



**Post Graduate Government College for Girls,
Sector 42, Chandigarh**

Affiliated to Panjab University, Chandigarh



NAAC Accredited 'A' Grade (CGPA – 3.21)

AISHE Code : C-29391

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Post-Graduate Government College for Girls

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2.6.1. Programme and course outcomes for all Programmes offered by the institution are stated and displayed on website and communicated to teachers and students.

The college offers a variety of courses in Commerce, Humanities, Science and Computer Applications for the students. The detailed information regarding these courses is clearly stated on the college website and in the college prospectus every year. This bouquet of courses includes:

- Doctorate Programme in Zoology,
- Master's Degree Programmes in 06 subjects,
- PG Diploma Programmes in 03 subjects,
- Bachelor's Degree Programmes in Humanities, Commerce, Science, Computer Applications and Physical Education Streams,
- In BA, 23 elective subjects with 182 subject combinations and in B.Sc., 10 elective subjects with 10 subject combinations
- Honours Programmes in 15 subjects (Commerce/ Humanities).
- Career/Job Oriented Add-on Courses for a dual degree on graduating in 11 subjects

The well-defined and structured mechanism based on Outcome Based Education (OBE) is followed by the institution to communicate the Program Outcomes (POs), Program Specific Outcomes (PSOs) and Course Outcomes (COs) to all the stakeholders.

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PROGRAMME NAME: DOCTOR OF PHILOSOPHY

PROGRAMME OUTCOME:

- PO1: Research scholars use an independent perspective to identify a problem and plan experiments. Develop their critical thinking skills to conduct scientific research empirically while remaining free from bias.
- PO2: Acquire expert knowledge concerning their research interests, including intervention techniques and theories.
- PO3: Train to develop research ideas, examine problems, assess and validate data, and come to logical conclusions.
- PO4: Proven capacity to contribute significantly and independently to the body of knowledge in their field of study.
- PO5: Proven capacity to carry out a fruitful research career, which includes publishing papers, writing grants, and delivering presentations at conferences. Scholars will build up their skills to instruct and give students in academic settings a worthwhile educational experience.

PROGRAMME SPECIFIC OUTCOME:

Ph.D., Zoology:

- PSO1: Acquire a core knowledge base and training in zoology research, as well as specific experimental and research techniques in a few areas of zoology, molecular biology, and modern biology.
 - PSO2: Provides chances for the development of transferable skills and promotes a culture of excellence and accountability in research.
 - PSO3: Strengthen a student's ability to collaborate well, solve problems, and think critically and creatively in their selected subjects.
 - PSO4: Gain in-depth expertise in their areas of specialization.
 - PSO5: Develop the analytical and research-planning skills necessary to assess and carry out research in specialty and allied fields.
 - PSO6: Create and carry out novel research projects in their field of expertise.
 - PSO7: Exhibit the capacity to effectively and clearly communicate the findings of their research.
 - PSO8: Exhibit the capacity to collaborate productively with individuals from varied racial, educational, and occupational backgrounds.
 - PSO9: Exhibit knowledge of and concern for the strict ethical standards that apply to all aspects of research, teaching, and service.
 - PSO10: Show evidence of the capacity to instruct graduate and postgraduate courses in their areas of expertise.
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Course Outcomes: Ph.D., Zoology

S.No.	Class	Subject	Semester	Paper(s)	Course Outcomes
1.	Ph.D.,	Zoology	I	Research Methodology and Biostatistics	<ul style="list-style-type: none"> • Acquainting students with the required skills and scientific temperament and to inculcate the basics of Computer Programming, Bioinformatics, Biostatistics and Research Methodology. • Exposure to interrelate effectively with all the sophisticated scientific instruments and its operating protocols.
2.	Ph.D.,	Zoology	I	Major Thrusts in Zoology	<ul style="list-style-type: none"> • Major thrust areas in Zoology includes four major specialization fields (Aquatic Biology, Entomology, Molecular Genetics and Parasitology). • Enable students to decide their choice of undertaking work field during Ph.D., • Acquire knowledge in some of the very prevalent and current hot topics in the field of Zoology. • After the end of this course work, students are now finally ready to think about the field and topic of Ph.D. Synopsis Work.
3.	Ph.D.,	Zoology	I	Journal Club	<ul style="list-style-type: none"> • This course work deals with the research field of the students where the candidate has to present 2-Seminars related to his/her research work and present techniques learnt in their respective laboratories.

PROGRAMME NAME: POST GRADUATION (TWO YEARS)

PROGRAMME OUTCOME:

M.A Programme:

- PO1: Comprehend the importance and core of their field.
- PO2: Apply, evaluate, and discuss the main theories and philosophies of thinking in their field.
- PO3: Think critically by examining, summarising, and assessing various research problems.
- PO4: Recognize and apply the qualitative and quantitative research techniques; using a variety of disciplinary methodologies and scientific methods, create a well-researched written piece that engages with diverse sources.
- PO5: Create strategies and plans for resolving many social, economic, environmental, human rights, and other demanding issues that the world faces today.
- PO6: Demonstrate the abilities needed for success in higher education, career growth, and employability.
- PO7: Recognize the value of national integration, the pluralistic nature of national culture, and the relationship between international affairs and national growth.

PROGRAMME SPECIFIC OUTCOME:

M.A. English:

- PSO1: Demonstrate the basic skills in classical communication and explication of literary practices and processes with clarity.
- PSO2: Demonstrate a coherent and systematic knowledge of English and regional literature in English.
- PSO3: Display an ability to read and understand various literary genres and stylistic variations and write critically.
- PSO4: Evaluate literary texts as a field of study and as part of the broad network of local and global culture.
- PSO5: Demonstrate a critical aptitude and reflective thinking to systematically analyze the existing scholarship and expand questions and the knowledge base in English studies using digital resources.
- PSO6: Recognize employability options in the English studies programme as part of skill development and as career avenues open to graduates in the present global world such as professional writing, translation, teaching English at different levels, mass media, journalism, aviation communication, and personality development.
- PSO7: Enable students to develop an awareness of the linguistic-cultural richness of India as an essential outcome of English literary studies in India.

Course Outcomes: M.A English

S.No.	Class	Subject	Semester	Paper	Course Outcomes
1.	M.A	English	I	Approaches to Literary Criticism I	<ul style="list-style-type: none"> The objective of the course is to familiarize students with various approaches to literature, and the particular worldviews these are based on. The students are able to relate literary texts to their lives in terms of their own times and location
2.	M.A	English	I	British Literature I	<ul style="list-style-type: none"> The objective of the paper is to provide an overview of the literature of the English Renaissance, Reformation and Restoration times. The students will be familiarized with key political, cultural and artistic transformations that took place then. At the end of the course the students will be well versed with the iconic writers and representative texts of the and the important intellectual shift that occurred in the human thought during the Renaissance. The students will also learn about the political, social and cultural impact of the Reformation in England and the literature of the time in addition to covering the English Restoration Period (1660-1700). The objective again is to familiarize the students with the major trends, ideas, genres, poetic forms and prose of these periods.
3.	M.A	English	I	British Literature II	<ul style="list-style-type: none"> Students learn the tenets of Romanticism in general and themes, ideas and concepts of English Romanticism in particular Introduction to major English Poets and prose writers of the period- Mary Shelley, William Wordsworth, William Blake, John Keats, S.T.Coleridge, Charles Lamb, William Hazlitt
4.	MA	English	II	Approaches to Literary Criticism II	<ul style="list-style-type: none"> The study of number of approaches makes the students aware that there is no one privileged way to understand a text, and that a text can yield multiple meanings if it is accessed through different worldviews.

5.				British Literature III	<ul style="list-style-type: none"> • The Course Outcomes of the paper is to explore and acquaint with the major writers and texts of the time and focus on the ideological, political, social and cultural impact on Victorian culture as a consequence of industrialization, urbanization, class conflict, Darwin and religious crisis, issue of gender, empire and imperial expansion and much more. • To analyze the Victorian Gothic novel and its impact and continued popularity. • To explore the creation of 'other' in Gothic writing and the monstrosity associated with it. • To familiarize the students with the genre of science fiction. • At the end of the course the students will be conversant with the major writers, representative works and will be able to engage critically on the issues regarding empire, race, class, gender, impact of science, 'the woman question' and other significant events of the Period.
6.	MA	English	II	British Literature IV	<ul style="list-style-type: none"> • Students study and understand the ways in which political, historical, economic, scientific, intellectual, environmental, social and cultural events have shaped the art and literature of the time. • The students will be introduced to the innovative literary techniques, intellectual trends and change in themes of this turbulent period. • At the end of the course they will be familiar with the representative texts, literary terminology, and the socio-political and cultural events that shaped twentieth century literature.
7.	MA	English	III	Indian Writings in English	<ul style="list-style-type: none"> • To give the students an overview of Indian Writings in English. • To familiarize them with the conventions of diverse textual genres including fiction, non-fiction, plays and poetry etc. • To enhance the students' critical, creative and analytical skills along with the proficiency in English language.
8.	MA	English	III	Post-Colonial Literatures I	<ul style="list-style-type: none"> • Students learn key concepts and debates in postcolonial writing, theory and criticism.

					<ul style="list-style-type: none"> • Study the British Raj and its accompanying literature, leading to an understanding of some conceptual categories of postcolonial studies—its assumptions, contexts, pitfalls. • Understand the concepts of self-representation and resistance, postcolonial activism and theories of language and nationalism in the formerly colonized societies.
9.	MA	English	IV	Indian Writings in Translation	<ul style="list-style-type: none"> • To acquaint them with the importance and role of translation in literature. • To broaden their horizon by various textual genres translated from other Indian languages. • To enhance their knowledge of other cultures, traditions, languages and religions existing in Indian society. • To sensitize them to various dalit and gender based issues through textual genres.
10.	MA	English	IV	Postcolonial Literatures II	<ul style="list-style-type: none"> • Students learn to examine contemporary essays and texts, ranging from issues of history-writing to hybridity, from decolonization to rapidly globalizing third-world economies, and finally to blackness, terror and migration. • Understand how Post colonialism has changed its agendas, having migrated to the United States by transcending national boundaries. • Analyse the meanings and implications of post colonialism today as well as interrogate its wide-ranging scope.

M.A. Political Science:

- PSO1: Understand the fundamental concepts, theories, perspectives, and ideological discourses in Political Science.
- PSO2: Enable students to explain and evaluate the functioning of political systems and governments of diverse kinds with their institutions, structures, and ideologies.
- PSO3: Expose the students to the diverse political philosophies, from ancient to modern times, and how have they envisioned and engaged with the issues of rights, liberty, equality, justice, citizenship, constitution, constitutionalism, etc.
- PSO4: Train the students in understanding the public administrative system and public policy science.
- PSO5: Understand the national interests of India in inclusive terms and comprehend Indian endeavours and responses to emerging challenges and issues in a fluid and dynamic global scenario.
- PSO6: Train the students in research designing and application of various tools and techniques for empirical and normative research.
- PSO7: Trained to become a political journalist or political advisor. Also can work in NGOs, Trusts, and Government Social Programmes, international relations, central, state, and other local government, research, and teaching. To motivate them to take part in various competitive exams conducted by UPSC, SSC, and State Services.

Course Outcomes: M.A Political Science

S. No.	Class	Subject	Semester	Papers	Course Outcome
1	M.A I	Political Science	I	Western Political Thought I	<ul style="list-style-type: none">They come to know about ancient and Medieval Political Thought including ideas of Plato, Aristotle, Thomas, Aquinas, St. Augustine, Machiavelli, Hobbes, Lock, Rousseau
2	M.A I	Political Science	I	Key Concepts in Political Analysis	<ul style="list-style-type: none">This paper aimed at introducing students with the concepts in political analysis such as Power, State, Democracy, Liberty, Equality and Rights.
3	M.A I	Political Science	I	Indian Politics: Institutions at Work	<ul style="list-style-type: none">In this paper students are taught about the working of the political Institutions which are established through Indian Constitution such as President, PM, Governor, CM, Supreme Court, High Court etc.
4	M.A I	Political Science	I	International Relations	<ul style="list-style-type: none">Students were able to comprehend the background of the world politics, various causes those led to World war I, World War II, the politics and reasons of changes in International relations after World War II and the ramifications leading to the quagmire faced thereafter.

5	M.A I	Political Science	II	Western Political Thought II	<ul style="list-style-type: none"> Students came to know about the ideas of Bentham, J. S. Mill, Hegel, Karl Marx, Antonio Gramsci, John Rawls, Hannah Arendt etc.
6	M.A I	Political Science	II	Comparative Politics in Industrially Developed Societies	<ul style="list-style-type: none"> The students were familiarized with recent debates and theories concerning advanced industrial societies and this was done in comparative framework.
7	M.A I	Political Science	II	Indian Politics: Political Processes	<ul style="list-style-type: none"> In this paper students learned about the various political processes in Indian Political such as caste, religion, region etc. further the paper aimed to make the students aware about the working of the political parties and new emerging trends in Indian Political
8	M.A I	Political Science	II	Theories of International Relations	<ul style="list-style-type: none"> Students were sensitized about the whole process of theories building soon after world war I. The debate process that started in IR between Idealism and Realism, various notions related to Scientific approaches, the rational vs Reflectionist debate and many new cantorous of IR that led to creation of new knowledge.
9	M.A II	Political Science	II	Indian Political Thought I	<ul style="list-style-type: none"> In this paper students came to know about the Sufi and Bhakti traditions including Indian renaissance as well as contribution of Raja Ram Mohan Roy, Jyotiba Phule, Pandita Rama Bai to the Indian Political Thought.
10	M.A II	Political Science	II	Comparative Politics: Understanding Developing Societies	<ul style="list-style-type: none"> Students were able to relate the politics that existed prior to World War II to the Problems those emerged and how to sove such complexities thereof.
11	M.A II	Political Science	III	Public International law I	<ul style="list-style-type: none"> Students were able to learn about the Meaning, nature, scope of International law and related to states and conflicts and peace as well as law of war

12	M.A II	Political Science	III	Democracy in India	<ul style="list-style-type: none"> • Students did remarkably well to relate theories with politics and implementation process. They could understand nature of Indian polity. • Challenges it faces from myriad angles and how great tradition of unity in diversities and a deep connect could hold all of us together despite being challenges faced on account of Social cleavages, etc.
13	M.A II	Political Science	IV	Indian Political Thought II	<ul style="list-style-type: none"> • Students got familiar with the Indian Socialist traditions with special reference to the political ideas of J.L. Nehru. RM Lohia, JP Narayan as well as political thoughts of Gandhi ji and B.R. Ambedkar.
14	M.A II	Political Science	IV	Foreign Policy of India	<ul style="list-style-type: none"> • Students were able to understand the nature, principles and determinants of Indian foreign Policy. • There were a lot of takeaway about the legacy of Nehruvian Era, transitional phase and India's emergence as the leading power I world politics during honourable PM Modi's regime.
15	M.A II	Political Science	IV	Parties and Electoral politics in India	<ul style="list-style-type: none"> • Students could develop special understanding of the party politics, its nature, challenges, changing nature, revolution by stealth and major challenges faced by electoral process on account of social cleavages and the rise of regional parties.
16	M.A II	Political Science	IV	Public International Law II	<ul style="list-style-type: none"> • This paper taught about the state territory & state jurisdiction and International law of the sea, Antarctica & outer space. They also learnt recent developments in International law.

M.A. Public Administration:

PSO1: Develop theoretical and practical underpinnings of public administration theories, research, and practices.

PSO2: Develop analytical and critical thinking skills and aptitude required to serve and address public issues and concerns.

PSO3: Develop an understanding of the ethical basis for public services and governance.

PSO4: Communicate and interact productively with diverse social groups and citizenry.

PSO5: prepare for a higher order of thinking and analysis in different research areas of Public Administration.

PSO6: Enable students to work as Administrative Officers, Consultant, Management Analyst, Teachers, Customs inspectors, Labour-management Relations Specialist, Corporate Managers, Director of Economic Developments, Budget managers, and Policy analysts.

PSO7: Motivate them to take part in various competitive exams conducted by UPSC, SSC, and State Services.

Course Outcomes: M.A. Public Administration

S. No.	Class	Subject	Semester	Papers	Course Outcome
1.	M.A	Public Administration	I	Administrative Theory	<ul style="list-style-type: none">• This paper is to acquaint the student with the basic concepts and principles of public administration.• In addition, the paper would trace the evolution of public administration and its relationship with other social sciences.
2.	M.A	Public Administration	I	Indian Administration	<ul style="list-style-type: none">• The objective of this paper is to give the student an in-depth understanding of various aspects of Indian administration particularly the functioning of executive, legislature and judiciary at the union and state levels.
3.	M.A	Public Administration	I	Comparative and Development Administration	<ul style="list-style-type: none">• This course will equip the student with knowledge and understanding of the concepts and approaches used in the study of Development Administration and Comparative Public Administration, features of developed & developing countries, planning machinery at Centre, State and district levels in India and the emergence of India as a Welfare state.

4.	M.A	Public Administration	I	Citizen Centric Administration	<ul style="list-style-type: none"> • The paper is designed to acquaint the student both with the participatory and rights based approaches. Good governance and citizen centric administration are inextricably linked.
5.	M.A	Public Administration	I	Economic Administration	<ul style="list-style-type: none"> • During the course of study, the student will be familiarized with the economic models of the government, industrial policies and economic legislations. • In addition, the students learns promotional role of State by referring to various promotional and infrastructural public sector undertakings
6.	M.A	Public Administration	II	Administrative Thought	<ul style="list-style-type: none"> • The objective of the paper is to give the student an understanding of select ancient, classical, neo-classical and modern administrative thinkers and their contribution to administration.
7.	M.A	Public Administration	II	Public Finance and Financial Administration	<ul style="list-style-type: none"> • In this paper students are appraised with various aspects of financial administration like budgeting, auditing, centre-state financial relations and institutions like ministry of finance, union finance commission, parliamentary committees; and concepts like direct taxes, indirect taxes, deficit financing..
8.	M.A	Public Administration	II	Public Personnel Administration	<ul style="list-style-type: none"> • The objective of this paper is to give the student an in-depth understanding of various aspects of public personnel administration particularly recruitment, training and promotion. • Contemporary issues like grievance redressal machinery, corruption, morale etc.

9.	M.A	Public Administration	II	Police Administration	<ul style="list-style-type: none"> • The objective of this course is to give an overview to the students the basic information about the Constitution of India. The students would be taught concepts such as Preamble, Citizenship, Fundamental Rights, Directive Principles of State Policy and Fundamental Duties. • They are made to understand the political executive at the union and state level; the union and state legislature and judiciary at the Union and in the state
10.	M.A	Public Administration	II	International Administration	<ul style="list-style-type: none"> • The important international organisations at the global and regional level including specialized agencies will be studied and their role and working critically understood in light of their effectiveness in influencing the national policy agendas
11.	M.A	Public Administration	III	Research Methods and Statistics	<ul style="list-style-type: none"> • The objective of the paper is to give the student an in-depth understanding about the nature and scope of Social Research, Methods of Social Research, data collection and data processing
12.	M.A	Public Administration	III	Local Governance in India	<ul style="list-style-type: none"> • The course helps students develop an understanding of the concept and theories of decentralisation and the nature of local institutions both at the urban and rural level. • Apart from covering problems and challenges of urban and rural development,
13.	M.A	Public Administration	III	Social Systems and Welfare Administration	<ul style="list-style-type: none"> • The endeavour is to make the student understand the multidisciplinary nature of the subject of Public Administration and the relationship between Sociology and Public Administration.

					<ul style="list-style-type: none"> • The students also apprise about the basic concepts of social structure, social change in contemporary Indian Society and social tensions and their relevance in the field of Public Administration.
14.	M.A	Public Administration	III	Disaster Management	<ul style="list-style-type: none"> • This paper seeks to make the student of Public Administration aware about different types of disasters and their management in India. • Apart from developing and understanding of the strategy for disaster course will develop leadership and management skills of the disaster management.
15.	M.A	Public Administration	III	Public Health Policy and Administration	<ul style="list-style-type: none"> • The paper prepares students in the area by exposing them to theoretical issues related to the challenges of Public Health Administration besides implementation. • The student also understands healthcare policies and programmes including organizational set up at the union, state and local levels
16.	M.A	Public Administration	IV	Public Policy and Analysis	<ul style="list-style-type: none"> • This core course on Public Policy comprehensively introduces the concept and significance of public policy, the history of policy sciences and the public policy process. • At the end of the course the student develops an understanding about the evolution of policy sciences, the significance and different stages of the public policy process in terms of the theoretical formulations as well as the working of this process with special reference to India.
17.	M.A	Public Administration	IV	Administrative Law	<ul style="list-style-type: none"> • Administrative Law is an integral part of Public Administration and the basis of

					<p>administrative activity and its control.</p> <ul style="list-style-type: none"> • Student is expected to develop an understanding of the various components of administrative law along with the principles of natural justice, rule of law, administrative legislation and adjudication
18.	M.A	Public Administration	IV	Organisational Development and Administrative Improvement	<ul style="list-style-type: none"> • Organisational Development and Administrative improvement are important aspects of administrative management. • The Course Outcomes of this paper are to comprehensively deal with the varied reference points leading to promoting administrative efficiency. • The students will therefore gain an understanding of the ways in which change can be managed in an organisation at the operations and policy planning levels. • A thorough study of the reports of the Government of India Commissions on Administrative Improvement and Reforms and the working of the O&M Division of the Government of India will link the theoretical and operational aspects of administrative improvement in public administration.
19.	M.A	Public Administration	IV	Education Policy and Administration	<ul style="list-style-type: none"> • The Course Outcomes of this paper is to familiarize the students with the concepts of various systems of education and educational administration in India. • In particular, the paper covers the provisions of the National Policy on Education, Five Year Plans and Sarva Shiksha Abhiyan. The organizational set up for administration of education and various agencies

20.	M.A	Public Administration	IV	Public Enterprise Management	<ul style="list-style-type: none"> The objective of the paper is to give the student a detailed understanding of the concept, evolution, types, role and problems of public enterprises in India.
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M.A. Sociology:

PSO1: Initiate and facilitate interactions between government and non-governmental sectors to provide ethical and workable solutions to societal needs.

PSO2: Draw connections between biographies and history, personal problems, and historical currents that envelop the everyday life of societies.

PSO3: Grasp vast quantities of diversely textured complex material and synthesize it into coherent and convincing arguments backed by evidence.

PSO4: Engage in collaborative work and constructive and democratic conversations.

PSO5: Avail employment opportunities in different fields such as law, development studies, social work, bureaucracy, and public institutions, women's studies, gender studies, area studies, international relations, policy studies, policy implementation, advocacy, management, marketing, social psychology, industrial organization, election studies, data sciences, journalism, criminology, and careers in fine and performing arts.

Course Outcomes: M.A. Sociology

S.No.	Class	Subject	Semester	Paper(s)	Course Outcomes
1	M.A.	Sociology	I	History of Social Thought	<ul style="list-style-type: none"> The students are able to study and understand historical evolution of sociological thought. They learn about the Classical Sociologists and their works, i.e. Karl Marx, Max Weber and Emile Durkheim. They learn to apply the formulation of these thinkers to contemporary issues.
2	M.A.	Sociology	I	Sociology of Family and Gender	<ul style="list-style-type: none"> This course sensitizes the students regarding the basic concepts and approaches used for explaining and understanding family and gender, feminist movements and their impact on society. It makes them aware of specific problems and legal provisions made available to counter these

					<p>problems relating to gender inequality in the Indian context.</p> <ul style="list-style-type: none"> • They also understand how the various family structures impact social consciousness, thinking skills, self-concepts and moral codes.
3	M.A.	Sociology	I	Sociology of Development	<ul style="list-style-type: none"> • Keeping in view the relevance of the theme of development, especially in the less developed societies, this paper familiarizes the students with the various ways that development has been conceptualized; • It helps in critical evaluation of the modernization theory in its economic, sociological, social-psychological and political forms; • It provides a review of the underdevelopment theory given by the Latin American political economists; and re-assess the various paths to development.
4	M.A.	Sociology	I	Social Stratification: Concepts & Theories	<ul style="list-style-type: none"> • The students are sensitized about elements of discrimination, exploitation, inequality and prevalence of hierarchies in everyday life. • They are able to understand various theoretical formulations of important thinkers like Max Weber, Karl Marx, Talcott Parsons, Davis and Moore and Ralph Dahrendorf. • They are able to understand contemporary formulations like the emerging of middle class and changing dimensions of caste and class and Reservation Policy.
5	M.A.	Sociology	II	Positivistic Sociological Theories	<ul style="list-style-type: none"> • The students learn about Positivism and the writings of sociologists constituting the School of Positivistic Theories who actually treat Sociology as a natural science. • They develop understanding of working theories such as Structuration, Post-structuralism, etc.in competition with each other

6	M.A.	Sociology	II	Methods and Techniques in Social Research	<ul style="list-style-type: none"> • Students develop an understanding of the basic approaches to qualitative and quantitative data analysis. • It will prepare the students as to how to draw influences and conclusions out of empirical research. • Students will understand the logic of probability sampling, and they will be able to distinguish between the application of data generated through probability and nonprobability sampling (assignments, activities and testing). • The fieldwork is a part of this Course which familiarizes the students with basic elements of scientific method, apart from the process of field work, data collection and finally report writing.
7	M.A.	Sociology	II	Population and Society	<ul style="list-style-type: none"> • The course teaches the inter-linkages between size, growth, composition and quality of population with societal components. • The students will be able to understand the importance of population issues in ancient thought to modern times. • Students learn the Demographic Perspective (how population structures, processes, distributions and characteristics interact with the environment) and current global population trends. • Students become familiar with the historical and contemporary theorists within population studies.
8	M.A.	Sociology	II	Social Dimensions of Development	<p>Economic development in society cannot remain unaffected by social-structural factors.</p> <p>Similarly, the social structure, too, is influenced by economic growth and modernization.</p> <p>The students will get understanding about the Gandhian, Marxist, Ecological, Postmodernist,</p>

					<p>Feminist and Sociological critiques of the economic growth and modernization models of development; (b) they will be able to interpret how structural factors like caste, tradition, religion and population can impede or facilitate development; (c) an insight into how economic development and modernization can, in turn, lead to problems related to ethnicity, disparity, displacement</p>
9	M.A.	Sociology	III	Interpretive Sociological Theories	<ul style="list-style-type: none"> • This course sensitizes the students to the works and ideas of sociologists who have contributed to the perspective of Interpretive Sociology and tells about the differences with Positivistic sociology. • It focuses on the work of Action theorists, Interactionist theorists and the scholars belonging to the Frankfurt School of Critical Theory. It will develop critical understanding of theories and social phenomena for practical application and understanding of society.
10	M.A.	Sociology	III	Methods and Techniques in Social Research	<ul style="list-style-type: none"> • Students will be able to describe and apply the steps of the scientific method: develop research hypotheses, gather data, analyse data, and provide an answer to the research question.
11	M.A.	Sociology	III	Social Development in India	<ul style="list-style-type: none"> • The students get an understanding of the development process in India focusing mainly on the issues of the India State and planned development • Students will comprehend the role of voluntary sector in India's Development • It will lead to understanding the phenomenon of globalization and its consequences for the Indian society.
12	M.A.	Sociology	III	Family in Cross-	<ul style="list-style-type: none"> • Students get a comparative understanding of family and gender relations in different societies.

				Cultural Perspective	<ul style="list-style-type: none"> Students become aware whether the family is the basic institution in all societies and whether family as an institution is near the point of extinction or restructuring itself The students are able to understand new affiliations in family due to same sex marriages, cohabitation, singlehood, etc.
13	M.A.	Sociology	IV	Perspectives on Indian Society	<ul style="list-style-type: none"> It will help the students formulate a link between their theoretical background and examples from the field and to sensitize students about important Indian Social Institutions: Family, Village and Caste, etc.
14	M.A.	Sociology	IV	Social Problems	<ul style="list-style-type: none"> Over the years, India's social problems have become difficult, intricate and hydra-headed, pervading the entire social, economic, cultural and demographic structure. The course will introduce the students to the concept and various perspectives on social problems. It will provide detailed knowledge about specific social problems ranging from socio-cultural problems to socio-demographic problems Students will be able to demonstrate an understanding of the three major theoretical perspectives (Conflict, Functionalism and Symbolic Interaction) employed in the study of social problems. To understand sociological research on social problems that is designed to help alleviate the negative consequences of social problems. Students will be able to identify various research designs and their appropriate application to the study of social life.
15	M.A.	Sociology	IV	Sociology of Marginalized Communities	<ul style="list-style-type: none"> The students will be sensitized to the significance of the sociological study of Dalits, tribal and other sub-altern groups.

16	M.A.	Sociology	IV	Family Dynamics in Contemporary India	<ul style="list-style-type: none"> • Students will have a grasp of the changing marriage and family patterns in India. • The students learn impact of technological and economic factors on family and how family has responded to these by undergoing changes in its Form, Structure and Functions, which in turn influence the values and role-relations within the family. • Students are further acquainted with the family's failure in coping with the pressures of modern life.

PROGRAMME NAME: POST GRADUATION (TWO YEARS)

PROGRAMME OUTCOME:

M.Com Programme:

PO1: Comprehend the significance and core of their field.

PO2: Show progression in their learning of various business, accounting, economics, finance, auditing, and marketing disciplines.

PO3: In day-to-day business activities, demonstrate abilities like effective communication, decision-making, and problem-solving.

PO4: Learn techniques for financial and accounting analysis that are quantitative, analytical, and statistical.

PO5: Utilize technological tools efficiently to process information.

PO6: Demonstrate the abilities needed for higher education, career advancement, and employment.

PROGRAMME SPECIFIC OUTCOME:

M.Com

PSO1: Develop a comprehensive understanding of the discipline of Commerce and appreciate its wide applicability.

PSO2: Provide in-depth insight into various dimensions of Commerce through systematic and rigorous learning and exposure.

PSO3: Train and equip the students to develop conceptual, analytical, and critical skills and competencies for effective problem solving and decision making in real-life situations.

PSO4: Make learners more proficient in areas like HR, finance, marketing, accounting, tax planning, stocks, and IT applications.

PSO5: Acquaint and familiarise the stakeholders with the contemporary issues and trends in the fields of commerce and management.

PSO6: Enhance and support knowledge and skills to face challenges in an ever-changing business world at a global level.

PSO7: Familiarise the students with the concept and relevance of business ethics in the modern era.

PSO8: Make them aware of corporate governance mechanisms and the complexity of corporate social responsibility in the global context.

PSO9: Provide hands-on training on practical aspects of the industry via summer training, project work, and viva - voce.

PSO10: Develop higher education sector-inclined and industry-oriented job skills and enhance interpersonal skills to face job interviews confidently.

PSO11: Enable the learners to avail employment opportunities in fields related to consumer behaviour, market research, branding, advertising sales promotion, HR, accounting, banking, finance, etc.

PSO12: Motivate and prepare the takers of the programme to take eligibility tests for a career in academics and research. To enable them to appear in competitive examinations viz. bank P.O, insurance sector, M B.A, U.P.S.C, etc.,

Course Outcomes: M.Com.

S.No.	Class	Subject	Semester	Paper(s)	Course Outcomes
1.	M.Com	--	I	Managerial Economics	<ul style="list-style-type: none"> • Managerial Economics allows use of tools learnt in economics to real world situations. • It is a remarkable tool for understanding a remarkable range of business issues. • It provides students with decision making tools which can be used in business and management. the students are introduced to an international dimension which reflects the globalisation of tastes, production, distribution and competition which is necessary to operate in a global economy. • The students are familiarised with tools to undertake decisions under risk and uncertainty.
2.	M.Com	--	I	Quantitative Methods for Business	<ul style="list-style-type: none"> • Probability has great importance in decision making problems. Various Sampling tests like Z-test, T- test and F-test are based on theory of probability. • Probability is used in making economic decision in situations of risk and uncertainty by sales managers, production managers etc. Sampling theory through the use of sample designs makes it possible to drive inferences about population characteristics with specified degree of accuracy • ANOVA- The technic is essentially a method of analysing the variance into its various components corresponding to sources of variation. • Statistical quality control is used in manufacturing industries. Under this method quality is regulated and ensured by applying theory of probability.

3.	M.Com	--	I	Modern Accounting Theory & Reporting Practices	<ul style="list-style-type: none"> • Exposes the students to the concepts of marketing. • Provides comprehensive knowledge of the various marketing challenges faced by businesses. • Acquaints with various promotion strategies adopted. • Prepares the students to face the real world by clarifying various intricacies of marketing.
4.	M.Com	--	I	Organisation Theory and Behaviour	<ul style="list-style-type: none"> • The objective of the paper is to offer a comprehensive overview of Management information systems (MIS) used in the company or business. • Students explore technical, strategic and tactical issues related to MIS. • Basic concepts in analysing and designing information systems will be presented.
5.	M.Com	--	I	Marketing Management	<ul style="list-style-type: none"> • To expose the students with the use of IT technologies to solve business problems regarding various functional areas of business. • Learn the use of spreadsheets to solve business problems using formulas and functions. • Know the concepts of DBMS and RDBMS and their usage in corporate houses.
6.	M.Com	--	I	Management Information System	<ul style="list-style-type: none"> • Comprehensive overview of Management information systems (MIS). • Explore technical, strategic and tactical issues related to MIS. • Basic concepts in analysing and designing information systems.
7.	M.Com	--	I	Workshop on IT Applications in Commerce	<ul style="list-style-type: none"> • Expose the students with the use of IT technologies to solve business

					problems regarding various functional areas of business.
8.	M.Com	--	II	Business Environment	<ul style="list-style-type: none"> • Imparts knowledge about the importance of finance in a business. • Provides information about the different types and sources and to be used as business finance. • Helps the students to learn the different tools and techniques to use for effective application of funds in a business.
9.	M.Com	--	II	Research Methodology in Commerce	<ul style="list-style-type: none"> • Research is primarily concerned with production of knowledge; it is the process of Discovering the unknown. • Understand the problem, developing objectives, designing a layout for conducting research, collecting data, analysing data and presenting findings. • Each of these functions are gradual progression of activities that take the researchers from the start of facing the research problems and ultimately finding the solutions.
10.	M.Com	--	II	Financial Management and Policy	<ul style="list-style-type: none"> • To acquaint the students with the basic analytical techniques and methods of financial management of business firms. • The course also provides students the exposure to certain sophisticated and analytical techniques that are used for taking financial policy decisions.
11.	M.Com	--	II	Production and Materials Management	<ul style="list-style-type: none"> • To impart knowledge regarding production and management techniques, process, tools, and acquaint the students with the knowledge of marketing functions, techniques and strategies.
12.	M.Com	--	II	Operations Research	<ul style="list-style-type: none"> • To understand the concepts and techniques of Operations Research for business decision

					making and to acquire required skills to solve various problems in OR.
13.	M.Com	--	II	Business Policy & Strategic Management	<ul style="list-style-type: none"> • Help the students to develop an understanding of the basic inputs in making and implementing corporate strategic decisions and also familiarize them with the issues and practices involved.
14.	M.Com	--	II	Summer Training Report and Viva Voce.	<ul style="list-style-type: none"> • Imparts the knowledge about the fundamentals needed for better performance measurement decisions within business organizations. • Provides knowledge about the diagnostic tools for evaluating the performance of the organisation. • Helps the students to learn that how an organization pursues strategies that lead to the achievement of goals and objectives.
15.	M.Com	--	III	Business Performance Measurement	<ul style="list-style-type: none"> • Acquaints with the various methods adopted by the marketers to inform and persuade consumers. • Exposes to the concepts of brand equity, brand positioning and internal branding. • Helps the students to explore how critical strategic business process and effective communication is in creating brand awareness and brand image.
16.	M.Com	--	III	Tax Planning and Management	<ul style="list-style-type: none"> • The aim of this course is to familiarize the student with major latest provisions of the Indian tax laws. • Related judicial pronouncements pertaining to corporate enterprises having implications for various aspects of Corporate planning with a view to derive maximum possible tax benefits admissible under the law • Helps the students to Manage Tax.
17.	M.Com	--	III	Integrated Marketing Communication & Brand Equity	<ul style="list-style-type: none"> • Acquaints with the various methods adopted by the marketers to inform and persuade consumers.

					<ul style="list-style-type: none"> • Exposes to the concepts of brand equity, brand positioning and internal branding. • Helps the students to explore how critical strategic business process and effective communication is in creating brand awareness and brand image.
18.	M.Com	--	III	Marketing Research	<ul style="list-style-type: none"> • Exposing the students to the concept, tools and techniques of marketing research and developing their skills to be able to apply research techniques to aid marketing decision making.
19.	M.Com	--	III	Human Resource Development	<ul style="list-style-type: none"> • To provide an overview of the financial system in India • Understand the functioning of primary and secondary segments of the financial markets • Advanced learning about the financial instruments (including derivatives) traded in the markets.
20.	M.Com	--	III	Industrial Relations	<ul style="list-style-type: none"> • To make student aware of the concept of industrial relations. • The course will make them understand the importance
21.	M.Com	--	III	Workshop On Financial Markets and Instruments	<ul style="list-style-type: none"> • To provide an overview of the financial system in India • Understand the functioning of primary and secondary segments of the financial markets • Advanced learning about the financial instruments (including derivatives) traded in the markets.
22.	M.Com	--	IV	Project Planning and Control	<ul style="list-style-type: none"> • Introduction to the internal and external corporate governance mechanisms. • Learn about the Nature & Evolution of Corporate Governance globally and in the Indian context. • Understand the concepts of Business Ethics, Morals & Values • Comprehend the complexities involved in ethical issues in management.

23.	M.Com	--	IV	Knowledge Management	<ul style="list-style-type: none"> • Enables the students to develop an in-depth understanding of the modern concepts of advertisement. • Acquaints with the latest techniques of advertising and personal selling and sales force Management which constitute a fast -growing area of marketing. • Informs about the ethics and legal aspects of advertising. • Teaches about the importance of keeping the sales force updated and highly motivated.
24.	M.Com	--	IV	Business Ethics and Corporate Governance	<ul style="list-style-type: none"> • Introduction to the internal and external corporate governance mechanisms. • Learn about the Nature & Evolution of Corporate Governance globally and in the Indian context. • Understand the concepts of Business Ethics, Morals & Values • Comprehend the complexities involved in ethical issues in management.
25.	M.Com	--	IV	Advertising and Sales Management	<ul style="list-style-type: none"> • Introduces to the challenges before the marketers and advertisers in coping up with the dynamism in the field of consumer behaviour. • Teaches the students the ability to cope up with the unexpected rapid advancement in communication technology and its impact on the ever increasing demands of the consumers. • Helps the students in comprehending how the different personalities of consumers have an impact on their buying behaviour.
26.	M.Com	--	IV	Services Marketing	<ul style="list-style-type: none"> • To understand the service product and key elements of services marketing mix. • Another objective deals with managing the service delivery process and the implementation of services marketing

27.	M.Com	--	IV	Consumer Behaviour	<ul style="list-style-type: none"> • Introduces to the challenges before the marketers and advertisers in coping up with the dynamism in the field of consumer behaviour. • Teaches the students the ability to cope up with the unexpected rapid advancement in communication technology and its impact on the ever increasing demands of the consumers. • Helps the students in comprehending how the different personalities of consumers have an impact on their buying behaviour.
28.	M.Com	--	IV	Organizational Change and Development	<ul style="list-style-type: none"> • Provide in depth understanding of behavioural interventions. • Enable the students to apply these interventions for building individual, team, system, systems and process related competencies and helping organizational to achieve peak performance and become self-sustaining.
29.	M.Com	--	IV	Training and Development	<ul style="list-style-type: none"> • To familiarize the students with basic concepts and principles of • Training and Development of Human Resource and train them to understand the learning environment of a firm. • The knowledge so obtained will make them capable of providing training to Human Resource of a business firm.
30.	M.Com	--	IV	Compensation Management	<ul style="list-style-type: none"> • To promote understanding in issues related to compensation in corporate sector and impart skills in designing, analysing and restructuring compensation management system, policies and strategies.
31.	M.Com	--	IV	Comprehensive Viva-Voce	<ul style="list-style-type: none"> • The VIVA-VOCE will be based on the content of the subjects studied by the student during the all four semesters.

PROGRAMME NAME: POST GRADUATION (TWO YEARS)

PROGRAMME OUTCOME:

M.Sc. Programme:

PO1: Understand the importance and core of their field.

PO2: Identify issues that are both concrete and abstract.

PO3: Develop critical thinking and in-depth knowledge in information science and technology.

PO4: Acquire exposure to novel areas, and develop an interest in new fields of scientific study.

PO5: Conceive the prospective technical applications, design and carry out experiments, assess data, and relate to scientific ideas.

PO6: Convert theoretical understanding into experiential understanding.

PO7: Through projects, internships, and on-site training, demonstrate your capacity for collaborative research and scientific communication.

PO8: Create strategies and plans to resolve many social, economic, environmental, human rights, and other imperative concerns the world faces today.

PO9: Develop the abilities needed for success in higher education, career growth, and employability.

PROGRAMME SPECIFIC OUTCOME:

M.Sc. Information Technology

PSO1: Develop an understanding and knowledge of the basic theory of Computer Science and Information Technology with a good foundation in theory, systems, and applications such as algorithms, data structures, data handling, data communication, and computation.

PSO2: Develop the ability to use this knowledge to analyze new situations.

PSO3: Acquire necessary and state-of-the-art skills to take up industry challenges.

PSO4: Develop an ability to synthesize the acquired knowledge, understanding, and experience for a better and improved comprehension of real-life problems.

PSO5: Acquire skills and tools like mathematics, statistics, physics, and electronics to find the solution, interpret the results, and make predictions for future developments.

Course Outcomes: M.Sc. Information Technology

S. No.	Class	Subject	Semester	Paper	Course Outcomes
1.	M.Sc.	Information Technology	I	Linux Administration and Programming	<p>This course enables students to get familiar with Linux system, its commands, files & directories, system, shell programming, PERL programming and system administration.</p> <p>After the completion of this course, student will be able to:</p> <ul style="list-style-type: none"> • Work as a normal user in the Linux environment • Work in the Linux environment for Linux server administration • Write the shell programs • Learn PERL and write programs in PERL • Understand System calls and write C-program with system calls
2.	M.Sc.	Information Technology	I	Software Engineering	<p>Software Engineering (SE) comprises the core principles consistent in software development and maintenance:</p> <ul style="list-style-type: none"> • Depict programming layered innovation and Process outline work. • A general comprehension of software process models such as the waterfall, Iterative, Incremental model and many more. <p>Understanding:</p> <ul style="list-style-type: none"> • Software requirements and the SRS documents. • The role of project management including planning, scheduling, risk management, etc. • Implementation issues such as modularity and coding standards. • Software testing approaches. • Software measurement and software risks. • Quality control and how to ensure good quality software • Verification and Validation
3.	M.Sc.	Information Technology	I	Computer Algorithms	<p>The objective of the module is to create skills in students to design and analyze algorithms. After studying this subject student will be able to:</p>

					<ul style="list-style-type: none"> • understand algorithms and give theoretical estimates for the resources needed by any algorithm. • compare between different data structures. Pick an appropriate data structure for a design situation. • analyze algorithms. • understand the concepts of time and space complexity, worst case, average case and best case complexities and the Big-O notation • have an empirical approach to gauge the comparative performance of a given set of algorithms. • know and comprehend a series of searching and sorting algorithms. • learn how to apply their theoretical knowledge in practice (via the practical component of the course). • will have capabilities to participate within the development of software and embedded systems through synergized teams to cater to the dynamic needs of the industry and society.
4.	M.Sc.	Information Technology	I	Operating System Concepts	<ul style="list-style-type: none"> • Today, we are all living in the digital world, where electronic devices have become an important part of our day-to-day life. All of these devices, including computers, smartphones, tablets, and motor vehicles run on operating systems. These devices perform the actions as instructed by a user but the brain or soul of all these devices is the operating system. • An operating system acts as an interface between humans and electronic gadgets. It decodes input or query by a person and reflects the desired output. The operating system remains a rock-solid foundation and support for modern information technology. • This course help students to get operating system developer job.
5.	M.Sc.	Information Technology	II	Advance Java and Network Programming	<ul style="list-style-type: none"> • Learn the Internet Programming, using Java Applets • Create a full set of UI widgets and other components, including windows, menus, buttons,

					<p>checkboxes, text fields, scrollbars and scrolling lists, using Abstract Windowing Toolkit (AWT) & Swings</p> <ul style="list-style-type: none"> • Learn to access database through Java programs, using Java Data Base Connectivity (JDBC) • Create dynamic web pages, using Servlets and JSP. • Make a reusable software component, using Java Bean. • Invoke the remote methods in an application using Remote Method Invocation (RMI) • Understand the multi-tier architecture of web-based enterprise applications using Enterprise JavaBeans (EJB). • Use Struts frameworks, which gives the opportunity to reuse the codes for quick development.
6.	M.Sc.	Information Technology	II	E- Commerce and Emerging Trends	<p>This course explores the current and expected future effects of new, arising, and quickly developing innovations on every organizations and their tasks across a scope of ventures and areas. It will explain following ideas:</p> <ul style="list-style-type: none"> • the concept of e-commerce and its revolution. • the foundation of the Internet and how the different components add to the marketing distribution solutions. • develop new solutions and work security issues. • evaluate a payment system. • look into current and arising innovations and their suggestions for social morals and the worldwide work environment.
7.	M.Sc.	Information Technology	II	Advanced Database System and MySQL	<p>The course aims at providing the students through insight on basic and advance DBMS and database principles and practices.</p> <p>After the completion of this course, student will be able to:</p> <ul style="list-style-type: none"> • Get knowledge of basic DBMS concepts • Prepare ER and EER diagrams for a given problem statement

					<ul style="list-style-type: none"> • Normalize databases for real life problems and projects • Learn, understand and write queries using relational algebra and relational calculus • Understand the concept of transactions and concurrency control and the mechanism needed in real life projects. • Learn MySQL and implement the operations for making, using, retrieving, altering and dropping databases and tables in MySQL • Write simple, nested and complex queries in MySQL, work on views, joins and retrieve metadata • Get understanding of data mining and data warehousing
8.	M.Sc.	Information Technology	II	Artificial Intelligence	<ul style="list-style-type: none"> • AI allows organizations to make better decisions, improving core business processes by increasing both the speed and accuracy of strategic decision-making processes. • AI can be seen as an attempt to model aspects of human thoughts on computers. It is also sometimes defined as trying to solve by computer any problem that a human can solve faster. • Artificial Intelligence allows students to develop the AI skills that employers are seeking, in machine learning, bot development, robotic process automation, and cognitive computing. • It is highly in demand where students can get job of data analyst, research scientist, AI Engineer and many more both in India and Abroad.
9.	M.Sc.	Information Technology	III	.NET Framework and C#	<ul style="list-style-type: none"> • Understand the .NET framework. Develop a proficiency in the C# programming language. • Proficiently develop ASP.NET web applications using C#. Use ADO.NET for data persistence in a web application. • Understand code solutions and compile C# projects within the .NET framework.

					<ul style="list-style-type: none"> • Design and develop professional console and window based .NET application. • Demonstrate knowledge of object-oriented concepts Design user experience and functional requirements C#.NET application. • Construct classes, methods, and assessors, and instantiate objects. • Understand and implement string manipulation, events and exception handling within .NET application environment. • Design and Implement Windows Applications using Windows Forms, Control Library, Advanced UI Programming & Data Binding concepts.
10.	M.Sc.	Information Technology	III	Theory of Computation	<ul style="list-style-type: none"> • Theory of computation (TOC) is a branch of Computer Science that is concerned with how problems can be solved using algorithms and how efficiently they can be solved. • Demonstrate advanced knowledge of formal computation and its relationship to languages. • Distinguish different computing languages and classify their respective types. • Recognize and comprehend formal reasoning about languages. • Show a competent understanding of the basic concepts of complexity theory. • As Machine learning is in demand, so understanding computation is essential in IT industry. • ToC is widely used in Artificial Intelligence, Natural Language Processing, Information Security, System Software, Neural Networks and many more.
11.	M.Sc.	Information Technology	III	Computer Graphics	<ul style="list-style-type: none"> • Identify the basic terminologies of Computer Graphics and interpret the mathematical foundation of the concepts of computer graphics. • Understand graphics hardware and various 2D and 3D algorithms. Implement the principles and commonly used paradigms and

					<p>techniques of computer graphics.</p> <ul style="list-style-type: none"> • Understand and apply the core concepts of computer graphics, including transformation in two and three dimensions, viewing and projection • Understand the concepts of colour models, lighting, shading models and hidden surface elimination. • Solve the problems on viewing transformations and explain the projection and hidden surface removal algorithms. • Explain basic ray tracing algorithm, shading, shadows, curves and surfaces and also solve the problems of curves.
12.	M.Sc.	Information Technology	III	Systems Approach to Management and Optimization Techniques	<p>This course enables students to be familiar with different types of Info systems, basics of LPP and its practical problems.</p> <ul style="list-style-type: none"> • Effective approach to achieve a “best” solution. • Formulate the LPP for a real life Problems and give the solution for the problem using suitable optimization techniques. • Solve LPP by using Graphical, Simplex and Big-M method. • Mathematical Formulation of Transportation Problems using North-west Corner Rule, least cost Method and VAM. • Solve the Assignment and Travelling Salesman Problem using Hungarian Method. • Apply LPP in Various fields such as Science, Engineering, Industry, Business, etc.

PROGRAMME NAME: POST GRADUATE DIPLOMA (ONE YEAR)

PROGRAMME OUTCOME:

PG Diploma Programme:

- PO1: Display increasing degrees of independence, initiative, and responsibility when making decisions in studies, career, relationships, and individual growth.
- PO2: Promote collaborative and consultative scholarly research and professional practice methods.
- PO3: Leverage ICT tools wisely to effectively convey ideas orally and in writing in diverse contexts, including academic and professional ones.
- PO4: Examine the boundaries of a discipline's most cutting-edge theories, practices, and forms of knowledge.
- PO5: Actively address academic and professional challenges while displaying one's capacity for problem-solving and ambiguity management.
- PO6: Demonstrate the moral standards established in the professional code of conduct for the discipline while being conscious of the consequences of their actions.

PROGRAMME SPECIFIC OUTCOMES:

Postgraduate Diploma in Chemical Analysis of Food

- PSO1: Understand the fundamental concepts of Chemistry and its applications.
- PSO2: Understand the usage of different techniques in Testing Foods.
- PSO3: Determine the quality and detect various food adulterants in the different food groups by physical and chemical tests.
- PSO4: Perform Chemical analysis in food using advanced laboratory techniques and instruments.
- PDO5: Work in Chemical and Food Laboratories, Government and Non-Government Organisations, and Public Sector Undertakings.

Course Outcomes: Postgraduate Diploma in Chemical Analysis of Food

S. No.	Class	Subject	Semester	Paper	Course Outcomes
1.	PG Diploma	Chemical Analysis of Foods	I	Chemistry of Foods	<ul style="list-style-type: none">• Imparts fundamental concepts of food.• Basic understanding of Chemistry of Fats and Oils.• Gain knowledge on composition, classification and biological functions of carbohydrates.
2.	PG Diploma	Chemical Analysis of Foods	I	Food Adulterants/ Additives and Testing of Foods	<ul style="list-style-type: none">• Overall understanding various food colours, kinds of colours used in food and water soluble food colours.• Definition and Classification of dyes and preservatives; Identification of dyes by spot test.• Knowledge on adulteration in milk and milk products and different beverages.

3.	PG Diploma	Chemical Analysis of Foods	I	Practical	<ul style="list-style-type: none"> • Simple physical and chemical tests to determine quality and detect adulterants in different food groups. • Principles and Techniques of separation methods, chromatography. • Analyse, interpret and report on results obtained in a scientific format.
4.	PG Diploma	Chemical Analysis of Foods	II	Chemistry of Foods	<ul style="list-style-type: none"> • Basic concepts on Amino acids and Proteins. • Brief introduction about Cereals and Pulses, selected water and fat soluble vitamins.
5.	PG Diploma	Chemical Analysis of Foods	II	Food Adulterants/ Additives and Testing of Foods	<ul style="list-style-type: none"> • Acquire skills on sampling technique, Preparation of Sample, General Physical and Chemical methods of analysis of Foods. • Create knowledge about Chemical composition and quality criterion of canned foods and Composition and Nature of Spices and Condiments. • Understanding of Legal Aspects of food Adulteration and Prevention.
6.	PG Diploma	Chemical Analysis of Foods	II	Practical	<ul style="list-style-type: none"> • Determination of Acid value, iodine Value and Saponification Value. • Visit to chemical/Food laboratories of Industry related to get students acquainted with various aspects of Chemical analysis of Foods.

Postgraduate Diploma in Computer Application

PSO1: Equip the students with skills required for designing and developing applications in Information Technology.

PSO2: Learn the latest trends in various subjects of computers & information technology.

PSO3: Provide hands-on training to students while developing real-life IT applications as part of the study.

PSO4: Train undergraduate students in basic computer technology concepts and information technology applications.

PSO5: Design and develop applications to analyse and solve all computer science-related problems.

Course Outcomes: Postgraduate Diploma in Computer Application

S. No.	Class	Subject	Semester	Paper	Course Outcomes
1.	PG Diploma	Computer Applications	I	Computer Fundamentals	<ul style="list-style-type: none"> • Explain how a computer works, including but not limited to hardware, network, and security features. • Identify computer systems components and their functions and how the fundamentals of a processor function. • Understand computer basics. • Understand programming basics. • Understand binary number system. • Student will be able to demonstrate mouse and keyboard functions • Solve basic information systems problems using MS Office products appropriate for the solution. • Communicate in a business environment using the MS Office product appropriate for the communication. • Use computing technology ethically, safely, securely, and legally. • Describe and analyze computer hardware, software, and the internet. • Use file management techniques for file and directory/folder organization.
2.	PG Diploma	Computer Applications	I	Computer Programming using C	<p>The objective of this course is to make the student:</p> <ul style="list-style-type: none"> • Understand programming language concepts, control structures, reading a set of data. • Stepwise refinement, function and arrays. • The student is expected to analyze the real life problem.

					<ul style="list-style-type: none"> • Write programs in 'C' language to solve problems. <p>The main emphasis of the course is on problem solving aspect.</p>
3.	PG Diploma	Computer Applications	I	Data Base Management System	<ul style="list-style-type: none"> • To make the students understand Database concepts and SQL. • Have a broad understanding of database concepts and database management system software. • Have a high-level understanding of major DBMS components and their function. • To be able to model an application's data requirements using conceptual modeling tools like ER diagrams and design database schemas based on the conceptual model. • To be able to write SQL commands to create tables and indexes, insert/update/delete data, and query data in a relational DBMS. <p>To be able to program a data-intensive application using DBMS.</p>
4.	PG Diploma	Computer Applications	I	Data Communications and Networks	<ul style="list-style-type: none"> • The course's include theoretical understanding of data communication and computer networks, knowledge of computer network organisation and execution, and hands-on experience installing, monitoring, and troubleshooting modern networking systems. • Describe the general principles of data communication. • Have a basic knowledge of the use of cryptography and network security. • Analyse the requirements for a given organizational structure and select the most appropriate solution for networking architecture & technologies.
5.	PG Diploma	Computer Applications	II	Object Oriented Concepts Using JAVA	<ul style="list-style-type: none"> • Use object oriented programming concepts to solve real world problems. • Explain the concept of class and objects with access control to represent real world entities. • Demonstrate the behavior of programs involving the basic programming constructs like control

					<p>structures, constructors, string handling and garbage collection.</p> <ul style="list-style-type: none"> • Use overloading methodology on methods and constructors to develop application programs. • Demonstrate the implementation of inheritance (multilevel, hierarchical and multiple) by using extend and implement keywords. • Describe the concept of interface and abstract classes to define generic classes. <p>Demonstrate the user defined exceptions by exception handling keywords (try, catch, throw, throws and finally).Also help to understand multithreading Concepts.</p>
6.	PG Diploma	Computer Applications	II	Web Technologies	<ul style="list-style-type: none"> • Use their learned skills, knowledge and abilities to develop web sites for the internet. • Apply basic programming principles to the construction of websites. • Effectively manage website projects using available resources. • Demonstrate communication skills, service management skills, and presentation skills. <p>Build and publish web sites using HTML, DHTML, CSS, JavaScript and Dreamweaver.</p>
7.	PG Diploma	Computer Applications	II	Software Engineering	<ul style="list-style-type: none"> • This course make students understand concepts related to Software Engineering including process model, project management, design and testing. • An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics • An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors. • An ability to function effectively on a team whose members together provide leadership, create a

					<p>collaborative and inclusive environment, establish goals, plan tasks, and meet objectives</p> <p>An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.</p>
8.	PG Diploma	Computer Applications	II	Computer Based Accounting	<p>This course makes students to:</p> <ul style="list-style-type: none"> • Understand the basic Concepts of financial accounting. • Students are equipped with the skill of preparing financial accounts. • Understanding the financial statements of business. • Calculate profits or losses from incomplete. • Understand accounting principle and computerized accounting. • Introduce the students to Basic of Accounts and the usage of Tally for accounting purpose. • Help students to work with well-known accounting software i.e. Tally. • Tally is an accounting package which is used for learning to maintain accounts.

Postgraduate Diploma in Cyber Crime

PSO1: Understand the structure, mechanics, and evolution of the Internet in the context of emerging technological trends and crime threats in cyberspace.

PSO2: Distinguish and classify the forms of cybercriminal activity and the technological and 'social engineering methods used to undertake such crimes.

PSO3: Investigate assumptions about the behaviour and role of offenders and victims in cyberspace, and various web tools to explore behaviour online.

PSO4: Analyse and assess the impact of cybercrime on government, businesses, individuals, and society.

PSO5: Evaluate the effectiveness of cyber-security, cyber-laws (e.g. the Budapest Convention), and other countermeasures against cybercrime and cyber warfare.

Course Outcomes: Postgraduate Diploma in Cyber Crime

S.No.	Class	Subject	Semester	Paper	Course Outcomes
1.	PG Diploma	Cyber Crime	I	General Forensic Science-I	<ul style="list-style-type: none"> • Basic Understanding of Functions & Development of Forensic Science, Laws and Principles • governing Forensic Science, Forensic Science set-up in India, Forensic Science Institutions and Problem of Proofs. • Acquire knowledge on Expert Testimony and Time Element. • Understanding about Indian Legal Systems. • Impart skills on Crime Scene Management and Documentation.
2.	PG Diploma	Cyber Crime	I	Computer Basics	<ul style="list-style-type: none"> • Basic understanding of Computers, Software, Hardware, Operating Systems, Computer languages and Database Management System, Data Files and Biometrics.
3.	PG Diploma	Cyber Crime	I	Intellectual Property Rights & International Treaties	<ul style="list-style-type: none"> • Basic understanding of Intellectual Property Rights, Principles of Data Security and Protection, International Treaties and Indian Patent Act.
4.	PG Diploma	Cyber Crime	I	Basic Computer Skills	<ul style="list-style-type: none"> • Acquire skills on Various Computer Crimes, Classification of Information Piracy and Vandalism, Contemporary Computer Crime. • Imparting knowledge about Computer Criminals and its preventive measures.
5.	PG Diploma	Cyber Crime	II	Computer Forensics	<ul style="list-style-type: none"> • Acquire skills about various electronic evidences, packaging, transportation and storage of evidences.

					<ul style="list-style-type: none"> • Cyber forensic tools and utility, Internet investigations and prevention of cryptography, steganography.
6.	PG Diploma	Cyber Crime	II	Cyber Crime and Information Technology Act	<ul style="list-style-type: none"> • Impart knowledge about different category of cyber criminals, different kinds of cybercrimes and Indian IT Laws.
7.	PG Diploma	Cyber Crime	II	Computer Forensics Analysis	<ul style="list-style-type: none"> • Acquire knowledge on The use of scientific methods • Collection and preservation • Validation • Identification • Analysis and interpretation • Documentation and presentation.
8.	PG Diploma	Cyber Crime	II	Project/Dissemination	<ul style="list-style-type: none"> • Project Based on Computer forensic, Network Security, information Security, cyber crime etc., Case Studies related to IPR Cyber world and Electronic Commerce .

Postgraduate Diploma in Guidance and Counselling

PSO1: Acquire knowledge about theoretical principles and processes in Guidance and Counselling.

PSO2: Apply the acquired knowledge in research and professional areas.

PSO3: Understand the applied and positive perspectives of Guidance and Counselling.

PSO4: Gain proficiency in undertaking and reporting psychological assessments and conducting guidance and counselling programmes/sessions.

PSO5: Gain the requisite competencies and skills for providing Guidance and Counselling in varied spheres.

Course Outcomes: Postgraduate Diploma in Guidance and Counselling

S.No.	Class	Subject	Semester	Paper	Course Outcomes
1.	PG Diploma	Guidance and Counselling	I	Introduction to Guidance	<ul style="list-style-type: none"> To understand the meaning, principles, needs and types of guidance To have a detailed knowledge about various guidance services To organize guidance programme in elementary and secondary schools To develop skills in using technology for guidance purpose
2.	PG Diploma	Guidance and Counselling	I	Introduction to Counselling	<ul style="list-style-type: none"> To understand the meaning, types and techniques of counseling To learn about theories of counseling To develop counseling skills in conducting counselling sessions To learn about new emerging areas of counselling
3.	PG Diploma	Guidance and Counselling	I	Educational and Psychological Appraisal	<ul style="list-style-type: none"> To understand the concept of educational and psychological appraisal To know the criteria of selection of a test and characteristics of a good test To learn to administer and interpret psychological tests to know the Individual abilities and personality aspects. To make appropriate use of achievement and diagnostic test in locating learning difficulties To master elementary statistics and apply it in student's appraisal.
4.	PG Diploma	Guidance and Counselling	II	Counselling Children and Adolescents	<ul style="list-style-type: none"> Understanding the needs and problems of children and

				With Different Abilities	<p>adolescents with exceptional abilities</p> <ul style="list-style-type: none"> • Identification of academic, social, emotional and vocational problems of students • Conducting individual and group counselling • Preparing case history, doing case analysis and preparing profile of the case.
5.	PG Diploma	Guidance and Counselling	II	Career Education	<ul style="list-style-type: none"> • To get a comprehensive introduction to career education through historical background • To develop an understanding of the current trends and issues in career education • To study decision-making and how the process applies to career planning. • To study the relationships among work, family, and leisure. • To identify career issues related to special students. • To be able to use the Internet and online guidance services • To overview methods of disseminating and using career information, including computer-based delivery systems (Internet).
6.	PG Diploma	Guidance and Counselling	II	Supervised Practicum / Internship/ Work Based Learning	<ul style="list-style-type: none"> • In identifying the problems of an individual with the help of selecting, administering appropriate test, interpreting the data, preparing the complete history and profile of the case • To interpret/ diagnose the case problem and select an appropriate intervention for helping the case in adjustment/development of relevant life goals and making appropriate choices • To be attached to a school /an institution or an agency with an onsite counsellor
7.	PG Diploma	Guidance and Counselling	II	Internship	<ul style="list-style-type: none"> • Trainees would plan and undertake work related to planning and execution of guidance and counselling activities including counselling casework in a

					<p>school/institution/agency with an experienced onsite counsellor.</p> <ul style="list-style-type: none"> • They will prepare a project report of the apprenticeship work done by them and with the reviewed learning outcomes by the onsite counsellor and the supervisor and submit the same for evaluation.
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Postgraduate Diploma in Mass Communication

PSO1: Gain conceptual and theoretical knowledge and learn to critically think and analyze the dynamics of mass communication.

PSO2: Develop logical and creative thinking for the solutions in Print media, Electronic media, and Communication for development.

PSO3: Develop the communication skills, and theoretical and practical knowledge among the students in print, digital, and development communication.

PSO4: Elicit views of others, mediate disagreements and help reach conclusions in group settings.

PSO5: Engage in higher studies, research, and professional work and be a life-long learner in the context of media studies.

Course Outcomes: Post Graduate Diploma in Mass Communication

S.No.	Class	Subject	Semester	Paper(s)	Course Outcomes
1.	PG Diploma	Mass Comm.	I	Introduction of Mass Communication	<ul style="list-style-type: none"> • The course is designed with the intent of introducing the idea of Mass Communication, its methods and theories. • Course objective is to sensitize the students to the field of communication by exposing them to its different forms; to understand the basic concepts and terminology specific to communication and media; to sensitize them to the practical importance of Intrapersonal, interpersonal, group and mass communication.
2.	PG Diploma	Mass Comm.	I	Print Media	<ul style="list-style-type: none"> • The paper is designed to introduce students to both the field and the desk aspects of print journalism – reporting, writing and editing. • To enable the students to develop skills in finer aspects of reporting for print media.

3.	PG Diploma	Mass Comm.	I	Electronic Media	<ul style="list-style-type: none"> The course is designed to introduce the students the basic concepts and terminology specific to the media of radio and television; To understand the organizational structure of radio and TV organisations.
4.	PG Diploma	Mass Comm.	I	Advertising and Public Relations	<ul style="list-style-type: none"> The course will sensitize students to the basic concepts of advertising and public relations. The Paper will impart knowledge about types of advertising & advertising media, and introduce with ethics in advertising and PR field.
5.	PG Diploma	Mass Comm.	I	Practical Assignments	<ul style="list-style-type: none"> The course enables students to practice the learning outcome of the theoretical knowledge of the theory papers.
6.	PG Diploma	Mass Comm.	II	Introduction of Mass Communication	<ul style="list-style-type: none"> The course is designed with the intent of introducing the idea of Mass Communication, its methods and theories. Course objective is to sensitize the students to the field of communication by exposing them to its different forms; to understand the basic concepts and terminology specific to communication and media; to sensitize them to the practical importance of Intrapersonal, interpersonal, group and mass communication.
7.	PG Diploma	Mass Comm.	II	Print Media	<ul style="list-style-type: none"> The paper is designed to introduce students to both the field and the desk aspects of print journalism – reporting, writing and editing. To enable the students to develop skills in finer aspects of reporting for print media.
8.	PG Diploma	Mass Comm.	II	Electronic Media	<ul style="list-style-type: none"> The course is designed to introduce the students the basic concepts and terminology specific to the media of radio and television; To understand the organizational structure of radio and TV organisations.

9.	PG Diploma	Mass Comm.	II	Advertising and Public Relations	<ul style="list-style-type: none"> The course will sensitize students to the basic concepts of advertising and public relations. The Paper will impart knowledge about types of advertising & advertising media, and introduce with ethics in advertising and PR field.
10.	PG Diploma	Mass Comm.	II	Practical Assignments	<ul style="list-style-type: none"> The course enables students to practice the learning outcome of the theoretical knowledge of the theory papers.

Post Graduate Diploma in Translation (English to Hindi)

PSO1: Understand the theories and approaches to various translation and interpreting fields.

PSO2: Create awareness about cultural and ethical aspects of translation and interpreting practices.

PSO3: Develop understanding and appreciation for language use as a cultural practice.

PSO4: Equipped with the command of technical tools regularly used in translation or interpreting.

PSO5: Demonstrate skill in creation, management, and production of an individual project in a specialized subfield (interpreting, literary translation, technical and professional translation)

PSO6: Equipped with professional skills and knowledge and enter the translation industry.

Course Outcome: Post Graduate Diploma in Translation (English to Hindi)

S. No.	Class	Subject	Semester	Paper	Course Outcomes
1.	PG Diploma	Translation (English-Hindi)	I	Principal and Problems of Translation	<ul style="list-style-type: none"> Basic understanding and Process of Translation. Acquire knowledge on different types of Translation (Literal / Literary/free Translation). Problems of language and Reader in Translation; Translation from Computer.
2.	PG Diploma	Translation (English-Hindi)	I	Problems of Technical Terminology and Vocabulary	<ul style="list-style-type: none"> Impart skills on Problems of Technical Terminology and Vocabulary. Enable students to understand the Problems of Commission Terminology for Modern Indian Languages; Problems of Technical Terminology in Hindi with reference to the International Terminology.

3.	PG Diploma	Translation (English-Hindi)	I	Practical Translation	<ul style="list-style-type: none"> • Acquire skills in Drafting & Translation • Notes writing and Translation • Importance of Syntax in Translation • Practical Translation and Problems • Proof Reading and Translation
4.	PG Diploma	Translation (English-Hindi)	I	Translation from English to Hindi	<ul style="list-style-type: none"> • Translation from English into Hindi of standard work of about 50 continuous pages or chapters of such length. • Viva Voce examination

PROGRAMME NAME: BACHELOR OF ARTS (THREE YEARS)

PROGRAMME OUTCOME:

B.A Programme:

- PO1: Acquire knowledge in social sciences, literature, and humanities to make them sensitive and sensible enough.
- PO2: Develop skills that shall facilitate effective communication among students at personal, professional, and social levels.
- PO3: Acquainted with the social, economic, historical, geographical, political, ideological, and philosophical tradition and thinking.
- PO4: Apply the full-scale and thorough knowledge in social practices gained during a multidisciplinary course of study.
- PO5: Appear for various competitive examinations or choose the postgraduate programme.
- PO6: Acquire the knowledge with human values framing the base to deal with various problems in life with courage and humanity.

PROGRAMME SPECIFIC OUTCOME:

B. A. Electives

Dance:

- PSO1: Demonstrate proficiency in the chosen style.
- PSO2: Equipped to dance for at least 30 minutes with good stamina, energy, and fluency.
- PSO3: Analyze and logically explain the aesthetic and performing principles of the acquired knowledge.
- PSO4: Teach the technique and presentation to students in schools or colleges.
- PSO5: Create new pieces (rhythmic, thematic) and modify already learned content with changing contexts, time zones, and locales.
- PSO6: Appreciate other dance styles.

Course Outcomes: Dance

S. No	Class	Subject	Semester	Paper(s)	Course Outcomes
1	B.A	Dance	I	Indian Classical Dance (Kathak)	<p>Practical:</p> <ul style="list-style-type: none"> The students are familiarized with the basic concepts of the Indian Classical Dance. The students gain knowledge about Taal, Tatkaar, Tora and Tukra in Kathak Dance. <p>Theory:</p> <ul style="list-style-type: none"> The students gain knowledge about the origin of the subject. The students become aware about the scope and career fields.
2	B.A	Dance	II	Indian Classical Dance (Kathak)	<p>Practical:</p> <ul style="list-style-type: none"> The students gain knowledge about origin and historical importance of Indian Classical Dances. The students are familiarized with Taal-Teentaal and Jhaptaal. <p>Theory:</p> <ul style="list-style-type: none"> The students are familiarized with historical Importance of the subject. The students are familiarized with theoretical understanding of the subject i.e.-Tandav, Lasya, Neck Movements, Eye Glances etc.
3	B.A	Dance	III	Indian Classical Dance (Kathak)	<p>Practical:</p> <ul style="list-style-type: none"> The students gain knowledge about detailed and non-detailed Taalas The students are familiarized with Different Technical Terms in Teentaal and Ada Chautaal. <p>Theory:</p> <ul style="list-style-type: none"> The students gain knowledge about Development and Present Status of Dance. The students are familiarized with contribution of Dancers and Musicians. Importance of Gayan and Vadan in Kathak Dance. Knowledge about Guru Shishya Parampara.
4	B.A	Dance	IV	Indian Classical Dance (Kathak)	<p>Practical:</p> <ul style="list-style-type: none"> The students gain knowledge about description and Notation of Taals and Technical Terms.

					<ul style="list-style-type: none"> The students are familiarized with the Gat Nikas in Kathak Dance. <p>Theory:</p> <ul style="list-style-type: none"> The students gain knowledge about theoretical representation of notation. Knowledge of Gharanas of Kathak Dance.
5	B.A (Honours)	Dance	III	Indian Classical Dance (Kathak)	<p>Practical:</p> <ul style="list-style-type: none"> The students gain advance knowledge of Gat Nikas: Thaata and Matki in Kathak Dance, Practical Knowledge of Asamyukta Hasta Mudras. The students are familiarized with Recitation of all Toras & Tukaras on Hand. <p>Theory:</p> <ul style="list-style-type: none"> The students are introduced to advance theoretical and conceptual understanding. The students gain knowledge about Abhinaya and its Parts .
6	B.A (Honours)	Dance	IV	Indian Classical Dance (Kathak)	<p>Practical:</p> <ul style="list-style-type: none"> The students gain knowledge about description, Notation and variation in Taal Dhamaar and Gat Nikas: Ghungat, Bansuri. Practical Knowledge of Samyukta Hasta Mudras. The students are gain knowledge how to play Nagma of Teentaal and Dhamaar Taal on harmonium. <p>Theory:</p> <ul style="list-style-type: none"> The students gain knowledge about Abhinaya Darpan and Prastutikaran of Kathak.
7	B.A	Dance	V	Indian Classical Dance (Kathak)	<p>Practical:</p> <ul style="list-style-type: none"> The students gain knowledge about Sawari Taal and Play theka of Sawari Taal on Tabla. The students are familiarized with any one Folk Dance of Rajasthani Practically. <p>Theory:</p> <ul style="list-style-type: none"> The students are familiarized with Brief Study of Natya Shastra and Nayak Bheda. Knowledge of Taal and its Dash Pranas.

8	B.A	Dance	VI	Indian Classical Dance (Kathak)	<p>Practical:</p> <ul style="list-style-type: none"> The students gain knowledge about varieties of Parans like :-Tisrajati Paran ,Chatushrajati Paran, Kaviti etc. In Kathak Dance. The students are familiarized with Knowledge of Sammi Dance and Gat Bhav (Panghat ki Chhed Chhaad). <p>Theory:</p> <ul style="list-style-type: none"> The students are gain knowledge about history of Kathak Dance ,Brief Study of Nayika Bheda, Knowledge of Dakshini Taal System and the contributions of great Dancers and musician
9	B.A (Honours)	Dance	V	Indian Classical Dance (Kathak)	<p>Practical:</p> <ul style="list-style-type: none"> The students gain knowledge about Sool Taal and Sawari Taal in Kathak Dance. The Students are gain Practically Knowledge of Sammi and Natti. <p>Theory:</p> <ul style="list-style-type: none"> The students are gain knowledge about Modern Dance and Description of Tribal Dance i.e. Sammi and Santhal .
10	B.A (Honours)	Dance	VI	Indian Classical Dance (Kathak)	<p>Practical:</p> <ul style="list-style-type: none"> The students gain knowledge about Basant Taal and Play Nagma in Teentaal and Dhamaar Taal. Practical Demonstration in Luddi and Haryanvi. <p>Theory:</p> <ul style="list-style-type: none"> The students are gain knowledge about importance of Thumri and Hori in Kathak Dance and the Contribution of Leading Institutuins of Kathak Dance.

Economics:

PSO1: Forecast the future course of changes and development through knowledge of policies and programmes set by the governments and other development agencies.

PSO2: Develop skills to find a solution to the problems like mobilization of the human resource and materials available in the country.

PSO3: Compute and assess the current economy such as size and population, income pattern, nature of employment and rate of development, etc.

PSO4: Visualize the real-world situation and initiate the programmes for pursuing studies.

PSO5: Develop entrepreneurial skills for self-employment, to improve the general attitudes and living conditions of the masses.

Course Outcomes: Economics

S.No.	Class	Subject	Semester	Paper(s)	Course outcomes
1	B.A	Economics	I	Micro Economics	<ul style="list-style-type: none">At the end of first semester, students are able to identify the theories and principles of microeconomics including consumer's behaviour, producer's behaviour, price theory, market structure and factor distribution. Moreover, they can apply those principles to analyse real world economic issues.Conclusively, the subject microeconomics enables students to understand how resources are produced and consumed by individuals and businesses.
			II	Macro Economics	<ul style="list-style-type: none">Macroeconomics helps students to attain a certain set of Course Outcomes. At this level, they can differentiate between micro economics and macroeconomics concepts and piece together a bigger picture.By the time of completion of the semester, students are able to utilize the study the functioning of Aggregate measure of economic activity, macroeconomic equilibrium, money and financial institutions, monetary and fiscal policies, inflation and trade cycles.Students will also be given the tools to interpret macroeconomic events using aggregate demand and aggregate supply models and describe interrelationships among

					<p>prices, income and interest rates as they affect consumption, savings and investment.</p> <ul style="list-style-type: none"> • Additionally, application of the principles of macroeconomics in relation to measuring national economic goals of economic growth, full employment and price level stability will become comprehensible.
			III	Public Finance and International Economics	<p>This paper is to introduce the students to the basics of public finance and international trade.</p> <p>The first two units aim to introduce students to the primary functions of government, to generate resources from the people and to spend money on improving their lives. The last two units are concerned with basic theories of international trade and commercial policies, balance of payments, determination of exchange rates and role of financial institutions.</p>
			IV	Quantitative Methods	<p>Mathematics and statistics are widely used in studies of several problems of research and development. Values of costs and equilibrium price can be found using matrices. Differential calculus is used to find elasticity of demand, costs and revenues. In maxima minima conditions of revenue maximisation, profit maximisation and cost minimisation are discussed</p> <p>In statistics students come to know how data is collected. How classification and tabulation of data can be done. Averages are mostly used to reduce mass data into a single figure. Students learn different types of averages and dispersion.</p> <p>Analysis of time series depicts past behaviour and future trends of problem under study.</p> <p>Index numbers are constructed to understand the changing pattern of prices of different goods and estimate purchasing power, changing value of money etc.</p>

			V	Development Economics	Students will get benefit of conceptual approach of growth models which are applied for the actual development of the nation. Students are made aware of the process of national development and its requirements for it.
			VI	Indian Economy	This paper is to familiarize the students with the features and characteristics of the Indian Economy. It also includes performance and problems of industrial development, Indian tax structure, external trade and balance of payments, and objectives, strategy and performance of Indian planning. The course aims to develop analytical understanding of the students by the exposing them to basic issues of the Indian Economy.

English:

PSO1: Accurate and precise in communication, speaking, and writing in a variety of contexts and genres.

PSO2: Develop analytical skills in linguistics, communications, and literary criticism.

PSO3: Analyze the oral and written discourse of various genres with regard to social, cultural, political, and historical contexts.

PSO4: Potential for careers and advanced studies in a wide range of English, Public relations, or Communication fields.

Course Outcomes: English

BA (General English)

S.No.	Class	Subject	Semester	Paper(s)	Course Outcomes
1	B.A	General English (Compulsory)	I	--	<ul style="list-style-type: none">Acquire an extensive knowledge of English as a language in its various textual forms and become thoughtful, imaginative and effective communicators in a diverse and changing society
2	B.A	General English (Compulsory)	II	--	<ul style="list-style-type: none">Learn Poetry and prose written by various renowned writersEnable the students to write an effective business document and think analytically
3	B.A	General English (Compulsory)	III	--	<ul style="list-style-type: none">Learn finer nuances of language through an integrated coursework that includes textual exercises and grammarLearn creative writing
4	B.A	General English (Compulsory)	IV	--	<ul style="list-style-type: none">Acquire knowledge about various literary aspects through poetry and prose and enrich their literary and cultural values
5	B.A	General English (Compulsory)	V	--	<ul style="list-style-type: none">Enable the students to critically analyze poetry and proseLearn the basics of Essay WritingLearn fundamentals of grammar and structure to form correct sentences
6	B.A	General English (Compulsory)	VI	--	<ul style="list-style-type: none">Enable the students to critically analyze poetry and proseLearn the basics of précis writingEnhancement of vocabulary through idioms and phrases

BA (English Honours)

S. No.	Class	Subject	Semester	Paper(s)	Course Outcomes
1	B.A	English Honours	III	--	<ul style="list-style-type: none"> Learn the salient features of 16th-17th Century Literature from History of English Literature Study and critically analyze selected texts of William Shakespeare, Francis Bacon, John Donne and John Milton
2	B.A	English Honours	IV	--	<ul style="list-style-type: none"> Learn the basic trends and features of 18th-19th Century Literature from History of English Literature Study and critically analyze selected texts of Emily Bronte, S.T. Coleridge, P.B.Shelley and Thomas Hardy
3	B.A	English Honours	V	--	<ul style="list-style-type: none"> Learn the basic trends and features of 20th Century Literature from History of English Literature Study and critically analyze selected texts of G.B.Shaw, George Orwell, D.H. Lawrence and W.B. Yeats
4	B.A	English Honours	VI	--	<ul style="list-style-type: none"> Learn the basics and fundamentals of Indian Writings in English Study and critically analyze selected texts of Rabindranath Tagore, Mulk Raj Anand, R.K.Narayan and Kamla Das

BA (Elective English)

S.No.	Class	Subject	Semester	Paper(s)	Course Outcomes
1	B.A I	Elective English	I	--	<ul style="list-style-type: none"> The collection of short stories strikes the perfect balance of challenging, engaging and rewarding for language students. Study how short stories can be creative, illuminating and learn how descriptive language can be a great catalyst for bringing English to life. The study of literary terms improves the process of writing. These terms are building blocks of all forms of writing that the students can use to assess and develop the craft of writing.
2	B.A I	Elective English	II	--	<ul style="list-style-type: none"> The study of the various essays, short stories and one act plays helps the students to take on different roles which build up their verbal and non-verbal skills. The students learn to appreciate words and their power through these different genres.

3	B.A III	Elective English	V	--	<ul style="list-style-type: none"> To acquaint the students with Indian literature being written in English as well as being translated from Indian languages into English. To familiarize the students with different trends and developments taking place in Indian literature in English as well as with the renowned poets, and short story writers through their writings. To give the students an overview of various literary concepts and terms related to Indian literature being written in English. To broaden their horizon by getting them familiar with other cultures, traditions and customs of Indian society.
4	B.A III	Elective English	VI	--	<ul style="list-style-type: none"> To give them an overview of Indian English Novel. To get familiarized with the style, techniques, themes and various writings of the Indian English novelist- R.K. Narayan. To learn the lessons of life through the prescribed text so far as the improvement of human conduct is concerned. The students got an overview of the various terms and concepts related to novel writing.

B.Sc. II (Medical, Non-medical, Computer Science, Microbiology elective, Biotech Elective):

S.No.	Class	Subject	Semester	Paper (s)	Course Outcomes
1	B.Sc. II Medical, Non-medical, Computer Science, Microbiology elective, Biotech Elective	English Compulsory	III	--	<ul style="list-style-type: none"> Enhancement of vocabulary through textual phrases and reading. Having profound knowledge of English as a language and become thoughtful, imaginative and effective communicators. Enable the students to write business document and think analytically.
2		English Compulsory	IV	--	<ul style="list-style-type: none"> Learn the basics of precis writing and report writing. Improve the communication skills through reading prose and relentless practice Learn creative writing and advanced grammatical nuances.

Environment:

- PSO1: Develop a knowledge base that includes all environmental attributes and provide the technical and scientific skills they need to solve problems relating to how human activity affects the environment.
- PSO2: Improve the student's technical skills, teamwork, and decision-making abilities.
- PSO3: Develop student entrepreneurship skills and employment prospects.
- PSO4: Encourage your students to develop environmental policy principles.
- PSO5: Understand the issues with the Indian obligations and the Sustainable Development Goals (SDGs).
- PSO6: Demonstrate a thorough and organized linkage of several environmental science disciplines.
- PSO7: Build the capacity to see how scientific knowledge is applicable to address environmental problems and build long-lasting solutions.
- PSO8: Contribute consistently to successful planning, management, and implementation as a proactive and helpful teammate.
- PSO9: Ability to conduct outreach efforts and raise awareness of the environment and sustainable development ability to gather factual information about the subject and participate in decision-making

Course Outcomes: Environment

S.No.	Class	Subject	Semester	Paper(s)	Course Outcomes
1.	BA, B.Sc., BCA & B.Com	Environment Education, Road safety Education, Violence against women and Children and Drug Abuse	I & II	---	<ul style="list-style-type: none">• Environment awareness among different parts of Society through our youth Ambassadors; the students.• People/Students becoming sensitized to play their active role in judicious utilization/conservation of natural resources, protection of life support systems with an Eco-friendly approach.• Engagement of students in creative and innovative activities which keep them away from depression, drug abuse and other social ills.• Formal Environment education creating young, healthy, and environmentally conscious minds striving hard to fight and combat many global Environmental Problems.• Formal environment education is also creating an opportunity for the students to work professionally as environment planners, environment auditors

					<p>and Environment executives in Industries after pursuing higher education in this field.</p> <ul style="list-style-type: none"> • Able to comprehend the importance of healthy environment at home and outdoor. • Familiarize the students with the objective and significance of healthy living and healthy consumerism. • Equipping with the knowledge of first aid and road safety. • Familiarizing the students with their rights as women in society and making them strong and aware; not to bear any kind of domestic and social violence. • Teaching various ways to keep the students away from drug abuse and also awaking them regarding prevention and management of Drug abuse.
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Fine Arts:

PSO1: Application of creative, analytical, and philosophical thought to the work while assimilating the elements and principles of art.

PSO2: Learn new skills, expand your vocabulary, and experiment with other media.

PSO3: Recognize the formal knowledge, forms, mediums, materials, and techniques used by artists, craftspeople, and designers in many situations to communicate emotions and ideas.

PSO4: Develop or deepen the grasp of obligations, obligations, and duties as a professional in the arts.

PSO5: Drawing, Painting, Composition, and Sculpture all enrich ideas of individuality in visual works of art.

Course Outcomes: Fine Arts

S.No.	Class	Subject	Semester	Paper	Course Outcomes
1.	B.A.I	Fine Arts	I	History of Art (Theory)	<ul style="list-style-type: none"> In this paper students understand various school, styles, and phases of the development of the painting and sculpture in India and the Western. Here we make students aware of the different terms, concepts, forms and subjects of these work In this paper they got to know about beginning of Indian art , like pre-historic painting, Ajanta painting, Indus Valley Civilization and western art etc.
				Practical Paper	<ul style="list-style-type: none"> To understand the basic of proportion, study and rendering of texture at the book. They understand to know about Wall painting in Caves. Understand difference between 2D and 3D Painting and sculpture. Basics of colours, lines and perspective To understand the basic of creative process.
2.	B.A.I	Fine Arts	II	History of Art (Theory)	<ul style="list-style-type: none"> In further development in their study students learn more about painting and sculpture. They learn more about Indian painting and Western painting and Indian Sculpture They learn the techniques of wall painting and Miniature painting.
				Practical Paper	

					<ul style="list-style-type: none"> • They learn to study objects with pencil study. • They study of Head of Human Body. • They start using colour techniques. • Development of basic skills and techniques.
3.	B.A II	Fine Arts	III	History of Art (Theory)	<ul style="list-style-type: none"> • Students understand to know about Western Indian Miniature Painting and Mughal Painting. • They got to know about the richness of our Art work which is found in the form of Sculpture. • We study of Big centre of art like Gandhara, Mathura, Sarnath, Sultanganj.
				Practical Paper	<ul style="list-style-type: none"> • Students understand the basic concepts of art like Unity, Rythem, and Harmony, Proportion. • They do life study of with live model sitting in front of them. • Book cover design and Clay work they do.
4.	B.A II	Fine Arts	IV	History of Art (Theory)	<ul style="list-style-type: none"> • The emphasis gives to make them aware of the different style, forms, and subject matter of Mughal painting and Deccani Painting. • They understand sculpture art form which is found in Deograh, Ellora, Mahabalipuram.
				Practical Paper	<ul style="list-style-type: none"> • They learn more different style of Art, • We study Art and Craft, Design, Tribal Art, Folk Art. • They study to paint Nature with different kind of colours.

5..	B.A III	Fine Arts	V	History of Art (Theory)	<ul style="list-style-type: none"> • In this semester students learn and understand more about Indian Painting, that was Rajasthani Painting and Pahari Painting; these were the best centres for Miniature paintings. • More sculpture we found in Mahabalipuram, Elephanta and Chola Bronzes. • In Western Art we found the beginning of modern painting.
				Practical Paper	<ul style="list-style-type: none"> • General concept and techniques they learn Form and Content, Art and Religion, Art and Society, Tradition. • Students are expected to familiarize themselves with the art forms as seen from the book, slides and related films.
6.	B.A. III	Fine Arts	VI	History of Art (Theory)	<ul style="list-style-type: none"> • In this semester learning about company painting and Khajuraho Sculpture, students learn style of the artist of that time • They learn about the Rasa and Bhava in the Painting.
				Practical Paper	<ul style="list-style-type: none"> • They learn about the Beauty in any Art form. • They start working as freelance artist during session and after session. • Visits to Museum , Exhibitions and art galleries are a part of study

Functional English:

PSO1: Communicate effectively in personal and professional situations by improving their reading, writing, speaking, and listening skills.

PSO2: Improve learners' critical thinking skills and knowledge of social, economic, and societal issues through reading works from many literary genres.

PSO3: Learn the core theories and concepts of creative writing, linguistics, English, film, drama, translation, advertising, and communication technology.

PSO4: To improve their chances of finding employment, learners become more competent at employing different dimensions of skills in their personal and professional life.

Course Outcomes: Functional English

S No.	Class	Subject	Semester	Paper	Course Outcomes
1.	BA I	Functional English	I	Speech Skills	<ul style="list-style-type: none">• To familiarize learners with the functioning of English - English sounds through listening in the Language Lab• To enable learners to achieve accuracy in oral production by encouraging the use of the pronouncing dictionary• To enable learners to achieve an optimum level of intelligibility and fluency in speech• To enhance learners ability of communication in the spoken mode with accuracy and fluency for various functions
2.	BA I	Functional English	II	Writing Skills	<ul style="list-style-type: none">• To enhance learners' ability of communication in the written mode with accuracy and fluency.• To train learners in the use of specific formats of written discourse.• To introduce learners to the fundamentals of study skills.• To familiarize learners with the study skills to collect, classify & retrieve information from different sources and to record and store it.
3.	BA II	Functional English	III	Radio Journalism + Broadcast Presentation	<ul style="list-style-type: none">• To acquaint learners with the different mechanisms of radio broadcast.• To train learners in Script writing for different genres of Radio broadcast.• To help learners build their best voice by acquainting them with the elements of voice and providing training in it.• To help learners to identify their speech problems and overcome them.• To sensitize learners to body movements, demeanor and gestures involved in TV presentation.

4.	BA II	Functional English	IV	T.V. Journalism	<ul style="list-style-type: none"> • To acquaint learners with the lay-out, equipment and functioning of a T.V. station • To train learners in scriptwriting for different genres of T.V. Broadcast. • To sensitize learners to body movements, demeanor and gestures involved in T.V. presentation. • To provide further practice in previously covered features of broadcast presentation. • To familiarize learners with different genres of T.V. production with specific training imparted in script writing. • To continue with all other features of Broadcast presentation.
5.	BA III	Functional English	V	Print Journalism	<ul style="list-style-type: none"> • To generate awareness among learners of issues deserving reporting in print and to stimulate them to rebond environment in print. • To familiarize learners with different aspects of print journalism, its formats, its avenues. • To enable learners to write news stories from the stage of news gathering to editing to their final presentation. • To familiarize learner with the lay-out, equipment and functioning of a newspaper/magazine production centre • To enable learner to acquire the art and skills of feature writing to encourage freelancing among them. • To generate awareness among learner of the aspects of graphic arts in Print Journalism.
6.	BA III	Functional English	VI	Office Communication for Business	<ul style="list-style-type: none"> • To equip learners with language proficiency in Business/work situations particularly in spoken interaction • To make learners aware of the special features of format and style of informal communication through various modes. • To equip learners with techniques of written communication in business situations. • To expand vocabulary and develop reading comprehension of material related to business.

Functional Hindi:

PSO1: Recognize the significance of functional Hindi in its new function.

PSO2: Be familiar with the numerous applications of Functional Hindi.

PSO3: Learn about the various aspects of Functional Hindi and its application for diverse purposes.

PSO4: Understanding the various forms of media writing styles.

S No.	Class	Subject	Semester	Paper	Course Outcomes
1.	B.A. I	Functional Hindi	I	--	<ul style="list-style-type: none"> To equip students with the fundamentals of journalism, principles sources formation and all the basic techniques required to make an emphatic news. To able to Understand the meaning, concept and importance of Functional Hindi. To able to understand various forms of Functional Hindi according to its area of application To able to understand the importance of translation To able to understand various forms of writing in media Understanding the broad form of Hindi as a mother tongue and other language. Understanding spoken Hindi in Standard, Literary and Constitutional Hindi in the field of literature. Studying the different styles of Hindi: Urdu, Hindi and Hindustani. Understanding the origin and development of Hindi language. Understanding of detailed information about Hindi Mankikaran(Standardization of Hindi). Describing the area of Hindi usage, the concept of language application, format and type of talks. Describing scientific and professional Hindi and its characteristics. Studying characteristics of Hindi language through different communication mediums. (Akashvani, Doordarshan ,Chalchitra) Understanding use of Hindi language in various forms of letter writing like official/govt correspondence, comment, drafting. Understanding the form and principle of technical word formation, process and presentation in Hindi language.

2.	B.A. I	Functional Hindi	II	--	<ul style="list-style-type: none"> • To able to understand various forms of Functional Hindi language relating to internet. • To able to understand use of Functional Hindi language for newspaper, cinema and radio. • To able to understand the concept of Right to information. • To able to understand the concept of fundamental rights of Indian Constitution.
3.	B.A. II	Functional Hindi	III	--	<ul style="list-style-type: none"> • To able to understand the concept of journalism. • To able to use study material from websites of journalism • To able to understand the importance and problems of mass media. • To able to understand the role of information technology in employment generation.
4.	B.A. II	Functional Hindi	IV	--	<ul style="list-style-type: none"> • To able to understand the concept of information technology. • To able to use study material from websites of Hindi literature • To able to understand the importance and problems of information technology. • To able to understand the role of information technology in employment generation.
5.	B.A. III	Functional Hindi	V	--	<ul style="list-style-type: none"> • To able to understand the importance of social media. • To able to understand the impact of social media on society. • To able to understand the relation between social media and law. • To able to understand the problems of social media and their remedies.
6.	B.A. III	Functional Hindi	VI	--	<ul style="list-style-type: none"> • To able to understand the concept of information technology. • To able to use study material from websites of Hindi literature • To able to understand the importance and problems of information technology. • To able to understand the role of information technology in employment generation

Geography:

PSO1: Demonstrate an understanding of the basic concepts, principles, and theories in the selected branches of systematic geography.

PSO2: Establish an understanding of spatial patterns in regional geography and interpret the relationship between geographical factors operating in a different region.

PSO3: Exhibit the knowledge of various statistical tools, cartographic techniques, and Geographical Information systems (GIS).

PSO4: Develop the skill to conduct surveys independently through various basic survey instruments.

PSO5: Develop academic, entrepreneurial, and material aptitude with professional ethics for employment in public and private sectors.

Course Outcomes: Geography

S. No.	Class	Subject	Semester	Paper (s)	Course Outcomes
1.	B.A I	Geography	I	I & II	<ul style="list-style-type: none"> After completing the course students are able to explain the basic concepts in physical Geography, especially Geomorphologic part and at the end of semester students are able to understand the concept of maps, relevance of maps in Geography and also are able to explain the elements of maps and various steps in map making.
2.	B.A I	Geography	II	III & IV	<ul style="list-style-type: none"> Students are able to elaborate the elements and attributes of climatology, factors, regional variations of climate and related phenomenon and oceanography. After completing practical part students are able to represent or Shown the various relief features of the earth on map. They are also able to explain the Indian daily weather reports.
3.	B.A II	Geography	III	V & VI	<ul style="list-style-type: none"> After studying of these papers students are well aware of India in the context of location in the world, relief, drainage, climate, types of climate, forests, natural and human resources economy and problems etc. They become able to use various types of geographic data and its representation on different maps, graphs and diagrams
4.	B.A II	Geography	IV	VII& VIII	<ul style="list-style-type: none"> Students are able to know the region location of Punjab its relief, drainage, climate, types of climate, forests, agriculture, natural and human resources economy and industries and its problems.

					<ul style="list-style-type: none"> • They also become familiar about the cartographic techniques used for maps, diagrams and graphs etc
5.	B.A II	Geography (Hons.)	III	I	<ul style="list-style-type: none"> • The students are able to know the philosophical and methodological foundation of the subject and its place in the world of knowledge.
6.	B.A. II	Geography (Hons.)	IV	II Option (i)	<ul style="list-style-type: none"> • After completing the course students are able to understand and explain the spatial and structural dimensions of population and the emerging issues. • Students are familiarizes with global and regional level problems and also equip them for comprehending the Indian situation.
7.	B.A III	Geography	V	IX & X	<ul style="list-style-type: none"> • Students are able to understand and explain the concept of major 5 Regions of world with respect to Land, People, polity and Economy, the physical and human resource base and their interface with economic development; development problems and prospects. • They are able to understand of use of map projections for showing different types of geographical information/ data for different areas on the earth surface.
8.	B.A III	Geography	VI	XI & XII	<ul style="list-style-type: none"> • Students are able to understand and explain the world regionally in respect to Land, People, polity and Economy, the physical and human resource base and their interface with economic development; development problems and prospects.
9.	B.A II	Geography (Hons.)	V	III	<ul style="list-style-type: none"> • After completing this course students are able to understand and explain the various issues related to Environment society and economy, and how they will be geographical inter prated with special reference to India
10.	B.A. III	Geography (Hons.)	VI	II Opt.(i&iii)	<ul style="list-style-type: none"> • Students become able to understand the agriculture its regional variations due to various determinants. Students also know how important agriculture for a country and its population. • After completing this course student are able to understand and explain the term Environment, its significance and interrelationship with man and other various issues related to Environment.

Hindi:

PSO1: Analyze the concept and different theories of Hindi literature and language.

PSO2: Pursue research or careers in the Hindi language and literature and its allied fields.

PSO3: Develop Effective communication in both mediums of expression (oral and writing).

PSO4: Acquire relevant knowledge and skills appropriate to professional activities.

Course Outcomes: Hindi

S.No.	Class	Subject	Semester	Papers	Course Outcomes
1.	B. A. I	Hindi Elective	I	--	<ul style="list-style-type: none">• To understand the basic concepts and importance of Hindi language. As it is the preferred official language of India.• To make or not the importance of subject Hindi and it's Branches.• Develop Knowledge of literary forms in Hindi Poetry through kavitalok.• Easiest way to improve vocabulary and communication skills.• Enhance writing and speaking skills.• Understand forms and types of Novel.It Cultivates Wisdom.• Reading stories from the text book "Sajeev kahaniyan " creates mora and humanl values with in themselves.• Language improves their sentence formation, syntax,fluency and the creative skills.• To know about Hindi Literature its root cause perspectives and methods.• Study the socio-Cultural and political background of Adikaal.
2.	B.A. I	Hindi Elective	II	--	<ul style="list-style-type: none">• Evaluating the concept of Hindi from past to present and making the society more closely through Literature.• Students Learning Poetry and Grammar so they can become creative writers or poets and authors.• By having Good communication skills and command over language one can becomes Good speaker.• Develop interest in novel reading, story and poetry.• Reading literature inculcates moral and Human values with in themselves.• Get information about well known writers in Bhaktikaal.• Get information of Technical words used in Government offices.• Understand story forms and their types.• Study the Socio-Cultural and political background of Bhaktikaal.

3.	B.A. II	Hindi Elective	III	--	<ul style="list-style-type: none"> • To understand the basic concepts and origin of Hindi. • To understand various aspects of Hindi Literature with a process to search new methods and give new directions. • To know about the roots of Hindi Literature and its perspective and methods. • Elaborating and understanding philosophical methods of Hindi Literature. • Evaluating the concept of Hindi from past to present and to study the society closely through Literature. • To make students understand the Literature in broader areas than merely confined to the subject. • To make the students understand the importance of Hindi in the contemporary world. • To introduce students to the real-world situation with the help of poems and stories written by various poets and writers.
3.	B.A. II	Hindi Elective	IV	--	<ul style="list-style-type: none"> • To describe the poem of “Chayawadi writers”: Nirala, Jaishankar Prasad, Mahadevi Verma, Sumitranandan Pant and Modern Poets Describes like Maithili Sharan Gupta, Dharamveer Bharti, Ageyey. • Understand the common techniques underlying free verse and traditional forms of poetry • Identify personal experiences that can be used when writing poems • Understand the basic terminology and practical elements of poetry. • Gain in depth knowledge of Precies writing, • Development of writing skills like that Prose writing
4.	B.A. III	Hindi Elective	V	--	<ul style="list-style-type: none"> • Being able to identify various types of poetry by the rhyme scheme. • An understanding of rhyme scheme and meter. • Knowing that there are more types of poetry than what will be taught in the unit out there, and knowing what some of the types of poetry are. • Knowing how poetry can impact their lives and improve their understanding of the world. • Unrelated outcome: Introduction to the Devnagri Language (Linguist at heart). • Unrelated outcome: Help the students learn to think about what web-sites they go to, and how they approach searches online for information. Finally, help the begin to see why they thing sources are appropriate, and how they judge sources.

5.	B.A. III	Hindi Elective	VI	--	<ul style="list-style-type: none"> • Learning about text book Kurukshetra, elaborate the character sketch of Bheeshma Pitamah, Krishna, that's build up the character of nation buildings. • Gain depth knowledge of Hindi Sahitya ka Itihas: novels, stories, autobiography, biography, Sansmaran, diary writings skills, • To help and understand the terms of creativities and writing skills of literature. • Students will come to know about the use of Hindi in official work • Students will be made familiar with the changes in Indian Hindi literature post independence, the various novels and plays written during pre- independence and their impact on modern India • To familiarize students with Alankar, Chhand and language • Encourage students to compose poems, novels, stories, travel diaries etc on their own. • Through prose and poetry students learn the human values and practice it in day to day life
6.	B.A. II	Hindi Honours	III	--	<ul style="list-style-type: none"> • To understand the role played by the poets of Bhakti Kala cult in literature and society • To understand the basic concepts of Hindi grammar and various forms of functional Hindi • Description and importance of political, social and cultural condition of Adhunik Kala. • Studying the Hindi Renaissance period. • Describing the features and importance of Bhartendu Yug and Dwivedi Yug. • Understanding the features of Chhayavad, Prayogvad, Pragativad, Nai kavita and Samkaleen Kavita along with their leading poets. • Describing the development of writings of Hindi Prose during Pre and Post Independence.
7.	B.A. II	Hindi Honours	IV	--	<ul style="list-style-type: none"> • To able to understand the basis of the classification of Hindi literature. • To able to understand the importance and basis of the names given to each period of Hindi literature. • To able to understand the features of Adikal, Bhakti Kala, Ritikaal and Adhunik Kala, in context of socio-cultural and political condition of that period. • To able to understand the reason of emergence of Adhunik Kala in Hindi literature.
8.	B.A. III	Hindi Honours	V	--	<ul style="list-style-type: none"> • To understand the basic concept and subject of Hindi & its origin

					<ul style="list-style-type: none"> • To make or not the importance of subject Hindi & its Branches. • To understand various aspect of Hindi literature with a process to reach method and giving new mode and direction. • To make a attempt in different area and theory such as vocabulary and vice versa • To understand in the Literature more in a border areas then Mary confined to subject. • To know about Hindi literature its roots cause perspectives and methods. • Elaborating and understanding its philosophical methods of Hindi Literature. • Evaluating the concept of Hindi from past to present and making the society more closely through literature.
9.	B.A. III	Hindi Honours	VI	--	<ul style="list-style-type: none"> • Introducing the trends of Aadikaal and importance of Siddha, Nath, Jain, Raso and Laukik Sahitya. • Understanding the introduction and different trends of “Bhakti Kaal.” Describing the cults of Sant Kavya, Sufi Kavya, Ram Kavya and Krishna Kavya. • Describing the introduction and different trends of “Ritikal” and also the literary trends of Ritibaddh, Ritisiddh and Ritimukt Kavya.

History:

PSO1: Apply historical methods to evaluate critically the past and how historians and others have interpreted it.

PSO2: Acquire basic historical research skills from libraries, archives, and databases.

PSO3: Organize and express thoughts clearly and coherently both in writing and orally.

PSO4: Demonstrate a broad knowledge of historical events and periods and their significance.

PSO5: Recognize how different individuals, groups, organizations, societies, cultures, countries, and nations have affected history.

Course Outcomes: History

S. No.	Class	Subject	Semester	Paper(s)	Course Outcomes
1.	B.A.I	History	I	History of India Up to 1200A.D.	<ul style="list-style-type: none">• In Order to have a proper understanding of the ancient civilization and culture of the country• History is very essential to study the past of the country• Great events of History give us a new message of life• Day to day Knowledge may secure better future in life
2.	B.A I	History	II	History of India 1200-1750A.D.	<ul style="list-style-type: none">• Develop idea about how different life forms have evolved from simpler to complex ones.• Acquire the knowledge about historical places and study of great events of history.• Understand various aspects of hereditary trends observed in successive generations.• Evolutionary trends in history.• Acquired Knowledge about the great kingdoms their achievements.
3.	B.A I	H.C.P	I	History and culture of Punjab from earliest times to pre-Mauryan period	<ul style="list-style-type: none">• Students would be able to get fair idea about the general features, economic importance• Able to understand the basics of the culture of Punjab.• Syllabus is suitable as it deals with the Indus valley civilization, Vedic culture etc.
4.	B.A I	H.C.P	II	History and culture of Punjab from	<ul style="list-style-type: none">• Understand the ideal contents of Mauryan Buddhist and Jain culture.• It is useful for the general history subject students.

				Mauryan times to 1200A.D.	
5.	B.A. II	H.C.P	III	History and culture of Punjab from 1200C -1700 A.D.	<ul style="list-style-type: none"> • Imparting knowledge about internal structure of the administration of the rulers. • Develop understanding of the students to the history of the early regions. • Introduction of the various Sikh institutions like Rakhi system & dal Khalsa etc.
6.	B.A II	H.C.P	IV	History and culture of Punjab 18th & early 19th centuries	<ul style="list-style-type: none"> • Understand the concept of history and culture of Punjab. • Imparting knowledge of Sikhs struggle history. • To develop understanding about various heritages and folks of Punjab.
7.	B.A.III	HCP	V	History and culture of Punjab: Colonial Period	<ul style="list-style-type: none"> • Students would be able to understand the British administrative structure in Punjab. • Imparting knowledge of education, press, and transports under Britishers. • To understand the concept of Punjabi suba movement.
8.	B.A.III	HCP	VI	History and culture of Punjab: Post independence Period	<ul style="list-style-type: none"> • The aim of teaching this paper is to familiarize the students to the cultural history of Punjab from 1947 onwards (post - partition period) The students shall acquire knowledge about partition of Punjab and large scale migration to and from Pakistan and India and subsequently its effects on state, society and economy; • Finally creation of Punjabi suba and necessity of reorganization act of 1966. Thereafter success of green revolution, educational development, boundary problem, operation blue star as well as development of art and literature during modern times in Punjab shall add much needed additional knowledge regarding Punjab to our students.
9.	B.A. II	HIS	III	History of Modern India (1750-1964)	<ul style="list-style-type: none"> • The aim and objective of the study is to understand the all-round comprehensive development and major changes during modern period. • Emergence of British rule, their Administration, reforms, their exploitation,

					<p>during this time shall enlighten students about socio-economic and political changes-indeed a comparative study.</p> <ul style="list-style-type: none"> • Socio-religious reform movements, depressed classes movements shall add new knowledge. National movement besides communal politics, factors leading to partition and independence of India are important issues necessary to be learnt by youth of the country.
10.	B.A. II	HIS	IV	History of Punjab 1469-1966A.D.	<ul style="list-style-type: none"> • The students shall be provided with affective knowledge regarding socio-economic and political changes in the state of Punjab during 1469-1966 A.D. • It provides knowledge about establishment and development of Sikh religion under Sikh gurus besides post guru period and rise and fall of Ranjit Singh, British occupation of Punjab, national movement in Punjab, partition of Punjab and Punjabi suba movement will help students to understand history of Punjab state in a significant manner.
11.	B.A.III	HIS	V	World History 1500-1870A.D.	<ul style="list-style-type: none"> • The present world is fast squeezing every moment. The study of socio-economic and political history is essential. Great lessons can be learnt from causes and effects of Glorious, French & industrial revolutions and to learn about development at global level for a healthy existence is not only of importance but a great necessity. • Development of stages ultimately led to the two unifications i.e., Italy and Germany. Students can learn a lot from stalwarts like Napoleon-hungry for expansion and spread of imperialism. Main objective is to introduce the student to global history.
12.	B.A.III	HIS	VI	World History 1871-1964A.D.	<ul style="list-style-type: none"> • The basic idea behind the study, under reference is to introduce the students to the History of modern world with special reference to times of European domination. • It covers significant events like American, French and Russian revolutions and industrial Revolution, nationalism and communism in China, modernisation of Japan and most Importantly world war I and II.
13.	B.A.II	Hons.	III	Social and cultural	<ul style="list-style-type: none"> • Social and cultural information of the extreme ancient Indian times illustrates how

				Trends in Ancient India	<p>and in what ways, the present society and culture developed under numerous negative and positive influences.</p> <ul style="list-style-type: none"> • It serves as ground reality for its present matured position at national and global levels. Topics like varna system with position of women and education, new hindu sects, art and architecture makes the study interesting and educative about past.
14.	B.A.II	Hons.	IV	Social and cultural trends in Medieval India	<ul style="list-style-type: none"> • To make the students aware of the new socio-cultural changes during post -ancient days namely Medieval India. For instance, it covers the position of different social groups, besides changing social customs and manners, devotional movements, mystical dimensions of Islam. • Similarly, Akbar's religious ideology, Art and architecture during medieval times highlighting Hindu-Muslim co-existence and the mingling of their culture.
15.	B.A.III	Hons.	V	History of Russia	<ul style="list-style-type: none"> • With appearance of Soviet Union as one of the leading countries of the World, it attracted serious attention of all concerned. • The course of study throws light as to how czarist regime met it's downfall and communist government came into being after great revolution of 1917. It also gives information about political, economic and social development during communist era. • Study of Russia helps the students to understand the contemporary world in a significant manner
16.	B.A.III	Hons.	VI	Social origins of right- and left-wing dictatorship in modern times	<ul style="list-style-type: none"> • The course under study is highly informative About the society, culture and polity at different times in world history. • It provides opportunity for comparative outlook besides supplementing the normal knowledge of the subject already available with the students. • Tumbling imperialism, emergence of Democracy, farmer's uprising and coming up of Communist nursery are major issues that shall provide necessary knowledge to the students. • Furthermore, downfall of tzarist regime, Oct. 1917 revolution, industrialization and collective farming shall prove useful to readers.

					<ul style="list-style-type: none"> • In such scenario, problem of Italy and its fascist activities besides Germany's efforts for becoming a capitalist power and Nazi totalitarian agenda shall add to perfect knowledge of the issues, being taught.
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Home Science:

PSO1: Recognize and value the significance of home science towards the growth and welfare of individual people, families, and communities.

PSO2: Acquire knowledge of multidisciplinary sciences and technologies to improve the quality of life.

PSO3: Acquire professional and entrepreneurial skills for the community's and individuals' economic empowerment.

PSO4: Competent in various streams of home science such as Foods and Nutrition, Clothing and Textiles, Family Resource Management, Human Development, Extension, and Communication.

PSO5: Management skills to lead projects in the community, organize events, and gather resources.

PSO6: Learn scientific resource management techniques to enhance the core skills required for a career in nutrition and dietetics, fashion designing and garment construction, Child Guidance, Family Counselling, and other relevant professions.

Course Outcomes: Home Science

S.No.	Class	Subject	Semester	Paper(s)	Course Outcomes
1.	B.A.	Home Science	I	Family Resource Management, Hygiene & Health	<ul style="list-style-type: none"> • Able to comprehend the importance of the subject Home Science • Acquire the core knowledge to establish themselves as Home Scientists by learning Entrepreneurship • Impart the knowledge of Principles of Interior Decoration & its Application. • Gain in-depth knowledge of Hygiene, Health, and Immunization • Apply, evaluate and discuss the Causes and prevention of various diseases (Malaria, Dengue, AIDS, etc.) • Understanding the significance of Food Hygiene • Think critically by examining various Adulterations in Foods through Testing.
2.	B.A.	Home Science	II	Family Resource Management, Hygiene & Health	<ul style="list-style-type: none"> • Acquaint & familiarize with Classification of Resources • In-depth understanding of Time, Money, and Energy Management • Develop the analytical skill in Furniture Selection, Requirement, and Arrangement

					<ul style="list-style-type: none"> • Aware students of the Importance of Consumer Education • Familiarize students with the objectives and significance of Health Education • Exhibit knowledge of the Human Digestive System • Equipping with the knowledge of First Aid.
3.	B.A.	Home Science	III	Clothing & Textiles	<ul style="list-style-type: none"> • Develop a comprehensive understanding of the Function and Care of a Sewing Machine • Make learners proficient in the areas of taking body measurements and drafting • Understanding the Classification of Textile Fibres • Learning the manufacturing process and properties of fibers. • Train & equip students with the knowledge of Fabric Construction.
4.	B.A.	Home Science	IV	Clothing & Textiles	<ul style="list-style-type: none"> • Imparting knowledge about Storage and Care of Garments • Familiarize students with the Selection of suitable clothes for different age groups. • In-depth knowledge about types of Bleaches and Finishes • Hands-on training on Fabric Dyeing and Printing • Aware students of various Methods of Laundry and Washing • Training for developing Patterns and Garment Construction (Frock, Suit, Salwar, etc.) • Exhibit techniques of Surface ornamentation.
5.	B.A.	Home Science	V	Food, Nutrition & Child Development	<ul style="list-style-type: none"> • Able to comprehend the importance and functions of food. • Learn about Food Constituents, functions, sources, and their deficiencies. • Apply, evaluate and discuss the various Methods of Cooking • Enlighten on recommended dietary allowances, functions, deficiency, excess, and food sources of selected vitamins and minerals. • Impart knowledge about the Importance and Planning of a Balanced Diet. • Understanding of five/ seven food groups. • Gain in-depth knowledge of Pre-Natal and Post-Natal Care • Teaching various methods of Family Planning • Understand the significance of Child Development and its Developmental Tasks.

6.	B.A.	Home Science	VI	Food, Nutrition & Child Development	<ul style="list-style-type: none"> • Hands-on Training on various Methods of Food Preservation. • Understanding the Principles of Meal Planning • Make learners proficient in the areas of Therapeutic Diets and Modification of Normal Diet • Familiarize students with the Emotional Development of Children (Up to 6 years) • Aware students about various Language Development in Children – Stages and Factors affecting the language development. • Acquire the core knowledge of the significance of Play and Play Materials in Child Development • Apply, evaluate and discuss the Common Behavioural Problems in children and their remedies.
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Mathematics*:

PSO1: Acquire a fundamental understanding of mathematics and statistics.

PSO2: Competence in understanding technical breakthroughs

PSO3: Ability to think critically, rationally, analytically, and logically to address global concerns

PSO4: Possessing strong entrepreneurial and leadership skills

PSO5: Able to work independently as well as in teams in a variety of fields

(*Course Outcomes for B.A. Mathematics and B.Sc. Mathematics are similar and discussed under B.Sc. Mathematics.)

Music (Vocal):

PSO1: Demonstrate a fair understanding of the nuances of Indian melody-based classical music, Shruti-shastra, and laya-tatva, Bandish/ kritiin araag and perform the same, Taal and perform the same, Languages and dialects of musical compositions and Music notations

PSO2: Knowledge about Characteristics of various Gharnas

PSO3: Salient features of the art form-folk, devotional, film/Natya- and popular music to render compositions in the least ten raags and five taals

PSO4: Demonstrate a critical understanding of the style of old masters

PSO5: Improvise during the performance and participate in concerts

Course Outcomes: Music (Vocal)

S. No	Class	Subject	Semester	Paper(s)	Course Outcomes
1	B.A I	Music (Vocal)	I	--	Practical: <ul style="list-style-type: none">The students are familiarized with the basic concepts of the Music.The students gain knowledge about 'sudh' and 'Komal' swar in music. Theory: <ul style="list-style-type: none">The students gain knowledge about the origin of the subject.The students become aware about the scope and career fields.
2	B.A I	Music (Vocal)	II	--	Practical: <ul style="list-style-type: none">The students gain knowledge about origin and historical importance of Indian Music.The students are familiarized with raags . Theory: <ul style="list-style-type: none">The students are familiarized with historical Importance of the subject.The students are familiarized with theoretical understanding of the subject.
3	B.A II	Music (Vocal)	III	--	Practical: <ul style="list-style-type: none">The students gain knowledge about detailed and non-detailed RaagsThe students are familiarized with raags elaboration. Theory: <ul style="list-style-type: none">The students gain knowledge about Development and history of music.The students are familiarized with contribution of Musician and Artists.
4	B.A II	Music (Vocal)	IV	--	Practical: <ul style="list-style-type: none">The students gain knowledge about description and Notation of raags.The students are familiarized with classical music. Theory: <ul style="list-style-type: none">The students gain knowledge about theoretical representation of notation

5	B.A II	Music (Vocal) Honours	III	--	<p>Practical:</p> <ul style="list-style-type: none"> • The students gain advance knowledge of raags in Indian music. • The students are familiarized with detailed and non detailed raags. <p>Theory:</p> <ul style="list-style-type: none"> • The students are introduced to advance theoretical and conceptual understanding. • The students gain knowledge about history and development of music and contribution of great musician and artists.
6	B.A II	Music (Vocal) Honours	IV	--	<p>Practical:</p> <ul style="list-style-type: none"> • The students gain knowledge about description, Notation and variation in alap and tana of raags. • The students are gain knowledge how to play tabla, tanpura, harmonium. <p>Theory:</p> <ul style="list-style-type: none"> • The students gain knowledge about theoretical representation of notation in Indian classical music.
7	B.A III	Music (Vocal)	V	--	<p>Practical:</p> <ul style="list-style-type: none"> • The students gain knowledge about varieties of detailed and non detailed raags in Indian music. • The students are familiarized with Gayan Shaillies in Indian music. <p>Theory:</p> <ul style="list-style-type: none"> • The students are familiarized with history of Indian music 4th to 13th century and the contributions of great musician and Artists.
8	B.A III	Music (Vocal)	VI	--	<p>Practical:</p> <ul style="list-style-type: none"> • The students are familiarized with Gayan Shaillies in Indian music. • The students gain knowledge about music directing and music composing. <p>Theory:</p> <ul style="list-style-type: none"> • The students are gain knowledge about importance of electronic mediums in Indian music.
9	B.A III	Music (Vocal) Honours	V	--	<p>Practical:</p> <ul style="list-style-type: none"> • The students gain knowledge about varieties of tana in Indian music. • The students are familiarized with Gayan Shaillies in Indian music. <p>Theory:</p> <ul style="list-style-type: none"> • The students are gain knowledge about history of Indian music 4th to 13th century and the contributions of great musician and Artists.
10	B.A III	Music (Vocal) Honours	VI	--	<p>Practical:</p> <ul style="list-style-type: none"> • The students gain knowledge about varieties of tana in Indian music.

					<ul style="list-style-type: none"> The students are familiarized with Gayan Shailies in Indian music. <p>Theory:</p> <ul style="list-style-type: none"> The students are familiarized with history of Indian music and the contributions of great musician and Artists.
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Music (Instrumental):

PSO1: Understand the fundamental terms used in Hindustani classical music.

PSO2: Perform tabla composing and musical notation styles.

PSO3: Ability to execute music on a primary instrument with technique, precision, expressivity, and

PSO4: Stage presence from a wide range of historical and stylistic solo and group genres;

PSO5: Recognize musical elements and organizational patterns through aural and visual study.

PSO6: Perform scales, sight-read, prepared music, harmonize, and improvise to demonstrate mastery of keyboard techniques and fingerings.

Course Outcomes: Music (Instrumental)

S. No	Class	Subject	Semester	Paper(s)	Course Outcomes
1	B.A I	Music (Instrumental)	I	---	<p>Practical:</p> <ul style="list-style-type: none"> The students are gain knowledge about basic concepts of Musical instruments. The students get knowledge about basic concepts of sitar playing. <p>Theory:</p> <ul style="list-style-type: none"> The students gain knowledge about the origin of the Indian music. The students become aware about the scope and career fields in music.
2	B.A I	Music (Instrumental)	II	---	<p>Practical:</p> <ul style="list-style-type: none"> The students gain knowledge about musical terms and instrumental understanding in Indian Music. The students get knowledge about swar and layakaries <p>Theory:</p> <ul style="list-style-type: none"> The students are familiarized with historical Importance of the subject. The students are familiarized with theoretical understanding of the subject.
3	B.A II	Music (Instrumental)	III	---	<p>Practical:</p> <ul style="list-style-type: none"> The students gain knowledge about detailed and non detailed Raags.

					<ul style="list-style-type: none"> The students know how to play ragas and dhun on sitar. <p>Theory:</p> <ul style="list-style-type: none"> The students gain knowledge about Development and history of music. The students are familiarized with contribution of Musician and Artists.
4	B.A II	Music (Instrumental)	IV	---	<p>Practical:</p> <ul style="list-style-type: none"> The students gain knowledge about description and Notation of tana on sitar and harmonium. The students are familiarized with classical musical instruments. <p>Theory:</p> <ul style="list-style-type: none"> The students gain knowledge about theoretical representation of notation
5	B.A III	Music (Instrumental)	V	---	<p>Practical:</p> <ul style="list-style-type: none"> The students get knowledge about advanced techniques of sitar playing. The students are familiarized with vadan Shaillies in Indian music. <p>Theory:</p> <ul style="list-style-type: none"> The students are familiarized with historical development of Indian music and the contributions of great musician and Artists.
6	B.A III	Music (Instrumental)	VI	---	<p>Practical:</p> <ul style="list-style-type: none"> The students gain knowledge about varieties of tana in Indian music. The students get knowledge about playing techniques of sitar and harmonium playing in Indian music. <p>Theory:</p> <ul style="list-style-type: none"> The students are familiarized with history of Indian music 4th to 13th century and the contributions of great musician and Artists.

Physical Education:

PSO1: Empowered to engage in and promote sports and games in support of an active lifestyle

PSO2: Obtain a strong base for further education.

PSO3: Plan, carry out, and assess a safe, sound, orderly physical education program.

PSO4: Improve scientific understanding of numerous sports and game regulations

PSO5: Develop your interpersonal, leadership, and teamwork abilities in a professional setting.

Course Outcomes: Physical Education

S.No.	Class	Subject	Semester	Paper (s)	Course Outcomes
1.	B.A.	Physical Education	I	---	<ul style="list-style-type: none">• Meaning and concept of education• Meaning and definition of Physical Education, its aim and objectives.• Need and importance of Physical Education in Modern society and its relationship with other subjects.• Pre and post-Independence Development of Physical Education in India.• Ancient Olympic Games.• Modern Olympic Games.• Asian Games.• Common Wealth Games.• Raj Kumari Amrit Kaur Coaching Scheme.• Netaji Subash National Institute of Sports, Patiala.• Sports Authority of India.• Indian Olympic Association.• International Olympic Committee.• History of the game.• Basic fundamentals.• Equipment and specification.• Marking /layout of court.• Rules and regulations (number of players, duration of games, number of officials required and general rules of play.)• Major tournament and Arjun awardees of the game.
2.	B.A.	Physical Education	II	---	<ul style="list-style-type: none">• Meaning and definition of Anatomy & Physiology, structure and functions of a cell.• Meaning and functions of skeletal system.• Types of Bones and names of various bones of the body.• Introduction of Muscular system, structure and functions of muscular system.• Effect of exercise on the muscular system.

					<ul style="list-style-type: none"> • Warming up, cooling down and physical fitness: • Warming up and cooling down in sports and its significance. • Meaning, definition and components of physical fitness. • Influence of age, sex, body composition, diet, climate, exercise and training on physical fitness. • History of the game. • Basic fundamentals. • Equipment and specifications. • Marking /layout of court. • Rules and regulation regulations (number of players, duration of games, number of officials required and general rules of play.) • Meaning, definition of health. • Meaning, definitions, objectives, scope, principal and importance of Health education. • Personal hygiene, its meaning and importance. • Meaning and importance of first Aid in Physical Education and sports with special reference to drowning, dislocation of a joint fracture of bone sprain and strain. • Growth and Development. Difference between growth and development. • Factors affecting growth and development. • Various stages of growth and development. • Heredity and Environment and its effects on growth the Development.
3.	B.A.	Physical Education	III	---	<ul style="list-style-type: none"> • Meaning of Psychology and sports Psychology. • Psychology factors effecting Physical Performance. • Meaning and Learning. • Law of Learning. • Learning curve, its types, characteristics and implications in Physical education and sports. • Psychological characteristics and problems of an adolescent. • Meaning definitions, type and methods of motivation. • Importance of Motivations in Physical Educations and sports. • Meaning, definitions, type and factors affecting transfer of training.

					<ul style="list-style-type: none"> • • Personality, sports and socialization: • Meaning, definitions, characteristics, dimensions and traits of personality. • Factors affecting development of personality (Heredity and Environment). • The role of Physical activities in Personality Development. • Meaning and definitions of socializations through sports. • Politics, Economy, Media and sports performance: • Role of politics and economy in the promotion of games and sports. • Role of media in promotions of sports. • Review of sports performance. • Causes of deterioration of sports performance. • Suggestions for the improvement of sports performance.
4.	B.A.	Physical Education	IV	---	<ul style="list-style-type: none"> • Meaning of Respiration, types of Respiration, organ of the respiratory system. • Functions of the Respiratory system vital capacity and its measurement. • Mechanism and Neural control of Respiration. • Meaning, importance and organs of Digestive system. • Functions, processes, mechanism and Nerve Regulators of Digestive system. • Meaning of the circulatory system. • Heart, its structure, functions and controls of the heart rate. • Various types of blood vessels and their functions. • Cardiac cycle. • Meaning, functions and compositions of blood. • Maintenance of blood supply. • Blood groups and their importance. • Blood clotting. • Meaning of communicable diseases communicable disease such as HIV/AIDS, viral. • Hepatitis - A, B and C and Tetanus, their modes of transmission and methods of prevention.

					<ul style="list-style-type: none"> • Meaning aim, and types of Yoga. Concept of Health Yoga and its relationship with Physical, mental and spiritual health. • Meaning, principal and importance of Asana. • Meditative poses (padamasna, Vajra Asana, and such Asana), their technique, precautions and effects/ Advantages. • Cultural poses (savanna, Hal asana, Bhujangasana, Suravangasana, salbhasana, Dhaburasana and Chkrasana), their technique precautions and effects/ advantages. • Basis of sports Injuries. • Common sport Injuries, such as sprains, strains, fracture, dislocation, abrasions, contusion, bruise, tennis elbow. Their causes, preventive and remedial measures. • Treatment and care (RICE) of sports Injuries. • Meaning, type, cause and preventive measure of disability. • Problems of the disabled. Physical activity and health for disabled. • Meaning and scope of Rehabilitation.
5.	B.A.	Physical Education	V	---	<ul style="list-style-type: none"> • Meaning and Definition of play. • Various theories of play and their significance in Physical education and sports • Meaning, definition, characteristics, aim, objectives and types of recreation and recreational activities. • Significance of recreation in modern society. • Recreation providing agencies. • Meaning, importance and conduct of intramural and extramural competitions. • Meaning and types of tournament and their merits and demerits. • Draw of fixtures of various tournaments. • Meaning, aim and objectives of the camp. • Advantages of camping/outdoor education. • Types and agencies promoting camping. • Organization of camps and factors affecting its organization • Educative values of a camp. • Organization of an athletic meet. • Importance /significance of an athletic meet. • Meaning, types and importance of a good posture. • Causes, preventive and (Kyphosis, Lordosis, Scolosis and Flat foot), their causes, preventive and remedial measures.

					<ul style="list-style-type: none"> • PHYSICAL ACTIVITIES AND THEIR EFFECTS ON VARIOUS PHYSICAL PARAMETERS: <ul style="list-style-type: none"> • Physical activities/training and their effects on aging, body composition, and obesity. General problems of obesity. • Health related risk factors of obesity. • Obesity and physical activity. • Causes, preventive and remedial measures of obesity • Brief history of massage. • -Meaning and definition of massage. • -Principles/guidelines for massage. • -Types of massage and their benefits. • -Effects of massage on skin, blood circulation, nervous system and muscles. • History of the game, basic fundamentals, Equipment and specifications, Marking /layout of field, Rules and regulations(number of players, duration of game, number of officials required and general rules of play), Major tournaments and Arjuna awardees of game.
6.	B.A.	Physical Education	VI	---	<ul style="list-style-type: none"> • Meaning and Definition of play. • Various theories of play and their significance in Physical education and sports • Meaning, definition, characteristics, aim, objectives and types of recreation and recreational activities. • Significance of recreation in modern society. • Recreation providing agencies. • Meaning, importance and conduct of intramural and extramural competitions. • Meaning and types of tournament and their merits and demerits. • Draw of fixtures of various tournaments. • Meaning, aim and objectives of the camp. • Advantages of camping/outdoor education. • Types and agencies promoting camping. • Organization of camps and factors affecting its organization • Educative values of a camp. • Organization of an athletic meet. • Importance /significance of an athletic meet. • Meaning, types and importance of a good posture.

					<ul style="list-style-type: none"> • Causes, preventive and (Kyphosis, Lordosis, Scolosis and Flat foot), their causes, preventive and remedial measures. • PHYSICAL ACTIVITES AND THEIR EFFECTS ON VARIOUS PHYSICAL PARAMETERS: <ul style="list-style-type: none"> • Physical activities/training and their effects on aging, body composition, and obesity. General problems of obesity. • Health related risk factors of obesity. • Obesity and physical activity. • Causes, preventive and remedial measures of obesity • Breif history of massage. • Meaning and definition of massage. <ul style="list-style-type: none"> • Principles/guidelines for massage. • Types of massage and their benefits. • Effects of massage on skin, blood circulation, nervous system and muscles. • History of the game, basic fundamentals, Equipment and specifications, Marking /layout of field, Rules and regulations(number of players, duration of game, number of officials required and general rules of play), Major tournaments and Arjuna awardees of game. • Meaning of Nervous system. • Main organs of nervous system and their functions. • Reflex action and reciprocal innervations. • Functional classification of Nervous system. • Meaning of excretory system. • Main organs of excretory system and their structure and functions • Meaning of endocrine system. • Meaning of glands, their location and functions/Harmones produced by them • Meaning, definition, aim, objective, characteristics and principles of sports training. • GENERAL PHYSIOLOGICAL CONCEPT: • Physiological concepts such as vital capacity, second wind, stitch in the side and its causes.
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					<ul style="list-style-type: none"> • Definition of oxygen debt/excess post exercise oxygen consumption(EPOC) AND ITS IMPLICATION. • Meaning, definition and types of fatigue. • Muscular contractions such as isotonic, isometric, eccentric and isokinetic. • Meaning of blood pressure, hypertension: its causes, effects and treatment, exercise and hypertension. • Effects of physical exercise/training on muscular, respiratory and circulatory systems of the body. • Career options in Physical education. • Different avenues in physical education. • -Self assessment for career choices. • Courses and institutions available for physical education profession. • Coaching, coaching philosophy, definition of a coach. • Qualification and characteristics of a coach. • Responsibilities of a coach. • History of the game, basic fundamentals, equipment and specifications, marking/layout of T.T Table, rules and regulations, major tournaments and Arjuna awardee of the game
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Police Administration:

PSO1: Develop knowledge about the significance, nature, and scope of police administration.

PSO2: Recognize the work ethics, code of ethics, and culture of police and their role in Indian democracy.

PSO3: Analyze the function of the police in India's civil service, judiciary, political system, and electoral process.

PSO4: Evaluate the pressure, autonomy, and accountability placed on the police and their legal expertise.

Course Outcomes: Police Administration

S No.	Class	Subject	Semester	Paper(S)	Course Outcomes
1.	B.A.	Police Administration	I	Police Administration In India	<ul style="list-style-type: none">• The principal objective of this paper is to acquaint the students with the Indian Police Administration along with its history and growth.• Considerable attention has been paid to the concept and significance of reforms in Police Administration with special reference to reform initiatives after independence.• The endeavour of the course would be to familiarize the students with the Police Administration at the Union Level with special focus on the Union Ministry of Home Affairs and Central Armed Police Forces
2.	B.A.	Police Administration	II	Constitution of India	<ul style="list-style-type: none">• The objective of this course is to give an over view to the students the basic information about the Constitution of India.• The students would be taught concepts such as Preamble, Citizenship, Fundamental Rights, Directive Principles of State Policy and Fundamental Duties. They are made to understand the political executive at the union and state level; the union and state legislature and judiciary at the Union and in the state
3.	B.A.	Police Administration	III	Police Personnel Administration	<ul style="list-style-type: none">• This course is to give inputs to the students on the various aspects of personnel relevant to

					<p>police administration. Effort is made to impart knowledge to the candidates about the meaning, nature, scope and significance of Police Personnel Administration in India.</p> <ul style="list-style-type: none"> • In addition, job analysis, job description, pay policy, compensation and fringe benefits have been discussed. Further, the recruitment, training and promotion system in Police Service in India has been included in the syllabus.
4.	B.A.	Police Administration	IV	Law and Order Administration	<ul style="list-style-type: none"> • The principal objective of the syllabi is to acquaint the students with the basics of Law and Order Administration in India. • Specifically, the students will be imparted the knowledge about the meaning, nature, scope and significance of Law and Order Administration in India along with some basic issues and emerging patterns. The endeavour is to discuss in detail the role and significance of Primary and Auxiliary Agencies of Law and Order Administration.
5.	B.A.	Police Administration	V	Organisational Behaviour with Special Reference to Police Administration	<ul style="list-style-type: none"> • This course is to familiarize the students with the concept, nature and significance of organizational behaviour with special reference to police administration. The course also aims to discuss the foundations and models of organisational behaviour. • In particular, the students would be taught the concepts such as motivation, morale, leadership, communication, decision-making, and transactional analysis
6.	B.A.	Police Administration	VI	Law and Police Administration	<ul style="list-style-type: none"> • The police system in India has to work within the ambit of legal framework laid down by the

					<p>Constitution and by the enacted laws.</p> <ul style="list-style-type: none"> • The major responsibility of the police is to ensure the implementation of such laws. • The course has been designed to impart knowledge to the students on the laws governing the 'prevention and detection of crime' which is laid down as the primary duty in the Indian Police Act 1861. • The endeavour of the course is to familiarize the students with the main provisions of the Indian Penal Code 1860, the offences under it and the offences affecting the human body. • In addition, meaning and definition of terms covered under Section 2 relevant to the police administration along with the powers of the police officer have been discussed.
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Political Science:

PSO1: Familiar with different approaches to the study of politics and applying these to contemporary collective and political behaviour.

PSO2: Formulate and construct a logical argument about the political phenomenon and evaluate these through empirical and theoretical methods.

PSO3: Understand how political institutions, emerge, how they operate, how they interact with their external environment, and how they shape individual and collective behaviour.

PSO4: Knowledge of basic factual information about politics within an area of specialization such as American politics, political behaviour, comparative politics, international relations, or political theory and methodology.

Course Outcomes: Political Science

S No.	Class	Subject	Semester	Paper (s)	Course Outcomes
1.	BA I	Political Science	I	Political Theory I	<ul style="list-style-type: none"> Students were made to understand the concepts of Political Theory such as the origin of the state, Liberalism, Maxim and Gandhism, including Meaning of the state and its essential elements.
2.	BA I	Political Science	II	Political Theory II	<ul style="list-style-type: none"> In this paper students learnt about the concepts of Power, Authority, Legitimacy, Political Culture and Socialization. Further they were made familiarized with the concept of Democracy and its various Theories. Students were also understood the concepts of Rights, Liberty, Equality and Justice.
3.	BA II	Political Science	III	Indian Politics	<ul style="list-style-type: none"> In this paper students were taught about various Political Institutions and fundamental elements of the Indian Government.
4.	BA II	Political Science	IV	Indian Politics	<ul style="list-style-type: none"> This paper enriched the students with the working of the political parties, pressure groups in India. Moreover, this also made the students familiar with the foreign policy of India and various other political processes such as caste, religion and region.
5.	BA III	Political Science	V	International Relations	<ul style="list-style-type: none"> Students were made to understand and analyse the working of the two political systems, the UK and USA.
6.	BA III	Political Science	VI	International Relation	<ul style="list-style-type: none"> This paper provided the students with an overview of the broad theories and concepts used to understand international politics. It also examined the key issues in contemporary global

					history from an International politics perspective.
7.	BA II (Honours)	Political Science (Hons)	III	Colonialism and Nationalism in Modern India	<ul style="list-style-type: none"> In this paper students understood different national movements of Indian Political Thought & their contribution for creating consciousness among the masses. They study Brahmo Samaj, Prarthna Samaj, Satyagraha, Home Rule movement, Hindu Mahasabha and different acts passed by Britishers to suppress Indians.
8.	BA II (Honours)	Political Science (Hons)	IV	Western Political Thought	<ul style="list-style-type: none"> Students learnt the political ideas of Plato- his Ideal state, concept of justice. Including Aristotle, his methodology his concepts of revolution, analysis of different constitutions of his time etc. They also studied Machiavelli as the first modern political Thinker and his concepts of morality.
9.	BA II (Honours)	Political Science (Hons)	V	Modern Indian Political Thought	<ul style="list-style-type: none"> In this paper students got familiarized with the evolution of Political Theory with special reference to contribution of Sir Syed Ahmed Khan, M.N. Roy including Satyagraha, Swaraj & Non-violence of M.K. Gandhi. They were also informed about Dr. B.R. Ambedkar's concepts of Social Justice, Caste and Democracy.
10.	BA II (Honours)	Political Science (Hons)	VI	Western Political Thought	<ul style="list-style-type: none"> Here students were introduced to the major themes of western political Thought of Hobbes, Locke, Rousseau & Karl Marx.

Principles and Practice of Insurance:

PSO1: Understand the history, scopes, concepts, and practices of life insurance.

PSO2: Acquire knowledge about the functions, profile, and types of insurance.

PSO3: Learn about the final statements issued by banks and insurance firms.

PSO4: Demonstrate fundamental ideas behind fire insurance and become familiar with the various marine insurance plans.

PSO5: Create a typical clause and explain the insurance concept.

Course Outcomes: Principles and Practice of Insurance

S. No.	Class	Subject	Semester	Papers	Course Outcomes
1.	B.A.	Principles & Practices of Insurance	I	Insurance and Risk Management	<ul style="list-style-type: none">Provides the basic knowledge of risk and insuranceUnderstanding the need and importance of insurance in day-to-day lifeImparts the knowledge of fundamentals of insurance Acquires the knowledge about the insurance industry structure
2.	B.A.	Principles & Practices of Insurance	II	Life Insurance	<ul style="list-style-type: none">Provides knowledge about the significance of life insurance in human lifeAble to comprehend the principles and practices followed in life insurance business.Acquaintance with the different services and products offered under life insurance business Exhibits the progress of life insurance business in India.
3.	B.A.	Principles & Practices of Insurance	III	General Insurance-I	<ul style="list-style-type: none">Mainly deals with the main components of non-life insurance viz. Fire insurance and Marine insuranceProvides knowledge about the emergence and scope of fire and marine insurance Familiarize with different aspects of policies and provisions of fire and marine insurance
4.	B.A.	Principles & Practices of Insurance	IV	General Insurance-II	<ul style="list-style-type: none">Provides a glimpse of liability and property insurance with other miscellaneous insurancesAble to know types of policies sold under the class of General Insurance

					<ul style="list-style-type: none"> • Learns benefits of common policies offered under General insurance <p>Provides knowledge about the growth and weaknesses in general insurance sector</p>
5.	B.A.	Principles & Practices of Insurance	V	Insurance Finance and Legislation	<ul style="list-style-type: none"> • Provides information about the financial aspects of insurance business • Learns and understands the basic laws and regulations concerning insurance industry • Knowledge about the regulatory bodies and their functions <p>Understanding about provisions regarding the protection of policyholders and their lawful rights</p>
6.	B.A.	Principles & Practices of Insurance	VI	Insurance Business	<ul style="list-style-type: none"> • Imparts sound understanding of the underwriting practices and pricing of life as well as non-life insurances • Familiarize with the product design and development • Helps to acquire specialized knowledge and skills in marketing of insurance products <p>Provides knowledge about the legal position and essential qualities of an ideal insurance salesman</p>

Psychology:

PSO1: Develop basic professional skills in psychological testing, assessment, and counselling.

PSO2: Acquire skills in specific areas such as cognitive, industrial-organizational, clinical, counselling, health, educational, social, and community aspects.

PSO3: Elate and connect concepts with personal experiences and application of critical thinking.

PSO4: Develop positive attributes and build effective communication and observational skills.

Course Outcomes: Psychology

S.No.	Class	Subject	Semester	Paper	Course Outcomes
1	B.A I	Psychology	I	General Psychology	<ul style="list-style-type: none">• The Students are expected to understand the general concepts and historical view point in general psychology.• They will also have an understanding of Emotions and methods of psychology.
2	B.A I	Psychology	II	General Psychology	<ul style="list-style-type: none">• The students would get an understanding of the principles and theories in different areas like Personality, Motivation, Intelligence, etc• The course will also apprise them of the concepts of growth and development and also introduce elementary statistics
3	B.A II	Psychology	III	Experimental Psychology	<ul style="list-style-type: none">• The course introduces to the students the general concepts of experimental and biological Psychology.• The students learn about the nervous system, psychophysics and learning theories.
4	B.A II	Psychology	IV	Experimental Psychology	<ul style="list-style-type: none">• During this semester student understand the principles and theories in area such as sensation, perception, creativity, problem solving and thinking. They also learn basic statistical concepts.
5	B.A III	Psychology	V	Clinical Psychology	<ul style="list-style-type: none">• The course enables the students to get an introductory knowledge about clinical psychology, its historical background and its evolution up till the present day.• The students also acquainted with elementary inferential statistics.
6	B.A III	Psychology	VI	Clinical Psychology	<ul style="list-style-type: none">• The students learn about the various behavioural disorders,

					their etiology, diagnosis, prognosis and treatments
7	B.A II (Hons.)	Psychology	III	Social Psychology	<ul style="list-style-type: none"> The Students will learn and understand the relationship between society and individual. Group Dynamics, role of an attitudes and leadership behaviour in the society
8	B.A II (Hons.)	Psychology	IV	Recent Perspectives of Psychology	<ul style="list-style-type: none"> The students will appreciate the basic assumptions, principles and historical roots of modern scientific psychology. They will also understand main theoretical perspective in psychology.
9	B.A III (Hons.)	Psychology	V	Psychological Testing	<ul style="list-style-type: none"> The Students will understand the history, importance and clarification of psychological testing. They will have knowledge of procedure of test construction and classification.
10	B.A III (Hons.)	Psychology	VI	Counselling and Organizational Psychology	<ul style="list-style-type: none"> The Students are expected to have an understanding of various approaches to Counselling and Work Motivation. They will have knowledge about health protective behaviour. They will also have an understanding of exceptional children (their problems and education)

Public Administration:

PSO1: Understand the basic concepts, principles, and theories in the selected administrative fields in Public Administration

PSO2: Establish an understanding of the pattern of administrative development through the ages.

PSO3: Understand the working and functions of various organizations under the Government Administration in India.

PSO4: Develop an understanding of various administration levels from Centre, State and Local levels.

Course Outcomes: Public Administration

S No.	Class	Subject	Semester	Paper(S)	Course Outcomes
1.	B.A	Public Administration	I	Administrative Theory	<ul style="list-style-type: none"> This paper is to acquaint the student with the basic concepts and principles of public administration. In addition, the paper would trace the evolution of public administration and its relationship with other social sciences.
2.	B.A	Public Administration	II	Indian Administration	<ul style="list-style-type: none"> The objective of this paper is to give the student an in-depth understanding of various aspects of Indian administration particularly the functioning of executive, legislature and judiciary at the union and state levels.
3.	B.A	Public Administration	III	Personnel Administration	<ul style="list-style-type: none"> The objective of this paper is to give the student an in-depth understanding of various aspects of public personnel administration particularly recruitment, training and promotion. Contemporary issues like grievance redressal machinery, corruption, morale etc.
4.	B.A	Public Administration	IV	Financial Administration	<ul style="list-style-type: none"> In this paper students are appraised with various aspects of financial administration like budgeting, auditing, centre-state financial relations and institutions like ministry of finance, union finance commission, parliamentary committees; and concepts like direct taxes, indirect taxes, deficit financing..
5.	B.A	Public Administration	V	Local Government	<ul style="list-style-type: none"> The objective of the paper is to give the student an understanding

					<p>of the concept, significance and evolution of local government in India.</p> <ul style="list-style-type: none"> It would also acquaint them with the pattern and working of divisional and district administration
6.	B.A	Public Administration	VI	Development Administration	<ul style="list-style-type: none"> In this paper students are taught about the concept & significance of development administration, features of developed & developing countries, planning machinery at Centre & State level and the emergence of India as a welfare state.
7.	B.A (Hons)	Public Administration	III	Administrative thought	<ul style="list-style-type: none"> The objective of the paper is to give the student an understanding of select ancient, classical, neo-classical and modern administrative thinkers and their contribution to administration.
8.	B.A (Hons)	Public Administration	IV	Public policy and Analysis	<ul style="list-style-type: none"> The purpose of this paper is to provide students an understanding of the basic concepts of public policy and the environment in which it operates. It attempts to help students understand and gain insights into the various stages in policy process with special reference to the social, political and administrative environment prevailing in India.
9.	B.A (Hons)	Public Administration	V	Research methods and Statistics	<ul style="list-style-type: none"> The objective of the paper is to give the student an in-depth understanding about the nature and scope of Social Research, Methods of Social Research, data collection and data processing
10.	B.A (Hons)	Public Administration	VI	Public enterprises and management	<ul style="list-style-type: none"> The objective of the paper is to give the student a detailed understanding of the concept, evolution, types, role and problems of public enterprises in India.

Punjabi:

PSO1: Develop a bonding with the mother tongue of the student.

PSO2: Knowledge and understanding of the various intricacies of the grammar and literature of Punjabi.

PSO3: Knowledge and understanding of the cultural heritage of Punjab.

PSO4: Developing knowledge of the Punjabi language helps understand the Punjabi literature in depth.

Course Outcomes: Punjabi

S. No.	Class	Subject	Semester	Paper(s)	Learning Outcomes
1	B.A/ B.Sc. I	PBC	I	Modern Poetry Grammar	<ul style="list-style-type: none"> • Introduced to the concept of modern poetry • They were introduced to the renowned poets of that period. • Brief description of the poems • Students were introduced to the Phonetics of Punjabi phonemes • Students came to know through poetry moral values of life, struggle and hardships of common man.
2	B.A/ B.Sc I	PBC	II	Short Stories Grammar	<ul style="list-style-type: none"> • Students were familiarized with various aspects of short story writing of the prescribed period. • Students learnt lessons of life from the diverse texts concerned about values of life, struggles and hardships of common man
3	B.A II	PBC	III	One act play and drama	<ul style="list-style-type: none"> • Students were introduced about the various problems related to the Punjabi culture and society, young generation are facing the unemployment problems. • In these conditions they are indulged in drug abusing and the whole family are facing the various problems.
4	B.A II	PBC	IV	Book punjab and grammar	<ul style="list-style-type: none"> • Students were introduced about the different aspects of culture and value system of Punjabi society weather, festivals, sports, and many more about good things. • In grammar there were concept of ageter pishater, word formation and translation from Punjabi to English.
5	B.A III	PBC	V	Medieval Poetry Grammar	<ul style="list-style-type: none"> • Students were introduced to Medieval Poetry. They came to know past history of old Panjab,

					<p>ethics and human behaviour of that period.</p> <ul style="list-style-type: none"> Through Medieval Poetry they were able to learn humanity, secularism and spirituality. Grammar was also a part of their syllabus through which they learnt how to write correct sentences, correct use of words and pronunciation.
6	B.A III	PBC	VI	Novel Anoop Kaur Grammar	<ul style="list-style-type: none"> It is a historical novel written by Harnam Dass Sahrayi through which students learnt sikh history and mughal history. Students were motivated by the young and brave character of the novel. The students were introduced to the script, origin and development of Punjabi language.
7	B.A III	Elective Punjabi	V	Medieval Poetry ,One act play	<ul style="list-style-type: none"> Students were Introduced to Poets of Medieval period. From these poems they came to know about History, Culture, Human relationship and Ethics of that period. Medieval Poetry taught them man kindness, empathy and secularism, one act was based on preaches of Guru Nanak devji students also came to know the evils of that period which were spread in the society and A Sikh guru taught them how we can remove these evils from the society.
8	B.A III	Elective Punjabi	VI	Medieval Poetry, essay Books	<ul style="list-style-type: none"> Students were introduced to prose and modern prose writers. All the essay was based on human struggle and small achievements. Students learnt from this book how we can make our life worth living.
9	B.A II	Punjabi Elective	III	Medieval Poetry and Travelogue	<ul style="list-style-type: none"> This period's poetry enabled students to understand the ideology of these poets, besides they learnt about the behaviour of different social categories of this time.

					<ul style="list-style-type: none"> • Also they become to understand how the literature of this particular period is different from the previous one. Students learnt about the history, life and politics of this time through wars. • This poetry enables them to develop some emotions and sentiments like true love, spiritual love, honesty and bravery especially in them. They also came to have a detailed knowledge about America by reading the travelogue. • Students learnt about the history of our literature till 20th century which enables them to understand the literature in a better way. • They also came to know about the different forms of language through linguistics
10			IV	Medieval Poetry and short stories	<ul style="list-style-type: none"> • They were able to know about the basic ethics, spirituality, emotions of true love, social and cultural values and political diplomatic behaviour. • Short stories enabled students to understand the different human behaviours, sentiments, feelings, various social, economic, political, religious aspects of the society • They become able to understand the dialects of Punjabi language.
11	B.A I	Punjabi Elective	I	Novel Balde deeve , poetry book naksh nuhar, History of Punjabi literature.	<ul style="list-style-type: none"> • Students were introduced about Pakistani traditions, culture, and women's condition which are belongs to orthodox society, poetry book were introduced about the modern man's tragedy , feelings about society troubles and struggle.
12	B.C.A	PBC	III & IV	Poetry -Sur Sanvedna Short stories Punjabi Ktha Grammar	<ul style="list-style-type: none"> • Short stories and poetry enabled students to understand the different human behaviours, sentiments, feelings, various social, economic, political, religious aspects of the society.

					<ul style="list-style-type: none"> Students were introduced to the Phonetics of Punjabi phonemes.
13	B.Com I	PBC	I & II	Galley Chikkarh Door Ghar(Autobiography) Business Vocabulary Essay Writing Translation	<ul style="list-style-type: none"> Improved student's communication skills and vocabulary Students were introduced to the different aspects of culture and value system of Punjabi society. They were enabled to understand the situation of common people at the time of division of 1947, problems faced by them during rehabilitation.
14	B.A II & III	Punjabi Honours	III, IV, V & VI	1-4 kav shaster,unani Kav shaster,Bharti kav Shaster, Culture, Folklore,Criticism, Western criticism ,Punjabi criticism,Different schools of world criticism ,forms of literature Medieval Poetry and Modren poetry,	<ul style="list-style-type: none"> Syllabus of Honours help our students to understand language and literature more deeply and thoroughly. They were introduced to world literature. We teach Punjabi as an Honours. subject to guide our students to go for further higher and professional studies in this field .

Sanskrit:

PSO1: Develop a strong concept of ancient Indian history, philosophy, and literature.

PSO2: Enhance communication Skills-Listening, Speaking, Reading, and Writing.

PSO3: Develop the skills to write Devnagari scripts which provide them with paleographical knowledge to read out the script of modern languages like Hindi and Marathi.

PSO4: Increase in-depth knowledge of the Core Areas of the subject.

PSO5: Demonstrate the skill needed to participate in the conversation that builds knowledge with collaboration.

PSO6: Understand the multi-disciplinary relevance of literature of Sanskrit like Veda, Philosophy, Grammar, Kavya, Smitisastra, etc.

PSO7: Develop research aptitude and independent thinking.

Course Outcomes: Sanskrit

S. No.	Class	Subject	Semester	Paper(s)	Course Outcomes
1.	BA	Sanskrit	I, II, III, IV, V, VI	<p>BA (Gen.)</p> <p>Semester I - Katha, Niti avam Vyakarna</p> <p>Semester II - Katha, Niti avam Vyakarna</p> <p>Semester III - Shrimad Bhagvad Gita avam Vyakarna</p> <p>Semester IV - Natak avam Vyakarna</p> <p>Semester V - Upnishad, Ramayan, Shabdavali avam Vyakarna</p> <p>Semester VI - Laukik Kavya ka itihas, Nibandh avam Vyakarna</p>	<ul style="list-style-type: none"> The whole Sanskrit Literature has been given a lot of importance to human values. It has a clear vision about life, which is undisturbed, pious and full of celebrations. Life without human values is waste, meaningless and sinful. Books like Nitishatkam, Panchatantram, Shrimad Bhagvad Gita, Dootvakyam, Isho Upnishad, Ramayana and Raghuvansham have been prescribed in the syllabus of BA Sanskrit elective. It is a well-known fact that Sanskrit literature is a great advocator of environment and its sustainability. It talks about the purity of five elements ie. Earth, water, air, fire and sky. The pollution which disturbs ecological balance is called environmental pollution but all the Sanskrit writers are great lovers of nature and hence while studying Sanskrit students get information about "How to protect environment? What is its impact on our body and soul?" The syllabus of Sanskrit for BA (Gen.) and (Hons.) has been prescribed and recommended in such a way that it advocates the holistic development of the students so that they should become good human beings. It motivates to be a role model for the society. <p>During their studies they learn to perform one's duty honestly is the actual Dharma. It becomes crystal clear to them that after completion of their studies where they</p>

					have to go, they should be honest, punctual and duty bound. They learn the lesson of live and let live.
2.	BA (Hons.)	Sanskrit (Hons)	III, IV V,VI	BA (Gen.) Semester I – Katha, Niti avam Vyakarna Semester II - Katha, Niti avam Vyakarna Semester III- Shrimad Bhagvad Gita avam Vyakarna Semester IV -Natak avam Vyakarna Semester V- Upnishad, Ramayan,Shabdavali avam Vyakarna Semester VI - Laukik Kavya ka itihās, Nibandh avam Vyakarna	Keno Upnishad, Nitishatkam, Katho Upnishad, Sahitya Darpan etc. are the prescribed books for BA (Hons.) Sanskrit II and III. The above-mentioned human values in the form of stories and small notes of advices.

Sociology:

PSO1: Develop the sociological knowledge and skills that will enable students to think critically and imaginatively about society and social issues.

PSO1: Demonstrate sociological understandings of phenomena.

PSO1: Formulate practical and convincing written and oral arguments.

PSO1: Develop good communication skills while interacting with local people.

PSO1: Develop an intellectual background for students considering careers in business, social services, public policy, government service, non-governmental organizations, foundations, or academia.

Course Outcomes: Sociology:

S.No.	Class	Subject	Semester	Paper(s)	Course Outcomes
1.	B.A.	Sociology	I	Fundamentals of Sociology	<ul style="list-style-type: none">• The students gain knowledge about the origin and development of the subject• The students are familiarized with the founding fathers of the Sociology as well as the other basic concepts of sociology• They are able to understand social relationships with society, their culture, groups etc.• The students become aware about the scope and various career prospects of the subject.
2.	B.A.	Sociology	II	Sociology Stratification	<ul style="list-style-type: none">• Develops the theoretical understanding of social stratification and inequality• The students are able to understand the hierarchical structure of groups in various societies and help them understand the social mobility.• Identify the reasons for social inequalities in different societies• Develop a theoretical and methodological framework for analysing stratification and social inequality• Comprehensive understanding of the elements of stratification- social class, caste gender, race etc.• Students develop problem-solving strategies as they pertain to race, ethnicity, gender, sexual orientation and social class.
3	B.A.	Sociology	III	Social Structure and Social Change	<ul style="list-style-type: none">• The students are introduced to conceptual and theoretical understanding of social structure and social change. They learn about

					<p>characteristics and elements of social structure and to understand the meaning, process and factors of social change.</p> <ul style="list-style-type: none"> • They are able to understand the types of social change and impact of process of social change on society
4.	B.A.	Sociology	IV	Social Institutions	<ul style="list-style-type: none"> • In this paper, students learn about various social institutions. The study of various institutions which are foundations of human society help students to look at society in an objective and analytical way. • They comprehend that a social institution is made up of relatively stable structures, relationships, and ideas organized to meet certain societal needs (examples- politics, family, marriage economy, religion, education) • Understand how social institutions are related to both macro and micro processes. • It helps in better understanding of students regarding social institutions, emerging changes and causes for changes.
5.	B.A.	Sociology	V	Society in India	<ul style="list-style-type: none"> • Impart comprehensive perspectives of Indian Society • The students are exposed to the tribal, rural and urban societies and are presented with the social structure and social institutions to understand these segments of Indian Society. • Students will be able to identify major issues related to social problems within our contemporary society • Acquire the core knowledge about rural, urban and tribal societies. • Develop understanding of the problems of under privileged sections of the society • Develops understanding of changes in various societies and their factors contributing to it.

6.	B.A.	Sociology	VI	Disorganisation and Emerging Problems	<ul style="list-style-type: none"> • This paper exposes the students to social disorganization, its levels and current problems. It helps students to understand social realities and also equips them to utilize their knowledge in various theoretical and practical exercises. • Comprehensive understanding of social disorganization and its levels • Impart knowledge about the various social problems • Conceptual and theoretical understanding of the social problems emerging in the society • Problem solving methods will be incorporated to social issues
7.	B.A. Hons	Sociology	III	Social Thought	<ul style="list-style-type: none"> • This paper familiarizes the students with the contributions of major thinkers in classical Sociology and their continuing relevance to its contemporary concerns. It helps Honours students with an understanding of the development of Sociology as a discipline, with a focus upon classical thinkers.
8.	B.A. Hons	Sociology	IV	Social Psychology	<ul style="list-style-type: none"> • This paper exposes the honours students in Sociology to the related field - Social Psychology. The students become conversant with the basic concepts in Social Psychology, which have a bearing on the Social Psychological understanding of social interaction, social groups, public opinion and leadership qualities. This course prepared the students to study social phenomena from social-psychological perspectives.
9.	B.A. Hons.	Sociology	V	Methods and Techniques of Social Research	<ul style="list-style-type: none"> • The students become familiar with basic methods and techniques in social research. The students develop conceptual understanding of basic elements of scientific method, various methods of data collection and social measurement and learn to apply the methods for data analysis.

10.	B.A. Hons.	Sociology	VI	Social Demography	<ul style="list-style-type: none"> The course exposes students to various components of population growth, data sources and basic theoretical problems of population. Concepts of mortality and fertility are discussed in general and with reference to India in particular. Students are apprised of the latest Population Policy in India. They understand the need for population control for countries like India.
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Information Technology*:

PSO1: Provide technology-oriented students with the knowledge and ability to develop creative solutions.

PSO2: Develop skills to learn new technology.

PSO3: Apply computer science theory and software development concepts to construct computing-based solutions.

PSO4: Utilize the computing knowledge efficiently in various societal, environmental, and cultural projects.

PSO5: Function competently as an individual and as a leader in multidisciplinary projects.

PSO6: Create and design innovative methodologies to solve complex problems for the betterment of society.

PSO7: Apply the inherent skills with absolute focus to function as a successful entrepreneur.

(*Course Outcomes for B.A. Information Technology and B.Sc. Information Technology are similar and discussed under B.Sc. Information Technology.)

PROGRAMME NAME: BACHELOR OF SCIENCE (THREE YEARS)

PROGRAMME OUTCOME:

B.Sc. Programme:

- PO1: Develop the basic disciplinary knowledge and comprehension of computer science, information technology, physics, mathematics, chemistry, botany, and zoology.
- PO2: Apply the principles of operating tools and equipment, and engage in practical exercises and hands-on lab work, to enhance students' problem-solving skills.
- PO3: Capable of doing numerical computations, data analysis, and data visualization in a lab setting, including data transformations.
- PO4: Develop their digital abilities and use different tools and software to analyze data.
- PO5: Develop life sciences-specific abilities in industry-oriented skills, technology development, clinical care, health, agriculture, and community development, among others.
- PO6: Create challenges relating to life sciences and use the proper concepts and techniques to solve them.
- PO7: Develop thoughts, writing, reporting, and presentation abilities.
- PO8: Capable of effective communication and observation.
- PO9: Effective at organizing, developing, and researching the moral principles and guidelines that apply to scientific project management.
- PO10: Pursue careers as research scientists, research assistants, teachers, food and drug analysts, statisticians, lab technicians, software engineers, software developers, systems engineers, and project managers.
- PO11: Pursue higher education in a variety of professions. They can also work for any business, non-profit, or government entity.

PROGRAMME SPECIFIC OUTCOME:

B.Sc. Electives

Botany:

- PSO1: Study the habitat, morphology, and reproduction of the diverse range of plants and microorganisms.
- PSO2: Learn about the genetics and molecular biology of plants, fungi, and the bacteria and fungus that cause disease.
- PSO3: Understand the economic benefits of plants and their use in biotechnology and biodiversity.
- PSO4: Enable students to comprehend and value how microbes and plants are to the ecosystem (and hence, to human well-being and economic importance).
- PSO5: Discover the natural genetic variation in plants and how various elements (at the cellular level) affect genotype expression and, consequently, phenotypic variance.
- PSO6: Understand how to use recombinant DNA technology and other biotechnological procedures
- PSO7: Understanding various plant science research methodologies, using plants as industrial resources or as a means of supporting human livelihoods, and using transgenic technology for basic and applied plant science research
- PSO8: Knowledge of the many plant life forms, including their shape, anatomy, and reproductive processes, as well as genetics, microbiology, molecular biology, recombinant DNA technology, transgenic technology, use of bioinformatics tools and databases, and statistical analysis of biological data
- PSO9: Graduates in botany would be qualified to pursue more studies in the subject and to start working in jobs connected to their field.

Course Outcomes: Botany

S. No.	Class	Subject	Semester	Paper(S)	Course Outcomes
1.	B.Sc.I	Botany	I	Paper A- Plant Diversity-I Paper B- Cell Biology	<ul style="list-style-type: none"> • Develop idea about diversity in various life forms of plant kingdom (Algae, Fungi and Lichens). • Aware about the simplest group of plants. • Able to systematically study the different types of algae and fungi not only with structural differentiation but also known about the heterotrophic and autotrophic modes of nutrition in the plant kingdom. • Gain the knowledge about different types of plant diseases caused by Fungi, their Systematic position, structure and life history. • Acquire the knowledge about basic structural unit of life i.e. Cell & its organelles. • Understand the structural and cytological basis of functional differentiation in plants. Coupled with the study of prokaryotic and eukaryotic diversity of life forms • cellular, molecular and biochemical basis of such differentiation (Physical structure of chromosome , Cell

					division and Structure and concept of gene).
2.			II	Paper A- Plant Diversity-II Paper B- Genetics	<ul style="list-style-type: none"> • Aware about the diversity in various life forms of plant kingdom. • Develop idea about how different life forms have evolved from simpler to complex ones. • Acquire the knowledge about sequential study ranging from Bryophytes (the amphibians of plant kingdom) and then to Pteridophytes - the first vascular land plants (Including Systematic position, structure, reproduction and life cycle). • Understand various aspects of hereditary trends observed in successive generations. • genetic basis of evolutionary trends in plants <i>via</i> Chromosome theory of heredity. • Acquired Knowledge about Mendelism, Non-allelic Gene Interactions, Genetic variations and its repair system in Prokaryotes and Eukaryotes.
3.	B.Sc. II	Botany	III	Paper A- Diversity of Seed Plants and their Systematic-I Paper B- Structure Development and Reproduction in Flowering Plants- I	<ul style="list-style-type: none"> • Students would able to get fair idea about the general features, economic importance and study of fossil as well as living gymnosperms. • Able to understand the basic body plan and diversity, vegetative and reproductive morphology in flowering plant forms. • Able to familiarize the students with plants bearing the enclosed seeds. • Familiarize the students with modifications of root, stem and leaf from usual structure in order to understand their evolution and use for various purposes.
4.			IV	Paper A- Diversity of Seed Plants and their Systematic-II Paper B- Structure	<ul style="list-style-type: none"> • Understand the gradual transition from seedless plants to seed plants. • Make students familiar with origin of structural and functional complexity in plant kingdom. • Equipping with the identification, nomenclature and classification of the concerned plants.

				Development and Reproduction in Flowering Plants- II	<ul style="list-style-type: none"> • Imparting knowledge about internal structure of various plant parts, their growth patterns and abnormalities in structural development. • Develop understanding of description of flowers in technical terms which forms the backbone of characterizing the plants (the main and the prime idea of Botany).
5.	B.Sc. III	Botany	V	Paper A- Plant Physiology -I Paper B- Plant Ecology	<ul style="list-style-type: none"> • Understand the concept of environment with emphasis on principles of ecology • Imparting knowledge of biomes of the world and forests of India. • Develop understanding about air, water, soil and noise pollution its causes and preventions. • Understand the concept of water and its importance in plant physiological processes. • Imparting knowledge about minerals and nutrition in plants. • Understand the concept of bio-molecules, amino acids, proteins and lipids. • Imparting knowledge about enzymes and its role in biological processes.
6.			VI	Paper A- Plant Physiology II Paper B- Economic Botany	<ul style="list-style-type: none"> • Students would be able to understand plants as source of food. • Imparting knowledge about introduction and origin of food crops, legumes, spices, fruits and medicinal plants. • Understand the concept of photosynthesis, respiration and nitrogen metabolism. • To impart knowledge about the plant growth hormones. • Understand the concept of plant biotechnology and application of plant tissue culture.

Zoology:

PSO1: Learn about the various facets of the life sciences, including cell biology, genetics, taxonomy, physiology, applied zoology, general embryology, and public health.

PSO2: Acquire knowledge about Good Laboratory Practices and techniques.

PSO3: Understand the importance of biological sciences in biotechnology, agriculture, fisheries, aquaculture, and vermiculture.

PSO4: Understand the underlying scientific principles of natural events.

PSO5: Know the fundamentals of applied zoology, cell biology, genetics, taxonomy, physiology, and ecology. Examine the connections between creatures, plants, and bacteria.

PSO6: Able to understand basic theoretical concepts and standard operating procedures in life sciences.

Course Outcomes: Zoology

S. No.	Class	Subject	Semester	Paper(s)	Course Outcomes
1	B.Sc. I (Medical + Elective)	Zoology	I	Paper- I: Biodiversity & Cell- Biology - I + Paper- II: Biodiversity & Cell- Biology - II	<ul style="list-style-type: none"> In Biodiversity paper, the students are acquainted with the detailed Type Study of representative animal(s) of every Phylum starting from Protozoa (Protista), Porifera, Coelenterata, Platyhelminthes, Aschelminthes and Annelida. The second paper (Cell Biology), highlighted about the detailed study and function of various Cellular Organelles and Immune System of our body.
			II	Paper- I: Biodiversity & Ecology - I + Paper- II: Biodiversity & Ecology - II	<ul style="list-style-type: none"> The Biodiversity paper in 2nd Semester continued with the remaining detailed Type Study of representative animal(s) of like Arthropods, Mollusks, Echinoderms & Hemichordates. The second paper (Ecology) here acquainted the first year students with our Ecosystem, its types & various components (Biotic as well as Abiotic), Environment Pollution - its types, source and management.
2	B.Sc. II (Medical + Elective)	Zoology	III	Paper- I: Biodiversity (Chordates) & Evolution - I	<ul style="list-style-type: none"> The students were apprised of the type studies from lower Chordates till Amphibians. Also they were made aware of Evolutionary Concepts and its applicable laws. A trip to Zoological Park and Museum was also formalised as a curriculum to give upfront knowledge of the

				+	<p>theoretical concepts taught in the class.</p> <ul style="list-style-type: none"> In this paper, the students were acquainted with the structure and working of the various Organ Systems and their working in human body, like digestive, respiratory, and circulatory along with concepts of carbohydrate metabolism.
				Paper- II: Biochemistry & Animal Physiology - I	
			IV	Paper- I: Biodiversity (Chordates) & Evolution - II + Paper- II: Biochemistry & Animal Physiology - II	<ul style="list-style-type: none"> The students were apprised of various type studies from the Class Reptilia till Mammals. Also they were made aware of fossils and human evolution. The students were taught the structure and working of the systems and working of various organs in human body, like Excretory, Nervous, Muscular and Endocrine along with concepts of Protein and Fat metabolism.
3	B.Sc. III (Medical + Elective)	Zoology	V	Paper- I: Developmental Biology + Paper- II (Opt.-iii): Applied Zoology - Inland Fisheries & Aquaculture - I	<ul style="list-style-type: none"> Different types of Cleavage, eggs and developmental patterns from lower chordates till mammals are explained to the students. Also upgradation in their knowledge regarding stages from fertilisation, gestation till birth is done in this semester. The Applied Zoology-I paper apprised students about the various aquaculture practices and techniques being adopted either on scientific, traditional, or contemporary methods for all the aquaculture farming practices (Eg. Components of Aquaculture, Bionomics of Indigenous and Exotic fishes, Induced Breeding techniques, Pond Culture and Aquatic Weeds, etc..)
			VI	Paper- I: Genetics +	<ul style="list-style-type: none"> Phylogenetic, evolutionary, and genetic relationships were taught to the students from basic concepts to modern and applied techniques of genetics are taught in this section (Eg. Mendel's Laws of Heredity, human disorders, Hereditary

				Paper- II (Opt.-iii): Applied Zoology - Inland Fisheries & Aquaculture - II	Syndromes, Southern Blotting, DNA fingerprinting are explained). • During this semester, the aquaculture studies focuses some key area of fish catch methodologies (ancient and modern), mono- & polyculture techniques, Integrated fish Farming process, Pearl culture, Prawn culture, Cold water fisheries, Fish diseases and their control measures, Fish seed resources and transport, Fish by-products, preservation and marketing.
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Chemistry:

PSO1: Demonstrate the nomenclature, stereochemistry, structures, reactivity, and mechanisms of chemical reactions while exhibiting fundamental chemistry principles.

PSO2: Learn to collect data effectively using various tools, analyze and interpret the data, and use numerical approaches.

PSO3: Study the relationship between structure and activity, good laboratory practices, and the fundamentals of research-focused skills.

PSO4: Create and carry out experiments to show an understanding of scientific principles and procedures.

PSO5: Recognize the function that chemistry plays in both nature and society.

PSO6: Enlighten with the newest branches of chemistry and how they're used in many fields of chemical research, as well as how important they will be for the graduates' future studies.

Course Outcomes: Chemistry

S. No.	Class	Subject	Semester	Paper(s)	Course Outcomes
1.	B.Sc. I II III	Chemistry	I, II, III, IV,V,VI	A:Inorganic Chemistry	Students will gain an understanding of: <ul style="list-style-type: none"> The bonding fundamentals for both ionic and covalent compounds, including electro negativities, bond distances and bond energies using MO diagrams and thermodynamic data Predicting geometries of simple molecules The fundamentals of the chemistry of the main group elements, and important real world applications of many of these species The use of group theory to recognize and assign symmetry characteristics to molecules and

					<p>objects, and to predict the appearance of a molecule's vibrational spectra as a function of symmetry</p> <ul style="list-style-type: none"> • The bonding models, structures, reactivities, and applications of coordination complexes, boron hydrides, metal carbonyls, and organometallics
2.	B.Sc. I II III	Chemistry	I, II, III, IV,V,VI	B:Organic Chemistry	<p>Students will gain an understanding of:</p> <ul style="list-style-type: none"> • the hybridization and geometry of atoms and the three-dimensional structure of organic molecules • the reactivity and stability of an organic molecule based on structure, including conformation and stereochemistry • an understanding of nucleophiles, electrophiles, electronegativity, and resonance • the prediction of mechanisms for organic reactions • how to use their understanding of organic mechanisms to predict the outcome of reactions. • how to design syntheses of organic molecules. • how to determine the structure of organic molecules using IR and NMR spectroscopic techniques.
3.	B.Sc. I II III	Chemistry	I, II, III, IV,V,VI	C:Physical Chemistry	<p>Students will gain an understanding of:</p> <ul style="list-style-type: none"> • concepts in thermodynamics, different thermodynamic quantities such as heat and work and how they are measured, related or transformed from one to the other • states of matter and how they depend on temperature and pressure as well as how they co-exist in phase equilibria • chemical equilibrium and its relationship with thermodynamic quantities • the transport of ions and thermodynamic functions with

					<p>applications to electron transfer in biological systems</p> <ul style="list-style-type: none"> • chemical kinetics; how reaction rates are measured and represented in rate laws, and applications of chemical kinetics in studying enzyme mechanisms • basic quantum chemistry and atomic structures of atoms • chemical bonding from the valence bond model and molecular orbital theory • computational methods for studying biochemical processes • methods for determining size, shape, and 3D structure of bio-molecules • spectroscopic methods that are used to study biochemical processes.
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Physics:

PSO1: Understand the fundamentals of physics, properties of matter, electrodynamics, and the basic principles of scientific research.

PSO2: Demonstrate the mathematical knowledge and comprehension necessary to understand physics.

PSO3: Able to apply numerous physical phenomena and comprehend the theoretical ideas of quantum mechanics, relativity, nuclear physics, optics, spectroscopy, solid state physics, astrophysics, statistical physics, photonics, and thermodynamics.

PSO4: Students will demonstrate that they have acquired laboratory skills by using measurements they obtain in a physics lab to make accurate inferences.

PSO5: Acknowledge and use electronics concepts when developing various analog and digital circuits.

PSO6: Recognize the fundamentals of computer programming and mathematical analysis.

PSO7: Apply and validate theoretical ideas with the aid of scientific experiments.

Communicate scientifically and will demonstrate their ability to think independently.

Course Outcomes: Physics

S.No.	Class	Subject	Semester	Paper(s)	Course Outcomes
1	B.Sc.	Physics	I & II	Paper A : Mechanics	<ul style="list-style-type: none"> • Understand the motion of objects in different frame of references. • Understand laws of motion, reference frames, and its applications i.e. elastic and inelastic collisions.

					<ul style="list-style-type: none"> • Understand the idea of conservation of angular momentum, angular momentum and energy, and symmetries of space and time. • Understand the application of central force to the stability of circular orbits, Kepler's laws of planetary motion, Orbital Precession and Rutherford scattering. • Understand the dynamics of rotating objects i.e. rigid bodies, angular velocity, the moment of inertia, parallel axis theorem, the inertia tensor, the motion of rigid bodies. non-inertial frames: pseudo forces, examples involving the centrifugal force and coriolis force. • Develop understanding of special theory of relativity and its applications to understand length contraction, time dilation, relativistic addition of velocities, conservation of momentum and variation of mass, relativistic momentum, relativistic energy, and mass energy relation.
				Paper B : Vibrations, Waves and EM Theory	<ul style="list-style-type: none"> • The course comprises of the study of superposition of harmonic oscillations, waves motion (general), oscillators, sound wave. • The course is important for the students to make their career in various branches of science and engineering. Students would also gain the practical knowledge of wave motion doing experiments: Tuning fork, electric vibrations. • Learning about the oscillation of a body with damping factors and the necessary conditions for it. Also how to create forced oscillations and to maintain it. Use of various oscillators in the coupled form and to study the energy exchange phenomenon. Also to get the conditions for perfect coupling with no energy losses.
				Paper C : Electricity and Magnetism	<ul style="list-style-type: none"> • Able to understand the concepts of Gradient, Divergence, Curl in Cartesian coordinates and their applications in electricity and magnetism • Able to understand the concept of the electric force, electric field and electric potential for stationary charges. They are able to calculate electric potential and electric field by using Gauss's law. • Understand the dielectric phenomenon and effect of electric field on dielectric.

					<ul style="list-style-type: none"> • Study the concept of magnetic field, magnetic field for steady currents using Biot-Savart's and Ampere's Circuital laws. • Student will learn magnetic materials and its properties • Understand Faraday's Law of EM induction, Mutual inductance and Self inductance
			III & IV	Paper A : Statistical Physics and Thermodynamics	<ul style="list-style-type: none"> • To acquire the skill of solving problems based of particle distribution. • To get the knowledge about Maxwell Boltzmann statistics, Bose Einstein statistics and Fermi Dirac Statistics • Able to understand the basic physics of heat and thermodynamics and their relation with energy, work, radiation and matter. • Understand various thermodynamic processes like isothermal, isobaric, isochoric processes and laws of thermodynamics. • The students also learn how laws of thermodynamics are used in a heat engine to transform heat into work. • Understand the concept of entropy. • Able to understand Maxwell's thermodynamical relations and its applications.
				Paper B : Optics and Lasers	<ul style="list-style-type: none"> • In this course the students would gain the knowledge and basic principles, would study the various types of lasers, Laser spectroscopy and their applications in science and technology. • Use of lasers in the field of cosmetology is becoming popular. They would also learn optical phenomena such as interference, diffraction and dispersion and do experiments related to optical devices: Prism, grating, spectrometers. • The students would learn about various optical sources and devices including lasers photo diodes, LED and applications, they would also have the understanding of optical fiber optics, different types of optical fibers, optical communication systems, digital modulation, optical fibers and importance of fiber optical communication in modern world.
				Paper C : Quantum Physics	<ul style="list-style-type: none"> • Understand the origins of quantum mechanics. • Understand and explain the differences between classical and quantum mechanics. • Understand the idea of wave function and uncertainty relations. • Understand the Schrodinger wave mechanics and operator formalism

					<ul style="list-style-type: none"> • Solve the Schrodinger equation for simple 1D time-independent potentials • Appreciate the importance and develop an understanding of angular momentum • Spot, identify and relate the eigenvalue problems for energy, momentum, angular momentum and central potentials • Develop the idea of spin and quantum statistical mechanics
			V & VI	Paper A : Condensed Matter Physics	<ul style="list-style-type: none"> • Able to study difference between crystalline and amorphous material, crystal structures, miller indices, interplanar distances, interatomic forces and bonds. • From this study student get to learn the basics of solid state physics. • Understand Bragg's diffraction, Bragg's law. X-ray diffraction and characterization techniques. With the help of this knowledge students know the principles of structures determination by X-ray diffraction method. This would be helpful in performing experiments in nanotechnology. • Understand electrical and thermal conductivity of free electron in metals, Energy levels of free electrons in one and three dimensions. • They will learn significance of Pauli's exclusion principle, Bloch theorem, Fermi energy, and Hall effect and energy bands in materials. • Able to understand concepts of lattice vibrations, phonons and specific heat of solids. • Students can Describe and explain the behavior of permanent magnet including induced magnetism, behavior of paramagnetic, diamagnetic, ferromagnetic materials in terms of magnetic domain. • Students can understand superconducting materials, their properties and technological applications of superconductivity
				Paper B : Electronics and Solid State Devices	<ul style="list-style-type: none"> • To give knowledge of some basic electronic components and circuits. • To learn the difference between conductor, insulator and semiconductor • To study basics of semiconductor and devices and their applications in different areas • To study the basics of transistor and its working and implementation • To identify and review the various configuration like common base, common emitter configuration , FET , MOSFET and their V-I characteristics

					<ul style="list-style-type: none"> • To study feedback in amplifiers and oscillators. • To understand the basic logic gates , analog and digital communication systems
				Paper C : Nuclear & Particle Physics	<ul style="list-style-type: none"> • In this course students would know about the general properties of nuclei, nuclear forces and detectors, radioactive decay and nuclear reactions. • The course expands the knowledge of students especially, the various applications of nuclear physics 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. • Students would be able understand the complex properties and behaviour of high energy particles at the microscopic level. • The Course would be helpful in understanding our composition and universe, the dynamics of stars including our solar system and radiation. • The course provides a platform for the students seeking research opportunities in high energy physics. • The course as a whole opens up several career doors for the students interested in various areas of science and technology in private, public and government sectors. • Students may get job opportunities in higher education, research organizations, physics consultancy, radiology, radiation oncology and many others. • Some of the institutions where physics students can start their carrier are: BARC, DRDO, NPTC, IISc, ISRO, ONGC, BHEL, PRL, NPL, SINP, VECC, IITs, NITs, IIPR.
2	B.Sc. BTH		I	Physics	<ul style="list-style-type: none"> • Physics is one of the important basic sciences and Biotechnology is based upon these. • Introduction to basic course of Physics will enhance the grasping of subject. This course basically covers all fields of physics and bringing a brief light on all scopes of various papers. • It covers all the basic pure and applied features of basic physical sciences and makes the student aware of its application on biotechnology.

					<ul style="list-style-type: none"> It enhances and develops the curiosity of the use and application of physics in the bio-related sciences to understand the concept of the electric force, electric field and electric potential for stationary charges, optical instruments, quantum theory of light and radioactivity
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Mathematics

PSO1: Learn about the fundamental aspects of mathematics, such as algebra, calculus, geometry, differential equations, mechanics, real and complex analysis, and allied subjects like computer science and statistics.

PSO2: Acquire competency in analytical reasoning, critical comprehension, analysis, and synthesis to address theoretical and practical issues.

PSO3: Learn to logically challenge assertions, identify patterns, and distinguish apart relevant and irrelevant components of issues.

PSO4: Demonstrate learners to address challenges and problems in mathematics and allied fields by providing them with the appropriate mathematical analysis tools.

PSO5: Obtain the necessary skills and knowledge to tackle specific theoretical and practical issues in the more complex branches of mathematics and statistics.

PSO6: Communicate mathematics clearly and precisely, clarify hazy concepts by expressing them in mathematical terms, illustrate mathematical concepts from various angles, and explain the basic ideas of mathematics to non-mathematicians.

PSO7: Acquire the knowledge and abilities to pursue further studies in mathematics and related fields across math-related subjects.

PSO8: Encouraging the students to acquire general skills is beneficial in the workplace, internships, and extracurricular activities.

PSO9: Strengthen learners' employability for careers in the government, banking, insurance, and investment industries, jobs doing data analysis, and work at other public and private companies.

Course Outcomes: Mathematics

S. No.	Class	Subject	Semester	Paper	Course Outcomes
1.	B.Sc./B.A.	Maths	I	Trigonometry & Matrices-1	<ul style="list-style-type: none"> Gain in depth knowledge of Matrices Understanding of Demoivre's Theorem Application of Matrices
2.	B.Sc./B.A.	Maths	I	Calculus-2	<ul style="list-style-type: none"> Gain in depth knowledge of real variables Gain in depth knowledge of limit Gain in depth knowledge of use of calculus in general life
3.	B.Sc./B.A.	Maths	I	Plane Geometry-3	<ul style="list-style-type: none"> Gain in depth knowledge of geometry Application of geometry in real life

4.	B.Sc./ B.A.	Maths	II	Solid Geometry-1	<ul style="list-style-type: none"> • Gain in depth knowledge of geometry • Application of geometry in real life
5.	B.Sc./B.A.	Maths	II	Calculus-2	<ul style="list-style-type: none"> • Gain in depth knowledge of Calculus • Use of Calculus in daily life • Practical application of calculus
6.	B.Sc./ B.A.	Maths	II	Theory of Equations-3	<ul style="list-style-type: none"> • Use in depth knowledge of polynomials • Practical applications of equations in general life
7.	B.Sc./B.A.	Maths	III	Differential Equations - I	<ul style="list-style-type: none"> • Gain in depth knowledge of Exact Differential Equations • Understanding of First order and higher degree equations • Comprehensive knowledge of Singular Solutions, Orthogonal trajectories and Clairaut's form • Deep knowledge of Linear differential equations with constant and variable coefficient, Cauchy and Legendre Equations, solving second order differential equations by changing dependent /independent variable • Comprehensive understanding of methods of variation of parameters and reduction of order • Exhibit knowledge of Simultaneous Differential Equations
8	B.Sc./B.A.	Maths	III	Advanced Calculus - I	<ul style="list-style-type: none"> • Deep Knowledge of Limit and Continuity of functions in two and three variables • Comprehensive Knowledge of Partial Differentiation, change of variables and differentiability of real valued functions in two and three variables • Exhibit knowledge of Vector differentiation, Gradient, divergence and Curl with their properties and applications • Deep Understanding of Euler's theorem on homogeneous functions, Taylors Theorem for two and three variables • Gain in depth knowledge of Jacobians, Envelopes, Evolutes,

					<p>And Maxima and Minima of functions of two and three variables</p> <ul style="list-style-type: none"> • Understanding Lagranges multiplier method
9	B.Sc./B.A.	Maths	III	Statics	<ul style="list-style-type: none"> • Deep knowledge of statics and their practical application in real life
10	B.Sc./B.A.	Maths	IV	Differential Equations - II	<ul style="list-style-type: none"> • Equipping with the knowledge of Power Series, solution in series of differential equations • Deep understanding of Bessels function and Legendre function, their generating function and their orthogonality property • Exhibit knowledge of first order partial differential equations and their applications • Gain knowledge of Laplace transformation with properties, Inverse Laplace transform and its properties and application of Laplace and inverse Laplace transformation.
11	B.Sc./B.A.	Maths	IV	Advanced Calculus – II	<ul style="list-style-type: none"> • Deep Knowledge of Sequences, their bounds and types. • Equipping with knowledge of Cauchy first and second theorem, Bolzano Weirstrass Theorem and subsequences • Understanding sequential continuity and uniform continuity of single variable functions • Comprehensive knowledge of Series of non-negative terms, their convergence • Exhibit knowledge of P-Test, Cauchy test, Root test, Ratio test, Raabes test, Gauss test, Logarithmic test • Gain knowledge of absolute and conditional convergence, Rearrangement of absolutely convergent series and Riemann rearrangement theorem.
12	B.Sc./B.A.	Maths	IV	Dynamics	<ul style="list-style-type: none"> • Gain in depth knowledge of dynamics • Practical applications for the dynamics in real life

13	B.Sc./B.A.	Maths	V	Analysis - I	<ul style="list-style-type: none"> • Deep understanding of Improper integrals and their convergence • Comprehensive knowledge of absolute and conditional convergence, use of comparison test, Ables and Dirichlet test • Exhibit knowledge of integral as a function of a parameter, continuity, derivability and integrability of an integral of a function of a parameter • Gain knowledge of countable and uncountable sets, Riemann integral, integrability of continuous and monotonic functions • Understanding properties of integrable functions, fundamental theorem of integral calculus, Mean value theorem, Beta and Gamma functions
14	B.Sc./B.A.	Maths	V	Modern Algebra	<ul style="list-style-type: none"> • Gain knowledge of groups and subgroups, Lagrange theorem, Normal subgroups and Quotient Groups • Exhibit knowledge of homomorphism and isomorphism theorems, Conjugate elements and class equation • Deep understanding of Permutation groups, Alternating groups, Simplicity of A_n • Comprehensive knowledge of Rings, integral Domains, Subrings and ideals • Understanding Quotient Rings, Prime and Maximal ideals, homomorphism and isomorphism of rings and polynomial rings
15	B.Sc./B.A.	Maths	V	Probability-3	<ul style="list-style-type: none"> • Gain in depth knowledge of Probability and its practical applications in real life
16	B.Sc./B.A.	Maths	VI	Analysis – II	<ul style="list-style-type: none"> • Deep understanding of double and triple integral, change of variables, change of polar coordinates • Comprehensive knowledge of volume of a region, line, surface and volume integral

					<ul style="list-style-type: none"> • Exhibit knowledge of Gauss divergence theorem, Stokes theorem, and Green theorem • Understanding Sequences and series of functions, their pointwise and uniform convergence • Gain knowledge of Weierstrass M-Test, Abel's test and Dirichlet's test, Abel's and Taylor's theorem for Power series • Through knowledge of Fourier Series
17	B.Sc./B.A.	Maths	VI	Linear Algebra	<ul style="list-style-type: none"> • Deep understanding of Vector spaces, subspaces, algebra of subspaces • Exhibit knowledge of Linear span, Linear dependence and independence of vectors • Understanding Basis and dimension of a vector space, Direct sums and complements • Gain knowledge of linear transformations, Rank, Nullity and vector space of linear transformations • Understanding representation of Linear transformation and matrices, characteristic roots and characteristic vectors • Through knowledge of Cayley Hamilton theorem, Diagonalizable operators and minimal polynomial of a linear operator.
18	B.Sc./B.A.	Maths	VI	Numerical Analysis	<ul style="list-style-type: none"> • Gain in depth knowledge of numerical analysis and their applications in software engineering

Computer Science:

PSO1: Develop knowledge in Computer Science which includes File Structures, Computer Programming Skills, Computing Skills, Algorithm Design, Theory of Computation, Data Mining, Artificial Intelligence, and Information Security.

PSO2: Demonstrate the ability to recognize, design, and implement efficient software solutions to problems, communicate effectively, and work as a team.

PSO3: Create programmes utilizing modern software tools, apply programming principles effectively, and write procedural code to solve complex problems.

PSO4: Learn and adapt to new technologies and use them effectively for analyzing complex real-world problems and devise computer-based solutions.

PSO1: Retrieve, use and evaluate relevant professional information, apply research methods, techniques, and problem-solving approaches in the specialization areas.

Course Outcomes: Computer Science

S. No.	Class	Subject	Semester	Papers(s)	Course Outcomes
1	B.Sc.	Computer Science	I	Computer Fundamentals	<ul style="list-style-type: none"> The understanding of the fundamentals of computer related to its hardware & software. Knowledge of various peripheral devices for computer Importance of various types of memory available with computer
2	B.Sc.	Computer Science	I	PC Software	<ul style="list-style-type: none"> The understanding of the basic functionality of Disk Operating System & Windows. Detailed knowledge for creating word processing, spreadsheet & presentation documents.
3	B.Sc.	Computer Science	II	Operating System Concepts	<ul style="list-style-type: none"> Awareness of different types of Operating System and their services. Understanding of various operating system concepts relating to managing processes, memory and deadlocks. Detailed knowledge for understanding the criteria of CPU scheduling
4	B.Sc.	Computer Science	II	C Programming	<ul style="list-style-type: none"> Understanding basic constructs of 'C' programming language. Enable students to create 'C' based applications. Ability to develop logic which will help students to create programs, applications in C. Ability to easily switch over to any other language in future.

5	B.Sc.	Computer Science	III	Computer Organization	<ul style="list-style-type: none"> • Knowledge of the basics of computer organization and Microprocessor • Understanding the architecture and basic functionality of central processing unit. • Understanding of basic know how about system maintenance. • Exemplify in a better way the I/O and memory organization.
6	B.Sc.	Computer Science	III	Object Oriented Programming using (C++)	<ul style="list-style-type: none"> • Knowledge of implementation of various object oriented programming concepts through C++ programming. • Create and analyze programs for solving simple problems. • Understanding of dynamic memory management techniques using pointers, constructors, destructors, etc.
7	B.Sc.	Computer Science	IV	Database Concepts	<ul style="list-style-type: none"> • Understanding of the underlying concepts of database system in depth to students. • High-level understanding of major DBMS components and their functions. • Explain the basic concepts of relational data model, entity-relationship model, relational database design, relational algebra. • Improve the database design by normalization and understanding of transaction processing concepts.
8	B.Sc.	Computer Science	IV	Data Structures	<ul style="list-style-type: none"> • Understanding the concept of various data structures and operations performed on them using algorithms. • Ability to implement data structure operations using any programming language.
9	B.Sc.	Computer Science	V	Project Management	<ul style="list-style-type: none"> • Understanding of basic concepts to know, how a project needs to be established, organized, coordinated, controlled and evaluated. • Applying the PM processes to initiate, plan, execute, monitor and control and close projects and to coordinate all the elements of the project.

					<ul style="list-style-type: none"> • Clarity on basic concepts of project report writing.
10	B.Sc.	Computer Science	V	Relational Database Management System	<ul style="list-style-type: none"> • Enable the students to get well versed with the SQL and PL/SQL concepts. • Ability to implement relational databases using a RDBMS. • Understanding Retrieval of data using SQL f. • Understanding of database performance issues. • Knowledge of basics of database management and administration.
11	B.Sc.	Computer Science	VI	E-Commerce	<ul style="list-style-type: none"> • Understanding the concepts of E-Commerce. • Familiarizing with the process that should be followed in building an E-commerce presence. • Understanding the Use of E-commerce advertising and marketing. • Identify the key security threats in the E-commerce environment.
12	B.Sc.	Computer Science	VI	Web Programming	<ul style="list-style-type: none"> • Ability to build and publish web sites using HTML, CSS, JavaScript and PHP. • Support the development of web pages. • Effectively incorporate JavaScript in a web pages. • Creation of forms and data validation.

Information Technology:

PSO1: Establish knowledge of advanced programming skills.

PSO2: Design and develop computer programmes/computer-based systems in algorithms, networking, web design, cloud computing, and artificial intelligence.

PSO3: Design and develop software in emerging technological environments.

PSO4: Able to solve problems using various techniques in data analytics like pattern recognition and knowledge discovery.

PSO5: Work out effective and efficient real-time solutions using acquired knowledge in numerous domains.

PSO6: Apply the learning from the courses and develop applications for real-world problems.

Course Outcomes: Information Technology

S. No.	Class	Subject	Semester	Papers(s)	Course Outcomes
1.	B.A./B.Sc.	Information Technology	I	Computer Fundamentals	<ul style="list-style-type: none">• Familiarization with the developments in Information Technology.• Understanding the use of computer systems at operating system level and application level.• Detailed knowledge for creating word processing, spreadsheet & presentation documents.
2.	B.A./B.Sc.	Information Technology	II	Computer Programming using C	<ul style="list-style-type: none">• Understanding of problem solving concepts using C programming language.• Knowledge of file handling using C.• Ability to easily switch over to any other language in future.
3.	B.A./B.Sc.	Information Technology	III	Computer Programming using C++	<ul style="list-style-type: none">• Understanding of how C++ Language improves 'C' with object-oriented features.• Familiarizing the students with problem solving steps using computers and create skills in programming using C++.• Understanding the concepts of control structures and distinguish between sequential, repetition and selection processing logic in C++ program.• Understanding of dynamic memory management techniques using pointers, constructors, destructors, etc

4.	B.A./B.Sc.	Information Technology	IV	Data Networks and Web Based Applications	<ul style="list-style-type: none"> • Basic understanding of Data Networking Models. • Knowledge of fundamentals of Web based applications. • Developing web pages using HTML and JavaScript. • Understanding basic constructs of Java programming language.
5.	B.A./B.Sc.	Information Technology	V	Database System and VB .NET	<ul style="list-style-type: none"> • Enable the students to get well versed with the SQL and PL/SQL concepts. • Ability to implement relational databases using a RDBMS. • Understanding Retrieval of data using SQL f • Understanding basic constructs of Visual Basic programming language • Ability to implement database connectivity in Visual Basic
6.	B.A./B.Sc.	Information Technology	VI	Linux Administration	<ul style="list-style-type: none"> • Knowledge about installation of Linux operating system and understanding the importance of Linux OS. • Implementation of command usage of files and directories. • Understanding the working of vi editor in all its modes using various commands. • Knowledge of Shell programming. • Demonstrate Linux administration and its environment

Bioinformatics

PSO1: Develop an interest in biological, computer, and information sciences necessary to manage research, and developmental activities in major thrust areas of life science, biochemistry, genetics, and molecular biology.

PSO2: Process and understand large amounts of biological data.

PSO3: Develop depth understanding of mathematics and biological sciences

PSO4: Transform students into trained bioinformaticians with adequate theoretical and practical knowledge for investigating and addressing a number of key biological questions.

Course Outcomes: Bioinformatics

S.No	Class	Subject	Semester	Paper	Learning Objectives
1	B.Sc. Bioinformatics (E)	Introduction to Bioinformatics	I	A	<ul style="list-style-type: none"> Basics of Bioinformatics Bioinformatics Databases Tools, Software Applications Data Retrieval, Homology Entrez, MEDLINE, PubMed, ASN.1 Different Sequence & Structure Formats, Nucleic acids: double helix, melting temperatures, closed circular DNA and supercoiling Open Reading Frames (ORFs), Detecting ORFs. Concepts of Introns, Exons, Splice Variants, Triplet Coding. Amino acids and their properties. Introduction to Proteins, Protein Structure: Secondary, Tertiary, Quaternary. The notion of Homology as evolutionary relatedness. Similarity and Identity of sequences. Nucleotide sequence databases, nucleotide sequence flat files. Functional divisions in sequence databases. Protein sequence databases: Genpept, Uniprot, Swissport, PIR. Sequence formats: GenBank, FASTA, ASN. Information retrieval for biological databases. The NCBI resource. Entrez, PubMed, Medline. Entrez Boolean search terms and statements, NCBI bookshelf
2	B.Sc. Bioinformatics (E)	Cell Biology & Biochemistry	I	B	<p>Cell as a basic unit of living systems:</p> <ul style="list-style-type: none"> The cell theory, Precellular evolution: artificial creation of “cells”. Introduction for structure and function of cell organelles: Ultra structure of cell membrane, cytosol, Golgi bodies, endoplasmic reticulum (rough and smooth), ribosomes, cytoskeletal 3 structures (actin, microtubules etc.),

					<p>mitochondria, chloroplasts, lysosomes, peroxisomes, vacuoles. Nucleus, nuclear membrane, nucleoplasm, nucleolus, chromatin, Cell motility (amoeboid, flagellar, and ciliary) Cell senescence and death. Cell division and cell cycle.</p> <ul style="list-style-type: none"> • General properties of organic and inorganic compounds. Solubility of organic compounds for generation of structure, storage of energy and information. Structure and functions of Biomolecules- Carbohydrates, Proteins, Lipids, Nucleic Acids Enzymes- Classification, Nomenclature, general properties, regulation of enzyme activity, steady state kinetics. Applications in industries – Enzymes in food processing, medicine, diagnostics and production of new compounds. Enzymes as research tools – ELISA methods, enzymes.
3	B.Sc. Bioinformatics (E)	Stats & Computer Fundamentals	II	A	<ul style="list-style-type: none"> • Computer Architecture, Basics of Computer, Peripheral Devices, Computer Generations, Computer Applications, Milestones in hardware and software – batch oriented / online/Realtime applications Computers as a system: Basic concepts, stored programs, functional units, and their interrelation: communications with computer. Data storage devices primary storage: storage addressed and capacity, type of Memory: Secondary storage devices: Magnetic tape – data representation and R/W: Magnetic disks, fixed and removable, data representation and R/W: Floppy and Hard disks, Optical disks, CD-ROM, Mass storage devices.
4	B.Sc. Bioinformatics (E)	Microbiology & Genetics	II	B	<ul style="list-style-type: none"> • Mendel's laws. Chromosomal theory of inheritance. Chromosome structure and functions; Chromosome banding. Mutagenesis in bacteria- types of mutants, mutagenic agents, isolation and characterization of mutants, reversion, suppression, transposable elements

					<ul style="list-style-type: none"> • Classification of microbes. Taxonomy, Current methods of microbial identification, characteristic features of Eubacteria, Archaeobacteria, Fungi, Algae, Protozoa, and viruses. Nature of the microbial cell surface: Gram positive and Gram-negative bacteria, flagella, pili, cell inclusions, endospore, growth curve, microbial metabolism and growth, synchronized and continuous growth. Nutritional classification of microorganisms: microbes in extreme environments, the thermophiles and alkaliphiles. A survey of products from microorganisms.
5	B.Sc. Bioinformatics (E)	Sequence Analysis	III	A	<ul style="list-style-type: none"> • Pairwise sequence alignment Global alignment, Local alignment Scoring functions, General gap and affine gap penalty BLAST algorithm Significance of alignments: E value, Scores. Multiple sequence alignment SP (Sum of Pairs) measure, Clustal W, Clustal X, The Tree of life: Archaeobacteria, eubacteria, eukaryote. Principles of taxonomic identification. Phylogenetic analysis: Distance and parsimony methods; Clustering methods. Rooted and unrooted trees, Bootstrapping, Phylip.
6	B.Sc. Bioinformatics (E)	Fundamentals of Mol Bio-I	III	B	<ul style="list-style-type: none"> • Structure of prokaryotic and eukaryotic genes. DNA replication: Both prokaryotes and eukaryotes Properties of DNA polymerases, Synthesis of Leading and lagging strands DNA Repair: Photo-reactivation, excision repair, post replication repair, SOS repair. • Transcription RNA polymerase in prokaryotes – its molecular composition, role of each component of RNA polymerase, mechanism of transcription, Gene Expression Prokaryotic gene expression. Lac, His, Trp operons. Catabolite repression Eukaryotic gene expression and transcription factors
7	B.Sc. Bioinformatics (E)	Structure Analysis	IV	A	<ul style="list-style-type: none"> • Protein Structure Prediction Secondary structure prediction methods: CHAU FASMAN, GOR, Neural Network

					<p>Tertiary Structure prediction methods- Homology Modelling, Threading/Fold recognition and Ab initio methods.</p> <ul style="list-style-type: none"> • Gene prediction methods: searching by signal, searching by content, homology-based predictions, Markov models, Hidden Markov models in gene prediction. Gene prediction tools: Genscan, Glimmer, Grail. Promoter analysis and predictions for prokaryotic and eukaryotic Genomes RNA structure prediction.
8	B.Sc. Bioinformatics (E)	Fundamentals of Mol Bio-II	IV	B	<ul style="list-style-type: none"> • Translation: The genetic code. Prokaryotic and Eukaryotic Translation Modification of RNA: 5' – CAP formation, 3 – end processing polyadenylation, Splicing, Nuclear export of mRNA & mRNA stability • Introduction: History and scope of recombinant DNA technology. Gene cloning and need to clone a gene. • Modifying enzymes: Restriction endonuclease, exonucleases, ligases, polymerases, kinase, alkaline phosphatase, topoisomerase etc. • Purification of DNA from bacterial, plant and animal cells. Mutations: Types: Transitions, Transversions. Forward Nonsense mutations. Chemical and physical animals, and microbes and their importance. and Reversion mutations. Missense and mutagens. Induced mutations in plants,
9	B.Sc. Bioinformatics (E)	Intro to Genomics	V	A	<ul style="list-style-type: none"> • History of Genome sequencing project. The human Genome projects. The human genome sequence: annotation – Repeats, coding regions, non-coding regions. Genome Sequencing strategies: Hierarchical, Genome Sequencing strategies: Shotgun. • DNA sequencing methods: manual and automated methods. Chain termination method; DNA sequencing by Capillary electrophoresis. Base calling and sequence accuracy. Polymorphisms, Repeats and Single Nucleotide Polymorphisms (SNPs)

10	B.Sc. Bioinformatics (E)	Genetic Engineering	V	B	<ul style="list-style-type: none"> • DNA sequencing methods – manual & automated: Maxam and Gilbert and Sanger method. Chain termination method, Pyrosequencing. • Genome Sequencing methods: Sequencing strategies for human genome, Shotgun & Hierarchical (clone contig) methods, Next generation sequencing techniques • Cloning and expression vectors: Characteristics of cloning and expression vectors; plasmid, phages, and cosmid vectors, multipurpose cloning vectors, shuttle vectors, bacterial, yeast, plant and mammalian expression vectors. BACs and YACs.
11	B.Sc. Bioinformatics (E)	Intro to Proteomics	VI	A	<ul style="list-style-type: none"> • Proteins: Chemical properties of proteins. Physical interactions that determine the property of proteins. • Short-range interactions: Electrostatic forces, Van der Waal interactions, Hydrogen bonds, Ionic bonds, Hydrophobic bonds. Proteins: Determination of sizes (Sedimentation analysis, gel filtration, SDS-PAGE); Native PAGE. • Introduction to Proteomics. The proteome. Analysis of proteomes. 2D-PAGE. Sample preparation, solubilization, reduction, resolution. Mass spectrometry-based methods for protein identification.
12	B.Sc. Bioinformatics (E)	Immunology	VI	B	<ul style="list-style-type: none"> • Immunology Basic Immunology: Type of immunity- innate, acquired, active and passive. Cells and tissues of immune systems: Lymphoid cells, mononuclear cells, dendritic cells, lymphoid organs. Primary and secondary antigens: Immunogenicity, chemical composition, immunogen dosage, Haptens, adjuvants, Antibody structure, functions and types of – antibody diversity, Ig domains Ag-Ab interactions- cross reactions, precipitation and agglutination. • Major histocompatibility complex (MHC), MHC restriction, regulation. Antigen presentation and processing antigen presenting cells, cell mediate subset of T-cells: helper and

					suppressor cells. 20 Immunological techniques: Immunodiffusion, Immuno-electrophoresis Stem cell biology
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Biotechnology

PSO1: Acquire knowledge in biotechnology which enables them to understand the emerging and advanced concept of engineering in life sciences.

PSO2: Acquire knowledge in the biotechnology domain that enables their applications in industry and research.

PSO3: Acquire technical know-how by linking biotechnology, disciplinary and interdisciplinary aspects.

PSO4: Recognize the importance of bioethics, IPR, entrepreneurship, and communication to bring industrialists to the next generation.

Course Outcomes: Biotechnology (Elective)

S.No.	Class	Subject	Semester	Paper(S)	Learning Outcomes
1.	B.SC.	Biotechnology (Elective)	I	Introduction to Biotechnology	<ul style="list-style-type: none"> The students will be introduced to the subject of biotechnology and made aware of the experimental techniques used in biotechnology along with the various biosafety practices that must be followed. Since the experimental data needs further verification by statistical analysis, basics of statistics will also be taught to the students.
2			II	Foundations of Biotechnology	<ul style="list-style-type: none"> To impart knowledge about microbes, its types, basis of classification and uses. The students will also be taught the structural and functional aspects of cellular macromolecules and further techniques used in biotechnology. A unit on enzymes will make the students aware of their importance in industrial biotechnology.
3			III	Introduction to Genetic Engineering and Immunotechnology	<ul style="list-style-type: none"> To introduce the fundamental concepts of genetic engineering and its application in producing recombinant proteins and other beneficial products of commercial values in various microbial systems including E.coli, yeast, fungi etc.

					<ul style="list-style-type: none"> • It will also enhance the students' understanding of immune response in animals / humans and • pathways which provide resistance against pathogens. • The students will learn about the immune cells, the MHC complex and the role of antigens and antibodies.
4			IV	Fundamentals of Molecular Biology and Genetics	<ul style="list-style-type: none"> • Students will learn about the genetic makeup of prokaryotes and eukaryotes, the DNA structure, its replication, transcription, translation and the mode of developing recombinants. • Students will be introduced to the basics of mutations (induced and spontaneous) and their importance in studying gene function.
5			V	Plant and Animal Biotechnology	<ul style="list-style-type: none"> • Students will acquire depth knowledge of various techniques of culturing of plant and animal cells, formulation of media, respective vectors and their uses in transformation and probable contaminations and remedies to overcome them.
6			VI	Environmental & Fermentation Biotechnology	<ul style="list-style-type: none"> • Students acquire knowledge about types of environmental pollutants, waste, effluents, fertilizers, pesticides, their causes, removal and various strategies to overcome waste related problems, involving microbial degradation. • How microbes can recycle nutrients in nature and can be eco friendly. • Students are introduced to the use of microbes for commercialization. • They learn their methods of isolation, improvement and sustaining for years without change in characters. • The objective of this paper is to make them aware regarding the fermentation technology based upon use of microbes and the production of good products by upstream and downstream process.

Microbiology

PSO1: Acquire knowledge and understanding of the microbiology concepts applicable to diverse areas such as medical, industrial, environment, genetics, agriculture, food, and others.

PSO2: Demonstrate practical skills/competencies in working with microbes for study and use in the laboratory and outside, including good microbiological practices.

PSO3: Competent enough to use microbiology knowledge and skills to analyze microbes, articulate these with peers/ team members/ other stakeholders, undertake remedial measures/ studies, etc.

PSO4: Develop a broader perspective in Microbiology, identify challenging societal problems, and plan for a professional career to bring innovative solutions to such issues.

Course Outcomes: Microbiology

S.No.	Class	Subject	Semester	Paper	Course Outcomes
1.	B.Sc.	Microbiology Elective	I	Paper A Fundamentals of Microbiology I Paper B Microbial Physiology and Metabolism I	<ul style="list-style-type: none"> • Knowledge of history of microbiology. • Train students for Microscopic examination of microbes. • Acquire information in frontier areas of genetic engineering, environmental science and agriculture. • Basic information on complex integrated network of biochemical reactions that make up metabolism of micro-organisms. • Nutrition for micro-organisms. • Growth of Microbes. • Understanding of mechanisms of enzyme action.
2.	B.Sc.	Microbiology Elective	II	Paper A Fundamentals of Microbiology II Paper B Microbial Physiology and Metabolism II	<ul style="list-style-type: none"> • Understanding of rDNA technology. • Understanding of different types of microscopic techniques. • Basic virology. • Acquire knowledge about Biogeochemical Cycles. • Learning waste water treatment process. • Comprehend Enzyme kinetics • Understanding concepts of microbial utilization of energy and biosynthesis.
3.	B.Sc.	Microbiology Elective	III	Paper A Introduction to Medical	<ul style="list-style-type: none"> • Understanding of Infectious diseases. • Understanding of classification of Micro-organisms of medical

				Microbiology I	importance. • Learning virulence of pathogens. • Imparting knowledge for mechanism of action of antibiotics.
				Paper B Introductory Immunology I	

PROGRAMME NAME: BACHELOR OF SCIENCE BIOTECHNOLOGY (THREE YEARS)

PROGRAMME OUTCOME:

B.Sc. Biotechnology (Honours) Programme:

- PO1: Identify, develop, and resolve problems connected to the industries of Biotechnology and Pharma, Medical, and hospital-related organizations, Regulatory Agencies, & Academia by demonstrating expertise in in-depth analytical and critical thinking.
- PO2: Learn to solve problems, examine data, and interpret results via experiments performed during project work or practical courses.
- PO3: Learners can use current analytical techniques, software, and equipment to analyze problems in different domains of biotechnology courses.
- PO4: Recognize and fulfill their professional responsibilities in society as managers, researchers, educators, employers, and employees in biotechnology.
- PO5: Adopt a code of ethics for the workplace and social settings, and show outstanding professional, ethical, and legal conduct when making decisions.
- PO6: Communicate effectively in the healthcare industry, business, academia, and research using written and spoken communication abilities.
- PO7: Apply their responsibilities to advance societal health and safety while maintaining the public's faith in their profession.
- PO8: Develop the skills, attitude, and principles necessary for independent, lifelong learning and career advancement.

PROGRAMME SPECIFIC OUTCOME:

B.Sc. Biotechnology (Honours) (BTH.)

- PSO1: Demonstrate comprehensive knowledge and interdisciplinary skills in biochemistry, cell and molecular biology, bioprocess engineering, plant biotechnology, genetic engineering, microbiology, and bioinformatics.
- PSO2: Apply computational modelling of proteins, drug design, and simulations to test the models and solve a scientific problem.
- PSO3: Critically analyze Next-Generation Sequencing and DNA Microarray data sets.
- PSO4: Test the hypothesis, design experiments, and interpret the data to solve various problems in different areas of biotechnology.
- PSO5: Demonstrate communication skills, scientific writing, and data recording abilities in all the fields of biotechnology.
- PSO6: Demonstrate the ability to work on research projects and assignments in teams of students coming from different academic disciplines, diverse cultures, and ethnicities.
- PSO7: Demonstrate conceptual learning through systematic thinking, self-study, and life-long learning that helps to solve scientific problems with well-defined solutions.
- PSO8: Demonstrate the ability to use state-of-the-art digital tools and software to mine the data, and procure, analyze and present the data.
- PSO9: Demonstrate the ability to sense the scientific and technological trends in different academic and industry settings, identify the pertinent questions to be addressed, build hypotheses, and design strategies to solve the scientific problems.

Course Outcomes: B.Sc. Biotechnology (Honours) (BTH.)

S. No	Class	Subject	Semester	Paper	Learning Objectives
1.	BTH	Biotech Hons	I	English Compulsory	<ul style="list-style-type: none"> Enhancement of vocabulary through textual phrases and reading. Having profound knowledge of English as a language and become thoughtful, imaginative and effective communicators. Enable the students to write business document and think analytically.
2.	BTH	Biotech Hons	II	English Compulsory	<ul style="list-style-type: none"> Learn the basics of precis writing <ul style="list-style-type: none"> o and report writing. Improve the communication skills through reading prose and relentless practice. Learn creative writing and advanced grammatical nuances.
3.	BTH	Biotech Hons	V	Tools in Bioinformatics	<ul style="list-style-type: none"> Introduction to Bioinformatics, Biological Databases and Sequence analysis Introduction, overview and needs of bioinformatics technology. Primary Databases: Primary Sequence database i.e. GenBank & EMBL. Secondary Databases: Swissport/TrEMBL, Pfam. Molecular Structure Databases: Protein Data Bank (PDB), SCOP, CATH. Understanding the structure of each database and using it on the web. Sequence Alignment Introduction to sequence alignment and its applications.

					<ul style="list-style-type: none"> • Pair wise sequence alignment: Concept of global and local alignment, Dot Plot, algorithm for pair wise sequence alignment (Needleman Wunsch, Smith-watterman methods), Introduction to BLAST, types of BLAST, algorithm of BLAST and interpretation of its result. • Substitution matrices: Introduction to substitution matrices: PAM and BLOSUM matrices, concept of log odd ratio. Multiple sequence alignment: Methods of multiple sequence alignment. Introduction to consensus sequences, motifs and profiles. • Phylogenetic Analysis: Introduction to phylogenetic analysis and its application, phylogenetic tree topologies, methods of phylogenetic tree construction and tools. • 63 59 Genome Annotation: Concept of genome annotation, methods of gene identification. Tools of gene identification: GenScan and Glimmer. • Protein Structure Prediction: Concepts and strategies of protein structure prediction, methods of secondary structure prediction, and methods of protein tertiary structure prediction. Structure visualization tool – RasMol.
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PROGRAMME NAME: BACHELOR OF PHYSICAL EDUCATION (TWO YEARS)

PROGRAMME OUTCOME:

Bachelor of Physical Education (B.P.Ed) (Two years):

- PO1: Understand the benefit of physical education in secondary education.
- PO2: Acquire qualified personnel for various sports-relevant establishments.
- PO3: Create capable, dedicated, and willing to work as professionals.
- PO4: Develop a scientific temperament and instill reasonable thought in future instructors.
- PO5: Apply management, administrative, and organizational abilities in a practical setting.
- PO6: Knowledge of sports and its influence on culture and aesthetic standards.

PROGRAMME SPECIFIC OUTCOME:

Bachelor of Physical Education (B.P.Ed) (Two Years)

- PSO1: Demonstrate the skills necessary to participate, perform, and progress in various sports/or exercise classes.
- PSO2: Identify and explain the rules, concepts, and vocabulary used in the physical education curriculum.
- PSO3: Apply the knowledge of basic sciences that may be relevant and appropriate to physical education and sports sciences.
- PSO4: Identify, and define the requirements, formulate, research literature, and analyze complex physical education and sports sciences-related problems to reach substantiated conclusions.
- PSO5: Design, implement, and evaluate processes or programmes to get the desired outcomes in physical education and sports science.
- PSO6: Work effectively as an individual, as a member or leader in diverse teams, and in multidisciplinary settings to accomplish a common goal.
- PSO7: Understand the professional, ethical, legal, security, social issues and responsibilities in teaching and learning.

Course Outcomes: Bachelor of Physical Education

S.No.	Class	Subject	Semester	Paper (s)	Course Outcomes
1.	B.P.Ed I	Physical Education	I	<ul style="list-style-type: none"> History, Principles and Foundation of Physical Education Anatomy and Physiology Educational Technology and Methods of Teaching in Physical Education Olympic Movement 	<ul style="list-style-type: none"> To produce quality physical education teachers for imparting instructions in the Subject of physical education. To make people aware about the benefits of physical activity through extension Lectures and demonstrations. To provide excellent research and teaching in Physical Education in order to promote and develop the health and wellbeing of people. To promote health through specific physical activities, prescribed by a specialized Physical educationalist. To collaborate with the different organizations which are involved in promoting The quality life of the human beings i.e., educational institutions and harmonious and NGOs. To provide stimulated academic environment for the promotion of Quality teaching and research in the department. To provide opportunity to faculty and students of the department for their self evaluations, accountability, autonomy and innovations in the area of physical Education and sports. To concentrate on quality research in the area of health, physical education and Sports. To introduce consultancy and training programmes for different educational Institutions and other organizations for the conduct of sports and fitness events. To update the curriculum and syllabi as per global needs and challenges.

2.	B.P.Ed II	Physical Education	II	<ul style="list-style-type: none"> • Yoga Education • Health Education and • Environmental Studies • Organization and Administration • Contemporary issues in Physical Education, • Fitness and Wellness 	<ul style="list-style-type: none"> • To enable teacher to understand the nature, purpose and philosophy of physical education at secondary stage. • To prepare teachers of physical education with broader educational perspective. • To develop for potentialities and organizing physical education programmes and activities. • To develop capacity to organized leisure and recreational activities. • To empower them to inspire their students to actively participate in physical and yogic exercises. • To enable teachers to develop personality, character, willpower, democratic values and positive games and sports. • To make teachers capable of imparting basic knowledge about health, hygiene and nutrition • To develop skills and competencies to organized school and community games and sports. • To cultivate the spirit of sportsmanship, mental and physical alertness, scientific temper and optimism. • To promote mental health, power of self- decision and self control, correct judgment and action emotional stability and equanimity, respect for others and acceptance of authority and rules <ul style="list-style-type: none"> • To promote appreciation and interest for indigenous games , sports and yogic exercises • To create awareness about health and hygiene in the community. • To lay down a sound foundation for higher and advance studies in Physical Education in India. • To produce quality teachers in physical education.
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					<ul style="list-style-type: none"> • To prepare students for advance coaching Diplomas in disciplines – Athletics, • Gymnastics, Hockey, Swimming, Basketball, Football etc. • To fulfill the eligibility criteria of Foreign Universities to get admission in post graduate courses abroad since it is a basic and global programme. • To generate employment in the fields of Health Fitness and Gym-Management, Physiotherapy, Journalism, Aquatics and Yoga. • To provide opportunity to talented students to excel in sports and become outstanding sports persons. • To promote mass participation in Physical Education activities (Games, Sports Displays etc) through intra – mural and extra- mural programmes.
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PROGRAMME NAME: BACHELOR OF COMPUTER APPLICATIONS (THREE YEARS)

PROGRAMME OUTCOME:

B.C.A Programme:

- PO1: Enable students to adopt an integrative stance and comprehend the character, scope, and purpose of various computer languages
- PO2: Acquire knowledge of Java, database management, computer networking, software engineering, web development, and other computer applications.
- PO3: Able to design computing systems that meet needs and abide by real-world constraints such as safety, security, and applicability in diverse teams.
- PO4: Demonstrate programming and computing skills that are conceptual and application-oriented for higher education in postgraduate programmes.
- PO5: Comprehend, assess, and develop computer programmes in networking, web design, and algorithm for efficient computer-based system design.
- PO6: Use established software engineering procedures and strategies while developing software projects using an open-source programming environment to deliver a high-quality solution for commercial success.

PROGRAMME SPECIFIC OUTCOME:

Bachelor of Computer Application (B.C.A):

- PSO1: Apply the knowledge of mathematics and computing fundamentals to various real-life applications for any given requirement.
- PSO2: Design and develop applications to analyze and solve all computer science-related problems.
- PSO3: Design applications for any desired needs with appropriate considerations for any specific need on societal and environmental aspects.
- PSO4: Analyze and review the literature to invoke the research skills to design, interpret and make inferences from the resulting data.
- PSO5: Involve in perennial learning for continued career development and progress as a computer professional.
- PSO6: Function effectively as a team leader and team member on multi-disciplinary projects to demonstrate computing and management skills.
- PSO7: Communicate effectively and present technical information in oral and written reports.

Course Outcomes: B.C.A

S.No.	Class	Subject	Semester	Paper (s)	Course Outcomes
1	BCA	Fundamentals of Mathematical Statistics	I	---	<p>The main objective of this course is to teach the students the basic techniques Statistical Methods. After the completion of the course, students will be able to:</p> <ul style="list-style-type: none"> • solve various Financial, Scientific and Engineering fields' problems. • organize, manage and present data. • analyze statistical data using measures of central tendency, dispersion and location. • use statistical reasoning, formulate a problem in statistical terms, perform exploratory analysis of data by graphical and other means, and carry out a variety of formal inference procedures. • select the most relevant statistical techniques, then use them to solve diverse data analysis issues. • understand the fundamental concepts of simple linear regression and correlation perform college-level mathematical computations on a computer using C language.
2	BCA	Computer Fundamentals and Computing Software	I	---	<ul style="list-style-type: none"> • Utilize computer technology ethically, safely, securely, and legally. • Understanding of peripheral hardware at a basic level. • Describe the main differences between an operating system's interactions with hardware and software. • Describe the protocols that control internet and application communication as well as how computers are networked. • Use the MS Office programme that is suited for your business communications when communicating. <p>Utilize file management strategies to organise your files, directories, and folders.</p>
3	BCA	Problem Solving Through C	I	---	<ul style="list-style-type: none"> • This course is aimed at advancing concepts of programming and software code organization within the framework of structural and procedural programming paradigms. • The course is designed to provide complete knowledge of C language. Students will be able to develop logics which will help them to create programs, applications in C.

					<ul style="list-style-type: none"> Also by learning the basic programming constructs they can easily switch over to any other language in future. C is most useful for embedded systems, or applications that require the ability to be light-weight and have precise control over system resources. <p>It is the base of all programming languages where they can clear the basic concepts of programming and will be helpful in learning other programming languages.</p>
4	BCA	Computer Organization	II	---	<p>This course will enable the student to understand the basic organization of computer system and system maintenance. After the completion of the course, students will be able to:</p> <ul style="list-style-type: none"> exemplify the principles of computer architecture pertaining to design of modern processors, memories and I/Os. understand the ideas of pipelining, parallel processing, and interprocessor communication. understand the digital representation of data in a computer system. define different number systems, binary addition and subtraction, 2's complement representation and operations with this representation. develop logic for assembly language programming. <p>understand computer arithmetic formulate and solve problems, understand the performance requirements of systems.</p>
5	BCA	Fundamentals of Web Programming	II	---	<p>This course will enable the student to:</p> <ul style="list-style-type: none"> Use their learned skills, knowledge and abilities to develop web sites for the internet. Apply basic programming principles to the construction of websites. Effectively manage website projects using available resources. Demonstrate communication skills, service management skills, and presentation skills. Build and publish web sites using HTML, DHTML, CSS, JavaScript and Dreamweaver.
6	BCA	Object Oriented	II	---	<ul style="list-style-type: none"> Demonstrate the use of various OOP concepts with the help of programs.

		Programming using C++			<ul style="list-style-type: none"> • With the help of OOP concepts, students will be able to understand how to model the real world scenario and be able to exhibit communication between objects. • Create and build C++ programmes for challenging issues, making effective use of the language's classes, inheritance, and templates capabilities. <p>Design and implement object oriented solutions for large and small systems involving single/multiple objects.</p>
7	BCA	Information System Design and Implementation	III	---	<ul style="list-style-type: none"> • Describe systems and the process through which they are created. • To correctly identify and evaluate difficult business challenges, come up with workable solutions, and implement them using appropriate information technologies • The student will be able to evaluate business issues and create a requirements document that is written in a clear and simple business style. <p>In order to complete the project in time, students will need to collaborate in teams and use necessary resources.</p>
8	BCA	Computer Oriented Numerical Methods	III	---	<p>This course will enable the student to teach the students the essential techniques of Numerical Methods. After the completion of the course, students will be able to:</p> <ul style="list-style-type: none"> • solve various Scientific and Engineering fields' problems. • comprehend and learn about numerical analysis techniques. • understand the implementation of numerical methods using C language on a computer. • get knowledge of tracing errors in Numerical methods and analyze and predict it. • implement the application of Statistical methods. <p>discuss concepts of numerical methods used for different applications for day to day computer problems.</p>
9	BCA	Data Structures	III	---	<p>At the end of the course, the students will have complete knowledge of</p> <ul style="list-style-type: none"> • Various data structures and its basic operations.

					<ul style="list-style-type: none"> • The concept of dynamic memory management, data types, algorithms, big o notation. • Linear data structures such as arrays, linked lists, stacks and queues. • Nonlinear data structures such as trees and graphs. • Strength and weakness of different data structures. • Applying algorithm for solving problems like sorting, searching, insertion and deletion of data and implement these using c language. • Analyzing the various sorting and searching algorithms. <p>Using them for solving real world problems.</p>
10	BCA	Software Project Management	IV	---	<p>To teach the students important concepts, terms related to various phases during the development of a software project. At the end of the course the student will be able to:</p> <ul style="list-style-type: none"> • apply software project management techniques to manage a software project. • determine the problems that could make an IT project successful or unsuccessful. • learn how to manage and understand economics for current and upcoming software projects. • identify the various project contexts and offer a suitable management approach. • analyze, design and develop the software project. <p>develop the model from the conventional software product to the modern.</p>
11	BCA	Operating System Concepts and Linux	IV	---	<p>The objective of this course is to create skills of students in operating systems concepts and Linux commands. At the end of the course, the students will have complete knowledge of</p> <ul style="list-style-type: none"> • Operating System and its services • Deadlocks in operating system and methods of handling deadlocks • get familiar with Linux system, its commands, files & directories. • Work as a normal user in the Linux environment • Work in the Linux environment for administrative tasks. <p>Learn vi editor and use it for modifying system administrative files.</p>

12	BCA	Database Management System	IV	---	<ul style="list-style-type: none"> • This course aims at giving the students the insight of the underlying concepts of database management system and implement them using Database software. • Demonstrate the basic elements of a relational database management system. • Identify the data models for relevant problems. • Design entity relationship and convert entity relationship diagrams into RDBMS and formulate SQL queries on the respect data into RDBMS and formulate SQL queries on the data. <p>Demonstrate their understanding of key notions of query evaluation and optimization techniques.</p>
13	BCA	Computer Networks	V	---	<ul style="list-style-type: none"> • Describe the general principles of data communication. • Provide good understanding of the concepts of network security, wireless and various emerging network technologies • Describe how computer networks are organized with the concept of layered approach. • Describe how signals are used to transfer data between nodes. • Implement a simple LAN with hubs, bridges and switches. • Describe how packets in the Internet are delivered. • Analyze the contents in a given data link layer packet, based on the layer concept. <p>Decide routing entries given a simple example of network topology.</p>
14	BCA	Discrete Mathematical Structure	V	---	<p>In this paper, students will learn and be able to:</p> <ul style="list-style-type: none"> • Write an argument using logical notation and determine if the argument is or is not valid. • Solve problems involving recurrence relations and generating functions. • Demonstrate an understanding of relations and functions and be able to determine their properties. Determine when a function is 1-1 and "onto". • Demonstrate different traversal methods for trees and graphs.

					<ul style="list-style-type: none"> • Model problems in Computer Science using graphs and trees. • Understand Automata Theory and Design finite state machines for acceptance of strings <p>Analysis of Algorithms</p>
15	BCA	Java Programming	V	---	<p>This course aims at giving student the:</p> <ul style="list-style-type: none"> • Knowledge about all the programming concepts of JAVA programming language. • Use the Java programming language for various programming technologies <p>Develop software in the Java programming language.</p>
16	BCA	Web Application Development using PHP	V	---	<ul style="list-style-type: none"> • Demonstrate Rich Internet Applications • Build Dynamic web site using server side PHP Programming and Database connectivity using My • Write PHP scripts to handle HTML forms. • Write regular expressions including modifiers, operators. • Create PHP programs that use various PHP library functions, and that manipulate files and directories. • Analyze and solve various database tasks using the PHP language • Analyze and solve common Web application tasks by writing PHP programs. • After the completion of course, students will get hands on experience on various techniques of web development and will be able to design and develop a complete website. <p>Students also learn about how to upload files.</p>
17	BCA	E-Commerce	VI	---	<ul style="list-style-type: none"> • Recognize the fundamental theories and methods employed in the field of management information systems. • Have the knowledge of the various types of (MIS) Management Information Systems. • Understand the processes of developing and implementing information systems. <p>Be aware of the ethical, social, and security issues of information systems while implementing on organizations.</p>

18	BCA	Application Development using VB.Net	VI	---	<p>The course is designed to enable the students:</p> <ul style="list-style-type: none"> • To develop applications using event driven programming with VB.net (as front end) and accessing database at back end. • Students will understand .NET Framework. • Students will describe the basic structure of a Visual Basic.NET project and use main features of the integrated development environment (IDE). • Students will create applications using Microsoft Windows Forms. • Students will create applications that use ADO. NET. • Use their learned skills, knowledge and abilities to develop web sites for the internet. • Understand the principles of creating an effective web page, including an in-depth consideration of information architecture. • Become familiar with graphic design principles that relate to web design and learn how to implement theories into practice. • Develop skills in analyzing the usability of a web site. • Design user interactions on web pages. • There are huge opportunities available for the students who want to work in this field. <p>With the rapid advent of online industry, the demand of web development professionals is increasing and this has created a huge job opportunities for the aspirants in the upcoming days.</p>
19	BCA	Computer Graphics and Multimedia Applications	VI	---	<p>The objective of the course is to introduce basic computer graphics concepts and algorithms. The student will able to:</p> <ul style="list-style-type: none"> • learn about essential concepts used in developing multimedia applications understand algorithms and give theoretical estimates for the resources needed by any algorithm. • understand the basics of computer graphics, different graphics systems and applications of computer graphics.

					<ul style="list-style-type: none"> • understand how to generate line, circle and ellipse also how to create 2D object and various transformation techniques • comprehend multimedia compression techniques and applications of multimedia. • acquire knowledge of image synthesis in computer graphics, speech processing and recognition, sound and video sequences. <p>use graphic computing techniques to plan, develop, evaluate and manage a solution to a particular problem based on graphic systems.</p>
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PROGRAMME NAME: BACHELOR OF COMMERCE (THREE YEARS)**PROGRAMME OUTCOME:****B.Com. Programme:**

PO1: Provide learners access to the latest business concerns and a solid theoretical foundation.

PO2: Acquire general management, marketing, financial, international, and human resource management skills.

PO3: Encourage the development of innovative thinking and entrepreneurship.

PO4: Scope for overcoming global difficulties by teaching them to be sensitive to organizational, economic, and cultural diversity.

PROGRAMME SPECIFIC OUTCOME:**Bachelor of Commerce (B.Com.):**

PSO1: Demonstrate an understanding of the concepts, principles, theories, and arguments of the diverse areas of study in commerce.

PSO2: Use/Apply/Analyze business and economic problems and generate realistic solutions through the knowledge and skill gained throughout the programme.

PSO3: Analyze and evaluate evidence in the commerce disciplines in support of an argument, proposition, or solution to problems in organizations and society.

PSO4: Develop strategic and critical thinking about business and commerce-related issues.

PSO5: Develop entrepreneurial and managerial aptitude with excellence and professional ethics.

PSO6: Develop and nurture an area of interest for specialization and higher studies.

PSO7: Provide a strong base for career choices in the fields of banking and finance, management and administration, marketing and advertising, logistics and supply chain, investment and portfolio management, risk management and insurance sector, legal and corporate affairs, business and entrepreneurship, etc.

PSO8: Explore and recognize employability avenues in sales, marketing, accounting, banking, BPOs, and KPOs.

Course Outcomes: Bachelor of Commerce

S.No.	Class	Subject	Semester	Paper(s)	Course Outcomes
1.	B.Com	Psychology For Managers	I	---	<ul style="list-style-type: none">• Understanding about basic concepts and techniques of human behaviour to the students.• Learn the basic concepts about organisational behaviour, individual behaviour, personality, perception and attitudes and values.• Acquire theoretical knowledge on Motivation, Leadership and Conflict Management.
2.	B.Com	Business Economics-I	I	---	<ul style="list-style-type: none">• In the First semester this paper imparts the knowledge of economics as a subject and its importance to business.

					<ul style="list-style-type: none"> • The students learn basic concept of micro economics to understand the demand and supply analysis in business applications. students are able to identify the theories and principles of microeconomics including consumer's behaviour, producer's behaviour, price theory, market structure and factor distribution. • Moreover, they can apply those principles to analyse real world economic issues. Conclusively, the subject microeconomics enables students to understand how resources are produced and consumed by individuals and businesses.
3.	B.Com	Principles of Financial Accounting	I	---	<ul style="list-style-type: none"> • To help students to acquire conceptual knowledge of financial accounting • To impart skills for recording various kinds of business transactions • Introduces the concept of GST, royalty and consignment. • Illustrates how to deal with insolvency of partners.
4.	B.Com	Commercial Laws	I	---	<ul style="list-style-type: none"> • The main objective of the paper is to acquaint the students with general Commercial Laws. • How to form a contract. • Various types and rules regarding contracts. • They also learn Provisions of Right to Information act & Consumer Protection act.
5.	B.Com	Principles And Practices Of Management	I	---	<ul style="list-style-type: none"> • Unfold the intricacies of business in a simple way • Acquaints not only with the theoretical approach of business organization but also with the practices of management. • Updates the students with the phenomenal changes taking place in the outside world.

6.	B.Com	Interdisciplinary E-Commerce	II	---	<ul style="list-style-type: none"> • Provide fundamental knowledge to the students about E-Commerce so that they can better perform in any area of operation and can excel in the field of commerce with IT specialization. • To acquire conceptual knowledge on E-Business, Changing Structure of Organisation and Electronic Payment System.
7.	B.Com	Business Economics-II	II	---	<ul style="list-style-type: none"> • In the second semester students learn how Macroeconomics helps in taking business decisions. • At this level, they can differentiate between micro economic and macroeconomic concepts and piece together a bigger picture. • By the time of completion of the semester, students are able to utilize the study the functioning of Aggregate measure of economic activity, macroeconomic equilibrium, money and financial institutions, monetary and fiscal policies, inflation and trade cycles. • Students will also be given the tools to interpret macroeconomic events using aggregate demand and aggregate supply models and describe interrelationships among prices, income and interest rates as they affect consumption, savings and investment. • Additionally, application of the principles of macroeconomics in relation to measuring national economic goals of economic growth, full employment and price level stability will become comprehensible.
8.	B.Com	Corporate Accounting	II	---	<ul style="list-style-type: none"> • Learn the basic corporate accounting concepts with the relevant accounting standards • Prepare Final Accounts of Companies and their critical evaluation.

					<ul style="list-style-type: none"> • Comparison of annual reports of companies and disclosures norms • Learn the procedure of issue of shares and debentures and their redemption.
9.	B.Com	Business Laws	II	---	<ul style="list-style-type: none"> • The main objective of the paper is to acquaint the students about Business Laws • They learn Rules & Provisions of Sales of goods act • Use of Negotiable instruments under Negotiable Instruments act. • They learn Rules of Factories act & Industrial Dispute act
10.	B.Com	Human Resource Management	II	---	<ul style="list-style-type: none"> • The objective of the paper is to familiarize the students with the different aspects of managing human resources in the organization in a efficient and better way. • They learn about recruitment, selection, training, orientation, incentives & benefits which company provides to the employees
11.	B.Com	Interdisciplinary Issues in Indian Commerce	III	---	<ul style="list-style-type: none"> • To enable the students to acquire basic knowledge of different issues faced in progress and prospects of commerce in India. • Basic understanding about Foreign Direct Investment and International Finance. • Comprehend the concepts of Infrastructure, Stock Exchanges in India, Corporate Debt Restructuring and Recent Trends in Credit Rating Services in India- Role of ICRA and CRISIL
12.	B.Com	Cost Accounting	III	---	<ul style="list-style-type: none"> • To acquire conceptual knowledge of cost accounting and elements of cost. • Understand the concepts of Material, Stock Levels, Inventory, Control Techniques & Methods of Pricing. • Learn the preparation of Cost Sheet Cost Ledger Accounting, Reconciliation of Cost and Financial Accounts.

13.	B.Com	Company Law	III	---	<ul style="list-style-type: none"> The objective of this paper is to help the students to understand various provisions of Companies Act 2013 They learn How to Formulate a Company, Types, Shareholders, Members, Management of Company, Various Important documents of Company & Winding up of Company process
14.	B.Com	Business Mathematics And Statistics	III	---	<ul style="list-style-type: none"> Business mathematics and statistics are widely used in studies of several problems of research and development. Values of costs and equilibrium price can be found using matrices. Differential calculus is used to find elasticity of demand, costs and revenues. In maxima minima conditions of revenue maximisation, profit maximisation and cost minimisation are discussed In statistics students come to know how data is collected. How classification and tabulation of data can be done. Averages are mostly used to reduce mass data into a single figure. Students learn different types of averages and dispersion. Analysis of time series depicts past behaviour and future trends of problem under study. Index numbers are constructed to understand the changing pattern of prices of different goods and estimate purchasing power, changing value of money etc.
15.	B.Com	Banking And Insurance	III	---	<ul style="list-style-type: none"> To acquaint the students with Indian Banking and Insurance industry. Understanding of Indian Banking system, Reforms in Indian Banking and Emerging Trends in Banking. Impart knowledge on Insurance and IRDA.
16.	B.Com	Goods And Services Tax (GST)	III	---	<ul style="list-style-type: none"> Understand the basis of indirect taxes and implementation of GST in India. Comprehend the concept of Supply, value of supply, time of supply and place of supply.

					<ul style="list-style-type: none"> • Learn the types of GST and their application. • Gather knowledge about penalties, punishments, prosecution and illegalities under GST.
17.	B.Com	Advertising & Brand Management	III	---	<ul style="list-style-type: none"> • To provide an understanding of the principles of advertising and brand management. • Understand the concepts like brand, brand equity, brand extension, brand position, brand pyramid. • Comprehend the Creative Strategy Development and Implementation and role of Integrated Marketing Communication & Advertising in the Marketing Programme.
18.	B.Com	Interdisciplinary Security Analysis And Portfolio Management	IV	---	<ul style="list-style-type: none"> • Comprehensive knowledge about security selection, risk profiling and investment decisions. • Learning portfolio management skills and tools for equipping profitable investment decisions. • Understanding the global and domestic investment options. • Acquainting with the portfolio management theories of modern portfolio management.
19.	B.Com	Advanced Accounting	IV	---	<ul style="list-style-type: none"> • Provides knowledge to students about advanced accounting problems with the relevant Indian Accounting Standards. • Illustrates how to deal at times of liquidation and amalgamation. • Introduces to the concept of holding companies, subsidiary companies and hire purchase system.
20.	B.Com	Auditing and Secretarial Practice	IV	---	<ul style="list-style-type: none"> • The objective of the paper is to help the students in understanding concepts and issues in Auditing and Secretarial Practice to understand Audit Program, Audit Evidence, Internal Control, Internal Check and Internal Audit.
21.	B.Com	Cost Management	IV	---	<ul style="list-style-type: none"> • To acquaint the students with the various methods of cost determination and tools and techniques of cost control.

22.	B.Com	Marketing Management	IV	---	<ul style="list-style-type: none"> • The paper aims at making students to understand the basic concepts, philosophies, process and techniques of marketing. • Learn about the Pricing Decision, Distribution Decisions, Management Decision, Causes and Managing Channel Conflict, Physical Distribution, Promotion Decisions: Communication Process. • Understand the utility of Promotion Tools, Sales Promotions, Personal Selling and Recent trends in online marketing; e- marketing, mobile marketing and social media marketing.
23.	B.Com	Quantitative Techniques And Methods	IV	---	<ul style="list-style-type: none"> • In this subject Probability is studied. Probability is used in the theory of games which is further used in managerial decisions. Various sampling tests like Z- test, T-test and F-test are based on theory of probability. • Linear programming is a powerful mathematical technique which allocates given available resources in an optimum manner to achieve the objective of maximizing or minimizing a target variable. • Interpolation and extrapolation are techniques of estimating the missing values under certain assumptions. • This technique helps in obtaining probable changes in prices, demand, production etc. There are two techniques called correlation and regression to study the degree, extent and cause of relation between two sets of values. • This paper is to familiarize the students with the feature and characteristics of the Indian Economy. It also includes performance and problems of industrial development, Indian tax structure, external trade and balance of payment, and objectives, strategy and performance of Indian planning. • The course aims to develop analytical understanding of the students by

					exposing them to basic issues of the Indian Economy.
24.	B.Com	Income Tax Law	V	---	<ul style="list-style-type: none"> The objective of this paper is to impart basic knowledge of the provisions of Income tax laws in India. They learn provisions related to Salary income, Profits & Gains of Business & Profession, Capital Gain, House property income & Income from other sources. How to file an income tax return online.
25.	B.Com	Management Accounting	V	---	<ul style="list-style-type: none"> To study the basic concepts of Management Accounting relevant in Business Help the students to understand the usage of Accounting in Financial Management.
26.	B.Com	Indian Economy	V	---	<ul style="list-style-type: none"> This course will provide insight into the various sectoral aspects of Indian economy. Students study different sectors of Indian economy like agriculture sector, Industrial sector, service sector etc.
27.	B.Com	Production And Operation Management	V	---	<ul style="list-style-type: none"> The objective of this course is to enable the students To understand the concepts of production and operations management of an industrial undertaking
28.	B.Com	Entrepreneurship And Small Business	V	---	<ul style="list-style-type: none"> The basic objective of this course is to help the learners understand various issues involved in setting up a private enterprise and develop required entrepreneurial skills in economic development. It also aims to motivate students to opt for entrepreneurship and self-employment as alternate career options
29.	B.Com	Financial Markets And Services	V	---	<ul style="list-style-type: none"> To familiarize the students with the traditional and modern financial and services.

					<ul style="list-style-type: none"> Understand Mutual Funds, Management of Mutual Funds, Exchange Traded Funds and Factoring.
30.	B.Com	Direct Tax Laws	VI	---	<ul style="list-style-type: none"> The objective of this paper is to impart basic knowledge of the provisions of Income tax laws in India. They learn about Deemed Incomes and Clubbing of Incomes (Aggregation of Incomes). How to Set-off and Carry Forward of Losses, Deductions, Rebate & Relief. How to assess income of Individual, HUF, Association of Persons & Firm. Income Tax Authorities, Penalties, Deduction & Collection of Tax at Source, Advance Payment of Tax
31.	B.Com	Financial Management	VI	---	<ul style="list-style-type: none"> As a core subject, it informs the students about the importance of finance in a business. Imparts knowledge about the different sources and types to be used as business finance. Helps the students to learn the different tools and techniques to use for effective application of funds in a business.
32.	B.Com	Issues In Financial Reporting	VI	---	<ul style="list-style-type: none"> Provides knowledge about the globally accepted set of accounting regulations and their implications in India. Provides information about the different reports and statements to be prepared under the regulations. To make the students aware about the different amendments and changes made in the accounting standards from time to time.
33.	B.Com	Social And Business Ethics	VI	---	<ul style="list-style-type: none"> The course aims to educate about the adoption of Business Ethics by organizations. Contributes substantially in the achievement of corporate excellence.

34.	B.Co m	Operational Research	VI	---	<ul style="list-style-type: none"> To understand the concepts and techniques of Operations Research for business decision making Acquire the required skills to solve various problems in OR. Comprehend the use of Linear Programming in Industry
35.	B.Co m	Sectoral Aspects of Indian Economy	VI	---	<ul style="list-style-type: none"> This course will provide insight into the various sectoral aspects of Indian economy like Agriculture, Industrial Development, Services Sector in India, Problems of Indian Economy. Understand the Industrial Policy of Govt. of India, National manufacturing policy, Small Scale and Cottage industries in India.

This document contains 172 Pages.

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