basics of Labour Economics	Course Outcomes: 1. The students will learn the importance of labour economics. 2. The students will get familiar with characteristics of Industrial labour. 3. The students will come to know about labour legislation and labour unions. 4. The students will learn Social Security and Labour Welfare measures for labours.
Basics of Agriculture Economics	Course Outcomes: 1. The student will come to know the basics of agriculture and rural economics. 2. The student will get familiar with land distribution and agriculture production. 3. The student will learn the diversification in agriculture and about agriculture finance.
Basics of Demography	Course Outcomes: 1. The students will come to know population growth and economic development. 2. The students will come to know about migration and its features.

	3. The students will be able to understand the concept of demographical development of India,
Basic	Course Outcomes:
Quantitative Techniques in Economics	Students will be able to understand the Basic concept of Mathematical Economics
	2. Students will be able to use the mathematical tools and methods in Economics
Economic Growth &	Course Outcomes:
Development	1. The students will be able to understand the development theories along with the conceptual issues in growth and development.
	2. The students will be able to understand the concept of demographical development of India, its demographic features and HDI.
History of	Course Outcomes:
Economic Thought	1. The students will come to know the thoughts of Mercantilism and Physiocracy.
	2. The students will come to know about Classical period thinkers in economics.
	3. The students will know about Nationalist & Welfare Economists.
Basics of	Course Outcomes:
Industrial Economics	 The students will come to know about Industrial Process, growth of Firm and Process of Innovation. The students will study rationalism and effects of globalization on industry
Economy of Uttarakhand	 The course introduces about the economy of Uttarakhand and demographic profile of Uttarakhand. The student will learn agriculture and industrial profile of Uttarakhand economy.
	3. The student will come to know about various poverty alleviation programmes in Uttarakhand.



Subject: Education

• **Program Outcomes:** Under the new Education policy the course has been implemented for U.G level students. Department of EDUCATION will be offered various course / paper during six semester. In the first, second, third and fourth semester the students will be offered one-one compulsory THEORY paper (each of 4 credits: total 16 credits).

PO 1	This course with provide students the basic concept of Education
	The student will able to understand relation between education and society.
	The student will able to analyses Indian and western philosophy.
PO 2	The student will able to understand new trends and importance of ICT.
	The student will able to explain the importance of human rights, environment in our life.
	The student will able to explain the importance of values, mental health and hygiene.
PO 3	Students will be able to understand interdisciplinary nature of the subject.
	Program will be helpful in conceptualization and synthesis of knowledge of life skill and sustainable education.
PO 4	Program will be helpful in conceptualization and synthesis of knowledge of Educational aspects in relation to: Human Development- Human Behavior, Teaching Learning, Measurement and Evaluation, Society and Nation.
P0 5	The student will able to understand importance of research and statistics in education.
P0 6	The student will able to analyses administration and management in education.
	The student will able to explain the glorious history of education.

	Subject: Education
	Programme: Certificate Course in FUNDAMENTAL EDUCATION
Course Title	Course Outcomes
Education and Society	On completion of this course .learners will be able to :
Society	 To understand the meaning, nature, features & different branches of Indian Society. Illustrate the meaning and nature of Education. Compare how Education & Sociology are related to each other. To understand meaning, nature, and scope of Educational sociology. Discuss the education as a social process.
Value/Environmental awareness / Motivation scale and test	On completion of this course, learners will be able to: 1. The student will be able to understand and implement the psychological tools.
Learning/ mental fatigue/ ability Scale & test	On completion of this course, learners will be able to: 1- The student will be able to understand and implement the psychological tools.
	PROGRAMME: DIPLOMA COURSE IN PERSPECTIVES OF EDUCATION
Course Title	Course Outcomes
Development of Indian Education	Course Outcomes:
System	 To build up an understanding of the different Indian education system. To critically analyse the recommendations of various commissions. To promote sensitivity towards Indian Educational Heritage.

	To explore the importance and utility of educational heritage in present scenario of education.
Aptitude / Attitude /	On completion of this course, learners will be able to:
creativity Scale & test	1- The student will be able to understand and implement the psychological tools.
NEW TRENDS IN EDUCATION	Course Outcomes:
EDUCATION	1.To develop analytical skills to question and appraise Integration and practices at national and international levels
	2.To analyse critically the effect of globalization and vocationalization in education
	3.To understand the need of distance education in present scenario
	4.To understand the main Purpose of NEP
Level of educational aspiration/	Course Outcomes:
Adjustment / Mental health Scale & test	On completion of this course, learners will be able to:
nearth scale a test	The student will be able to understand and implement the psychological tools
	Programme: BACHLOR OF ARTS DEGREE IN EDUCATION
Course Title	Course Outcome
Psychological Foundations of Education	On completion of this course, learners will be able to: 1. To understand the relation between Education and Psychology. 2. To understand the learning theories and laws of learning. 3. To explore the importance of transfer of learning. 4. To understand the theories of intelligence and laws of learning 5. To understand the concept of intelligence and personality

Teacher Education	 To acquaint the student with Objectives and aims of teacher education at different levels. To develop an understanding of Teacher Education programmes To analyze the historical background of teacher education To understand Need and significance for Teacher Education at higher education Level To explore the Problems in Teacher Education in India To develop an understanding towards the role of different Agencies/institutions in imparting Teacher Education in India.
Psychological tool Administration	On completion of this course, learners will be able to:
anxiety/ stress scale and test	Use the scientific method to collect the measurable evidence related to psychological test.
	2. Administer and Analyze the steps of different Psychological Tests.
Regulatory bodies of education in India	On completion of this course, learners will be able to:
	 To develop scientific understanding of Research in Education.
	2. Develop an stronger view towards research3. Understand basics of research
	4. Develop attitude towards research5. Collect and analyze data
Basic concept of Educational	Course Learning Outcomes
Research and Statistics	 To explore the role of research in education To acquire a conceptual understanding of research in education. To develop a critical understanding about the Measurement and Evaluation on the basis of statistics. To acquaint the students with use of statistics.
Educational Administration and Management	On completion of this course, learners will be able to: 1. Describe different Educational Organizations.
l	2. Compare Administration, Management and Supervision.

	Differentiate between inspection and supervision.
Intelligence /Personality/ Achievement test	On completion of this course, learners will be able to: 01- Use the scientific method to collect the measurable evidence related to psychological test. 02- Administer and Analyze the steps of different Psychological Tests.
Educational Guidance and counselling	On completion of this course, learners will be able to: 1.To develop scientific understanding of Research in Education. 2.Develop an stronger view towards research 3.Understand basics of research 4.Develop attitude towards research 5.Collect and analyze data

Subject English

Program Outcomes: English plays an essential role in our lives. This is the main language for studying all subjects around the world. English is important for students because it improves their quality of life by broadening their horizons, developing emotional skills, and providing employment opportunities. In addition, the use of English as an international language has increased over time as it is the only means of communication in many countries.

Learning English opens up a world of inspiration and creativity while developing the skills that are essential to today's global environment. This is your chance to learn how literature describes the world through stories, poetry, novels and plays. It's also an opportunity to hone your own writing, reading, analysis and persuasiveness. Through extensive reading and writing, students in our BA program will develop their analytical, interpretation and self-expression skills.

This Undergraduate Programme in English aims to

P0 1	Provide students an extensive view of the cultural and social patterns of the society in the specific time and situations in which it flourished resulting in an intellectual and emotional engagement with the work.
PO 2	Sensitize students to the aesthetic, cultural and social aspects of literature.
PO 3	Augment the understanding of fundamental tenets of classical literature.
PO 4	Make students aware of the different kinds of literature written/translated in various English- speaking countries across the world as well as the literature from Asia.
PO 5	Develop an understanding of the various connotations of the term 'New Literatures'. and the difference from other terms like Commonwealth Literature etc.
PO 6	Develop an insight regarding the idea of world literature and the pertinent issues like feminism and diasporic relocations.
P07	Comprehend and contextualize contemporary films adapted from literature, to describe objectively its importance and usefulness for the society while analyzing its plot and characters.
P08	Develop English language skill keeping in mind its importance as a global language.
P09	Provide job opportunities through 'skill-based' courses.

	Subject: English
	Programme: CERTIFICATE COURSE IN ARTS
Course	Course Outcomes
Title	
Introductio n to English Prose	 After studying this course, the students will be able to: Gain an introductory knowledge of the development and significance of literature in English. Have an introductory study of forms such as Drama and Novel. Apprehend the art of story-telling through short-stories and define its basic elements such as plot, plot- structure, characterization, and narrative technique. Critically evaluate the style and contributions of some of the greatest short-story writers, including Indian writers towards the development of short-story as a genre. Define and distinguish various types of prose and prose- styles. Understand important terms pertaining to prose writings, including various stylistic and figurative devices. Apprehend the growth of English essays through the contributions of some of the greatest essayist. Comprehend the wide variety of subject matter that the genre serves.
History of English Literature	 After studying this course, the students will be able to: Develop an understanding of the evolution of English Literature, the concept, causes and the impact of Renaissance and Reformation. Trace the origin and development of English drama through Miracle and Morality plays and the plays of University Wits. Develop an acquaintance with major religious, political and social movements from 15th to20th century and their influence on English literature. Understand the characteristics of Elizabethan and Metaphysical poetry and special Features of Neo-classical age and its literature. Identify the reasons of the emergence of prose and novels and the decline of drama in England in the

Comprehend the role of French Revolution in the evolution of romanticism in literature. Develop an understanding of the evolution of English Literature, the concept, causes and the impact of Renaissance and Reformation. Comprehend the basic difference and special characteristics of the major literary tendencies of various ages and develop familiarity with major literary works by British writers in the field of Poetry, Drama and Fiction. **PROGRAMME: Diploma in Arts** Course **Course Outcomes** Title Women's This course aims to Writing and Indian Help students understand the social construction of woman by Literature patriarchy. Examine feminism's concerns of equality with men. in Translation Highlight the structural oppression of women. Foreground resistance by women. Discuss women's writing as an act of resistance and of grasping agency. Facilitate an understanding of the body of woman and its lived experience. Help students engage with the heterogeneity of the oppression of women in different places, historically and socially. Understand the rich and diverse tradition of literatures written in regional and vernacular languages. Develop a comparative and intertextual approach to analyse literatures. Develop an appreciation of the diverse multilingual and multicultural ethos of India. Enhance job opportunities by fostering translation skills. Critically appreciate the poems of Kabir and gain an understanding of his philosophy and assess the strength of Rabindranath Tagore as a translator. British After studying this course, the students will be able to: Poetry Identify various forms of poetry and understand the development of these forms in the works of greatest practitioners of these poetic forms. Characterize some basic stanza patterns, their origin and development. Critically analyse poems with an understanding of its basic elements. Assess the contribution of the representative poets of these Ages towards the growth of English poetry and appreciate their poetic Understand and gain informative understanding of the poems written by modern British poets. Strengthens the broader understanding to the study of the British Learn about transition of poetic style and forms with changing times. Gain information about Irish poetry, war poems and modern poems.

	 Learn about changing style and how imagism as a movement in arts influenced the poets.
	Programme: Bachelor of Arts
Course Title	Course Outcome
Introductio n to Literature and Film	Literature and film have had a close relationship with one another manifest in the celluloid 'adaptation' of classics and 'inspired' productions in the earlier days to the film text studies of recent times. The writer and the auteur both produce art that oftentimes is in conversation particularly since the cultural revolution of modernism.
	 This paper attempts to trace the genealogy of this collaborative mediation between literature and cinema between the textual and the visual. Develop an understanding of the technical terminology associated with film and media studies. Interpret films as text and evaluate them critically. Appraise the process of adaption of texts into films.
Partition Literature	The course aims to understand contending interpretation of partition history. The students will be reading a variety of different historical interpretation of partition.
Regional Literature with Special Reference to Literature of Uttarakhan d	 After completing this course, the students will be able to: Study the language and literature of Kumauni and Garhwali region. These texts would be read closely to develop understanding of the key concepts and themes of Regional literature.
Indian and New	Course Outcomes:
Literatures in English	 After completing this course, the students will be able to: Develop an understanding of the themes, styles and poetic sensibilities of poets like Toru Dutt, Nissim Ezekiel, Jayanta Mahapatra and Keki N. Daruwala. Critically analyse drama as a medium of exploration of existing social issues and prejudices through the works of Girish Karnad. Critically analyse texts from a Postcolonial perspective.

- Familiarize themselves with the similar (yet different) socio-historic conditions reflected in the literature of the various colonies.
- Comprehendhow'NewLiteratures'incorporatesverydifferentliterarypro ducts, each with its own cultural, social and geographical specificity.
- Comprehend and analyse the poetic discourses of poets like Pablo Neruda, Margaret Atwood, and Dennis Brutus and the variations in their themes and styles.
- Comprehend the issues of identity, diaspora and marginalization as explored in the texts prescribed.
- Develop an understanding of Postcolonialism and recognise the strategies deployed by Postcolonial writers to resist cultural oppression.

Subject: Geography

Program Outcomes: Geography helps us to have an awareness of a place. All places and spaces have a history behind them, shaped by humans, earth, and climate. It also helps students with spatial awareness on the globe. Understanding direction and where things are in the world is still a vital skill, despite having easy access to this information online. Physical Geography: includes the study of the physical makeup of a land which includes climate, landforms, soil and growth, bodies of waters, and natural resources. Human Geography: on the other hand, includes the study of people and culture and how they are distributed across the globe and are more likely to participate in the global community. Geography helps to develop factual reading skills — not only in the studying of maps, but also in the reading materials that are associated with geography. Geography often involves first-hand accounts, reading of research studies, and analysis of data sets. Geography puts history in context.

PO 1	This course will provide students, the basic concepts of Physical & Human Geography.
PO 2	It will help in developing analytical and critical thinking based on the themes and issues of Geography.
PO 3	Students will be able to analyze the problems of present physical as well as cultural world and they will try to find out the possible measures to solve those problems.
PO 4	Students will be able to understand applied and interdisciplinary aspects of Geography.
PO 5	Students will be able to design and conduct research projects in geography.
PO 6	Students will learn how to use various surveying instruments in the field.
P07	Students will be equipped with various statistical techniques and their uses.
P08	Students will learn how to prepare maps based on toposheets as well as GIS.
P09	Students will be able find out an original research question appropriate for geographic analysis.
PO10	Students will be able to design and implement legitimate geographic methodology.

	Subject: Physics
	Programme: Certificate Course in Arts/Science
Course Title	Course Outcomes
Physical Geography	Course Outcomes 1. Understand the origin of Universe, Earth and Solar system.
	2. Learn about the Continents and Oceans.
	Plate tectonics and related movements. Origin and development of different Landforms on the Earth.
	5. Earth's climate and factors influencing it.
	6. Understand formation of Soil, types, profiles and biogeography. 7. Ocean systems of the world.
Basic Cartographic Techniques and Map Readings	Learn basics of Cartography and Map making Understand and interpret toposheets and weather maps
	Draw maps with the help of toposheets Learn function and use of meteorological instruments
Human Geography	Learn Meaning, Concept, Nature, Scope and development of Human Geography. Understand Cultural Changes in and around the world. Learn about the different races, religions, tribes, their culture and cultural development.
Surveying Techniques	Understand importance of Surveying. Learn to use Different Surveying instruments including GPS.

	PROGRAMME: Diploma in Arts/Science
Course Title	Course Outcomes
Tourism Geography	Course Outcomes:
	1. Understand the concept and importance of tourism and tourism Geography.
	Infrastructure required by the tourism services. Learn impacts on Environment, economy and society.
	4. Tourism prospects and challenges in Uttarakhand.
Thematic Cartography	Course Outcomes: 1. Learn theme-based cartography.
	2. Able to represent geographical data of different types using diagrams, graphs and maps
Regional Planning and Development	Course Outcomes:
•	1. Understand the concept of region, planning and development
	 Understand the importance of Regional planning. Learn the process and strategies of planning. Understand the theories of regional planning. Problems of planning and causes of regional disparities.
Quantitative Techniques and	Course Outcomes:
Map Projections	Understand the importance of statistical methods in Geographical studies.
	2. Learn data collection, tabulation, analysis and prediction.
	3. Understand the need of projection and construction methods.
	Programme: Degree in Arts/Science
Course Title	Course Outcome
Geography of India	1. Help students to know the Uniqueness of India in the world.
	Learn about the physical and cultural diversities and interrelationships of India.

	3. Understand the agricultural, industrial and trade aspects of India.
Economic Geography	Course Outcomes: 1. Understand broad meaning and scope of Economic Geography. 2. Understand Economic landscape. 3. Learn world production of crops, industries, resources, and petroleum etc. 4. Learn theories of industrial location and factor responsible. 5. Understand trade and transportation scenario of the world.
Field Excursion	Course Outcomes:
	1. Understand different physio-cultural settings of the visited region or area.
	2. Understand the geographical differences among regions and areas and their causes.
	3. Learn to interact with peoples of different culture.
	4. Learn to Prepare tour repo
Survey/ Research Project -1	Course Outcomes:
	1. Understand the importance of research and research methodology.
	2. Learn how to conduct research project.3. Learn to prepare project report.
Evolution of Geographical	Course Outcomes:
Thoughts	1. Understand the development of Geography as a scientific discipline.
	2. Learn the basic concepts of Geography.
	3. Know the impact of expedition, discoveries and exploration on Geographical knowledge.
	4. Contributions of Indian, Arab, Greek, Roman, and modern geographers.
Agricultural Geography	Understand the meaning, scope and approaches of Agricultural Geography.

	Learn factors influencing Agriculture. Learn techniques and methods of agricultural regionalization. Come to know the agricultural location theory. 5. Understand the agricultural scenario of India.
Basics of Remote Sensing and GIS	Course Outcomes: 1. Understand the meaning and importance of Remote Sensing and GIS. 2. Learn to map making by using RS and GIS.
Survey/ Research Project-2	Course Outcomes: 1. Implementation of Research Methodology. 2. Field Survey and Data collection and Data Analysis. 3. Report Writing.

Subject Music (Vocal)

Program Outcomes: Being in a category of Fine Arts, Music is a highest form of Arts proclaimed every now and then by many global thinkers and philosophers.

B.A. Hindustani Music (Vocal) is a three year/six semester course, which offers practical as well as theoretical knowledge of Raga and Tala. The roots of Indian Music are derived from the Vedic era, where Sam-Gana was the origin of modern Raga Sangeet. B.A Hindustani Music (Voca) offers students to learn and practice nuances of Indian classical music through Raga and Tala Vidya.

The Kumaun region of Uttarakhand is known for its rich folk music. The course also provides an introduction of rich Kumauni folk music that also includes Kumauni Mahila, Baithaki and Khadi Holi traditions. Graduation in Hindustani Vocal Music degree will be helpful in leading an artistic as well as a professional life.

PO 1	This course provides the basic ideas and concepts of Hindustani Music (Vocal). Through this program students will get knowledge about Indian Classical music.
PO 2	The course intends to orient the learner with the approaches to the discipline of Music Vocal.
PO 3	Through this course, the students will get to know the different Ragas, Taals, basic science of Indian Music, notation system of Indian and Western Music, History of Indian Music, origin and development of Gharana tradition, Carnatic Sangeet, Folk Music of Uttarakhand along with the biographies of some distinguish artist and scholars of Indian Music.
PO 4	Students will also get acquainted with the musical stage performance. Through its curriculum, students will get acquainted with the authentic aspects of historical facts and gain knowledge of the glory of Indian Music.
PO 5	Students will be motivated to contribute towards Nation building by making them aware of the Indian music and culture.
PO 6	This course will provide a medium for students to develop an attitude of research. This curriculum will not only provide a bridge of performance ability to the students but also provide them employment opportunities.

	Subject: Hindustani Music Vocal
	Programme: Certificate Course In [Hindustani Music Vocal]
Course Title	Course Outcomes
Introduction to	Course Outcomes:
Indian Music	
	This course will help to initiate a relative beginner into the world of
	Hindustani Classical Vocal Music where he is made aware of the rich

cultural heritage of Indian Music. The student will come to know the basic terminologies of Hindustani Classical Music which will help them in the proper understanding of Indian music as a whole. They will grasp the various grammatical aspects and respective rules of the prescribed Ragas and Taalas. Learning the notation system will enhance the ability to read and write the notations of compositions of hindustani classical music and writing of taals with various layakaris.

On the successful completion of Introduction to Indian Music students will develop a strong foundation of the basic understanding of the Indian Music.

Critical Study of Ragas and Taals

Course Outcomes:

This course focuses on the practical fundamentals of performing a Raag on stage with Vilambit and Drut Khayal. Students will be able to perform other lighter compositional forms of Indian Music like, Tarana, Bhajan, Geet and Ghazal. Students will understand the concept of Laya and Layakari with proper fusion with the Raga and its composition. Students will also learn the basic Vocal exercises like Alankar-Paltas, Lakshangeet and Sargamgeet which are the foundational compositions to learn for a beginner student.

The History of Indian Music

Course Outcomes:

The focus of this course is that the student will have acquainted with rich cultural heritage of Indian music. This course will help the students to know the rich history of Indian music from the Vedic, Ramayana and Mahabharata period. They will be able to understand the concept of the shruti and swars as mentioned by ancient to modern period music scholars. Comparative study of Ragas will enhance student's practical as well as theoretical knowledge. Learning the Pt. Bhatkhande and Pt. Vishnu Digambar notation system will enhance the ability to read and write the notations of Hindustani classical vocal music and writing of taals with various layakaris.

Critical Study of Ragas and Taals

Course Outcomes:

Students will learn the practical fundamentals of Raga Music in terms of Aaroh, Avroh, Pakad and Raga-Vachak Swar-Samudaaya. The students will become well versed with the older forms like Dhrupad and Dhamar Gayan by which students will enhance their ability to sing layakaaris with different Laya Samuh or Bol-baant. Through this learning process student can strengthen their rhythm aspect which is a basic need in any form of music. Apart from traditional Indian classical Music they will also be able to perform some light compositional forms which will enhance their singing skill and voice culture.

	PROGRAMME: Diploma in Music Vocal
Course Title	Course Outcomes
Contribution of Ancient Medieval & Modern Scholars to Indian Music	Course Outcomes: The course focuses on the contribution of scholars to Indian Music from Ancient to Modern period. Artists are the main pillars of any art and art work. To know about the various artists and scholars make a student more aware and enhance the wisdom of a student in the work of art. India is full of great music scholars since ancient period. Natyashastra, Brihaddeshi are among some of the ancient text on music which goes upto 4 th century. Study of these very ancient works on Indian Music, allows student to know the rich ancient tradition and musical experiments by various great scholars till modern period. Notation systems of Indian classical music are one of the affluent and well designed systems which enable a student to read and write a musical composition with ease. This course offers the learning of Notation system of both Tala and Raga Bandishes.
Critical Study of Ragas and Taals	Course outcomes: As this is a practical course, in this course student will be able to learn the critical aspects of Ragas and Talas prescribed from the syllabus. These ragas and talas are already acclaimed by various musicians from classical, folk and film, music etc. Students will be able to learn and recognise various famous songs and will be able to mark the authenticity of raga in various music platforms. Moreover, students will get an idea to perform a raag more skillfully and more aesthetically with improvisations of Alaap and Taan. They also will have acquainted with semi classical styles like Bhajan, Ghazal or Geet which can boost the moral and confidence while singing in various platforms like stage, recording tv/radio studios, Live musical events or large gatherings.
Notation System, Scales and time Signature	Course Outcomes: As we all know music has been transferred from one generation to other through the medium of oral traditions. But the only drawback of oral tradition has been that it was very hard to preserve some great musical compositions from time to time. Musical notation system was developed long back by the musicians to preserve great musical works of the time in both western and Indian classical Music. On the successful completion of this course student will get a deep knowledge of the Western and Indian notation system and also get a brief idea of intricacies of both notation systems.
Critical Study of Ragas and Taals	Course Outcomes:

As this is a practical course, in this course student will be able to learn the critical aspects of Ragas and Talas prescribed in the syllabus. These ragas and talas are already acclaimed by various musicians of Classical folk, and film music etc. Students will be able to learn and recognise various famous songs and will be able to mark the authenticity of raga in various music platforms. Moreover, students will get an idea to perform a raag more skilfully and more aesthetically with improvisations of Alaap and Taan. They also will have acquainted with semi classical styles like Bhajan, Ghazal, Tarana and Geet which can boost the moral and confidence while singing in various platforms like stage, recording tv/radio studios, live musical events or musical gatherings. **Course Outcome Course Outcomes:** Western Music This course deals with the science of western music and various other other styles of styles of Indian music. As Indian music is enriched with some great versatile musical forms, the purpose of this paper is to give knowledge about these ancient forms of Indian music like Khayal Dhrupad, Dhamar, Thumri, Tappa, Dadara, Hori Tarana, Chaturang, Trivat etc. The students will also come to know about various obsolete Musical art forms like Ashtpadi, Natya Sangeet, and less recognized musical forms like Qawwali and Ghazal. The main focus of this course is to give introductory knowledge of some famous musical art forms present in different region in India. Critical Study of **Course Outcomes:** Ragas and Taals In this course student will be able to learn the critical aspects of Ragas and Tala's prescribed in the syllabus along with the Mahila and Purush khadi and Baithaki Holi geet of the Kumaun region of Uttarakhand. Ragas and talas that are prescribed in this course are already acclaimed by various musicians of classical folk and film music etc. Students will be able to learn and recognise various famous songs and will be able to mark the authenticity of raga in various music platforms. Moreover, students will get an idea to perform a raag more skillfully and more aesthetically with improvisations of Alaap and Taan. They also will have acquainted with semi classical styles like Bhajan, Ghazal, Tarana or Geet which can boost the moral and confidence while singing in various platforms like stage, recording tv/radio studios, Live musical events or musical gatherings. This section focus on Practical knowledge of Trivat, Chaturang, and traditional Kumauni mahila and purush holigeet.

Stage performance is an opportunity for a student through which a

student receives an overall development of his/her talent. Comparative discussion of Ragas in this course uplifts a student to a level in which

Course Title

The study of

and Various

Indian Music

Stage

Performance of prescribed Ragas

and Taalas

	he/she can learn new nuances and various sound designs and untouched aspects applied in a Raga, which opens broad dimensions to a young logical mind to trace the roots even in the folk or in the regional musical tunes.
	This course provides practice on the theoretical and analytical study of Ragas and Taals.
	Programme: Bachelor of Hindustani Music (Vocal)
Course Title	Course Outcome
Study of Gharana Carnatic Music, Folk Music of Uttarakhand	Course Outcomes: The course focuses on the contribution of the great musicians of Indian Classical Music from various Gharanas. Gharanas are the main pillars of Hindustani music. By studying a particular gharana student can learn about different styles, musical compositions and intricacies. That makes a student more aware and enhances the wisdom of a student in the field of music. India is full of great musicians since ages and in this course students will study the life sketch and contribution of various stalwart musicians of Indian Music. Classification of Ragas, classification of That and Raagang of Indian classical music are one of the affluent and well designed classifications which enable a student to understand Thaat, Raga and Ragang with ease. The main focus of this course is gaining the knowledge about the Gharana tradition of Indian Music, Carnatic Music and Folk Music of Uttarakhand.
Critical Study of	Course Outcomes:

Critical Study of Ragas and Taals

Course Outcomes:

As this is a practical course, in this course student will be able to learn the critical aspects of Ragas and Talas prescribed in the syllabus. These ragas and talas are already acclaimed by various musicians of Classical folk, and film music etc. Students will be able to learn and recognise various famous songs and will be able to mark the authenticity of raga in various music platforms. Moreover, students will get an idea to perform a raag more skillfully and more aesthetically with improvisations of Alaap and Taan. This section focus on Practical knowledge of Trivat, Chaturang, and various types of Kumauni folk songs.

Subject: History

Program Outcomes: History is the study of change over time. It covers all aspect of human society. History deals with all aspects of human past e.g. political, social, economic, scientific, technological, medical, culture, intellectual, religious, military etc. History involves the analysis and interpretation of the human past thereby enabling us to study continuity and changes that are taking place over a time. It is an act of both investigation and imagination that seeks to explain how people changed over time. Historians use all forms of evidence to examine, interpret, revisit and reinterpret the past. These include not just written documents, but also oral communication and objects such as buildings, artifacts, photographs and paintings. Historians are trained in the method of discovering and evaluating these sources and the challenging task of making historical sense out of them. Historical discourse gives an understanding of the past which enables us to appreciate our present and shape our future. Besides, history provides background information for other disciplines of social science and humanities.

PO 1	Knowledge: The students develop a scientific understanding of the past which enables them to understand the history of India as well as the history of the world.
PO 2	Problem Analysis: The students develop a logical understanding of the past which enable them to make sense of the current societal problems in their historical context. The students gather intimate knowledge of the genesis and evolution of the social, economic, cultural and political formations of human past.
PO 3	Historical Research: Use historical research methods to generate knowledge about the various and diversified issues relating to the past.
PO 4	Conservation and Preservation: Conservation and preservation of art, culture and heritage of the Himalayan region. The department has Himalayan Museum since 1987, which has specifically been devoted to display, conserve and preserve the artefacts of the Himalayan region.
PO 5	Modern methods usage: Select and apply appropriate methods, techniques, resources and modern IT tools for generation and dissemination of historical knowledge.
PO 6	History and society: Apply reasoning informed by the contextual knowledge of human past to assess current state of society, economy, environmental, cultural, and political and other related issues.
P07	Career Prospects: Enable them in understanding significance of the subject for various competitive examinations.

P08	Individual and team work: Function effectively as an individual
P09	Communication: Communicate the outcome of the historical research through writings
P010	Life-long learning: Recognize the need for and have the capability of critically evaluating and analyzing the past for a better understanding of human past.

	Subject: History
	Programme: Certificate Course in Ancient Indian History
Course Title	Course Outcomes
History of India from the Earliest Times up to 300 CE	Course Outcomes The present course will be useful in providing a comprehensive understanding to the evaluation of early Indian society and the student will be able to identify the forces and factors that shaped the course the course of early Indian history. The students will develop a critical awareness of various categories of sources for the study of ancient Indian history. They will learn the analytical skills to explore the development of India's religious systems and cultural accomplishments in historical perspective. They will be able to explore the connections between multiple causative factors and access their relative historical significance. They will understand the process of the rise and decline of imperial states in early India.
History of India from C.300AD to 1200AD	Course Outcomes This paper is designed to develop the understanding of the process of transition from ancient period to the early medieval period and figure out the key determinations that made this transition possible. It will develop an understanding of the growing culture and political and economic linkages between North and South Indian. The student will also get familiarized with the development of historical processes in Deccan and far south.

	PROGRAMME: Diploma in Ancient & Medieval History
Course Title	Course Outcomes
History of India from C. 1200AD to 1526AD	Course Outcomes: This paper is designed to develop the understanding of historical processes in India during the period under study. This paper covers the development in the field of art, language, culture and religious during medieval period. The student will be able to understand the territorial expansion of various Indian kings and impact of Medievalism on Indian Society and Culture.
History of India from C. 1526AD to 1756AD	Course Outcomes: This paper is designed to provide the students with a firm basis for the understanding of the period 1526-1707. By discussing the nature of the social, political and religious foundations of Mughal India as a dynamic process, the student will acquire multifaceted understanding of the factor that shaped state and society in the Mughal period and that were carried into the later colonial state.
History of India from 1757AD to 1857AD	Course Outcomes: The students will be able to trace the British Colonial expansion in the political contexts of mid eighteenth to mid nineteenth century India. They will learn about the changes in society, politics, religious and economy during this period. They will also acquire knowledge about the transition of India into a colonized society and economy.
	Programme: Bachelor of History
Course Title	Course Outcome
History of Modern World 1453AD 1815AD	Course Outcomes: This paper is designed to develop an understanding of renaissance and point out the factors for the growth of renaissance. It explains the changes in human thoughts and behavior due to renaissance. The student will be able to learn the rise of reformation movement against the Roman Catholic and how reformation impact globally. It will enable the students to compose an effective narration that analyses the history of western world. They will be able to evaluate the ways in which the history of the early western civilization in forms the current political, cultural and social history of Europe after 15 century and its relationship to the global culture.
Study of Languages used in Indian history	Course Outcomes: Student has to prepare research report on any language of Historical importance of his/her interest to consultation with Supervisor. Supervisor will teach following to their students for enabling students to prepare research report.

	 Students will be able to the linguistic diversity of textual sources of Indian History In-depth knowledge of Languages used in Indian- History. The variation among Historical aspect of different languages. Interaction with people with different languages and cultural settings. Study of Historical area of different languages being visited. Learn to prepare language analysis report.
History of India from 1857AD to 1950AD	Course Outcomes: This paper is designed to develop an understanding of historical developments in India during the colonial rule. Understanding of the process of domination and resistance in this phase of colonial era shall enhance the student's awareness about modern India. By studying various strands of freedom movement student will be able to appreciate this phase of Indian past.
History of Modern World 1815AD 1945AD	Course Outcomes: This Course will impart knowledge to the students regarding the political transformations of the modern world that took place from the 18 th century till the end of 1945. The students will be able to know about the political history of the world since the end of the first world war focusing on the change and continuity over time and space. The course will impart knowledge on the economic developments of the period in an analytic way.

Subject: Home Science

Program Outcomes: Students having Degree in B.Sc. (with Physics) should have knowledge of different concepts and fundamentals of Physics and ability to apply this knowledge in various fields of academics and industry. They may pursue their future career in the field of academics, research and industry.

PO 1	The program has been framed in such a manner that students receive real feel of quality education by touching all aspects of human lifecycle.
PO 2	Designed to enhance the capacity of students to understand universal and domain-specific values in Home Science.
PO 3	Develop the ability to address the complexities and interface among of self, social and national priorities.
PO 4	Inculcate both generic and subject-specific skills to succeed in the employment market and standards of life.
PO 5	Promote research and innovation and design (product) development favouring all the disciplines in Home Science.
PO 6	This programme develops scientific and practical approach among the students which helps in their day-to-day life.

	Subject: Home Science
	Programme: Certificate in Fundamentals of Home Science
Course Title	Course Outcomes
Fundamentals of Nutrition and Human Development(Theory)	 Prepare the students to understand physiology based courses Students will get familiar with different methods of cooking Acquaint students with practical knowledge of nutrient rich foods

	 Explain the need and importance of studying human growth and development across life span Identify the biological and environmental factors affecting human development Learn about the characteristics, needs and developmental tasks of infancy & early childhood years
Cooking skills and healthy recipe development(Practical)	 Students will get familiar with different methods of cooking Acquaint students with practical knowledge of nutrient rich foods
Introduction to Clothing & Textiles	The student at the completion of the course will be able to: • Learn about scope of textile and clothing • Understanding why fabrics are different • Learn how fabrics can be manufactured • Understand basic clothing concepts and garment making • Learn the family resource management as a whole • Understand the Decision making and use of resources throughout the Family life cycle. • Gain knowledge about Time, Money & Energy as a Resource. • Appreciate Household equipment for work simplification PROGRAMME: Diploma in Interior Decoration and Diet Planning
Course Title	Course Outcomes
Housing, Interior Decoration and Extension Education (Theory)	 Grasp knowledge of Housing, need & selection of site in real life situations. Comprehending Housing plans for residential purpose. Appreciate principles of design and the contributing factors to refine personal aesthetic

	 Learn the widening concepts of Extension Education. Develop understanding for Effective teaching and learning. Comprehend the various effective communication methods. Gain skills to use technologically advanced Audiovisual aids.
Interior Decoration and Development of Extension Teaching Aids (Practical)	 Developing skills for making time plan for effective balance of work & leisure. Plan & prepare budget for the family.
	 Incorporate appropriate work simplification in using household equipments. Develop understanding for house planning & decoration
Nutrition Through Life Span and Human Development (Theory)	 Create an awareness about importance of healthy meal at various stages of life cycle Inculcate healthy eating practices among students Develop skill of meal planning for different physiological groups Explain the physical & Physiological changes during middle childhood, adolescent and adulthood stage Identify the biological and environment factors affecting personality. Learn about the characteristics, needs and developmental tasks of Middle childhood years, Adolescent & Adulthood stage
Meal Planning and Human Development (Practical)	 Course Outcomes: Learn to cope up with adolescent and adulthood problem Understand and handle development related issues more efficiently. Able to know human behaviour. Understand individual differences.

	Programme: Bachelor in Home Science
Course Title	Course Outcome
Surface Ornamentation of Fabrics (Theory)	 Knowing why fabrics look differently Identify the different techniques of fabric from surface Learn about finishes done on fabric Knowing about dyeing fabrics Learn how printing on fabrics is carried Knowing the traditional embroideries in India Identifying traditional textiles of different states Knowing the importance of appropriate laundry method
Community Development and Programme Planning (Theory)	 Understand the Community Development dynamics & organizing system for Development. Create awareness about the various development programmes Identify the leadership pattern in the community. Impart skills to implement, monitor & evaluate programmes.
Techniques of Surface	Course Outcomes:
Ornamentation of Fabrics (Practical)	 Performing printing on fabrics Performing the traditional embroideries of India. Identifying traditional textiles of different states. Performing different appropriate laundry methods.
Dietetics and Therapeutic	Course Outcomes:
Nutrition (Theory)	1- Knowledge of principles of diet therapy
	2-Develop and understand modification of the normal diet for therapeutic purposes
	3-Practical knowledge of dietary management in some common disorders.

Therapeutic Diet Preparation and Nutrient	Course Outcomes:
Evaluation (Practical)	1-Gain Knowledge of principles of diet therapy
	2-Develop and understand modification of the normal diet for therapeutic purposes
	3-Practical knowledge of dietary management in some common disorders.

Subject: Mathematics

Program Outcomes:

PO 1	It is to give in-depth knowledge of geometry, algebra, calculus, differential equations and several other branches of pure and applied mathematics. This also leads to study the related areas such as computer science and other allied subjects.
PO 2	The skills and knowledge gained in this program will be helpful for modeling and solving of real life problems.
PO 3	Students will become employable in various government and private sector.
PO 4	The completing this programme develop enhanced quantitative skills and pursuing higher mathematics and research as well.
PO 5	The completion of this programme will enable the learner to use appropriate digital programmes and softwares to solve various mathematical problems.

	Subject: Mathematics
	Programme: Certificate Course in Basic Mathematics
Course	Course Outcomes
Title	
Matrices,	
Trigonome try and Differential Calculus	CO1: The programme outcome is to give foundation knowledge for the students to understand basics of mathematics including applied aspect for developing enhanced quantitative skills and pursuing higher mathematics and research as well.
	CO2: By the time students complete the course they will have wide ranging application of the subject and have the knowledge of matrices and basics of differentiation.

	CO3: The student will be able to sum the trigonometric series of real and complex numbers and separate the trigonometric function in form of A+iB.
	CO4: The main objective of the course is to equip the student with necessary analytic and technical skills. By applying the principles of differentiation, he learns to solve a variety of practical problems in science and engineering.
	CO5: The student is equipped with standard concepts and tools at an intermediate to advance level that will serve him well towards taking more advance level course in mathematics.
Practical	CO1: The main objective of the course is too familiar the student with different computer software such as Mathematica /MATLAB /Maple /Scilab/Maxima etc. CO2. The students will be able to compute various operations on matrices by using different computer software such as Mathematica /MATLAB /Maple /Scilab/Maxima etc.
	CO2. The students will also be able to compute n th derivative of various functions by using different computer software.
Integral calculus and Vector Analysis	CO1: The Programme outcome is to give foundation knowledge for the students to understand basics of mathematics including applied aspect for developing enhanced quantitative skills and pursuing higher mathematics and research as well. CO2: By the time students complete the course they will have wide ranging application of the subject and have the knowledge of surface area and volume of shapes. CO3: The main objective of the course is to equip the student with necessary analytic and technical skills. By applying the principles of integral he learns to solve a variety of practical problems in science and engineering. CO4: The student is equipped with standard concepts and tools at an intermediate to advance level that will serve him well towards taking more advance level course in mathematics.
	PROGRAMME: Diploma in Mathematics
Course Title	Course Outcomes
Group Theory and	Course Outcomes:

Analytical Geometry	CO1: Group theory is one of the building blocks of modern algebra. Objective of this course is to introduce students to basic concepts of Group and their properties. CO2: This course will lead the student to basic course in advanced mathematics and geometry. CO3 The subjects learn and visualize the fundamental ideas about coordinate geometry and learn to describe some of the surface by using analytical geometry. CO4: On successful completion of the course students have gained knowledge about regular geometrical figures and their properties. They have the foundation for higher course in geometry. CO5: On successful completion of the course students should have knowledge about higher different mathematical methods and will help him in going for higher studies and research.
Ordinary Differential Equations and Ring Theory	CO1: The objective of this course is to familiarize the students with various methods of solving differential equations of first and second order and to have qualitative applications. CO2: A student doing this course is able to solve differential equations and is able to model problems in nature using ordinary differential equations. After completing this course, a student will be able to take more courses on wave equation, heat equation, diffusion equation, gas dynamics, nonlinear evolution equation etc. CO3: Ring theory is one of the building areas of modern algebra. Objective of this course is to introduce students to basic concepts of Ring, Integral domain and other structures with their properties. This course will lead the student to basic course in advanced mathematics and Algebra.
	Programme: Degree in Mathematics
Course Title	Course Outcome
Real Analysis, Functions of several variables and Partial Differential Equations	CO1: Students will be able to know the basic concepts and developments of real analysis which will prepare the students to take up further applications in the relevant fields. CO2: On successful completion of the course students should have knowledge about real analysis and will help him in going for higher studies and research. CO3: The main objective of the course is to equip the student with necessary analytic and technical skills.

	CO4: The course in partial differential equation intends to develop problem solving skills for solving various types of partial differential equation especially hyperbolic, parabolic and elliptic types of PDE.
Mathemati cal Methods and Graph Theory	CO1: The student will be able to find the integral transform, Laplace transform, inverse Laplace transform and Fourier transform. The course in mathematical methods basically develops a problem solving skill in the students. CO2: Upon successful completion, students will have the knowledge of various types of graphs, their terminology and applications.
	CO3: After Successful completion of this course students will be able to understand the isomorphism and homomorphism of graphs. This course covers the basic concepts of graphs used in computer science and other disciplines. The topics include path, circuits, adjacency matrix, tree, coloring. After successful completion of this course the student will have the knowledge graph coloring, color problem, vertex coloring.
Number Theory and Relativity	CO1: The student will be able to solve problems in elementary number theory and also apply elementary number theory to cryptography. CO2: Upon successful completion, students will be able to describe the basic concepts of the theory of relativity. CO3: After Successful completion of this course students will be able to discuss postulates of the special theory of relativity and their consequences. Credits: 5
Numerical Analysis and Operations Research	CO1: After Successful completion of this course the student will be able to perform error analysis for arithmetic operations. CO2: Upon successful completion, students will be able to understand the use of interpolation and curve fitting and finite differences. CO3: After Successful completion of this course students will be able to use some solution methods for solving the linear programming problems.

Complex Analysis and Mechanics	CO1: The course is aimed at exposing the students to foundations of analysis which will be useful in understanding various physical phenomena and gives the student the foundation in mathematics.
	CO2: Upon successful completion, students will be able to understand the complex variables, analytic functions, complex integration and residues.
	CO3: The object of the paper is to give students knowledge of basic mechanics such as simple harmonic motion, motion under other laws and forces. CO4: The student, after completing the course can go for higher problems in mechanic such as hydrodynamics, this will be helpful in getting employment in
Linear Algebra and Metric Spaces	CO1: Liner algebra is a basic course in almost all branches of science. The objective of this course is to introduce a student to the basics of linear algebra and some of its applications.
	CO2: After Successful completion of this course, students should be able to understand the concept of linear transformation. CO3: On successful completion of the course students should have knowledge about metric spaces, connectedness and compactness.

Subject Physics

Program Outcomes: Students having Degree in B.Sc. (with Physics) should have knowledge of different concepts and fundamentals of Physics and ability to apply this knowledge in various fields of academics and industry. They may pursue their future career in the field of academics, research and industry.

PO 1	 Competence in the methods and techniques of calculations using Mechanics. Students are expected to have hands-on experience to apply the theoretical knowledge to solve practical problems.
PO 2	 Students are expected to have deep understanding of electricity and magnetism. Student should be able to make basic electrical circuits and handle electrical instruments.
PO 3	1.Competence in the concepts of Thermodynamics. 2.Students are expected to have hands on experience in Thermal Physics Experiments.
PO 4	1.Knowledge of different concepts in Geometrical Optics. 2. Students are expected to have hands on experience of Experiments of Geometrical Optics
PO 5	1.Knowledge of basic concepts of optical instruments with their applications in technology 2.Students are expected to have an insight in handling electronic instruments.
PO 6	1.Comprehensive knowledge of Analog & Digital Principles and Applications. 2.Learn the integrated approach to analog electronic circuitry and digital electronics for R&D.

	Subject: Physics
	Programme: Certificate Course in Basic Physics
Course Title	Course Outcomes
Mechanics	Course Outcomes Course Outcomes
iviechanics	Understanding of Vector Algebra and Vector Calculus.
	2. Understand the physical interpretation of gradient, divergence and curl.
	3. Study of gravitational field and potential and understanding of Kepler's laws of Planetary motion.
	4. Understanding of different frames of references and conservation laws.
	5. Understand the dynamics of rigid body and concept of moment of inertia. Study of moment of inertia of different bodies and its applications.
	6. Study the properties of matter, response of the classical systems to external forces and their elastic deformation and its applications.
	7. Comprehend the dynamics of Fluid and concept of viscosity and surface tension along with its applications.
<u></u>	
Electricity and Magnetism	 Understanding of Electric Field and Potential. Evaluation of Electric Field and Potential for different types of charge distributions. Study of Electric and Magnetic Fields in matter. Understand the concept of polarizability, Magnetization and Electric Displacement Vector. Study ofSteady and Varying electric currents. Understanding of different aspects of alternating currents and its applications. Understand the Magnetostatics, Lorentz Force and Energy stored in magnetic Field.
	6. Comprehend the different aspects of Electromagnetic induction and its applications.

Demonstrative Aspects of Electricity & Magnetism (Practical)	Experimental physics has the most striking impact on the industry wherever the instruments are used to study and determine the electric and magnetic properties. 2.
(Fractical)	Measurement precision and perfection is a chieved through Lab Experiment s.
	PROGRAMME: Diploma in Applied Physics
Course Title	Course Outcomes
Thermodynamic s	Course Outcomes:
	 Recognize the difference between reversible and irreversible processes.
	Understand First and Second Law of Thermodynamics and concept of Entropy.
	Understand the physical significance of thermodynamical potentials.
	4. Comprehend the kinetic model of gases w.r.t. various gas laws.5. Study the implementations and limitations of fundamental radiation laws.
Demonstrative	Course Outcomes:
Aspects of Thermal Physics	Experimental physics has the most striking impact on the industry wherever the instruments are used to
(Practical)	study and determine the thermal properties. 2. Measurement precision and perfection is achieved through Lab Experiments.
Geometrical	Course Outcomes:
Optics	Study of Fermat's Principle of Extremum Path and understand
	fundamental physics behind reflection and refraction of light. 2. Understand the theory of image formation by an optical system.
	 Study of different types of optical Aberrations and techniques for their reduction.
	Study of different types of optical instruments used in industry and research

Demonstrative	Course Outcomes:
Aspects of	
Geometrical	1. Experimental physics has the most striking impact on the industry
Optics	wherever the instruments are used to study and determine the optical
	properties.
(Practical)	
	2. Measurement precision and perfection is achieved through Lab
	Experiments.
	Programme: Degree in Science
Course Title	Course Outcome
Physical Optics	Course Outcomes:
	Study of Interference of light. Interference by division of
	wavefront and division of amplitude.
	2. Understanding Diffraction of Light and concept of Zone Plate.
	3. Understand the polarization of light
	4. Study of different types of associated optical instruments
	based on interference and diffraction of
	light which are widely used in industry and research.
Domonostrativo	Course Outcomes
Demonstrative	Course Outcomes:
Aspects of	1. Experimental physics has the most striking impact on the industry
Physical Optics	1. Experimental physics has the most striking impact on the industry
(Practical)	wherever the instruments are used to study and determine the optical
(Practical)	properties.
	2. Measurement precision and perfection is achieved through Lab
	Experiments.
	Ехреппено.
Basic Electronics	Course Outcomes:
	Study of different Network Theorems for simplifying
	complicated electronics circuits.
	2. Study of Regulated Power Supply. Understand different types
	of Rectifiers, Filters and Voltage
	Regulator.
	Study of different types of special diodes and their applications
	3. Study of different types of special diodes and their applications

	4. Study of Transistors and their applications in different types of
	Amplifiers.
Demonstrative Aspects of Basic	Course Outcomes:
Electronics	1. Experimental physics has the most striking impact on the industry wherever the instruments are used to study the Electronics and its
(Practical)	application in industry and research. 2. Measurement precision and perfection is achieved through Lab Experiments.
Modern Physics	Course Outcomes:
	Study of different atomic models. Church of articles and V. mare
	 Study of optical spectra and X- rays. Understand the theory of LASERS which are widely used in
	industry and research.4. Understanding fundamentals of molecular spectroscopy.
	5. Study of structure of atomic nucleus and radioactive decay.6. Study of Elementary Particle Physics.
Demonstrative	Course Outcomes:
Aspects of Modern Physics	Experimental physics has the most striking impact on the industry wherever the instruments are used to study and determine the
(Practical)	modern physics concepts. 2. Measurement precision and perfection is achieved through Lab Experiments.
Analog and Digital	Course Outcomes:
Electronics	Study of feedback in amplifiers along with their advantages and disadvantages. Study of different types of assillators.
	 Study of different types of oscillators. Understand the concepts of Boolean Algebra and various number systems
	4. Study of logic gates and their applications.
Demonstrative Aspects of	Course Outcomes:
Analog and	1. Experimental physics has the most striking impact on the industry wherever the instruments are used to study the Electronics and its

Digital	andiantian in industry and research
Digital	application in industry and research.
Electronics	2. Measurement precision and perfection is achieved through Lab
(5 1)	Experiments.
(Practical)	
	Programme: Bachelor (Research in Physics)
Course Title	Course Outcome
Mathematical	Students would be able to understand the mathematical methods
Physics	essential for solving the advanced problems in physics. It would be
	helpful in the development of the ability to apply the mathematical
	concepts and techniques to solve the problems in theoretical and
	experimental physics. The knowledge of mathematical physics would
	be beneficial in further research and development as it serves as a tool
	in almost every branch of science and engineering Course.
Classical	Course Outcomes:
Mechanics	In this course students would learn to apply the Newtonian laws using
IVICENTINES	various mathematical formulations to describe the motions of
	macroscopic objects using generalized coordinates, momentum, forces
	and energy. The classical mechanics would be helpful in understanding
	of advanced branches of modern physics.
	of advanced branches of modern physics.
Quantum	The course provides an understanding of the behaviour of the systems
Mechanics	at microscopic (atomic and nuclear) scale and even smaller. Students
IVICCITATIICS	would learn basic postulates and formulations of quantum Mechanics.
	The course, in fact, plays an important role in explaining the behaviour
	of all physical systems in the universe. The course includes the study of a brief review of foundations of quantum mechanics, matrix
	· ·
	formulation of quantum mechanics, symmetry in quantum mechanics
	and approximation methods for bound states.
Communication	Course Outcomes
Communication	Course Outcomes
Electronics	This serves helps the student to said besides of the foundary state
	This course helps the student to gain basic ideas of the fundamentals
	of communication systems. The course includes Modulation AM and
	FM (Transmission and reception), SSB transmission, AM detection,
	AGC, Radio receiver characteristics, FM transmitter, Propagation of
	Radio Waves ,Antenna , Fundamentals of image
	transmission,TVtransmitter,Transmission Lines etc.The course may

	provide the opportunity to work in any organization related to communication.
Atomic and Molecular Spectra	Course Outcomes The course structure includes atomic and molecular spectroscopy. As per the course structure, the students learn basics concepts of spectroscopic principles and rules. Students would learn technique in spectroscopy and know about their applications. The course is helpful for the students to explore R & D opportunities in various areas of science and technology such as biomedical, industrial and environmental fields
Electrodynamics	Course Outcomes: The study of electrodynamics provides basic foundation for the student to understand advance courses of physics. The course includes Basic equations of Electromagnetism, Electrostatics; Magnetostatics; Maxwell's equation, Four Vector Formalism of Maxwell's Equations Four vector potential, electromagnetic field tensor and Quantization of electromagnetic energy
Elementary Particle Physics	Course Outcomes The course is important for the students to learn about the most fundamental building blocks of matter and radiation, interaction among elementary particles and hence to understand their behaviour. The course provides a platform for the students seeking research opportunities in high energy physics.
Condensed Matter Physics	Course Outcomes: The students will be able to develop an understanding of the lattice, different types of crystal structures, symmetries. The student would gain insight about the interior of the substances using X-ray diffraction in crystals. This course also includes elastic waves, phonons, and lattice vibrational properties and also superconductivity. The course forms a theoretical basis of experimental material science and technology.
Statistical Physics	Course Outcomes: The course structure includes different aspects of statistical Mechanics and Statistical models for phase transition. Study of this course will enable students a clear understanding of classical and Quantum Statistics.

Bio Physics	Course Outcomes:
	Biophysics is the field that applies the theories and methods of physics to understand how biological systems work. The student "s knowledge can be used in the sector relater to health and Medical.
Medical Physics	Course Outcomes:
	Medical Physics is a branch of science that uses the methods of physics to study biological processes and also working of the instruments and machines used in Medical Science .Physics uses mathematical laws to explain the natural world, and it can be applied to biological organisms and systems to gain insight into their workings. The course includes Physics of Respiratory and Cardiovascular System, Electricity in the Body and Sound/Light and also Equipment's and Modern Medicines .The course opens future prospects of the student in the field of Medical Science .
Atmospheric Physics	Course Outcomes: The course introduces students to Earth- Atmosphere and Meteorology The course includes Environmental pollution and climate change etc. The course is useful for the students who want to work in Metereological department or wants to pursue his/her career in the field of environmental science. The course is also very important for R& D purposes.
Nano Materials and Applications	Course Outcomes: This course introduces the essence of nano materials, their synthesis, and characterization. On successful completion of the module students should also be able to understand the optical properties and electron transport phenomenon in nanostructures. It also covers few important applications of nano materials used in this technological era.
	Programme: Master in Physics
Course title	Course Outcome
Advanced Quantum Mechanics	Course Outcomes: The course includes the study of scattering theory, identical particles, relativistic wave
	equations and quantization of wave fields. The course would describe the nature and behaviour of matter and energy at subatomic level. In particular, theory of scattering gives an understanding collision

	between a quantum mechanical particle and target. The study of relativistic quantum mechanics enables the students to understand the behaviour of objects moving with speeds comparable to that of
	light. The knowledge of this field forms the foundation for pursuing research in Quantum Field Theory and High Energy physics.
Plasma Physics	Course Outcomes: The course includes Magneto Hydrodynamics, Plasma Propagation and other topics related to plasma. Plasma physicists study plasmas, which are considered a distinct state of matter and occur naturally in stars and interplanetary space. The knowledge acquired by the student can be used in
	various field of Physics and thus career prospects are bright in the field of research.
Advanced Electronics- I	Course Outcomes: This course helps the students to gain basic ideas of the construction and working of electronic devices and circuits. The course includes the study of IC technology, Operational amplifier as linear Analog systems and non-linear analog systems. The course is of much practical purpose for the students to learn basics of integrated circuit technology which has wide applications in computing, process control, signal processing, communication systems, digital instruments etc.
Astrophysics –I	Course Outcomes: The course would be important to understand the spherical astronomy, distance measurement in astrophysics, and physics of solar system and extra solar planets. The course provides an opportunity to understand the optics of the different astronomical instruments such as: telescopes, CCD camera etc. It has wide spared in use of R& D sector.
High Energy Physics- I	Course Outcomes: Students would be able understand the complex properties and behaviour of high energy particles at the microscopic level. This course would encourage students to peruse higher study and research in particle and high energy Physics.

Spectroscopy-I	Course Outcomes: In this course the students would study the various types of lasers, Laser spectroscopy and their applications in science and technology. Knowledge acquired by the course will be of much use for various industries and R&D sector .
Advanced Electronics- II	Course Outcomes: This course helps the students to gain basic ideas of the digital communication, optical communication, memory and optoelectronic devices. The course is of
	much practical purpose for the students to learn advanced concepts of digital communication systems.
Astrophysics –II	Course Outcomes:
	The Course will provide the deeper understanding of the radiative transfer and the interaction of radiation with matter. It would be important to understand the physics of the death of stars. This study is crucial for the deeper knowledge of the neutron stars, white dwarfs and black holes. Their study provides the insight for the gravitational waves.
High Energy Physics-II	Course Outcomes: The course would provide the knowledge of basic building blocks of matter and its complex properties. The students will also be able to know the complicated theory of Higgs mechanism which led to the detection of God particle in LHC experiment in the year 2012. It would open doors for the students who want to work in the field of HEP.
Spectroscopy -II	Course Outcomes: In this course the students would study the various types of lasers, Laser spectroscopy and their applications in science and technology. Knowledge acquired by the course will be of much use for various industries and R&D sector .
Nuclear Physics	Course Outcomes: In this course students would know about the general properties of nuclei, nuclear forces and detectors, radioactive decay and nuclear reactions. The course builds a foundation for the students to carry out

	research in the field of nuclear physics, high energy physics, nuclear astrophysics, nuclear reactions and applied nuclear physics.
Digital Electronics and Computer Architecture	Course Outcomes: The course enables student to get knowledge about Digital Electronics and Computer Architecture. The course includes Fundamentals of Digital Circuit, Computer Organization and Architecture, Instruction formats & Microprocessor, Data Communication, Computer and Communications. The course helps student to work for the development of technology and also the for the industry and various Government organizations.
Advanced Electronics-III	Course Outcomes: This course helps the students to gain advanced concepts of power supply regulation, microwave production and microwave generation which has wide applications in modern industry and Research.
Astrophysics-III	Course Outcomes: This course provides the basic physical mechanisms about the solar activities, which will help to probe the Sun- Earth connection. This study provides the knowledge of Astroseismology, classification of stars and the distribution in Galaxies.
Hight Energy Physics-III	Course Outcomes: The course would provide the knowledge of advanced concepts of HEP. The students will be able to know the complicated theory of Relativistic propagators, S matrix expansion and S matrix formulation of QED. It would open doors for the students who want to work in the field of HEP.
Spectroscopy-III	Course Outcomes: In this course the students would study the various types of lasers, Laser spectroscopy and their applications in science and technology. Knowledge acquired by the course will be of much use for various industries and R&D sector .
Advanced Electronics-IV	Course Outcomes: This course helps the students to gain basic ideas of the construction and working of electronic devices and circuits. The course includes the study of combinational circuits, sequential circuits and analog

	computation. The course is of much practical purpose for the students to learn basics of digital electronics. The digital electronics has wide applications in computing, process control, signal processing, communication systems, digital instruments etc.
Astrophysics-IV	Course Outcomes: This course will provide the basic properties of stars, birth and the evolution of stars. In addition of this, it provides the deep understanding about the star clusters and their properties, e.g. luminosity and mass function, mass-luminosity relations etc.
High Energy Physics-IV	Course Outcomes: The course would provide the knowledge of some more advanced concepts of HEP. The students will also be able to know the detailed theory of weak interactions, electromagnetic interactions and strong interaction.
Spectroscopy-IV	Course Outcomes: In this course the students would study the various types of lasers, Laser spectroscopy and their applications in science and technology. Knowledge acquired by the course will be of much use for various industries and R&D sector

Subject Political Science

Program Outcomes: The undergraduate program of Political Science at Kumaun University aims to provide students with a conceptual foundation in the discipline, with an ability to critically analyze the omnipresence of the "political." Through various courses we shall examine the nature, distribution and dynamics of power – both at the macro level of national and international politics and also at the micro level of the individual, family and community. We will map the ways in which knowledge systems and challenges to particular power relations have been constructed over specific vectors of time and space. We will study Aristotle and Plato, Gandhi and Igbal; complementing studies on Cold War politics will be an exploration of party politics in South Asia. The relationship of theory and ethnography, quantitative and qualitative techniques, analysis of objective data and descriptive accounts will provide the background to our studies. Exploration of the field and data collection will be of vital importance as we seek to prepare a strong foundation in research methodology. Following Kumaun University's aim of covering the breadth of disciplines and exploring their interconnections, a student of Political Science will be encouraged to identify and pursue areas of interest that go beyond conventional disciplinary structures.

PO 1	To familiarise the students with the basic ideas of political science.
PO 2	To make them thorough in the concepts of political theory.
PO 3	To help them understand and distinguish between basic concepts like political theory, political thought and political philosophy.
PO 4	To help the students understand and relate the concepts and facts with the political realities of the country and different parts of the world.
P0 5	To equip them with the basics of the discipline and help them to learn the basic underpinnings of the subject of Political Science.

Programme: Certificate course FUNDAMENTALS OF POLITICAL
CIENCE

Course Title	Course Outcomes
Basic Concepts of Political Science	Course Outcomes: Understanding Politics is integral and indispensable for a comprehensive and critical study of political science. The course is designed to train a student in the foundational issues of political science, which is relevant for any in depth study and research.
Awareness with Civic Rights	Course Outcomes: This paper intends to provide; the basic digital and legal awareness. The student can leverage this in the job market. To make aware the students of their basic legal rights which would help them to stand up and help others.
Comparative Political Systems: Major Constitutions of the World	Course Outcomes: Politics is the mirror of the society. This paper will help the student in furthering his understanding of the world around. Comparison is widely used method of scientific knowledge This would help to critical analysis.
Foundations of Western Political Thought	Course Outcomes: This course the ancient and modern political thinking in the West. This would help to understand the idea of state, rights, liberty, equality, and justice which have evolved over a period of time.
	PROGRAMME: Diploma in POLITICAL THEORY AND PRACTICE
Course Title	Course Outcomes
Indian Political System	Course Outcome: Acquaintance to Indian National Movement & Constitution is indispensable for a student to make a sense of Indian Political System. The course is designed to provide an overview of Indian freedom Struggle and key concepts of the Indian constitution to the student, which would evolve him into a conscientious citizen.
Major Theories of International Politics	Course Outcomes: This course seeks to equip students the basic tools for understanding International relations. It also introduces major events and developments that have shaped the contemporary international system. It aims to capture the changing dynamics of the international politics by taking up burning and relevant issues which have potential to alter its contours.

	Programme: Bachelor of POLITICAL SCIENCE
Course Title	Course Outcome
Elements of Public Administration	Course Outcomes: Administration being essential to every organization, this course aims to acquaint a student with fundamentals of public administration too. This would provide him an insight regarding the principles of administration in general and help him to bring out the best from existing set up. This would help him to prepare for administrative examinations too.
PROJECT WORK (1)	Course Outcomes:
	This paper intends to develop a comprehensive insight in the students so that given an opportunity they can initiate a minor research proposal or attempt a minor dissertation on their area of interest
Contemporary Issues in International Politics	Course Outcomes: This course seeks to equip students the basic tools for understanding International relations. It also introduces major events and developments that have shaped the contemporary international system. It aims to capture the changing dynamics of the international politics by taking up burning and relevant issues which have potential to alter its contours.
Foundations of Indian Political Thought	Course Outcomes: This course is to familiarize the students with the larger political and social thinking and ideas in Ancient, medieval and Modern India. Designed in a way to help students engage with various ideological dispensations that came to shape the normative thinking on India.

Subject Psychology

Program Outcomes: Under the new Education policy the course has been implemented for U.G level students. Department of psychology will be offered various course / paper during six semester. In the first, second, third and fourth semester the students will be offered one-one compulsory theory paper (each of 4 credits : total 16 credit) and a practical course based on the theory papers (each semester 2 credits ; total 8 credits). One minor electric course in First and second semester and one minor electric course in third and fourth semester (each of 4/5/6credits). Vocational course is also to be done in first, second, third,and fourth semester (each of 3 credits). During the fifth semester the students will have to go through two discipline specific core in theory paper (each of 4 credits ; total 8 credits). In the final semester (VI semester) students will have to go through two discipline specifics core in theory paper (each of 4 credits; 8 credits). Apart from this co- curricular course is must in each semester. The major research project is compulsory in fifth and six semester separately. (each of four credits)

PO 1	This course with provide student, the basic concept of psychology
PO 2	Students with get information about human behavior
PO 3	Students learns PTSD (post traumatic stress disorder) in psychological Aid.
PO 4	Students with be able to know about mental health and wellness.
PO 5	Will be able to study neuro transmitters and biological effects in the branch of biopsychology.

Subject: Psychology
Programme: Certificate Course Basic Psychological Process

Course Title	Course Outcomes
Psychological Processes	Thestudentswilllearnaboutthefundamentalprocessesandcorepsychological concepts, models, classical theories, varied perspectives, and will be able to applythem in their own and in others lives. It will also give the learner a clear understandingoftheconceptslikeintelligence,motivation,emotionandpersonal ity.Itwilldevelopcriticalanalytical Skills regarding these individually stictraits.
Lab Work	Students will be imparted a variety of skills to design and conduct psychological experiments ensuring controlled conditions, report writing and interpretations of There port
Social Psychology	By the end of the course, students will be able to summarize general information, through in-class discussion and assignments, pertaining to social psychologicaltheoriesandanopportunitytoapplysocialpsychologicaltheoriestotheirliv es.Criticallye valuate research to understand and explain distressing human social behavior and relate social psychological concepts and theories to the context of historic and current world, national, and Local events.
Lab Work/ Psychological Test	Students will be exposed to the mixture of skills such as how to conduct a Psychological experiment for understanding social behavior as well as psychological measurements and scientific reporting of the data
	PROGRAMME: Diploma in Psychology
Course Title	Course Outcomes
Psychopatholo gy	The students will be able to understand criteria of abnormality and one's own behavior and behavior of others. By applying the knowledge of assessment, diagnosis, classification system and DSM categories, the learners' will develop the sensitivity towards individual diversity and various approaches to the diagnosis and treatment of psychological disorders. Summarize clinical features of symptoms, etiology and valid and reliable treatment of diagnostic categories of mental health disorders.
Lab Work / Psychological Test	At the end of the course, the students will be imparted a variety of proficiency to conduct the screening and assessment of psychological tools for examining developmental issues and disorders. The practicum of case study will let the students learn and execute an in-depth investigation of a single person, group, event or community.

Lab Work/Psycho logical Testing	Studentswillbeconferredanarrayofskillstocarryoutexperimentsinlabsettings,desi gnandconductpsychologicalexperimentsensuringcontrolledconditions,report Writing and interpretations of the report
	Programme: Bachelor of Arts
Course Title	Course Outcome
Psychological Assessment	1) To train students various psychological assessment technique. 2) To impart skills necessary for selecting and applying different tests for the different purposes such as evaluations, training, rehabilitation etc.
Systems of Psychology	The Students will be learn about the theory of Psychologists. Gestalt Theory will Learn Perception, learning and thinking. Other than this theory of Freud, Adler and Jung. Evaluation of psychoanalysis theory.
Lab Work/Psycho logical Testin	Students will be confer rredanarray of skills to carry out experiments in lab settings, design and conduct psychological experiments ensuring controlled conditions, report Writing and in perpetration of their port.
Research Project	It will help the learner to critically reflect on, review the scientific basis for, And integrate what you have learned and accomplished as a psychology student and will prepare to explore the cultural, social, and ethical impact of psychological application on community and daily life.
ENVIRONMEN TAL PSYCHOLOGY	 To highlight the simultaneous mutual interaction of environment and behavior. To delineate psychological approaches to the study of environment. To discuss the impact of ecological degradation and the need for enhanced awareness program
Human Development	To understand human life from conception to adulthood and domain of development.

संस्कृत विभाग (बी०ए० I भाषा एवं संस्कृत साहित्य)

S.	COURSE CODE	COURSE- NAME	COURSE-OBJECTIVES	COURSE OUTCOME
<u>-</u>	B.A. I भाषा	PAPER I व्याकरण, पत्र एवं अनुवाद	सिश्चर सूत्र, प्रत्याहाराणां, वर्णीच्चारणस्थानां च व्याकरण के अध्ययन का मुख्य एवं गीण परिचय, 2. शब्दरूपाणि, धातुरूपाणि, सर्वनामरूपाणि प्रयोजन संस्कृत भाषा, व्याकरण संस्कृत पत्र लेखनमा।त्रम, 3. संख्यालेखनम, 4. भोज्य पदार्थ शब्दावली, लेखन एवं संस्कृतमाषा में अनुवाद का 5. सामान्य सिध ज्ञानम्, 6. पत्रलेखनम्, 7. अनुवादः ज्ञान।	व्याकरण के अध्ययन का मुख्य एवं गौण प्रयोजन संस्कृत भाषा, व्याकरण संस्कृत पत्र लेखन एवं संस्कृतभाषा में अनुवाद का ज्ञान।
2	В.А. I भाषा	PAPER II व्याकरण पत्र एवं निबंध लेखन	 प्रत्यय पिरचयः, उपसर्ग, अव्यय पिरेचयः, 2. दैनिक संस्कृत व्याकरण एवं संस्कृत के सामान्य व्यवहारिक प्रचलित आंग्लशब्दानां संस्कृते अनुवादः, शब्दों का ज्ञान देना शब्दावली शरीरवर्गः पिरवारवर्ग च 	संस्कृत व्याकरण एवं संस्कृत के सामान्य शब्दों का ज्ञान देना
_છ ં	B.A. I संस्कृत साहित्य	PAPER I संस्कृत नाटक छनद एवं अलंकार	1. अभिज्ञानशाकुन्तलम् (सम्पूर्ण) 2. छन्द, अंलकार	छन्द, अलंकार एवं नाटक की जानकारी प्रदान करना।
4	B.A. I संस्कृत साहित्य	PAPER II संस्कृत—व्याकरण एवं नीतिशास्त्र	1. नीतिशतकम्, 2. हितोपदेशः, 3. व्याकरण–संज्ञा, सन्धि प्रकरणम्	नैतिक मूल्यों का ज्ञान प्रदान कराना, एवं संज्ञा, संन्धि का ज्ञान कराना।

(बीठए० II एवं बीठए० III)

S. N.	CLASS/ COURSE CODE	COURSE-NAME	COURSE-OBJECTIVES	COURSE OUTCOME
5.	B.A. II संस्कृत साहित्य	PAPER I संस्कृत पद्यकाव्य एवं भारतीय संस्कृति	 किरातार्जुनीयम्, 2. कुमारसम्भवम्, भारतीय संस्कृति, 4. पंचमहायज्ञ संस्कार, पुरुषार्थं चतुष्ट्य, वर्णाश्रम व्यवस्था 	युद्धनीति, धर्मनीति आदि का ज्ञान एवं भारतीय संस्कृति की जानकारी उपलब्ध कराना।
.9	B.A. II	PAPER II	1. शिवराज विजय, 2. कादम्बरी, कथा—साहित्य की जानकारी देना एवं	कथा-साहित्य की जानकारी देना एवं
	संस्कृत साहित्य	संस्कृत गद्यकाव्य एवं व्याकरण	3. व्याकरण—प्रत्यय	प्रत्यय जोड़कर शब्द बनाना।
7.	B.A. III	PAPER I	1. ऋग्वेद, 2. यजुर्वेद, 3. सामवेद,	वेद एवं उपनिषद का अध्ययन कराना
	संस्कृत साहित्य	वेद उपनिषद् एवं निबंध	4. कठोपनिषद, 5. निबंध लेखन	निबंध लिखना।
8	B.A. III	PAPER II	1. श्रीमद्भगवद्गीता, 2. तर्कसंग्रह, 3.	3. धार्मिक ग्रन्थ एवं दर्शन का अध्ययन कराना
	संस्कृत साहित्य	गीता, दर्शन एवं व्याकरण	रूपसिद्धि	एवं रूप सिद्ध करना।

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एम०ए० प्रथम सेमे० प्रथम प्र०पत्र	न सेमे0 पत्र	वेद एवं वैदिक साहित्य का इतिहास	इकाई 01— इन्द्र 2/12, सूर्य 1/126, अग्नि 1/43 इकाई 02 उषस 3/61, पुरुष सूत्रत 10/90 इकाई03 नासदीय 10/129, हिरण्यगर्भ 10/121, विश्वा0 नदीसंवाद 3/33 इकाई 4 यजुर्वेद—योगक्षेम 22/22, अथवंवेद— राष्ट्रमिवर्धन 1/29 इकाई 5 वैदिक साहित्य का इतिहास	वैदिक साहित्य के आशिक विशेष अध्ययन कर ज्ञानोपलब्धि
ਵ਼ਿਰੀय ਸ਼0 ਧ0	0 d 0	व्याकरण, पाली एवं प्राकृत	इकाई 01— वैयाकरणसिद्धान्तकौमुदी कारक प्रकरण कर्ता, कर्म, करण करण इकाई 02 वैयाकरणसिद्धान्तकौमुदी कारक प्रकरण सम्प्रदान, अपादान, सम्बन्ध, अधिकरण इकाई03 लघुसिद्धान्तकौमुदी— समास प्रकरण इकाई 4 धम्म पद— दसवग्गपर्यन्त इकाई 5 प्राकृत भाषा परिचय	संस्कृत व्याकरण के अन्तर्गत कारक एवं समासों का ज्ञान पाली साहित्य अध्ययन से प्राकृत भाषा का सामान्य ज्ञान
ਰੁਜੀय ਸ਼0 ਧ0	10 d0	सांख्य एवं न्याय दर्शन	इकाई 1 सांख्यकारिका ईश्वरकृष्णकृत (०१ से २०वीं कारिका पर्यन्त) इकाई 2 साख्यकारिका ईश्वरकृष्णकृत (२१ से ४०वीं कारिका पर्यन्त) इकाई 3 तर्कभाषा– प्रारम्भ से अनुमान पर्यन्त इकाई 4 तर्कभाषा– उपमान से शब्द प्रमाण पर्यन्त इकाई 5 तर्कभाषा– प्रामाण्यवाद	भारतीय आस्तिक दर्शनों में से सांख्यदर्शन एवं न्यायदर्शन के प्रमुख तत्वों और सिद्धान्तों की गहन जानकारी होना
ਬ ਰੁੰ थੰ ਸ਼ 0 ਧ0	0 년	संस्कृत रूपक एवं रूपककार	इकाई 1 उत्तररामचिरितम् – भवभूति अंक01 – 02 तक इकाई 2 उत्तररामचिरितम् – भवभूति अंक03 – 04 तक इकाई 3 रत्नावली (नाटिका) हर्षदेव कृत इकाई 4 सम्बद्ध ग्रन्थों का नाट्य शास्त्रीय अध्ययन इकाई 5 संस्कृत रूपककार परिचय– भास, कालिदास, हर्ष भवभूति, भद्रक विशाखदत्त, भट्ट नारायण।	रूपकों में महत्वपूर्ण नाट्य एवं नाटिका साहित्य के साथ प्रमुख रूपककारों का सामान्य परिचय ज्ञान होना।
पंचम प्र० प0 (मुक्तएच्छिक पाठ्यक्रम)	ण (विश्वक्रम्) वाद्यक्रम्	उपनिषद एवं धर्मशास्त्र	इकाई 1 ईशावास्योपनिषद् इकाई 2 श्रीमद्मगवद्गीता— तृतीय अध्याय 01 से 40 श्लोक पर्यन्त इकाई 3 मनुस्मृति— द्वितीय अध्याय 01 से 40 श्लोक पर्यन्त इकाई 4 कोटलीय अर्थशास्त्र— विनयाधिकारिक प्रथम अधिकरण 01 से 05 अध्याय इकाई 5 सम्बद्ध ग्रन्थों का विवेचनात्मक अध्ययन	संस्कृत भाषा में प्राप्त आध्यात्मिक तत्वों, प्राचीन सामाजिक एंव राजनीतिक नियमों की जानकारी होना

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÷	एम०ए० द्वितीय सेमे० प्रथम प्र०पत्र	वेदांक (निरूक्त एवं पाणिनीय शिक्षा)	इकाई 01— निरुक्त यास्क (प्रथम अध्याय) 1—2 पाद इकाई 02 निरुक्त यास्क (प्रथम अध्याय) 3—4 पाद इकाई03 निरुक्त यास्क (प्रथम अध्याय) 5—6 पाद इकाई 4 पाणिनीय शिक्षा— 1—30 कारिका में इकाई 5 पाणिनीय शिक्षा 31से अन्त तक में	दो वेदांडों का गहन अध्ययन एवं ज्ञान
2,	ਫ਼ਿਰੀਧ ਸ਼ਹ ਖਹ	व्याकरण दर्शन एवं भाषाविज्ञान	इकाई 01— वाक्यपदीयम्— भर्तृहरि— 1—20 कारिकायें इकाई 02 वाक्यपदीयम्— भर्तृहरि— 21—40 कारिकायें इकाई03 भाषा विज्ञान की परिभाषा, स्वरूप, उद्गम एवं विकास इकाई 4 ध्वनि विज्ञान एवं वाक्यविज्ञान इकाई 5 अर्थ विज्ञान एवं ध्वनिनियम	व्याकरा दर्शन के सिद्धान्तों का ज्ञान एवं भाषा विज्ञान के नियमों की जानकारी।
е́	ਰੁਕੀय ਸ਼ਹ ਚਹ	वेदान्त एवं दर्शनशास्त्र का इतिहास	इकाई 1 वेदान्तसार–सदानन्द, प्राएम्भ से पंचीकरण प्रक्रिया इकाई 2 दर्शनशास्त्र का इतिहास– सांख्य एवं योग इकाई 3 दर्शनशास्त्र का इतिहास– न्याय एवं वैशेषिक इकाई 4 दर्शनशास्त्र का इतिहास– मीमांसा एवं वेदान्त इकाई 5 दर्शनशास्त्र का इतिहास– वार्वाक, बौद्ध एवं जैन (नास्तिक) दर्शन	अद्वैत वेदान्त के महत्वपूर्ण नियमों एवं भारतीय दर्शन के षड आस्तिक एवं तीन नास्तिक दर्शनों का विशेष ज्ञान
4.	चतुर्धे प्र० प०	काव्य एवं भारतीय संस्कृति	इकाई 1 मेघदूतम्–कालिदासकृत (पूर्वमेघ) 1–20 श्लोक इकाई 2 मेघदूतम्–कालिदासकृत (पूर्वमेघ) 21–40 श्लोक इकाई 3 नेषधीयचरितम्–श्रीहर्षप्रणीत (प्रथम सर्ग) 1–20 श्लोक इकाई 4 नेषधीयचरितम्–श्रीहर्षप्रणीत (प्रथम सर्ग) 21–40 श्लोक इकाई 5 भारतीय संस्कृति अंश–मुख्य विशेषतायें, वर्णाश्रम, संस्कार, पच महाभूत, स्थापत्यकला शिल्प एवं अभिलेख	दो महाकाव्यों का साहित्यिक अध्ययन एवं भारतीय संस्कृति के विशेष अंशों का ज्ञान
5.	पंचम प्र0 प0	उपनिषद एवं धर्मशास्त्र	इकाई 1 तैत्तिरीयोपनिषद, शिक्षावल्ली इकाई 2 श्रीमद्मगद्तगीता—18 वां अध्याय— 1—40 श्लोक इकाई 3 याज्ञंवल्यरमृति— आचाराध्याय—शाद्धप्रकरण 10वां प्रकरण इकाई 4 कोटिलीय अर्थशास्त्र— विनयाधिकारिक प्रथमधिकरणम् 05—10 अध्याय इकाई 5 पठित अंशों से समीक्षात्मक प्रश्न	उपनिषद एवं संस्कृत के महत्वपूर्ण धर्मशास्त्रों का परिचयात्मक ज्ञान

श्रेयांक (4) पूर्णांक 100 एम0ए० तृतीय सत्र **संस्कृत विभाग**

बाहय मूल्यांकन 75 आन्तरिक मूल्यांकन 25

S.N.	CLASS/ COURSE CODE	COURSE- NAME	COURSE-OBJECTIVES	COURSE OUTCOME
-	एम०ए० तृतीय सेमे०	व्याकरण अथवा लघु शोध	इकाई 01— महाभाष्य–प्रथमाहिनक व्याकरण प्रयोजन तक	व्याकरण के मुख्य एवं गौव
	সথম স০৭৯		इकाई 02 महाभाष्य–प्रथमाहिनक समाप्ति पर्यन्त	प्रयोजन की जानकारी भू एवं
			इकाई03 लघुसिद्धान्तकौमुदी— भूधातुप्रक्रिया (लट्, लिट्, लृट्, लोट्, लङ)	ш,
			्डकाई ४ लघुसिद्धान्तकौमुदी–एध धातुप्रक्रिया (लट्, लिट्, लृट्, लोट्, लङ)	(कालों) में प्रक्रियासिंद्धि का
			इकाई 5 लघुसिद्धान्तकौमुदी– आत्मने पद एवं परस्मैपद सूत्र व्याख्या	ज्ञान ।
2.	ਫ਼ਿੰਨੀਧ ਸ਼0 ਧ0	गद्य एवं एतिहासिक काव्य	इकाई 1 कादम्बरी–बाणभट्ट, उज्जयिनी वर्णन से (सूतिकागृह छोड़कर)	दो (गद्य एवं ऐतिहासिक)
			इकाई 2 कादम्बरी–बाणभट्ट– इन्द्रायुध वर्णन से राजकुल वर्णन पर्यन्त	प्रमुख गद्य साहित्य का
			इकाइ 3 विक्रमांक देव चरितम्—महाकवि विल्हण (प्रथम सर्ग) 1—50 श्लोक	अध्ययन
			इकाई 4 विक्रमांक देव चरितम्—महाकवि विल्हण (प्रथम सर्ग) 60 से सर्गान्त पर्यन्त	
			इकाई 5 उभयग्रन्थों से समीक्षात्मक प्रश्न	
3.	ਰ੍ਰਜੀਬ ਸ਼ੂਰ ਥੂਰ	अर्वाचीन संस्कृत साहित्य एवं	इकाई 1 अर्वाचीन संस्कृत साहित्य का इतिहास	संस्कृत के अर्वाचीन साहित्य
		साहित्यकार	इकाई 2 अर्वाचीन संस्कृत साहित्य के विविध आयाम	एवं साहित्यकारों (18वीं सदी
			इकाई ३ अर्वाचीन प्रमुख संस्कृत साहित्यकार एवं रचनायें–अम्बिकादत्त व्यास, विश्वेश्वर	से अद्यतन) का
			पाण्डेय, श्रीधर भाष्कर , मथुरा प्रसाद, दीक्षित, रमाकान्त शृक्ल, कपिलदेव द्विवेदी आदि	व्यक्तित्व/कर्तृत्व ज्ञान।
			इकाई 4 प्रमुख पत्र-पत्रिको परिचय-दूर्वा सागरिका, अजसा अर्वाचीन संस्कृतम्, संस्कृत	
			मन्जरी, शोध भारती, सारस्वती सुषमा वैदिक वागज्योति	
			इकाई 5 काव्य लक्षण (अर्वाचीन) ग्रन्थ परिचय	
4.	चतुर्थ प्र० प०	काव्यशास्त्र	इकाई 1 काव्यप्रकाश—आ0 मम्मट, प्रथम तथा द्वितीय उल्लास	साहित्यवर्ग के प्रमुख
	(साहित्यवर्ग ऐच्छिक)		इकाई 2 काव्यप्रकाश—आ0 मम्मट— तृतीय, चतुर्थ उल्लास रस पर्यन्त	शास्त्रीय ग्रन्थों में अन्यतम
			इकाई ३ काव्यप्रकाश—आ० मम्मट अष्टम्	ग्रन्थ के सिद्धान्तों की विशेष
			इकाई ४ काव्यप्रकाश—आ० मम्मट नवम उल्लास, क्रान्ति अनुप्रास यमक, उपमा	जानकारी।
			इकाई 5 काव्यप्रकाश—आ0 मम्मट दशम उल्लास, उत्प्रेक्षा, रूपक, निदर्शना, अपष्टनुति	
			आदि	
5.	पंचम प्र० प०	साहित्यशास्त्र एवं नाट्यशास्त्र	इकाई 1 साहित्यदर्पण, आचार्य विश्वनाथ प्रथम परिच्छेद	साहित्यवर्ग के साहित्यशास्त्री
	(साहित्य वर्ग ऐच्छिक)		इकाई 2 साहित्यदर्पण, आचार्य विश्वनाथ द्वितीय परिच्छेद	ग्रन्थ एवं नाट्यशास्त्रीय
			इकाई ३ नाट्यशास्त्र प्रथम अध्याय	ग्रन्थों के सिद्धान्तों का विशेष
			इकाई ४ नाट्यशास्त्र द्वितीय अध्याय	श्चान
			इकाई 5 दशरूपकम्— धनन्जय, प्रथम प्रकाश	
9.	बंद्ध प्रत पत	संस्कृत भाषा अध्ययन	माहेश्वर सूत्र वर्ण परिचय	संस्कृत भाषा के व्याकरण के
	(मुक्त एंस्टिक)	अथवा	प्रत्याहार, उच्चारण स्थान प्रयत्न आदि	
		आषे काव्य रामायण के	सिन्धे (अच, हल, विसर्ग) सुबन्त-अजन्त राम हरि, स्त्रीं-रमा, सर्खो, नपु, ज्ञान सवे,	
		काण्डो का परिचय एव	रूपासिद्धि, तिङ्न्त पठ गम्, नी धातु	रामयण का सामान्य परिचय
		आदित्य हृदय स्त्रोत्र	की सिद्धि, समास–अव्ययी, तत्पुरूष,बहुबीहि	
			व्यावहारिक शब्दों का संस्कृत रूप	
			रामायण के काण्ड़ों का परिचय	
			आदित्य हृदय स्तोत्र	

संस्कृत विभाग एम0ए0 चतुर्थ सत्र श्रेयांक (४) पूर्णांक 100

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बाहय मूल्यांकन 75 आन्तरिक मूल्यांकन 25

एवं चम्पूकाव्य के अध्ययन से एवं निबंध लेखन से भ ख ज्ञान/परीक्षा की मौखिकी से साहित्यशास्त्र एवं नाट्यशात्र के सिंद्धान्तों का ज्ञान विविध 8 समस्त प्रकरण के अध्ययन समस्त प्रश्नपत्रों से प्रश्न शास्त्रीय COURSE OUTCOME महाभारत का सामान्य ज्ञान उत्तराखण्ड के 19वीं साहित्य / साहित्यकारों <u>k</u> शताब्दी 8 <u>.</u> व्यक्तित्व परीक्षण नेयमों का ज्ञान ी निबंध काव्यशास्त्र ज्ञानवृद्धि सम्प्रदायों <u>पूछकर</u> परिचय 20वीं एवं इकाई 2 काव्यमीमांसा, राजशेखर कृत प्रथम अधिकरण षष्ठ अध्याय –10 अध्याय तक इकाई 2 उत्तराखण्ड के 20 वीं शताब्दी से लेकर अद्यतन के संस्कृत साहित्यकार इकाई 3 उत्तराखण्ड में प्रकाशित संस्कृत पत्र-पत्रिकाओं का महत्व इकाई 1 काव्यमीमांसा, राजशेखर कृत प्रथम अधिकरण प्रथम अध्याय–5 अध्याय इकाई 1 काव्यशास्त्र का प्रादुर्भाव, काव्यशास्त्र के आचार्य एवं सम्प्रदाय परिचय इकाई 02 नेलचम्प्-त्रिविक्रमभट्ट प्रथम उच्छवास-प्रारम्भ से वर्षा वर्णन तक इकाई 1 उत्तराखण्ड के 19वीं शताब्दी के संस्कृत साहित्यकार— परिचय इकाई 3 ध्वन्यालोक, आनन्दवर्धन (प्रथम उद्योत) 9–19 कारिका पर्यन्त इकाई 2 ध्वन्यालोक, आनन्दवधीन (प्रथम उद्योत) 1–8 कारिका पर्यन्त इकाई 4 वक्रोक्ति जीवितम्–कुन्तकप्रणीत, प्रथमोन्मेष–21वीं कारिका इकाई 5 काव्यालंकार सूत्राणि–प्रथम अधिकरण चतुर्थ सत्र के समस्त पाठ्यक्रम एवं प्रश्नपत्रों से प्रश्न पूछे जायेंगे इकाई 4 उत्तराखण्ड-संस्कृत साहित्य की विधाओं का परिचय COURSE-OBJECTIVES इकाई 01 मुच्छकटिकम्- शूद्रक प्रणीत, 1–5 अंक तक इकाई 3 महाभारत का माहात्म्य एवं प्रमुख पात्र परिचय इकाई 1 महर्षिव्यास एवं महाभारत ग्रन्थ परिचय इकाई 2 महाभारत के पर्वों का संक्षिप्त परिचय इकाई 3 दशरूपक—धनन्जय द्वितीय प्रकाश इकाई 4 दशरूपक—धनन्जय तुतीय प्रकाश इकाई 5 पिटत ग्रन्थों से समीक्षात्मक प्रश्न इकाई03 पिटत अंशों से समीक्षांत्मक प्रश्न इकाई 5 सामान्य विषयक संस्कृत निबंध इकाई 4 काव्यशास्त्रीय संस्कृत निबंध इकाई 4 विष्णु सहस्त्रनाम स्त्रोत संस्कृत प्रकरण चम्पूकाव्य एवं उत्तराखण्ड के प्रमुख संस्कृत आर्वकाव्य- महाभारत COURSE- NAME साहित्यशास्त्र और मोखिक प्र0प0 (साहित्यवर्ग) नाट्यशास्त्र (साहित्यवर्ग) काव्यशास्त्र साहित्यकार अथवा निबंध S.N. | CLASS/ COURSE CODE (मुक्तऐच्छिक पाठ्यक्रम) एम0ए0 चतुर्थ सेमे0 चतुर्ध प्र0 प0 (साहित्यवर्ग) ਫ਼ਿਜੀਧ ਸ਼0 ਧ0 ਰ੍ਰਜੀਬ ਸ਼0 ਥ0 पंचम प्र० प० प्रथम प्र०पत्र (साहित्यवर्ग)

Subject Sociology

Program Outcomes: B.A. Sociology is a bachelor level course in Sociology with duration of three years. It is a social science, a term with which it is sometimes synonymous, which uses various methods of empirical investigation and critical analysis to develop and refine a body of knowledge about human social activity. A Bachelor degree in Sociology teaches the fundamental concepts related to structure of society, organization of society, and how humans interact within these constructs.

PO 1	This course will introduce students to key concepts in the discipline of Sociology.
PO 2	It will provide them broad knowledge about development of sociological thought.
PO 3	It will give them basic understanding and skill related to social research.
PO 4	It will provide them basic understanding of the Indian society
PO 5	It will also sensitize them about social problems

	Subject: Sociology
	Programme: Certificate Course in Arts
Course Title	Course Outcomes
Introductory Sociology	This Paper will introduce students to new concept of Sociological discipline. These Concepts will enhance the conceptual learning and understanding of the basic concepts used in Sociology. This paper will contribute in enriching the vocabulary and scientific temperament of the students. The course is designed to incorporate all the key concepts of sociology which would enable the learner to develop keen insights to distinguish between the common-sense knowledge and Sociological knowledge.

Industrial Sociology	This Paper describes the nature and scope of Industrial Sociology. This Paper Elaborate changing structure of modern Industrial enterprises and principles of organization-Formal and Informal.
Indian Social System	 Students will be able to develop in-depth understanding and get detailed insight into the past and contemporary Indian Society. Students will be familiarized about the Traditional Social Institutions of Indian Society in context of continuity and change. The programme seeks to build among students the sociological knowledge and analytical skills that would enable them to think critically about Indian society and emerging social issues. The ability to formulate effective and convincing written and oral arguments about issues and challenges within Indian Society.
	PROGRAMME: Diploma in Arts
Course Title	Course Outcomes
Indian Social Problems	The syllabus is designed to introduce students to the emerging social problems, the concept and issues of development in Indian Society. The course intends to focus upon the deviant and delinquent behaviour, issue of corruption and other disorganizational and structural problems of the Indian Society. The end eavour of the course is to make learners aware about the social problems and developmental issues in the Indian Society.
Applied Sociology	The Objective of this Paper is to help students acquire an appreciation of the potential application of the discipline.
Social Control	1.This paper is designed to aware the students about the concept of social control from sociological lens. 2.It will help the students to grasp the concepts like- Social Control, self-control, socialization and maladjustment. 3.Explain the main concepts and propositions of sociological theories of social control.
	Programme: Bachelor degree in Arts
Course Title	Course Outcome
Development of Sociological Thought	 To understand the basic requisites of development of Sociology as a discipline. To analyze the work of classical thinkers and their contribution in the field of Sociology. Students can distinguish between macro level sociological perspectives, can specify the theoretical components of each

	perspective, and connect each perspective to their historical and contemporary theorists 4. To understand the emergence of intellectual traditions and also its effects upon the society.
Research Methodology in Sociology	The course of 'Research Methodology in Sociology' is structured in a way that it makes students to understand and use techniques employed by social scientists to investigate social phenomena. This course aims to enhance the skills of students to understand procedure of Social Survey and scientific research. With emphasis onformulation of significant hypothesis, Techniques of Data collection and Sampling Techniques, it will provide students some basic knowledge on Elementary Statistics.
Research Project/Industrial Training/ Survey	The syllabus is designed to introduce students to get them engaged in the field work and project work so that they are equipped with the practical knowledge about the field work and research project. This will be an empirical learning for those who aspire to become future social scientist.

Subject Yogic Science

Program Outcomes: Bachelor of Yogic Science has been designed to impart yoga education and significance of corrective exercises for fostering healthy natural life. During this course the students will be taught the yogic concepts which will lead towards developing their skills, in self realization and setting goals in life. It will also help the students to be focused towards their goal and make them physically, mentally and spiritually strong to face different challenges in life. Pursuing this course will develop leadership qualities in the students along with their personality development.

PO 1	It will popularize yoga and corrective education among the masses.
PO 2	It will make people aware of the therapeutic and preventive value of Yoga.
PO 3	It will bring peace and harmony in the society at large by introducing the yogic way of life.
PO 4	It will create competent professional Yoga trainers and therapists of high caliber to make the society free from stress and lifestyle related diseases.
PO 5	It will promote health awareness towards holistic approach of health.
PO 6	This course looks at training the enthusiasts to become Yoga therapist so that they could teach yoga under the supervision of a doctor for health and healing.

	Subject: Physics
	Programme: Certificate Course in Yogic Science
Course Title	Course Outcomes
Fundamental concepts of Yoga	Course Outcomes • Students of the UG course will have an understanding of Yoga, its origin, history and development of Yoga.
	Introduction of Yoga according to various texts.

Yoga Practicum –	Make the students aware of warm exercises before practicing asana.
1	Know and understand about breathing practices.
Human Anatomy & Physiology	Course Outcomes:
	To know about the structure of the body
	To know about the necessary functions of the body
	To give brief idea about the diseases related to each system
	 To throw light on anatomy so that student can experience the involvement of their body parts while practicing various postures of yoga.
Human Anatomy	Course Outcomes:
& Physiology (Practical-I)	The objectives behind teaching Anatomy and Physiology is to
	Make students familiar with the systems of the body.
	Give a hand on experience about the human body using models, charts and pictures.
	Make students understand the organization of the body with respect to structural components.
	PROGRAMME: Diploma in Yogic Science
Course Title	Course Outcomes
Yogic Text-1	Course Outcomes:
(Upanishad)	Following the completion of this course, student will be able to
	 Have an idea about the major principal Upanishads Understand the essence of each Upanishad and how to put them into practice. Understand each Upanishad and the role of it in our day to day life.
Yoga Practicum –	Course Outcomes:
_	Make the students aware of the asana for physical fitness and healthy life.

	Know and understand about breathing practices.
Patanjal Yog Darshan	 Following the completion of this course, students shall be able to Understand various modification of mind and the means of inhibiting them. Have an understanding about the essence of Samadhi and Sadhana Pada. Undertand the essence of Vibhuti and Kaivalya pada.
Yoga Therapy	Students will come to know about the treatment of common ailments.
	Programme: Bachelor of Yogic Science
Course Title	Course Outcome
Naturopathy	Course Outcomes:
	Students will learn about the nature cure treatment.
Alternative Therapies	Course Outcomes: Students will come to know about alternative therapies to cure diseases
Ayurveda	Course Outcomes:
	Students will come to know about various herbal medicines, special diets, medicinal herbs and oils.
Panch Karm	Course Outcomes:
Therapy	Students will come to know about unique treatment to cure diseases.
Yogic Text-2 (Shrimad Bhagwatgeeta)	 Following the completion of this course, students shall be able to Understand the significance of Bhagavad gita and its essence. Understand the concept of Atman, Paramatman, Sthitaprajna. Have a deep unsderstanding between the qualities of a Karma and Bhakti yogi. Understand the concept of Ahara its role in healthy living. Study of Elementary Particle Physics.

Research Project	Students will be able to organize Yoga programs and events.
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Subject Zoology

Program Outcomes:

PO 1	It will enhance the basic knowledge about the different systems of an organism and the clinical study of biomolecules.
PO 2	It will help students to pursue the initial fundamentals required for future projects and higher studies.
PO 3	It will help to inculcate the evolutionary basis of various animals and their development. It will also address the present situation of animal diversity.
PO 4	It will help students to identify the concepts about various Applied sciences and Medical laboratory techniques related to concerned area.
PO 5	It will help to develop the knowledge on taxonomy of insects. Also, the conservation of wild animals to enhance the economy gained by the zoological content present in the environment.
PO 6	All the above POs will lead to a mind that can develop modern technologies to address the problems and to give solution to it.

	Subject: Zoology
	Programme: Certificate Course in Clinical Diagnostics & Biochemistry
Course Title	Course Outcomes
Animal Physiology and Biochemistry	 The programme in Zoology aims to equip students with recent advances in Zoology from organismic to reductionist biology. It also aims to empower students to understand the challenges of society and the country that falls into the realms of Zoology, such as Aquaculture, Reproductive health, Behavior and Biological time
	 keeping, Cancer Biology, Microbiome and their roles in health and diseases, Bioremediation of pollutants and pesticides, etc. It also offers students to a series of elective courses so that they can choose to specialize in the specific area of their interests in Zoology. The open elective has been chosen to attract students from diverse interdisciplinary areas of sciences, such as Anthropology, Environmental studies, Biomedical Sciences, etc. This course is designed to ignite the inquisitive mind to enter in to research in interdisciplinary areas. The fourth semester offers a total of 16 elective courses, which for logistics of programme management, are divided in to four streams, where a student has to choose a stream. In the entire course, the major emphasis is on skill-based training into socially relevant areas of Zoology. It is expected that a student after successfully completing the programme would sufficiently be skilled and empowered to solve the problems in the realms of Zoology and its allied areas. They would have plethora of job opportunities in the education, environment, agriculture- based, and health related sectors. The bright and ignited mind may enter into research in the contemporary areas of Zoological/Biological Sciences. The broad skills and the deeper knowledge in the field would make them highly successful and excellent researcher in advanced areas of research in the Biological sciences.
Genetics and Cell Biology	The programme in Zoology aims to equip students with recent advances in Zoology from organismic to reductionist biology.
	 It also aims to empower students to understand the challenges of society and the country that falls into the realms of Zoology, such as Aquaculture, Reproductive health, Behavior and Biological time keeping, Cancer Biology, Microbiome and their roles in health and diseases, Bioremediation of pollutants and pesticides, etc.

It also offers students to a series of elective courses so that they can choose to specialize in the specific area of their interests in Zoology. The open elective has been chosen to attract students from diverse interdisciplinary areas of sciences, such as Anthropology, Environmental studies, Biomedical Sciences, etc. This course is designed to ignite the inquisitive mind to enter in to research in interdisciplinary areas. The fourth semester offers a total of 16 elective courses, which for logistics of programme management, are divided in to four streams, where a student has to choose a stream. In the entire course, the major emphasis is on skill-based training into socially relevant areas of Zoology. It is expected that a student after successfully completing the programme would sufficiently be skilled and empowered to solve the problems in the realms of Zoology and its allied areas. They would have plethora of job opportunities in the education, environment, agriculture- based, and health related sectors. The bright and ignited mind may enter into research in the contemporary areas of Zoological/Biological Sciences. The broad skills and the deeper knowledge in the field would make them highly successful and excellent researcher in advanced areas of research in the Biological sciences. PROGRAMME: Diploma in Molecular Sciences & Clinical Microbiology Course Title **Course Outcomes** Molecular **Course Outcomes** Biology, Toxicology and The programme in Zoology aims to equip students with recent advances in Zoology from organismic to reductionist biology. Histology It also aims to empower students to understand the challenges of society and the country that falls into the realms of Zoology, such as Aquaculture, Reproductive health, Behavior and Biological time keeping, Cancer Biology, Microbiome and their roles in health and diseases, Bioremediation of pollutants and pesticides, etc. It also offers students to a series of elective courses so that they can choose to specialize in the specific area of their interests in Zoology. The open elective has been chosen to attract students from diverse interdisciplinary areas of sciences, such as Anthropology, Environmental studies, Biomedical Sciences, etc. This course is designed to ignite the inquisitive mind to enter in to research in interdisciplinary areas. The fourth semester offers a total of 16 elective courses, which for logistics of programme management, are divided in to four streams, where a student has to choose a stream. In the entire course, the major emphasis is on skill-based training into socially relevant areas of Zoology. It is expected that a student after successfully completing the programme would sufficiently be skilled and empowered to solve the problems in the realms of Zoology and its allied areas.

	 They would have plethora of job opportunities in the education, environment, agriculture- based, and health related sectors. The bright and ignited mind may enter into research in the contemporary areas of Zoological/Biological Sciences. The broad skills and the deeper knowledge in the field would make them highly successful and excellent researcher in advanced areas of research in the Biological sciences.
Microbiology and Animal Behaviour	 The programme in Zoology aims to equip students with recent advances in Zoology from organismic to reductionist biology. It also aims to empower students to understand the challenges of society and the country that falls into the realms of Zoology, such as Aquaculture, Reproductive health, Behavior and Biological time keeping, Cancer Biology, Microbiome and their roles in health and diseases, Bioremediation of pollutants and pesticides, etc. It also offers students to a series of elective courses so that they can choose to specialize in the specific area of their interests in Zoology. The open elective has been chosen to attract students from diverse interdisciplinary areas of sciences, such as Anthropology, Environmental studies, Biomedical Sciences, etc. This course is designed to ignite the inquisitive mind to enter in to research in interdisciplinary areas. The fourth semester offers a total of 16 elective courses, which for logistics of programme management, are divided in to four streams, where a student has to choose a stream. In the entire course, the major emphasis is on skill-based training into socially relevant areas of Zoology. It is expected that a student after successfully completing the programme would sufficiently be skilled and empowered to solve the problems in the realms of Zoology and its allied areas. They would have plethora of job opportunities in the education, environment, agriculture- based, and health related sectors. The bright and ignited mind may enter into research in the contemporary areas of Zoological/Biological Sciences. The broad skills and the deeper knowledge in the field would make them highly successful and excellent researcher in advanced areas of research in the Biological sciences.
	Programme: Degree in Bachelor of Zoology
Course Title	Course Outcome
Non-Chordates	The programme in Zoology aims to equip students with recent advances in Zoology from organismic to reductionist biology.

- It also aims to empower students to understand the challenges of society and the country that falls into the realms of Zoology, such as Aquaculture, Reproductive health, Behavior and Biological time keeping, Cancer Biology, Microbiome and their roles in health and diseases, Bioremediation of pollutants and pesticides, etc.
- It also offers students to a series of elective courses so that they can choose to specialize in the specific area of their interests in Zoology.
- The open elective has been chosen to attract students from diverse interdisciplinary areas of sciences, such as Anthropology, Environmental studies, Biomedical Sciences, etc.
- This course is designed to ignite the inquisitive mind to enter in to research in interdisciplinary areas. The fourth semester offers a total of 16 elective courses, which for logistics of programme management, are divided in to four streams, where a student has to choose a stream.
- In the entire course, the major emphasis is on skill-based training into socially relevant areas of Zoology.
- It is expected that a student after successfully completing the programme would sufficiently be skilled and empowered to solve the problems in the realms of Zoology and its allied areas.
- They would have plethora of job opportunities in the education, environment, agriculture- based, and health related sectors.
- The bright and ignited mind may enter into research in the contemporary areas of Zoological/Biological Sciences.
- The broad skills and the deeper knowledge in the field would make them highly successful and excellent researcher in advanced areas of research in the Biological sciences.

Chordate

- The programme in Zoology aims to equip students with recent advances in Zoology from organismic to reductionist biology.
- It also aims to empower students to understand the challenges of society and the country that falls into the realms of Zoology, such as Aquaculture, Reproductive health, Behavior and Biological time keeping, Cancer Biology, Microbiome and their roles in health and diseases, Bioremediation of pollutants and pesticides, etc.
- It also offers students to a series of elective courses so that they can choose to specialize in the specific area of their interests in Zoology.
- The open elective has been chosen to attract students from diverse interdisciplinary areas of sciences, such as Anthropology, Environmental studies, Biomedical Sciences, etc.
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- In the entire course, the major emphasis is on skill-based training into socially relevant areas of Zoology.

- It is expected that a student after successfully completing the programme would sufficiently be skilled and empowered to solve the problems in the realms of Zoology and its allied areas.
- They would have plethora of job opportunities in the education, environment, agriculture- based, and health related sectors.
- The bright and ignited mind may enter into research in the contemporary areas of Zoological/Biological Sciences.
- The broad skills and the deeper knowledge in the field would make them highly successful and excellent researcher in advanced areas of research in the Biological sciences.

Developmental Biology of Vertebrates

Course Outcomes

- The programme in Zoology aims to equip students with recent advances in Zoology from organismic to reductionist biology.
- It also aims to empower students to understand the challenges of society and the country that falls into the realms of Zoology, such as Aquaculture, Reproductive health, Behavior and Biological time keeping, Cancer Biology, Microbiome and their roles in health and diseases, Bioremediation of pollutants and pesticides, etc.
- It also offers students to a series of elective courses so that they can
 choose to specialize in the specific area of their interests in Zoology.
- The open elective has been chosen to attract students from diverse interdisciplinary areas of sciences, such as Anthropology, Environmental studies, Biomedical Sciences, etc.
- This course is designed to ignite the inquisitive mind to enter in to research in interdisciplinary areas. The fourth semester offers a total of 16 elective courses, which for logistics of programme management, are divided in to four streams, where a student has to choose a stream.
- In the entire course, the major emphasis is on skill-based training into socially relevant areas of Zoology.
- It is expected that a student after successfully completing the programme would sufficiently be skilled and empowered to solve the problems in the realms of Zoology and its allied areas.
- They would have plethora of job opportunities in the education, environment, agriculture- based, and health related sectors.
- The bright and ignited mind may enter into research in the contemporary areas of Zoological/Biological Sciences.
- The broad skills and the deeper knowledge in the field would make them highly successful and excellent researcher in advanced areas of research in the Biological sciences.

Basic mammalian Endocrinology

Course Outcomes

 The programme in Zoology aims to equip students with recent advances in Zoology from organismic to reductionist biology.

It also aims to empower students to understand the challenges of society and the country that falls into the realms of Zoology, such as Aquaculture, Reproductive health, Behavior and Biological time keeping, Cancer Biology, Microbiome and their roles in health and diseases. Bioremediation of pollutants and pesticides, etc. It also offers students to a series of elective courses so that they can choose to specialize in the specific area of their interests in Zoology. The open elective has been chosen to attract students from diverse interdisciplinary areas of sciences, such as Anthropology, Environmental studies, Biomedical Sciences, etc. This course is designed to ignite the inquisitive mind to enter in to research in interdisciplinary areas. The fourth semester offers a total of 16 elective courses, which for logistics of programme management, are divided in to four streams, where a student has to choose a stream. In the entire course, the major emphasis is on skill-based training into socially relevant areas of Zoology. It is expected that a student after successfully completing the programme would sufficiently be skilled and empowered to solve the problems in the realms of Zoology and its allied areas. They would have plethora of job opportunities in the education, environment, agriculture-based, and health related sectors. The bright and ignited mind may enter into research in the contemporary areas of Zoological/Biological Sciences. The broad skills and the deeper knowledge in the field would make them highly successful and excellent researcher in advanced areas of research in the Biological sciences. Programme: Bachelor (Research) in Faculty Course Title **Course Outcome Fundamental Course Outcomes Immunology** The programme in Zoology aims to equip students with recent advances in Zoology from organismic to reductionist biology. It also aims to empower students to understand the challenges of society and the country that falls into the realms of Zoology, such as Aquaculture, Reproductive health, Behavior and Biological time keeping, Cancer Biology, Microbiome and their roles in health and diseases, Bioremediation of pollutants and pesticides, etc. It also offers students to a series of elective courses so that they can choose to specialize in the specific area of their interests in Zoology. The open elective has been chosen to attract students from diverse interdisciplinary areas of sciences, such as Anthropology, Environmental studies, Biomedical Sciences, etc. This course is designed to ignite the inquisitive mind to enter in to research in interdisciplinary areas. The fourth semester offers a total of 16 elective courses, which for logistics of programme

- management, are divided in to four streams, where a student has to choose a stream.
- In the entire course, the major emphasis is on skill-based training into socially relevant areas of Zoology.
- It is expected that a student after successfully completing the programme would sufficiently be skilled and empowered to solve the problems in the realms of Zoology and its allied areas.
- They would have plethora of job opportunities in the education, environment, agriculture- based, and health related sectors.
- The bright and ignited mind may enter into research in the contemporary areas of Zoological/Biological Sciences.
- The broad skills and the deeper knowledge in the field would make them highly successful and excellent researcher in advanced areas of research in the Biological sciences.

Applied Immunology

- The programme in Zoology aims to equip students with recent advances in Zoology from organismic to reductionist biology.
- It also aims to empower students to understand the challenges of society and the country that falls into the realms of Zoology, such as Aquaculture, Reproductive health, Behavior and Biological time keeping, Cancer Biology, Microbiome and their roles in health and diseases, Bioremediation of pollutants and pesticides, etc.
- It also offers students to a series of elective courses so that they can choose to specialize in the specific area of their interests in Zoology.
- The open elective has been chosen to attract students from diverse interdisciplinary areas of sciences, such as Anthropology, Environmental studies, Biomedical Sciences, etc.
- This course is designed to ignite the inquisitive mind to enter in to research in interdisciplinary areas. The fourth semester offers a total of 16 elective courses, which for logistics of programme management, are divided in to four streams, where a student has to choose a stream.
- In the entire course, the major emphasis is on skill-based training into socially relevant areas of Zoology.
- It is expected that a student after successfully completing the programme would sufficiently be skilled and empowered to solve the problems in the realms of Zoology and its allied areas.
- They would have plethora of job opportunities in the education, environment, agriculture- based, and health related sectors.
- The bright and ignited mind may enter into research in the contemporary areas of Zoological/Biological Sciences.
- The broad skills and the deeper knowledge in the field would make them highly successful and excellent researcher in advanced areas of research in the Biological sciences.

Medical Laboratory Techniques

Course Outcomes

- The programme in Zoology aims to equip students with recent advances in Zoology from organismic to reductionist biology.
- It also aims to empower students to understand the challenges of society and the country that falls into the realms of Zoology, such as Aquaculture, Reproductive health, Behavior and Biological time keeping, Cancer Biology, Microbiome and their roles in health and diseases, Bioremediation of pollutants and pesticides, etc.
- It also offers students to a series of elective courses so that they can
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- In the entire course, the major emphasis is on skill-based training into socially relevant areas of Zoology.
- It is expected that a student after successfully completing the programme would sufficiently be skilled and empowered to solve the problems in the realms of Zoology and its allied areas.
- They would have plethora of job opportunities in the education, environment, agriculture- based, and health related sectors.
- The bright and ignited mind may enter into research in the contemporary areas of Zoological/Biological Sciences.
- The broad skills and the deeper knowledge in the field would make them highly successful and excellent researcher in advanced areas of research in the Biological sciences.

General Ichthyology

- The programme in Zoology aims to equip students with recent advances in Zoology from organismic to reductionist biology.
- It also aims to empower students to understand the challenges of society and the country that falls into the realms of Zoology, such as Aquaculture, Reproductive health, Behavior and Biological time keeping, Cancer Biology, Microbiome and their roles in health and diseases, Bioremediation of pollutants and pesticides, etc.
- It also offers students to a series of elective courses so that they can
 choose to specialize in the specific area of their interests in Zoology.
- The open elective has been chosen to attract students from diverse interdisciplinary areas of sciences, such as Anthropology, Environmental studies, Biomedical Sciences, etc.
- This course is designed to ignite the inquisitive mind to enter in to research in interdisciplinary areas. The fourth semester offers a total of 16 elective courses, which for logistics of programme

- management, are divided in to four streams, where a student has to choose a stream.
- In the entire course, the major emphasis is on skill-based training into socially relevant areas of Zoology.
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Applied Ichthyology

- The programme in Zoology aims to equip students with recent advances in Zoology from organismic to reductionist biology.
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Basic Limnology

Course Outcomes

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Animal Ecology

- The programme in Zoology aims to equip students with recent advances in Zoology from organismic to reductionist biology.
- It also aims to empower students to understand the challenges of society and the country that falls into the realms of Zoology, such as Aquaculture, Reproductive health, Behavior and Biological time keeping, Cancer Biology, Microbiome and their roles in health and diseases, Bioremediation of pollutants and pesticides, etc.
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Programme: Master in Faculty (Zoology)

Course title

Course Outcome

Systematics And Applied Entomology

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Biology Of Insects (Morphology, Physiology & Development)

Course Outcomes

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Economic Zoology And Vermicology

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Wildlife Conservation

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Animal Biotechnology

Course Outcomes

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Animal Cell Culture)+

- The programme in Zoology aims to equip students with recent advances in Zoology from organismic to reductionist biology.
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Techniques Wildlife Conservation

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