

Faculty of Arts

The Bachelor of Arts requires three years of full time study consisting of six semesters. The college offers 13 honours courses in arts subjects: Bengali, English, Hindi, Sanskrit, Santhali, Urdu, History, Philosophy, Political Science, Sociology, Psychology, Geography, Economics. Apart from the specific honours and program subjects, the skill enhancement courses (SEC), ability enhancement compulsory course(AECC), generic elective course (GE), discipline specific elective(DSE), modern Indian languages (MIL) are included in the curriculum of the university. Arts degrees are focused on increasing a student's knowledge and critical thinking in accordance to the syllabus and curriculum prescribed by the university. These courses aim to prepare students with a sound knowledge and skills to connect across geographical, disciplinary, social and cultural boundaries, understand the importance of ethical behaviour and lifelong learning habits.

Department of History

Program Outcome

Produce written work that incorporates consideration of the relevant historiography along with the theory that informs it. Construct original historical arguments based on primary source material research. Demonstrate a superior quality of writing both in terms of mechanics and in developing an argument effectively. Develop an ability to convey verbally their thesis research and relevant historiography and theory.

Program Specific Outcome

Understand background of our religion, customs institutions, administration and so on. Understand the present existing social, political, religious and economic conditions of the people. Analyze relationship between the past and the present is lively presented in the history. Develop practical skills helpful in the study and understanding of historical events.

They: (a) Draw historical maps, charts, diagrams etc. (b) Prepare historical models, tools etc. Develop interests in the study of history and activities relating to history. They: (a) Collect ancient arts, old coins and other historical materials; (b) Participate in historical drama and historical occasions; (c) Visit places of historical interests, archaeological sites, museums and archives; (d) Read historical documents, maps, charts etc. (e) Play active roles in activities of the historical organizations and associations; and (f) Write articles on historical topics. The study of history helps to impart moral education. History installs the feeling of patriotism in the hearts of the pupils.

Program Outcome

| Semester | Syllabus Paper wise | Outcome |
|---------------------|---|--|
| Semester I | Core I Ancient Indian History (Early times to Mauryan age) | In this paper the students from general course will learn about the socio cultural pattern of India. They read the sources of history, primitive civilization like Harappa, Vedic Age, protestant movements such as Jainism, Budhhism, the royal history of Maurya, Kusanas and Satbahans. |
| | Core II History of Modern Europe (1789 to 1870) | This paper focused on the great French Revolution in 1789. Students come to know about the emergence of Napoleon Bonaparte in Europe and his expansion, consolidation, downfall. |
| Semester II | Core III Ancient Indian History (Post Mauryan to 650 AD) | In this paper the students from general course will learn about the socio cultural pattern of India. They read the sources of history, primitive civilization like Harappa, Vedic Age, and protestant movements such as Jainism, Budhhism, and the royal history of Maurya, Kusanas and Satbahans. |
| | Core IV History of Modern Europe(1871 to 1945) | Vienna Congress, Metternich, Bismarck and his diplomacy, system of alliances, 1917 Russian Revolution, Fascism, Nazism and the origin of World War II all these important issues are incorporated in this paper. |
| Semester III | Core V Early Medieval Indian History (650 AD to 1206 AD) | Reign of great Indian rulers like Kanishka and Harshvardana along with other local kings and the causes of the establishment of Sultani period can be learnt. |
| | Core VI British Constitutional History(1485 to 1714) | Achievement of Tudor period like Henry-VII & Henry VIII and God given power of the king and the feature of the transformation of England into 17 th Century can be learnt. |
| | Core VII History of Jharkhand (1757 AD to 2000 AD) | Interfere of British East India Company and the torture and exploitation of the tribal and hilly people by them along with Indian brokers and their effect can be learnt here in this paper. |
| Semester IV | Core VIII Medieval Indian History (1206 to 1526 AD) | Students of this paper will learn about the survey of sources of Medieval Indian History, history of the sultanate under Das, Khaljis and Tughlaqs, history of peninsular India under Bahamani and Vijaynagar kingdom. |
| | Core IX Indian Constitutional Development (1773 to 1947) | To understanding the mid – eighteenth century this paper is considered as mandatory. Students will gather knowledge about expansion and consolidation of British Empire, economic changes, and land revenue settlements, commercialization of agriculture, de-industrialization, spread of western education, Indian Renaissance, several peasants and tribal movements. |
| | Core X Ancient Indian Polity | Various kinds of political experiments of various dynasties like Mauryan, Kushan, Gupta, Satrahava and Chola can be learnt and effects of them on the public is also can be understood. |
| Semester V | Core XI | Students will learn about the Mughals and their |

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| | Medieval Indian History (1526 to 1707 AD) | relation with Rajput, Sikhs, Decan. Marathas and central Asia. They get an idea about Bengal under Mughal reign. Mughal administration with emphasize on Mansabdari, jaygirdari, zamindari sytem are included in this paper. The great Mughal Badsah Akbar's and Aurangjev's religious policies are incorporated here. |
| | Core XII History of China And Japan (1839 to 1949 AD) | The process of development of China & Japan and their progress to come out to be the world power can be understood in this chapter. |
| Semester VI | Core XIII Economic History of Modern India (1757 to 1947) | To understanding the mid – eighteenth century this paper is considered as mandatory. Students will gather knowledge about expansion and consolidation of British Empire, economic changes, and land revenue settlements, commercialization of agriculture, de-industrialization, spread of western education, Indian Renaissance, several peasants and tribal movements. |
| | Core XIV Indian National Movement (1857 to 1947) | Students will gather knowledge about nationalism, genesis of congress, moderates, extremists, Gandhi and his movements, Subhas Basu and his INA, Princely states, integration of the Indian States, making of constitution and foreign policy. |

Department of Geography

Program Outcome

A geography degree will provide you with the knowledge and skills you need to begin a variety of rewarding careers. Geographers work as urban planners, GIS technicians and analysts, disaster preparedness planners, teachers, environmental scientists, remote sensing analysts, transportation planners, demographers, hydrologists and in a variety of other areas.

Students who complete Geography courses will examine the spatial organization of physical features and human activities at a variety of spatial scales from local to global. Students will be able to locate features on the surface of the earth, explain why they are located where they are, and describe how places are similar and/or different.

Student will be able to analyses the problems of physical as well as cultural environments of both rural and urban areas. Moreover, they will try to find out the possible measures to solve those problems. They will be eligible for conducting social survey project, which is needed for measuring the status of development of a particular group or section of the society. Students will be able to learn the application of various modern instruments and by these; they will be able to collect primary data. As a student of Geography Course, they will be capable to develop their observation power through field experience and in future, they will be able to identify the socio-environmental problems of a locality.

Understand the impact of the acquired knowledge in societal and environmental contexts, and demonstrate the knowledge of need for sustainable development.

Program Specific Outcome

Acquiring Knowledge of Physical Geography:

Student will gain the knowledge of physical geography. Student will have a general understanding about the geomorphologic and geotechnical process and formation. They will be able to correlate the knowledge of physical geography with the human geography.

Acquiring Knowledge of Human Geography:

They will be able to acquire the knowledge of Human Geography and will correlate it with their practical life.

Understand Environmental Ethics and Sustainability:

Understand the impact of the acquired knowledge in societal and environmental contexts, and demonstrate the knowledge of need for sustainable development.

Ability of Problem Analysis:

Student will be able to analyze the problems of physical as well as cultural environments of both rural and urban areas. Moreover they will try to find out the possible measures to solve those problems.

Course Outcome

| Semester | Syllabus Paper wise | Outcome |
|---------------------|---|---|
| Semester-I | Core I – Introduction to Geography | Studying geography can provide an individual with a holistic understanding of our planet and its systems. Those who study geography are better prepared to understand topics impacting our planet such as climate, global warming, and desertification. El Nino water resource issues among others. |
| | Core II – Introduction to Geomorphology | Geomorphology as a critical component of physical geography is needed to understand natural landform change and potential hazard for population. |
| Semester-II | Core III – Introduction to Geographical thought and technique | to understand basic physical system that affect everyday life (e.g. – earth sun relationship, water cycle wind and ocean current) to understand the geography of past times and how geography has played important roles in the evolution of people, their ideas, place and environment. |
| | Core IV – Environment and biogeography | Environmental education helps students understand their environment builds state and national learning standard are met for multiple subjects. |
| Semester-III | Core V – Introduction to climatology | Climatology therefore allows us to studies atmospheric processes and their impacts for beyond present day weather. Lithosphere large volcanic eruptions can create a dust and soot cloud that can reduce the receipt of solar radiation cooling global atmosphere. |
| | Core VI – Introduction to Oceanography | Oceanographic research is important to many of the nation social concerns including the following |

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| | | – global change the ocean plays a predominant role in regulating both natural and human induced changes in our planet. The role of ocean circulation and the coupling of the ocean. |
| | Core VII – Physical geography of India | Indian geography studies the features and dynamite processes of landform climate, hydrology, social ecology as well as their interaction and future trends. |
| Semester-IV | Core VIII – Economic and Resource geography | The study of economic and resource helps people understand the world around them. It enables people to understand people, businesses, markets and governments and therefore better responds to the threats and opportunities that emerge when things change. |
| | Core IX – Regional geography of Jharkhand | Regional geography of Jharkhand is the leading producer of mineral wealth in the country after Chhattisgarh state, endowed as it is with a vast variety of minerals like iron ore, coal, copper ore, mica, bauxite, graphite, limestone, Jharkhand is also known for its vast forest resources. |
| | Core X – Human and Population geography | Human geography is a wide-ranging discipline that draws together many of the stands important for understanding the world today, 21-example- Human societies and how they develop their culture, economic and politics. |
| Semester-V | Core XI – Geography of rural settlements | The study of rural settlement patterns and their historical evolution in one of the oldest areas of geographical research and rural areas. |
| | Core XII – Cultural and Tribal geography | India is a unity of diversity of culture that is most important features of Indians society. Tribal culture is one of them which show the unique identity of the tribal population. |
| Semester-VI | Core XIII – Regional planning | Opportunity for students where the need to internationalize planning of an innovative territory education experience of teaching regional planning. |
| | Core XIV – Regional geography of Southern continent | Regional are a highly contested yet critical concept in the study of human geography and can be studied as southern continent. |

Department Of Political Science

Program Outcome

Political Science and Society: understanding the inter relationship between policy decisions and its effects on society. This is achieved through a comprehensive teaching of the practice of public administration in India.

Critical thinking: the ability to analyze and predict socio political phenomena based on the study of existing socio economic determinants and past experiences. This goal is achieved by training students in the different methods and tools of investigation such as empirical research methods, survey research and data analysis of subject responses.

Effective citizenship: the course curriculum inculcates among students a basic understanding of the rights and duties of citizenship and thereby to act as responsible citizens through the observation of important days such as Independence Day, Republic Day and also spreading awareness in society through street plays based on specific socio political issues such as domestic violence, disillusioned youth of the materialistic world etc.

Program Specific Outcome

Understanding the nature and developments in national and international politics
 Analyzing the Indian constitutional provisions, major legislations and reforms.
 Critical evaluation of social, economic and political variables for a proper understanding of the plurality of Indian society
 Developing knowledge of administrative studies with special reference to Indian administrative structures and practices.
 Examining India's foreign relations with her neighbors and great powers.
 Use of case study method for analyzing the working of important international and regional organizations like UN, EU, ASEAN etc

Course Outcome

| Semester | Syllabus (Paper Wise) | Outcomes |
|---------------------|---|--|
| Semester-I | AN INTRODUCTION TO POLITICAL THEORY | This course aims to introduce certain key concepts in traditional political theory with an intention to engage the students with the application of these ideas. |
| | THEMES IN CONTEMPORARY POLITICAL THEORY-I | This course aims to acquaint students with the Indian and Western traditions of political theorisations through some select themes in order to appreciate the value and distinctiveness of comparative political theory/thought. |
| Semester-II | CONTEMPORARY POLITICAL THEORY | This course aims to introduce certain contemporary concepts of political theory with an intention to engage the students with the application of these ideas and also with the skills to debate these ideas. |
| | THEMES IN CONTEMPORARY INDIA POLITICAL THEORY-I | This course aims to acquaint students with the Indian and Western traditions of political theorisations through some select themes in order to appreciate the value and distinctiveness of comparative political theory/thought. |
| Semester-III | INDIAN GOVERNMENT AND POLITICS | This paper aims to acquaint the students with the structural and functional constructs of the Indian constitution and its polity. |
| | COMPARATIVE POLITICAL ANALYSIS (US,UK, China & Switzerland) | This paper aims to comparatively analyse the political functioning of different states and democracies in order to comprehend the holistic notion of Government and Governance. |
| | POLITICAL SOCIOLOGY | This course aims to acquaint the students with the divergent socio-political institutions and their functional interface with the political structures. |

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| Semester-IV | DEMOCRACY AND GOVERNANCE IN INDIA | This paper tries to explain the institutional aspects of democracy and how certain institutions function within a constitutional and democratic framework. |
| | FOREIGN POLICY OF MAJOR POWERS | This paper intends to comprehend the major issues of the foreign policies of major powers of the world in the post cold war era. |
| | INDIA's FOREIGN POLICY | This paper intends to comprehend the fundamentals of the foreign policy of India and their functional usage. |
| Semester-V | INTERNATIONAL POLITICS | This course is designed to give students a sense of important theoretical approaches to understand international relations and its possible future trajectory. |
| | PUBLIC POLICY: CONCEPTS & THEORIES | This course is designed to give students a sense of understanding of the theoretical formulations of public policies and governance. |
| Semester-VI | INTERNATIONAL LAW | The purpose of the course is to acquaint the students with the key notions of international arrangements/ formulations that bind the world to an organic entity. |
| | MODERN POLITICAL IDEOLOGIES | The purpose of the course is to acquaint the students with the principal ideological formulations that govern that divergent set of governance worldwide. |

Department of Sociology

Programme Outcome

Sociology seeks to understand all aspects of human social behavior, including the behaviour of individuals as well as the social dynamics of small groups, large organizations, communities, institutions, and entire societies. Sociologists are typically motivated both by the desire to better understand the principles of social life and by the conviction that understanding these principles may aid in the formulation of enlightened and effective social policy.

Programme Specific Outcome

- **Critical Thinking:** The programme seeks to develop in students the sociological knowledge and skills that will enable them to think critically and imaginatively about society and social issues.
- **Better understanding of real life situation:** The ability to apply sociological concepts and theories to the real world and ultimately their everyday lives.
- **Communication skills and Social interaction power:** Students of Sociology stream have to work beyond the class room boundary at the time of field study activities. As a result good communication skill develops while interacting with local people.
- **Ethical and Social Responsibility:** Students have to learn about institutions, folkways , mores, culture, social control ,social inequality, population composition, population

policy, society and culture of India. All these help to instil among the students of Sociology a sense of ethical and social responsibility.

- Professional and Career Opportunities: Students will have the opportunity to join professional careers in Sociology and allied fields. Sociology provides an intellectual background for students considering careers in business, social services, public policy, government service, nongovernmental organizations, foundations, or academia. This programme lays foundation for further study in Sociology, Social work, Rural Development, Social Welfare and in other allied subjects.

Course Outcome

| Semester | Syllabus(Paper Wise) | Outcome |
|---------------------|--|--|
| Semester-I | C-1-Introduction to sociology | Student will be able to explain social facts and society related concepts. Student will be able to define and explain sociological concepts. Student will be able to define and exemplify social fact. Student will be able to express empirical observations with sociological concepts. |
| | C-2- Society In India | Know about societal hierarchy, cast groups family and religions. |
| Semester-II | C-3- Social Research Methods | Explain key research concepts and issues Read, comprehend, and explain research articles in their academic discipline. |
| | C-4 Indian Society Issues and Problems | Illustrate what is social about social science Demonstrate how certain social constructions become dominant Distinguish how labelling something can create expectations about behaviour and actions Give examples of inequalities that result from particular social constructions. |
| Semester-III | C-5-Fundamentals of Social Thought | Identify and apply sociological concepts and theories to understand social phenomena. Employ the sociological imagination and use evidence-based social theories to analyze social problems in context, and to generate and evaluate solutions. |
| | C-6-Gender and Society | Define and utilize key concepts, terminology, and theoretical frameworks central to the interdisciplinary field of Gender Studies Demonstrate an openness to learning about people, cultures, and societies different from themselves and their own worlds. Apply central concepts and theories from Gender Studies to their own life experiences and the world around them. |
| | C-7-Sociology of Mass Media and Poplar Culture | Analyze and discuss important theoretical perspectives associated with media studies and critical theory. Discuss the significance of cultural production through the mass media. Understand and identify consumerism and capitalistic ideology in the mass media. |
| Semester-IV | C-8-Crime and Society | After studying this course, you should be able to: give a definition of crime (in terms of society). State the steps and factors that lead from a crime to conviction. |

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| | C-9-Sociology of Tribal Society | <p>The course aims to draw attention mainly to the problems, policies and programmes taken for the upliftment of the tribal society.</p> <p>Introduce them with the geographical distribution, economy, polity, social organization of tribal life of India.</p> <p>Know the problems faced by the tribes and policies and programmes taken by the Govt. for the upliftment of tribes.</p> |
| | C-10-Indian Rural Social Structure | <p>The student can have a grip on the grass roots of Indian society. This will enable the student to understand the society in a better manner, to note the heterogeneities in culture, institutions and their functions, changes, the contrasts found between the rural urban societies and the problems faced by the people.</p> |
| Semester-V | C-11-Urban Social Structure | <p>By going through this paper, the students can get an insight into the basic features of an urban area, the way cities grow, the major problem that encounter urban population and the various urban development programmes designed by the Government of India, their implementations, achievements and limitations.</p> |
| | C-12-Demographic Dimensions Health | <p>Studying the course students will gather knowledge on Key concepts of Social Demography, Demographic factors of social change; Theories of population, Factors affecting mortality and fertility. Population policy in India.</p> <p>Students are expected to know the concept of health from different perspectives. They can also learn about the contemporary trend of Sociology of Health in India. By knowing various health policies and programs in India student can expand the information base and disseminate the same to others.</p> |
| Semester-VI | C-13-Industrial Sociology | <p>Students are expected to know the Definition of industry, meaning, pre-industrial, industrial society and its system. Work in modern society. Meaning and trends of Industrial disputes in India. Labour welfare.</p> |
| | C14-Working Class and Industrial Development | <p>Working class leads to industrial development and economic growth.</p> |

Department of Philosophy

Program Outcome

Study of Philosophy as a subject is committed to strengthening its commitment to student's success and broadening the dimension of thought process of the students. The under graduation course of Philosophy is designed to enable the students to demonstrate an ability to think independently about a problem related to society and self and clearly articulate and support their own views.

Students completing B.A. in philosophy will be able to explain how a particular thinker can attempt to address a philosophical problem and the significance of thinker's approach. Student will be capable of critical analysis of Philosophical argument concerning a particular topic or problem. Student completing under graduation with Philosophy are expected to achieve learning outcome grouped into following areas.

Program Specific Outcome

After completing graduation in Philosophy a student can develop reasoning power to understand something systematically or methodically.

- A student can improve his/her critical thinking skill.
- A student can develop his/her communication skill charity relevance in written and oral presentations.
- Ability to act morally or ethically
- Awareness of one's own thinking and use of language.
- A student can know that Philosophy is a good way to know certain things about logic, epistemology, metaphysics, ethics, and more other various issues as social political environmental and professional ethics and also about laws of nature. Casual relations and things that exist in the world.

Course Outcomes

| Semester | Syllabus Paper wise | Outcome |
|---------------------|--------------------------------------|---|
| Semester-I | Paper I Indian Philosophy | Indian philosophy and western philosophy this particular paper upgrades the dimension of thought process of the students on the issue like what is proper knowledge and how one can get this (mainly Epistemology studies) on the other hand metaphysics explains about the existence of God, Soul(mind) and world. |
| | Paper II Western Philosophy | |
| Semester-II | Paper III Indian Philosophy | Indian philosophy and western philosophy, this particular paper upgrades the dimension of thought process of the students on the issues like what is proper knowledge and how one can get this (mainly Epistemological studies) on the other hand metaphysics explain about the existence of God, Soul(Mind) and the World. The Outcome of the course is to understand the basic of Indian ethics which includes Hindu, Jain and Buddhist Ethics. |
| | Paper IV Western Philosophy | |
| Semester-III | Paper V Ethics(Indian) | Ethics: Value and evaluation knowledge of ethical theory. Knowledge of ways in which ethical theory it is applied to specific discipline and issues like business environment , science medicine , technology , feminism and gender issues and issues related to what ought to do what ought not to do. This paper enhances the concept right wrong good and bad, understanding moral principles and their application in everyday life. Logic: Studies of logic improve the analytical skill and knowledge of the formal techniques of evaluating arguments and deductive system. This paper enhances the ability to critical thinking skills. Symbolic Logic: Explain and apply basic notions of symbolic logic define proposition and argument, explain propositional connectives, explain and exemplify truth value status of proposition, analyze natural language arguments by means of symbolic propositional logic: Express natural language sentences in symbolic language by means of |
| | Paper VI Logic (Indian & Western) | |
| | Paper VII Symbolic Logic | |

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| | | symbolization key construct combined truth table of propositions. Identify equivalent propositions, identify status of a proposition, and identify status of an argument |
| Semester-IV | Paper VIII Ethics(Western) | <p>Ethics: Comprehend philosophical writings dealing with morality. Paraphrase illustrates and explains ideas contained in philosophical writings dealing with morality. Critique and challenge philosophical ideas dealing with morality.</p> <p>Social and Political Philosophy:</p> <p>This paper enhances the knowledge of socio political movements about the nation, of freedom, duty and rights the types of punishment. Basically this paper educates the students about how to apply the ethics norms in the society and its effects on the society.</p> |
| | Paper IX Social Philosophy | |
| | Paper X Political Philosophy | |
| Semester-V | Paper XI Philosophy of Religion I | <p>It explains about the nature of God, Proofs for the existence of God, about the problems of evil. What is the highest aim of human life? This paper provides the religious ground for social harmony.</p> <p>It develops a sense of the value and a reflective attitude and sensitivity to the subtleties and complexities of Philosophical judgement and a life long commitment to learning.</p> |
| | Paper XII Philosophy of Religion II | |
| | DSE 1 Applied Ethics Or Feminism | |
| | DSE 2 Yoga Philosophy Or Philosophy of science and spiritually | |
| Semester-VI | Paper XIII Epistemology (Indian) | <p>The course tries to formulate, clarify and answer the most general questions about knowledge for example, what is knowledge? After completing the course the students should be able to evaluate the central theories and problems within epistemology and see the relevance of these in other contexts.</p> <p>Understand and to be able to discuss major philosophical problems in the western tradition.</p> <p>Asses arguments and philosophical Perspective using critical reasoning</p> <p>Express complex thoughts logically and coherently</p> <p>Utilize basic tools of philosophic enquiry and argument.</p> |
| | Paper XIV Epistemology (Western) | |
| | DSE 3 Metaphysics Or Contemporary Indian Philosophy | |
| | DSE 4 Metaphysics (Western) Or Contemporary Western Philosophy | |

Department of Economics

Program Outcome

Economics Subject enables the learners to build up a professional carrier as economics, financial advisors, economics planners and policy makers. It prepares then to cope up with the stress and strain involved in the process of economics development. Department supports the education and training of students, teachers and research in economics.

Program Specific Outcomes

Through organizing guest lectures, workshops, seminars, industrial visit and extension activities it enables students to learn economics, particularly its applications and foster the development of their own skills in economics reasoning and understanding.

Course Outcomes

| Semester | Syllabus Paper wise | Outcome |
|---------------------|--|--|
| Semester-I | Microeconomics-I | Students will be able to apply supply and demand analysis to examine the impact of government regulation and it also enable then to explain determinants of demand, responses of market and the benefits of exchange. |
| | Money and Banking | It attempts to impact an understanding of monetary economics. It describes carefully the basics of monetary economics like money. Value of money, theories of money, banking and international financial institutions. |
| Semester-II | Macroeconomics-I | It provides knowledge regarding the formulation of broad economic policies that maximize the level of national income, providing economics growth to achieve sustainability, full employment, price, stability, external balance, increasing productivity in the long run. |
| | Indian Economy | It makes learners to understand the economic functioning and conditions of our country in the context of past, present and future. |
| Semester-III | Statistical Method in Economics | Statistical methods for economics will help the students understand the issues regarding data collection, Data analysing. |
| | Macroeconomics-II | It provides knowledge regarding the formulation of broad economic policies that maximize the level of national income, providing economics growth to achieve sustainability, full employment, price, stability, external balance, increasing productivity in the long run. |
| Semester-IV | International trade and public finance | Enable the students the patterns and nature of international trade and their contribution to economic development. It also enables learners to know the role of public authorities in raising revenue and its pending. |
| | Economics of development | It makes the students to understand the aspect of development process in low income counties. Its focus is on improving the potential for the mass of population through health and education. |
| Semester-V | Economics thought | Gives idea to the students about the systematic development of economic theories beginning from pre modern and modern era. |
| | Agricultural Economics | Students will develop a critical understanding on the development of agricultural sector in India and on issues like food security and climate change. |
| Semester-VI | Environmental Economics | As environmental problems are the burning issues of present day, the study of environmental economics helps them to know the method of controlling environment pollution and thereby to achieve sustainable development. |
| | Demography | The study of demography is very importance to an economy. Population studies help us to know about |

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| | growth rate of an economy with the growth rate of population. |
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Department of Psychology

Program Outcome

The vision of good psychology is to empower communities with knowledge of mind body relationship to eliminate unnecessary illnesses and improve quality of life

The department of psychology focuses on student's growth so that they can understand basic concepts of psychology and also use this concept for their betterment.

Program Specific Outcomes

Develop on interdisciplinary understanding on the workings of human mind and behaviour and use this understanding to advance psychological theory research and applications.

Consume and provide input for psychological literature by demonstrating proficiency in research design, methods and statistical analysis, computing skills and ethical standards; and develop a habit of expressing these with advanced oral and written skills; share in national and international platform.

Course Outcomes

| Semester | Syllabus Paper wise | Outcome |
|---------------------|---|---|
| Semester-I | Foundation of psychology | This course provides an introduction to foundational concepts and topics within contemporary psychology. |
| | Statistical method for psychological research | To create critical understanding at quantitative techniques. To understanding the nature of the data distribution. Having a dual focus, theoretical and methodological, the course will enable the candidates to become more sensitized to the social and political layering of our complex and nuanced subjectivities. |
| Semester-II | Bio Psychology | To provide knowledge and understanding of brain, mind and behaviour relationship with the telpot current developments in the field of bio psychology scientific theories, clinical and real life example. |
| | Educational Psychology | To enable the students teachers to understand the concept and principles of growth and development. |
| Semester-III | Research Psychology | To inform students about the basics of scientific research in applied psychology. To make them learn the statistical rigors in designing research and processing data. |
| | Health Psychology | To understand causes of pathological behaviour and its psycho diagnostic and classification of mental disorders. |
| | Applied Social Psychology | To help students understand social problems and gain knowledge about intervention strategies. To learn how social psychology is used in applied setting to understand and ameliorate social problems. |
| Semester-IV | Emergence and growth Psychology | Explain how Psychology changed from a philosophical to a scientific discipline. List some of the most |

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| | | important questions than concern psychologist. |
| | Statics | Students will be able to organize, manage and present data. Analyze statistical data graphically using frequency distributions and cumulative frequency distributions. |
| | Social Psychology | To familiarize students with some of the major theoretical perspectives in social psychology. To appreciate interpersonal and group level psychological process in the cultural context. |
| Semester-V | Organization Psychology | To enable students to examine relevant concepts of organizational behaviour and help them evolve a framework of OB. To help then think critically about OB concepts and its applications for Indian realities. |
| | Abnormal Psychology | Explain major psychological concepts and theoretical perspectives about the field of abnormal psychology and major psychological problems and disorders. Discuss the empirically based integrated view of the research in the area of abnormal behaviour. |
| | Educational Psychology | To develop on understanding of educational psychology western and Indian context. To enable the student teachers to understand the concepts and principles of growth and development. |
| | Emotional Intelligence | Be able to relate more effectively to their colleagues and to others. Knew how to communicate in emotionally intelligent way. Understand how to demonstrate empathy in a wide range of situations. |
| Semester-VI | Clinical Psychology | This course will imparts knowledge on individuals relation to society, the processes involved there in and manner of research dare students will expand knowledge about social psychology and human behaviour. |
| | Counselling Psychology | To introduce the basic concepts of applied psychophysiology and bio feedback. So that the students can apply these technique in health care. To identify different parameters of psychological assessment. |

Department of English

Program Outcome

- To understand and learn English Language and Literature at its core for the knowledge.
- To equip students with English knowledge as to seek jobs in public services.
- To make students aware about social, moral and ethical values through learning humanities.
- To enhance and develop students' ability to grasp, understand and utilize the knowledge of arts and humanity into research.
- To equip students of humanities for the opportunities in higher education.
- To propagate and inculcate culture and world social heritage amongst students.

Program Specific Outcome

Language and Literature courses in the Department of English offer students the opportunity to study influential writings from the British, American and Global Anglophone traditions. Courses provide imaginative and critical insights into all areas of human experience – war and peace, nature and culture, love and sexuality, selfhood and social identity, justice and atrocity, the sacred and the profane, the burdens of the history and dreams of the future. They help students to build skills of analytical and interpretive argument. The help to become careful and critical readers, practice curretting in a variety of genres as a process of intellectual enquiry and creative expressions and ultimately to become more effective thinkers and communicators as well as equipped for a variety of careers in our information-intensive society. The important goals are following:

- Equip students with knowledge of English as a World Language.
- Equip Students with analytical skills in linguistics, communications and literary criticism.
- Train students for careers and advanced studies in a wide range of English, Public Relations or Communications fields.
- To develop faculty of skill in students.
- Increasing in-depth knowledge of the core areas of the subject.
- Developing a sense of experience amongst students.
- To nurture the nation of Value Education in the course.
- To transfer skills/attitude.

Course Outcomes

| Semester | Syllabus Paper wise | Outcome |
|--------------|--|--|
| Semester I | Paper I History of English Language | To develop an understanding of English Language and English Literature. |
| | Paper II History of English Literature | |
| Semester II | Paper III Early Modern Literature | The students would gain an understanding of Early Modern Literature, Restoration and Angustan Literature |
| | Paper IV Restoration an Angustan Literature | |
| Semester III | Paper V Early Romantics | The students would gain an understanding of Early romantics, romantic poetry and Victorian poetry. |
| | Paper VI Romantic Poetry | |
| | Paper VII Victorian Poetry | |
| Semester IV | Paper VIII 19 th Century Novel | Through the prescribed Novels and Poetry the students would get a glimpse of the social problems prevalent in the 19 th and 20 th Century England. |
| | Paper IX 20 th Century Poetry | |
| | Paper X 20 th Century Novel | |

| | | |
|-------------|--|---|
| Semester V | Paper XI 20 th Century Drama | Students are introduced to the deeper understanding of Literary criticism and English Drama. They are also introduced Linguistics and communication skills. |
| | Paper XII History of Literary Criticism | |
| | DSE I The study of English Drama | |
| | DSE II The study of English Drama | |
| Semester VI | Paper XIII American Literature | Students are introduced to the deeper understanding of American Literature, Indian English Literature and some dramas. They are also introduced Linguistics and Communication skill. |
| | Paper XIV Indian English Literature | |
| | DSE III The Study of English Drama | |
| | DSE IV The Study of English Drama | |

Department of Urdu

Program Outcome

The B.A. graduates pursue B.Ed. course and opt teaching career in the schools. Also they can do P.G. students in their respective subjects studied in Urdu Graduate level. After their post graduation they may do M.Phil. Or PhD and take teaching as their career in higher education institutions.

Other career option: Journalism, Tourism, Judiciary (Law), Linguistics etc. They are eligible to appear for any competitive exams, conducted by UPSC, Indian Railway etc for entering into government services. They also pursue higher studies doing MBA, PGDC, Certificate Course of any discipline; students interested in Urdu language subject can do the job in the following areas:

- Professional Writing
- Research
- Editing
- Journalism
- Media
- School Teachers etc.

Program Specific Outcome

The students of First year and second year BA Urdu will be able to gain the knowledge of Idioms of language an art of essay writing including the life and works of prose and poetry writing. They also know about the different genres of Urdu language and literature.

The language grammar and very importantly Mabadiyat-e-Arooz and Usool-E-Taqtee. The history and evolution of letter writing in Urdu know about the unique style of very famous Urdu poet. Mirza Asadullah figure Sr, Sayed Ahmad Khan, the founder of AMU Aligarh.

There are famous literary genres i.e. Urdu Ghazal along with its history and development. The Urdu travelogue its beginning and gradual development and about the famous writer Mujtaba Hussain.

The history and Gradual development of Urdu nazm selected Nazms of Akhtarul Iman and Khalilur Rahman Azmi.

Course Outcomes

| Semester | Syllabus Paper wise |
|--------------|--|
| Semester I | Core I Basic Urdu Grammar and composition |
| | Core II Urdu Literature |
| Semester II | Core III Classical Poetry |
| | Core IV Classical Prose |
| Semester III | Core V Asnaf-e-Adab Urdu |
| | Core VI Urdu Shairi |
| | Core VII Urdu Prose |
| Semester IV | Core VIII Introduction of some important Urdu books |
| | Core IX Modern Urdu Poetry |
| | Core X Modern Urdu Fiction |
| Semester V | Core XI Lesaniyat |
| | Core XII Arooz-o-Balaghat |
| Semester VI | Core XIII Persian Language and Literature |
| | Core XIV History of Islam |

Department of Bengali

Program Outcome

Through this Curriculum Students learn to translate from English to Bengali and contrarily from Bengali to English moreover they acquire skill in proof Reading .Formal letter writing, reporting or various affairs etc. Exercise of all these methods will help students in getting jobs as translator professional proof reader or reporter in news agencies and thus the course of study is building proficiency required for getting employed in different field. They also be a teacher and teach all the students also.

Programme Specific Outcomes

- Knowledge and understanding of basic Bengali Literature.
- Knowledge and understanding of Bengali Grammar and Linguistics
- Knowledge and understanding of essential Bengali vocabulary.
- Knowledge and understanding History of Bengali Literature
- Knowledge and understanding basic idea of Poetry, Short Story, Essay, Drama & Novel

Course Outcome

| Semester | Syllabus(Paper Wise) | Outcome |
|---------------------|--|---|
| Semester-I | C-1-History of Bengali Language (ancient and medieval Age) | <ul style="list-style-type: none"> This course provides knowledge and understanding of basic Bengali literature. To make students interested in Bengali society and culture. Literature and history of Bengali people is clearly known by the study of History of Bengali literature. In sonar Tori Kavya make feelings for nature and man of the earth. The Drama Visarjan is cleared humanity is the best all of religion. |
| | C-2- (a)Sonar Tari (Kabya) (b)Visarjan (Drama) | |
| Semester-II | C-3- History of Bengali Language (Modern Age) | <ul style="list-style-type: none"> To create a sense of History and Historical analysis about literature among the students. To make students aware about basic textual nuance of modern Bengali literature. To give basic idea about the Vaishnava Padavali on mediaval period to the student and to make students aware about Vaishnava Padavali. |
| | C-4Vaisnab Padaboli | |
| Semester-III | C-5-Linguistic (Origin of Bengali Language) | <ul style="list-style-type: none"> Student will be familiar with the aspect of the Bengali language including sounds, words, sentences and meaning. To prepare students about the ornamental use of language in constructing sentence while speaking and writing. Introducing the foundation of prosody, along with the basic knowledge of linguistics. And it make student aware about Indian idea of Rhetoric and prosody. In Bengali poem the students feel the concert and ideal idea of the pact. |
| | C-6-Rhetoric and prosody (Chhanda and Alankar) | |
| | C-7-Bengla Kabya (Raleindra Paraborti Banta Kabya) Sanchita,Kabyasan Chayan, BanalataSen | |
| Semester-IV | C-8- Linguistic(Vasatatwa) | <ul style="list-style-type: none"> Study of origin of Bengali language is the most important. Student will understand and Bengali language in an historical context and they will learn how Bengali language origin from indo European on Aryan Family of languages and changed over time and hoe it varies from situation to situation and place to place. To make students interested in Bengali society, culture, literature and History of the Bengali people. To create a sense of history and historical analysis about literature among the students. By these Drama students is clearly understanding what is the real truth in this earth. |
| | C-9-Medievel Age Sahitya(Madhya yuger Sahitya) (a)Chaitanya Bhagabot (Adi Khanda) (b)Chandimangal Kabya (Kalkata Upayakha yan) | |
| | C-10-Bangla Natak (Bengali Drama) (a)Krishna Kumari (b)Chandra Gupta (c)Rajpuri (d)Jana | |
| Semester-V | C-11 (a)Kamala Kanter Daptar (b)Sankalan (c)Bartaman Varta | <ol style="list-style-type: none"> The student feel deep farce and pun. The student earns real knowledge of these essay. In the novels the student give real awareness |

| | | |
|--------------------|---|---|
| | C-12-Bangla Upanyas(Bengali Novel (a)Ananda Nath (b)Bisbriksha (c)Ghare Baire (d)Griha Dahan | about character and incidents. d. In these drama the student gain their knowledge of universal. |
| Semester-VI | C-13-(a)Galpaguchchha (First Part) (b)Jalsaghar (c)Slnrestha Galpo of Bibhuti Blrushan Bandyapadhaya | a. The student enlighten variously by the very sort of story some famous short story writer. b. In these two poems the student learn about the idea of Upanishad and Ramayana. |
| | C-14-(a)Kabyajigansa (b)Sahitya | |

Department of Hindi

हिंदी की महत्ता (Program Outcome)

- (क) हिंदी भारत की राष्ट्रभाषा है।
(ख) यह सरल एवं सुबोध है।
(ग) हिंदी अधिकतम मनुष्यों के द्वारा बोली एवं समझी जाती है।

कार्यक्रम विशिष्ट परिणाम (Program Specific Outcome)

- "हिंदी विषय का महत्त्व "
(क) हिंदी एक रोचक विषय है।
(ख) इसकी कविता कहानिया आनंद प्रदान करने वाली होती है।
(ग) हिंदी साहित्य का इतिहास दिलचस्प एवं ज्ञानवर्धक है।
(घ) विषय ऐसी होनी चाहिए जिसमें रोचकता के साथ साथ ब्यौधिकता एवं नैतिकता का समावेश हो।
यह सारी विशेषताएँ हिंदी विषय में प्रचुर मात्रा में उपलब्ध है।

पाठ्यक्रम परिणाम (Course Outcome)

| Semester | Syllabus Paper wise | Outcome |
|----------------------|--|---|
| Semester- I | कोर I. आदिकाल नामकरण वीरगाथाकाल सिद्धसामन्तकाल अपभ्रंशकाल | हिंदी साहित्य के इतिहास के आदिकाल के अंतर्गत विभिन्न नामकरण को लेकर विद्यार्थियों में एक जिज्ञासु प्रवृत्ति का जन्म होता है। |
| | कोर II. भक्तिकाल, सगुणभक्ति, निर्गुणभक्ति, रामभक्ति, कृष्णभक्ति, ज्ञानभार्गीशाखा, प्रेमभार्गीशाखा | भक्तिकाल में विभिन्न धाराओं में बहीभक्ति के द्वारा नैतिक एवं बौद्धिक विकास का प्रादुर्भाव होता है। सगुण एवं निर्गुण भक्ति के द्वारा जहाँ धर्म की स्थापना होती है वही कर्म की प्रधानता भी दिखाई देती है। |
| Semester-II | कोर III. रीतिकाल श्रृंगारिकता में परिपूर्णकाल | इस तरह के रचनाओं के माध्यम से विद्यार्थी में जहाँ भगवान के प्रति लगाव होता है। वही संसार के प्रति भी अद्भुत प्रेम का संचार होता है। |
| | कोर IV. आधुनिककाल, भारतेन्दुयुग, द्विवेदीयुग | इस युग को साहित्य का समृद्धकाल एवं निर्माणकाल कहा जाता है। इस युग की रचना व्याकरण सम्मत है। |
| Semester- III | कोर V आधुनिककाल और | छायावाद के माध्यम से विद्यार्थी प्रकृति के साथ |

| | | |
|---------------------|---|---|
| | साहित्यछायावाद प्रगतिवाद | तदथयास्थापित करने में सक्षम होते हैं। |
| | कोर VI प्रयोगवाद नयी कविता | प्रयोगवाद नयी कविता से ब्योधिक बिकास होता है। |
| | कोर VII हिंदी उपन्यास | भगवतीचरण वर्मा एवं प्रेमचंद जैसे उपन्यासकार से साक्छात्कार बिधार्थियो के मनोबल को बढाता है। |
| Semester -IV | कोर VIII हिंदी कहानी ईदगाह, उसने कहा था, ताई, मधुआ, हल्दीघाटी। | भावनाप्रधान कहानी पढ़ने से नैतिक बिकास होता है। |
| | कोर IX हिंदी नाटक लेहरो के राजहंस, अंबपाली | ऐतहासिक नाटक के माध्यम से हम छात्रों में बौद्धिक विकास को बढाते हैं। |
| | कोर X हिंदी एकांकी नए मेहमान, सुखी डाली, सीमा रेखा एकांकी सप्तक | एकांकी कम खर्च और समय की बचत सिखाता है। |
| Semester-V | कोर XI हिंदी आलोचना | आलोचना अच्छी भी होती है और बुरी भी। इससे नैतिक और बौद्धिक विकास संभव है। |
| | कोर XII काव्यसास्त्ररस, दोहा, अनुप्रास, उपमा, अलंकार। | इससे व्याकरण की जानकारी बढ़ती है जिससे लेखन छमता में बृद्धि होती है। |
| | कोर XIII उपन्यास , परती कथा , आपका बंटी, ए लड़की | इससे समाज में फैली कुरीति को समाप्त करने की प्रेरणा मिलती है। |
| | कोर XIV नाटक, आसाढ़ का एक दिन, कोणार्क, रक्षाबंधन | |
| Semester -VI | कोर XV जनसंचार | जनसंचार, पत्रकारिता के माध्यम से एक दूसरे से जुड़ा होता है। |
| | कोर XVI पत्रकारिता | |
| | कोर XVII सूरदास | सूरदास की भक्तिमय रचनावात्सल्यरस से औतप्रोत , रचना पढ़कर दया और करुणा की संचार होता है। |
| | कोर XVIII राष्ट्रभाषा हिंदी | हिंदी हमारी राष्ट्रभाषा है। यह देवनागरी लिपि में लिखी गयी है। यह एक व्यैज्ञानिक भाषा है तथा सरल एवं सुबोध है। भाषा के प्रति लगाव और झुका होता है। |

Department of Sanskrit

Program Outcome

इस पाठ्यक्रम के पूरा होने पर छात्रों के पास निम्नलिखित अवसर और कौशल होंगे।
छात्र न केवल प्राचीन साहित्य और उनके वर्गीकरण बल्कि आधुनिक संस्कृत साहित्य भी जान सकेंगे।
छात्रों को प्राचीन भारतीय शैक्षिक प्रणाली और राजनीति, उनकी प्रकृति के बारे में सीखना होगा।
छात्रों को भारतीय एपिग्राफी, पेलोग्राफी के ऐतिहासिक महत्व के बारे में पता होगा।
वे इस भाषा की दुनिया भर में महत्व, प्रचार को जान सकेंगे।
छात्र भारतीय दर्शन, दर्शनशास्त्र, अर्थशास्त्र और उनके विचारों के बारे में ज्ञान लेंगे।

Program Specific Outcome

संस्कृत भाषा समूह की एक बहुत समृद्ध भाषा है। प्राचीन भारतीय के बारे में जानने के लिए संस्कृत एक माध्यम है इतिहास, संस्कृति, धर्म, सामाजिक जीवन अपने पाठ के माध्यम से जान सकते हैं।
प्राचीन भारतीय इतिहास, दर्शन और साहित्य की एक मजबूत अवधारणा विकसित करें।
छात्र देवनागरी लिपियों को लिखने में सक्षम होंगे जो उन्हें पुरातन ज्ञान प्रदान करते हैं।
वेद जैसे संस्कृत के साहित्य की बहु-अनुशासनात्मक प्रासंगिकता की उचित समझ, फिलिसोफी, व्याकरण, काव्य, स्मृतिशोध आदि।

स्नातक बनने के बाद छात्र UPSC, WBCS आदि के क्षेत्र में आवेदन कर सकते हैं और पोस्टग्रेजुएशन के बाद भी वे स्कूलों, कॉलेजों और अन्य शैक्षणिक संस्थानों में शिक्षण पदों के खिलाफ आवेदन कर सकते हैं।

Course Outcome

| Semester | Syllabus Paper wise | Outcome |
|----------------------|---|---|
| Semester- I | Core I | इसमें हिंदी से संस्कृत एवं संस्कृत से हिंदी में अनुवाद करने के लिए छोटे छोटे वाक्यों के माध्यम से ज्ञान दिया जाता है. |
| | Core II | इस पत्र में प्रत्याहार का ज्ञान एवं उसके निर्माण का विधिवत अध्ययन कराया जाता है साथ संज्ञा एवं संधि सूत्रों द्वारा बच्चे के बुद्धि को विकसित किया जाता है |
| Semester -II | Core III तर्कसंग्रह | तर्कसंग्रह द्वारा बच्चों का बौद्धिक विकास किया जाता है . |
| | Core IV दर्शन | इसमें सभी दर्शनों का सामान्य परिचय कराते हुए बच्चों का ज्ञान दिया जाता है . इस पत्र में वेदांत, योग, सांख्य, मीमांसा द्वारा बच्चों के बुद्धि का विकास किया जाता है . |
| Semester -III | Core V संस्कृत साहित्य का इतिहास | इस पत्र में रामायण , महाभारत , महाकाव्य, एवं गद्यकाव्य के द्वारा बच्चों का सांस्कृतिक एवं आध्यात्मिक ज्ञान दिया जाता है .इसमें वैदिक और लौकिक संस्कृत का ज्ञान बच्चों को दिया जाता है जिससे व्याकरणिक ज्ञान होता है . |
| | Core VI अभिज्ञानशकुन्तलम किरातार्जुनियम | इसमें सामाजिक मूल्यों का उन्नयन होता है . साथ ही समाज को इसे देखने से ज्ञान विकसित होती है . इस महाकाव्य के अध्ययन से नैतिक मूल्यों का विकास होता है . सामाजिक राजनितिक तथ्यों के द्वारा बुद्धि का विकास होता है |
| | Core VII यैयावल्क्यास्मृति उत्कीर्ण लेखपज्यकम | इसमें आधार सम्बन्धी विशेष रूप से दिया जाता है . इसके द्वारा बच्चे का बौद्धिक विकास किया जाता है . |
| Semester -IV | Core VIII शिवराजविजय | इसमें बच्चों को नाटकीय वातावरण का परिचय करते हुए उन्हें ज्ञान दिया जाता है . |
| | Core IX व्याकरण निबंध | इसके माध्यम से छात्रों का बौद्धिक विकास होता है . साथ ही संस्कृत पढ़ने और निबंध लिखने का ज्ञान होता है . इससे बच्चों का कला का विकास होता है . |
| | Core X संहिता | इसमें ऋग्वेद , यजुर्वेद, और अथर्ववेद के सभी देवताओं का परिचयात्मक ज्ञान दिया गया है जिससे बच्चे को वेद का ज्ञान होता है . |
| Semester- V | Core XI हरिश्चंद्रोपाख्यानम कठोपनिषद | इसमें स्तुति प्रार्थना द्वारा किस प्रकार छुटकारा मिलता है . यह ज्ञान बच्चों को कराया जाता है . इसमें आत्मा परमात्मा का संपर्क ज्ञान बच्चों को कराया जाता है. |
| | Core XII भाषा विज्ञान | इसमें सभी प्रकार के भाषाओं का ज्ञान दिया जाता है |
| Semester -VI | Core XIII मेघदूतम कुमारसंभवन | मेघदूतम गीतिकाव्य के द्वारा बच्चों को कल्पिक ज्ञान दिया जाता है ताकि वह अपनी कल्पना से भी कुछ रचना कर सके . इस महाकाव्य के द्वारा बच्चों को शिव पार्वती एवं अन्य पथ्यों का ज्ञान दिया जाता है . |
| | Core XIV कौटिलीय अर्थशास्त्र | इसमें बच्चों को अर्थशास्त्र से सम्बन्धित सभी प्रकार के ज्ञान दिया जाता है जिसमे बच्चों की सोचने की शक्ति बढ़ती है . |

Department of Santhali

Program Outcome

The B.A. graduates pursue B.Ed. course and opt teaching career in the schools. Also they can do P.G. students in their respective subjects studied in Santhali Graduate level. After their post graduation they may do M.Phil. Or PhD and take teaching as their career in higher education institutions.

Other career option: Journalism, Tourism, Judiciary (Law), Linguistics etc. They are eligible to appear for any competitive exams, conducted by UPSC, Indian Railway etc for entering into government services. They also pursue higher studies doing MBA, PGDC, Certificate Course of any discipline; students interested in Santhali language subject can do the job in the following areas:

- Professional Writing
- Research
- Editing
- Journalism
- Media
- School Teachers etc.

Program Specific Outcome

The students of First year and second year BA Santhali will be able to gain the knowledge of Idioms of language an art of essay writing including the life and works of prose and poetry writing. They also know about the different genres of Santhali regional language and literature.

Course Outcome

| Semester | Syllabus(Paper Wise) | Outcome |
|--------------|---|---|
| Semester-I | सांवहेत् रेयाक् नाहाक् जुग | <ul style="list-style-type: none">• पाहिल हाटिज – ओनाइह आर काहनी रेयाक् नागाम• दोसार हाटिज – गामाम आर नाटोक रेयाक् नागाम• तेसार हाटिज – ओनोल, गिदरा सावहेत् आर एमानतेयाक्को रेयाक् नागाम• पोनाक् हाटिज – खोबोर साकाम रेयाक् नागाम |
| Semester-II | C-3. होड़ाक् संतालाक्द्ध ओनोरोम C-4 होड़ सेरेज आर काहनीको | <ul style="list-style-type: none">• पाहिल हाटिज – धारती बनावेन रेयाक्, मानवा कायरे जुरेन रेयाक्, मानवा बाडेन रेयाक्, हाड़ाक् मित् ठायं खोन एटाक् ठायं चालाक् रेयाक्• दोसार हाटिज – छाटियार रेयाक्, काराम बिनती रेयाक्• तेसार हाटिज – बापला, गुजुक् आर भाण्डान रेयाड• पोनाक् हाटिज – सोमाज बेबोस्था, घाट आर साजाय, धोराम आ सेवा रेयाक |
| Semester-III | C-5 नाहाक् संताली ओनोइहेको C-6- साधारण पारसी आकिल सामान्य भाषा विज्ञान C-7- संतालकोवाक् बिनती | <ul style="list-style-type: none">• पाहिल हाटिज – आसाड़ बिनती – नारायण सोरेन 'ताड़े सुताम' पाड़हाक् हिंस– आसाड़ बिनती, लावेर सोपोरोत्, गो दुलाड़, नेन्डा दिन, जियोनेका जोस, अर्द्धनारीश्वर, आबाड़ रे मेनाक आ तृप्ति, जियोन दुराड़, शान्ति सोहाय, किरसानी जाइ, आसाड़ काबुल। |

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| | | <ul style="list-style-type: none"> • दोसार हाटिज – कोयाक् होर – बाबूलाल मुमू 'आदिवासी' पाङहाक् हिंस– कोयोक्होर, नेफाल्दाख, झारना, दाङ आकानका दिसा रे, आमाक् उयहार रे, चीना भारोत इकाकाम, नावा जुवान लाहाक् मे, तिरिया, ओक्ते, उद्गाउ। • तेसार हाटिज – बिडराव – बासुदेव बसेरा • पोनाक् हाटिज – गोसो बाहा– आदित्यमित्र 'संताली' |
| Semester-IV | C-8- नाहाक् संताली काहनीका | <ul style="list-style-type: none"> • पाहिल हाटिज – मायाजाल – सासापडावका – 'समीर', ठाकुर, 'पायकान', 'पनीर पीयो' पाङहाक् हिंस– मायाजाल, नावो मारसाल, दिबी साङर, सूनडी साल, गोचखा न जिवेता, बापुङ्किन, आभरान, हुसित् बागा, पोन्या कुकली। • दोसार हाटिज – दुलाङ चिन्हा– नुनलाल हेम्ब्रम 'ठाम्पाठाङाङ' • तेसार हाटिज – काहनी लाछा – तेज नारायण मुर्मू • पोनाक् हाटिज – गाथाव माला – सासापडाविच् – निर्मल बी. के. सोरेन |
| | C-9- संताली पारसी आकिल | |
| | C-10- संताली पारसी रेयाक् बोयहा पारसीको रेयाक् साधारोन ओनोरोम | |
| Semester-V | C-11 नाहाक् संताली गामामको | <ul style="list-style-type: none"> • पाहिल हाटिज – मुहिला चेचेत् दाई – नुनकु सोरेन • दोसार हाटिज – संताल परगना रेन होपोनएरा – दिव्येन्दु टुडू रासका • तेसार हाटिज – ओजोय गाडा • पोनाक् हाटिज – गिडी तुम्बा – पी. जी. साेरेन |
| | C-12- नाहाक् संताली नाटोक को/खिलोडको | |
| Semester-VI | C-13 नाहाक् संताली ओनोलका | <ul style="list-style-type: none"> • पाहिल हाटिज – संताली आनोल – बाबूलाल मुर्मू 'आदिवासी' पाङहाक् हिंस– मोंमोंड बोछोर पोन्था आर संताली आनोडहें, कुङचा बंगाङ, होङ होपोनाक् हुनार, माहात्मा गांधी दो मित्तेन उनुपेले ताहेकाना, सोहराय रेयाक् गाय जागाव आर चुमाउडा सेरेज, छोटानागपुर रेयाक् जेलजाङ जायगाको। • दोसार हाटिज – बाहा सोहराय – डॉ. सहदेव मराण्डी • तेसार हाटिज – संताल परगना रेन मायाम गाहा कोवाक् परिचय – डा. विश्वनाथ होंसदा • पोनाक् हाटिज – हुलगारिया साम परगना (1855 संताल हुल) – मसुदी टुडू 'सोना संताल' |

Faculty of Science

The Bachelor of Science requires three years of full time study consisting of six semesters. The college offers 5 honours courses in science subjects: Physics, Chemistry, Mathematics, Botany and Zoology. Apart from the specific honours and program

subjects, the skill enhancement courses (SEC), ability enhancement compulsory course (AECC), generic courses (GE and discipline specific elective (DSE) are included in the curriculum of the affiliating university. These courses introduce a wide range of topics to students, develops reasoning through unfamiliar problems through critical and analytical thinking and to find a systematic approach in analysis solving problems through teamwork with importance to safe laboratory practice.

Department of Mathematics

Programme Outcome:

- ❖ Scientific temper will be developed in Students.
- ❖ Students will become employable; they will be eligible for career opportunities in Industry, or will be able to opt for entrepreneurship.
- ❖ Students will possess basic subject knowledge required for higher studies, professional and applied courses like Management Studies, Law etc.
- ❖ Students will be aware of and able to develop solution oriented approach towards various Social and Environmental issues
- ❖ Programme Specific Outcome:
- ❖ A student should be able to recall basic facts about mathematics and should be able to display knowledge of conventions such as notations, terminology.
- ❖ A student should get adequate exposure to global and local concerns that explore them many aspects of mathematical sciences.
- ❖ Student is equipped with mathematical modelling ability, problem solving skills, creative talent and power of communication necessary for various kinds of employment.
- ❖ Student should be able to apply their skills and knowledge that is translate information presented verbally into mathematical form, select and use appropriate mathematical formulae or techniques in order to process the information and draw the relevant conclusion.
- ❖ Enabling students to develop a positive attitude towards mathematics as an interesting and valuable subject of study.

Course Outcome

| Semester | Syllabus(Paper Wise) | Outcome |
|-------------------|-------------------------------------|---|
| Semester-I | C-1-Set Theory and Abstract Algebra | Be able to draw and interpret Venn diagrams of set relations and operations and use Venn diagrams to solve problems. Recognize when set theory is applicable to real-life situations, solve real-life problems, and communicate real-life problems and solutions to others. Students will have a working knowledge of important mathematical concepts in abstract algebra such as definition of a group, order of a finite group and order of an element. ... Students will gain experience and confidence in proving theorems. |
| | C-2-Trigonometry and Linear Algebra | 1. Convert between decimal degrees, degree-minute-seconds, and radian measure of an angle. ... 2. Solve triangle (right, acute, obtuse), given various angles and sides. 3. Demonstrate knowledge of |

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| | | <p>several trigonometric identities and use them to verify other identities.</p> <p>4. Graph trigonometric functions.</p> <p>5. Analyze the solution set of a system of linear equations. Express some algebraic concepts (such as binary operation, group, and field). Do elementary matrix operations.</p> |
| Semester-II | C-3-Differential Calculus and Two Dimensional Geometry | <p>Knowledge of Riemannian manifolds and sub manifolds.</p> <p>Knowledge of operators on forms and integrations, Lie derivative, Stokes theorem, Gauss-Bonnet formula and Index theorem.</p> <p>Tackle problems on General Relativity, control of non-linear systems, shape analysis</p> |
| | C-4-Integral Calculus and Three Dimension Geometry | <p>Describe the definite integral and construct anti derivatives using the Fundamental Theorem of Calculus. Compute indefinite and definite integrals using by techniques of integration. ... Compute indefinite and definite integrals using by the method of substitution.</p> <p>1. To get basic knowledge about Circle, Cone, Parabola, Hyperbola, Ellipse etc.</p> <p>2. To understand the concepts & advance topics related to two & three dimensional geometry.</p> |
| Semester-III | C-5-Real Analysis | <p>Basic definition of metric space, norm linear space and inner product space.</p> <p>Series and sequence of continuous functions.</p> <p>Equicontinuous families, Arzela-Ascoli Theorem and Stone-Weierstrass Theorem.</p> <p>Function of several variables and differentiation in R^n.</p> <p>Inverse and Implicit function Theorem.</p> <p>Submanifolds of R^n and Rank Theorem.</p> |
| | C-6-Infinite Series | <p>After completing this section, you will inshaAllah be able to</p> <p>1. Know what is meant by infinite series & its convergence</p> <p>2. Learn methods for knowing convergence/ divergence of some basis series.</p> <p>3. Apply divergence test to determine divergence of an infinite series</p> |
| | C-7-Ordinary Differential Equation | <p>1. To learn methods to solve linear differential equation with constant coefficients.</p> <p>2. To learn methods for solving non-homogenous differential equation.</p> <p>3. To learn power series solution method using ordinary and singular points.</p> <p>4. To solve system of first order differential equations.</p> |
| Semester-IV | C-8-Vector Analysis | <p>Analyze vector functions to find derivatives, tangent lines, integrals, arc length, and curvature, ...</p> <p>Differentiate vector fields, Determine gradient vector fields and find potential functions, Evaluate line integrals directly and by the fundamental theorem</p> |
| | C-9-Partial Differential Equation | <p>On successful completion of this course students will be able to: use knowledge of partial differential equations, modelling, the general structure of solutions, and analytic and numerical methods for solutions. Formulate physical problems as partial differential equations using conservation laws.</p> |

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| | C-10- Statics and Dynamics | <p>At the end of this course, students should be able to:</p> <ol style="list-style-type: none"> 1. Identify, isolate and idealize the system of interest for the application/process 2. Identify the nature of the connections between bodies and create an idealized representation for it. 3. Convert the task from the real world into a symbolic representation. 4. Develop equilibrium relationships for non-accelerating particles acted on by forces. 5. Develop equilibrium relationships for non-accelerating two or three dimensional rigid bodies. <ol style="list-style-type: none"> a. Calculate the direct (resultant forces) and rotational (resultant moments) effects of external stimuli on a rigid body. 6. Identify the need for additional empirical laws such as Hooke's Law and Coulomb Friction to complete the system of equations. |
| Semester-V | C-11-Real Analysis | <p>Describe the fundamental properties of the real numbers that underpin the formal development of real analysis;</p> <ol style="list-style-type: none"> 1. Demonstrate an understanding of the theory of sequences and series, continuity, differentiation and integration |
| | C-12-Complex Analysis and Optimization | <p>After studying this course, Students should be able to: find a rational and an irrational number between any two distinct real numbers. solve inequalities by rearranging into simpler equivalent forms and solve inequalities involving modulus signs</p> <p>Learn optimization techniques and numerical methods of optimization. Know the basics of different evolutionary algorithms.</p> |
| Semester-VI | C-13-Abstract Algebra and Ring Theory | <p>Students will have a working knowledge of important mathematical concepts in abstract algebra such as definition of a group, order of a finite group and order of an element. ... Students will gain experience and confidence in proving theorems. Write precise and accurate mathematical definitions of objects in ring theory; Use mathematical definitions to identify and construct examples and to distinguish examples from non-examples; ... Write about ring theory in a coherent, grammatically correct and technically accurate manner</p> |
| | C-14-Vector Space and Numerical | <p>Explain the concepts of base and dimension of vector space.</p> <p>Explain the concept of dimension of a vector space. Express vector spaces in different dimensions.</p> <p>Explain base concept of a vector space and properties of vectors on the base.</p> <p>Derive numerical methods for various mathematical operations and tasks, such as interpolation, differentiation, integration, the solution of linear and nonlinear equations, and the solution of differential equations.</p> <p>Analyse and evaluate the accuracy of common numerical methods.</p> |

Department of Chemistry

Program Outcome

- Understanding of major concepts of chemistry.
- Ability to think methodically, logically and independently.
- Employ scientific knowledge to design, carry out, record and analyses chemical reactions.
- Create Awareness of the impact of chemistry in society the environment.
- Usage of modern techniques, equipment's etc.

Program Specific Outcome

- Ability to explain nomenclature, reactivity, & mechanism of chemical reactions.
- Identity chemical formulae & solve numerical equations.
- Have a firm foundation in the fundamentals & application of cement scientific theories in chemistry, including those in analytical, Inorganic, Organic & physical branches of chemistry.
- Practical and theoretical knowledge of chemistry to proceed to higher studies and various industries & departments.

Course Outcome

| Semester | Syllabus (Paper Wise) | Outcomes |
|--------------|------------------------|---|
| Semester-I | INORGANIC CHEMISTRY-I | Students learned about structure of atom. They know about element and its importance. |
| | PHYSICAL CHEMISTRY II | Students get information of the gaseous laws like Boyle law, Charles law, Avogadro's law, Ideal gas law etc. Students will study the difference between Ideal gas equation and Vander waal corrected gas equation. |
| Semester-II | ORGANIC CHEMISTRY I | Students are able to build different projection forms. They are able to assign conformation and configuration. |
| | PHYSICAL CHEMISTRY II | By interpreting the real gases, the student will be able to solve the problems. Describes the ideal and real gases. Uses the Van Der Waals gas equation. Uses the real gas and Van Der Waals isotherms. Explain the terms pH , f_{\pm} , p_{\pm} , f_{\pm}^* and use them in calculations Calculate $[H^+(aq)]$ and pH values for strong and weak acids and strong bases Explain the choice of suitable indicators for acid-base titrations, given appropriate data. |
| Semester-III | INORGANIC CHEMISTRY-II | To describe the Arrhenius model for acids and bases. To determine whether a given chemical substance is an Arrhenius acid or an Arrhenius base (or neither). To list one acid, and one base, whose behaviour is not consistent with the Arrhenius model for acids and bases. |
| | ORGANIC CHEMISTRY-II | Many organic compounds are closely related to the alkanes. As we noted previously, alkanes react with halogens to produce halogenated hydrocarbons, the simplest of which have a single halogen atom |

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| | | <p>substituted for a hydrogen atom of the alkane. Classify alcohol phenol and ether and also name them according to IUPAC nomenclature. Understand the various reactions involved in the preparation of alcohol phenol and ether.</p> |
| | PHYSICAL CHEMISTRY-III | <p>State the thermodynamic criterion for equilibrium in terms of chemical potential. Derive and interpret the Gibbs Phase Rule. Understand the concept of rate of change associated with chemical change, recognizing that the rate of change and how it can be measured. Determine rate law of chemical change based on experimental data.</p> |
| Semester-IV | INORGANIC CHEMISTRY-III | <p>On completion of this course, the students will be able to: By the end of the course, the students will be able to: Understand the terms, ligand, denticity of ligands, chelate, coordination number and use standard rules to name coordination compounds. Use Valence Bond Theory to predict the structure and magnetic behaviour of metal complexes and understand the terms inner and outer orbital complexes. Discuss the various types of isomerism possible in such compounds and understand the types of isomerism possible in a metal complex.</p> |
| | ORGANIC CHEMISTRY-III | <p>On completion of this course, the students will be able to: Able to write electronic configuration of given atomic number. Predict the carbon skeleton of amines and heterocyclic compounds via use of Hoffmann's exhaustive methylation and Emde's modification methods. Understand the applications of these compounds including their medicinal applications through their reaction chemistry. Able to tell the name of orbitals by recognizing shapes of orbitals.</p> |
| | PHYSICAL CHEMISTRY-IV | <p>On completion of this course, the students will be able to: By the end of this course, students will be able to: Explain the variation of conductance with dilution for weak and strong electrolytes using Arrhenius theory and Debye Huckel Onsager theory. Determine transference number using Hittorf and Moving Boundary methods. Learn the applications of conductance measurements.</p> |
| Semester-V | ORGANIC CHEMISTRY-IV | <p>On completion of this course, the students will be able to: Develop a sound understanding of the structure of Pharmaceutical Compounds and understand the importance of different classes of drugs and their applications for treatment of various diseases. Learn the synthesis, properties and reactions of nucleic acids, amino acids and peptides.</p> |

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| | | Gain insight into concepts of heredity through the study of genetic code, replication, transcription and translation. Demonstrate how structure of bio molecules determines their reactivity and biological functions. |
| | PHYSICAL CHEMISTRY V | On completion of this course, the students will be able to: By the end of this course, students will be able to: Learn about limitations of classical mechanics and solution in terms of quantum mechanics• for atomic/molecular systems. Develop an understanding of postulates of quantum mechanics, quantum mechanical operators, quantization, probability distribution, uncertainty principle. Solve quantum mechanically the various systems like a particle in a box, harmonic oscillator, rigid rotator and hydrogen atom. |
| Semester-VI | INORGANIC CHEMISTRY-IV | On completion of this course, the students will be able to: Gain insights into the basic principles of qualitative inorganic analysis. Apply 18-electron rule to account for the stability of metal carbonyls and related species. Understand the nature of Zeise's salt and compare its synergic effect with that of carbonyls. |
| | ORGANIC CHEMISTRY-IV | On completion of this course, the students will be able to: Learn about the chemistry of biodegradable and conducting polymers and assess the need of biodegradable polymers with emphasis on basic principles. Learn about basic principles of UV, IR and NMR spectroscopic techniques to interpret the• spectra to determine structure and stereochemistry of known and unknown compounds. Have better knowledge of the chemistry of natural and synthetic polymers including fabrics and rubbers. |

Department Of Physics

Program Outcome

Demonstrate a thorough conceptual understanding in the core areas of physics (classical mechanics, electrodynamics, and statistical mechanics) and the supporting mathematics, including the range of validity of key concepts (e.g. conservation laws).

Program Specific Outcome

- To understand the basic laws and explore the fundamental concepts of physics
- To understand the concepts and significance of the various physical phenomena.
- To carry out experiments to understand the laws and concepts of Physics.
- To apply the theories learnt and the skills acquired to solve real time problems.

To acquire a wide range of problem solving skills, both analytical and technical and to apply them. To enhance the student's academic abilities, personal qualities and transferable skills this will give them an opportunity to develop as responsible citizens. To produce graduates who excel in the competencies and values required for leadership to serve a rapidly evolving global community.

To motivate the students to pursue P.G. courses in reputed institutions.

This course introduces students to the methods of experimental physics.

Emphasis will be given on laboratory techniques specially the importance of accuracy of measurements. Providing a hands-on learning experience such as in measuring the basic concepts in properties of matter, heat, optics, electricity and electronics.

Course Outcome

| Semester | Syllabus Paper wise | Outcome |
|---------------------|--|---|
| Semester I | Paper I Mathematical Physics I | Students will demonstrate competence with the basic ideas of linear algebra including concepts of linear systems, independence, theory of matrices, linear transformations, bases and dimension, eigenvalues, eigenvectors and Diagonalization. |
| | Paper II Mechanics | Students will be able to articulate and describe: 1 Relative motion. Inertial and non inertial reference frames. 2 Parameters defining the motion of mechanical systems and their degrees of freedom. 3 Study of the interaction of forces between solids in mechanical systems. 4 Centre of mass and inertia tensor of mechanical systems. 5 Application of the vector theorems of mechanics and interpretation of their results. 6 Newton's laws of motion and conservation principles. 7 Introduction to analytical mechanics as a systematic tool for problem solving. 8 Use of mechanical simulation software. |
| Semester -II | Paper III Electricity and Magnetism | The candidate should among other things have knowledge about: - Fundamental laws and concepts in electricity and magnetism, especially with regard to Maxwells laws - Electrical circuits and the most common components in such: resistors, capacitors, and inductors - The properties of static electric and magnetic fields and how they arise - The properties of simple, time-dependent electric and magnetic fields and what kind of physical phenomena they generate - Electromagnetic waves and their properties - Important historical experiments in the field of electricity and magnetism |
| | Paper IV Optics | The student will get an introduction to the discipline of optics and its role in the modern society. The student shall master the geometrical approximation, including Guass thin lens formula, Fermat's and Huygen's principles, and the paraxial matrix formalism for refractive and reflective surfaces. The student will be able to analyze typical optical imaging systems, with emphasis on the human eye, the camera, the telescope and the microscope. |

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| Semester -III | Paper V Mathematical Physics II | Use the method of Laplace transforms to solve initial-value problems for linear differential equations with constant coefficients. |
| | Paper VI Physics of Thermodynamics | Describe basic concepts of Thermodynamics Restate definition of system, surrounding, closed and open system, extensive and intensive properties. Calculate absolute and gage pressure, and absolute temperature. Calculate changes in kinetic, potential, enthalpy and internal energy. Judge the properties of pure substances Judge the state of the pure substances such as compressed liquid, saturated liquid-vapor mixture and superheated vapor using property diagrams and tables Arrange the ideal and real gas equations of state. |
| | Paper VII Analog Systems and Applications | Illustrate working principle of different electronic circuit and their application in real life. Define semiconductor device and different operating condition and their performance parameter. Choose proper semiconductor devices depending upon application considering economic and technology up-gradation. Employ mathematical and graphical analysis considering different practical issues modelling of semiconductor device; analyze the performance parameter of the system. Recognize different signal processing circuit and the use in industrial, real life, modern control system application |
| Semester- IV | Paper VIII Mathematical Physics III | Solve a Cauchy problem for the wave or diffusion equations using the Fourier Transform. |
| | Paper IX Quantum Mechanism | On satisfying the requirements of this course, students will have the knowledge and skills to: Identify and understand the kinds of experimental results which are incompatible with classical physics and which required the development of a quantum theory of matter and light Interpret the wave function and apply operators to it to obtain information about a particle's physical properties such as position, momentum and energy 3. solve the Schrödinger equation to obtain wave functions for some basic, physically important types of potential in one dimension, and estimate the shape of the wave function based on the shape of the potential 4. understand the role of uncertainty in quantum physics, and use the commutation relations of operators to determine whether or not two physical properties can be simultaneously measured |
| | Paper X Digital Systems and Applications | Have a thorough understanding of the fundamental concepts and techniques used in digital electronic. To understand and examine the structure of various number systems and its applications in digital design. |
| Semester -V | Paper XI Atomic, Molecular Laser and Nuclear physics | Apply the mathematical tools developed to various quantum mechanics problems develop problem solving methods that will include mathematical as well as numerical computations and solutions. Build connections |

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| | | between mathematical development and conceptual understanding. |
| | Paper XII Solid State Physics | The student will understand the band formation in solids by using different models along with electron behaviour in solid. Also gain knowledge of magnetic properties of materials. The student will be able to understand and explain interaction of lattice in solids through different theories and temperature effect on solids. Students are able to elaborate electron in potential wells, degeneracy state, density of states, thermal and electrical conductivity of metals, and thermoelectric power. |
| Semester- VI | Paper XIII Electromagnetic Theory | Recognize and classify the basic Electrostatic theorems and laws and to derive them. Discuss the behaviour of Electric fields in matter and Polarization concepts. Classify the basic Magneto static theorems and laws and infer the magnetic properties of matter. Summarize the concepts of electrodynamics & to derive and discuss the Maxwell's equations. Students are expected to be familiar with Electromagnetic wave propagation and wave polarization. |
| | Paper XIV Statistical Mechanics | On completion of the course, the student should be able to: Give an account of the relevant quantities used to describe macroscopic systems, thermodynamic potentials and ensembles. Give an account of the macroscopic and microscopic description of temperature, entropy and free energy and their descriptions in terms of probabilities give an account of the theory of statistical mechanics and the approximations making a statistical description possible apply the theory to understand gases and crystals and in addition be able to construct microscopic models and from these derive thermodynamic observables. |

Department of Botany

Programme Outcomes

Apply the knowledge of biology to make scientific queries and enhance the comprehension potential.
Function as an individual, as a member or a leader to perform a task in class room situation or during field study.
Responsible for learning, develop honesty in work and respect for self and others.
Convey and practice social, environmental and biological ethics.
Insist the significance of conserving a clean environment for perpetuation and sustainable development.
Study incessantly by self to cope with growing competition for higher studies and employment.

Programme Specific Outcomes

Educate students about plant science.
Inculcate strong fundamentals on modern and classical aspects of Botany.
Create platform for higher studies in Botany.
Facilitate students to take-up successful career in Botany.

Course Outcome

| Semester | Syllabus (Paper Wise) | Outcomes |
|---------------------|--|--|
| Semester-I | Microbiology | <p>1.To inculcate knowledge in cell divisions, functions, microbial physiology and genetics of microbes</p> <p>2. To inculcate knowledge in relationship between human disease and micro organisms, pathogenicity, laboratory diagnosis and treatment methods.</p> <p>3.To inculcate knowledge in human immune response towards micro organisms</p> |
| | Algae and Fungi | <p>Students learn to identify various divisions of algae and compare their characteristics through microscopic observation.</p> <p>Student gain awareness about economic importance of algae in various field like medicine, agriculture, research and industries which helps them to also understand the practical application of the algal studies.</p> <p>Students get familiarised with identification of various divisions of algae through microscopic observation.</p> <p>Student gain awareness about its role in controlling various plant diseases and get acquainted about economic importance of algae in various field and its practical application in fields like medicine, agriculture, research and industries.</p> |
| Semester-II | Bryophytes and Pteridophytes | <p>Understand the morphological diversity of Bryophytes and Pteridophytes.</p> <p>Understand the economic importance of the Bryophytes and Pteridophytes.</p> <p>Know the evolution of Bryophytes and Pteridophytes.</p> |
| | Paleobotany & Gymnosperms | <p>Know the scope of Paleobotany, types of fossils, its role in global economy and geological time scale.</p> <p>Know about the structure, life history and Economic importance of Gymnosperms. Understand the various fossil genera representing different fossil groups.</p> |
| Semester-III | Morphology & Systematic of Angiosperms | <p>Understand the habit of the angiosperm plant body.</p> <p>Know the vegetative characteristics of the plant.</p> <p>Learn about the reproductive characteristics of the plant.</p> <p>Understand the plant morphology.</p> |
| | Histology & Anatomy | <p>Histology- The student will be able to identify the basic structure of cells, tissues and organs and describe their contribution to normal function. The student will be able to interpret light- and electron-microscopic histologic images and identify the tissue source and structures</p> <p>The students will learn about the basic concepts in anatomy</p> |
| | Plant Pathology | <p>Know importance and scope of plant physiology.</p> <p>To understand the plants and plant cells in relation to water.</p> <p>Understand the process of photosynthesis in higher plants with particular emphasis on light and dark</p> |

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| | | <p>reactions, C3 and C4 pathways.</p> <p>Understand the respiration in higher plants with particular emphasis on aerobic and anaerobic respiration.</p> <p>Learn about the movement of sap and absorption of water in plant body.</p> <p>Understand the plant movements.</p> |
| Semester-IV | Embryology & Economic Botany | <p>To identify and compare structural differences among different taxa of vascular plants. To know the structure and development of monocot and dicot embryos. To compare the function and morphology of pollen grains. Describe and illustrate modern and fossil spores and pollen grains.</p> <p>Economic botany- On Completion of this Course students will be able To understand the phylogeny of plants. To know about various plant diseases and their control measures. To understand life cycles of different algal species. To explore economic importance of algae& fungi.</p> |
| | Cell Biology | <p>This course presents the types and structural details of the basic unit by which all the living things are made of (the cell). Goals: To make the student to understand the concept of cell and their activities. This course presents the types and structural details of the basic unit by which all the living things are made of (the cell). Goals: To make the student to understand the concept of cell and their activities and molecular signalling.</p> |
| | Physiology & Metabolism | <p>This course deals with various processes of plants like photosynthesis (particular emphasis on light and dark reactions), respiration, translocation, and absorption and nitrogen metabolism. The students also get an insight into the various types of plant movements.</p> |
| Semester-V | Molecular Biology | <p>The students will understand the basic concepts of molecular biology</p> |
| | Genetics & Plant Breeding | <p>Understand the “Science of Heredity”. Realize the role of genes in evolution of species. To understand linkage, segregation and mutation of genes during evolution. Understand the science of plant breeding. To introduce the student with branch of plant breeding for the survival of human being from starvation. To study the techniques of production of new superior crop varieties.</p> |
| Semester-VI | Biochemistry & Biotechnology | <p>The students will understand the basic Concepts of genetic engineering and plant tissue culture and its application.</p> <p>Gain knowledge about the mechanism and essential component required for DNA replication.</p> <p>Understand the fundamentals of Recombinant DNA Technology. On completion of the course, students are able to:</p> <ol style="list-style-type: none"> 1. Understand the Biochemical nature of cell. 2. Know the chemical nature of biomolecules. 3. Understand the different types of interaction in Biomolecules |
| | Ecology & | <p>Understand the environmental botany.</p> |

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| | Environmental Biology | <p>Know the nature and its co-relation with human society.</p> <p>Realize the impact of human activities on environment.</p> <p>Understand global issues concerned with environment.</p> <p>Know the sustainable development and care of environment.</p> <p>Understand the connection between material wealth & resources exploitation.</p> <p>Worth the relationship between economic growth and environmental degradation.</p> |
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Department of Zoology

Program outcome:

Students gain knowledge and skill in the fundamentals of animal sciences, understands the complex interactions among various living organisms and analyse complex interactions among the various animals of different phyla, their distribution and their relationship with the environment

Apply the knowledge of internal structure of cell, its functions in control of various metabolic functions of organisms.

Understands the complex evolutionary processes and behaviour of animals

Correlates the physiological processes of animals and relationship of organ systems

Understanding of environmental conservation processes and its importance, pollution control and biodiversity and protection of endangered species

Gain knowledge of Agro based Small Scale industries like sericulture, fish farming.

Understands about various concepts of genetics and its importance in human health.

Develop sympathy and love towards the animals

Program specific outcome

Understand the nature and basic concepts of taxonomy, cell biology, genetics, physiology, ecology, Molecular Biology, Toxicology, and Biotechnology and applied Zoology

Analyse the relationships among animals, plants and microbes.

Perform procedures as per laboratory standards in the areas of Taxonomy, Physiology, Ecology, Evolution, Cell biology, Genetics, Applied Zoology, Toxicology, Biochemistry, , Animal biotechnology, Immunology and Animal Behaviour.

Understand the applications of biological sciences in Apiculture, Aquaculture, Agriculture and Sericulture.

Gains knowledge effective communication and skills of problem solving methods and contributes the knowledge for Nation building

Course Outcome:

| Semester | Syllabus(paper wise) | Outcome |
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| Semester-I | C1-Animal diversity(Non chordates)-1 | <p>The students will know about general taxonomic rules on animal classification Classify phylum using examples from parasitic adaptation</p> <p>Classify Phylum Protozoa, Porifera to Annelida with taxonomic keys.</p> <p>Describe Phylum Nematoda and give examples of pathogenic Nematodes</p> |

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| | <p>C2-A_Animal diversity(Non chordates)</p> <p>B-Animal behaviour</p> | <p>Classify Phylum from Mollusca to Hemichordata with taxonomic keys</p> <p>Understand Animal behaviour and response of animals to different instincts</p> <p>Understand Various kinds of Animal adaptations.</p> |
| Semester-II | C3-Animal Diversity (Chordates) | <p>Imparts conceptual knowledge of vertebrates, their adaptations and associations in relation to their environment.</p> <p>Classify phylum Protochordates to Mammalia</p> <p>Complex Vertebrate interactions.</p> |
| | <p>C2- A-Comparative Anatomy of vertebrates</p> <p>B-Ecology & Environmental Biology</p> | <p>Demonstrate an understanding of the characteristics of vertebrates and what makes both chordates and vertebrates unique among animals.</p> <p>Students who successfully complete this unit will be able to define the basic rules and concepts of the ecology science. Define the ecology of individual, population, community and ecosystem. define all biotic and abiotic factors that are related to individual, population, community and ecosystem and defines the relationships between them.</p> <p>Describe and debate various global and regional environmental concerns that affect various forms of life.</p> <p>Appreciate the impact of human activities on other life and the environment.</p> <p>Argue the significance of native biodiversity and need for its conservation.</p> |
| Semester-III | Biostatistics | <p>Outcome of biostatistics define the principal concepts about biostatistics, restate the principal concepts about biostatistics.</p> <p>Collect data relating to variable/variables which will be examined and calculate descriptive statistics from these data. Identify data relating to variable/variables.</p> |
| | Evolution | <p>Demonstrate an understanding of the evolutionary history of vertebrates and the evolutionary relationships among different groups of vertebrates.</p> |
| | Biochemistry | <p>Ability to understand fundamental concepts of biology, chemistry and biochemistry.</p> <p>Ability to apply basic principles of chemistry to biological systems and molecular biology.</p> <p>Ability to relate various interrelated physiological and metabolic events.</p> |
| Semester-IV | Palaeontology | <p>Students will be able to reconstruct the biological traits of extinct organisms. Students will be able to interpret the modes of life of fossil organisms. Students will be able to evaluate the accuracy of the portrayal of ancient organisms in the movies.</p> |
| | Genetics | <p>Concept behind genetic disorder, gene mutations-various causes associated with inborn errors of metabolism</p> |
| | Molecular Biology | <p>Learners shall get an insight into detailed manner of chemical and molecular processes which affects genetic material</p> <p>The learners would study in depth about significance of molecular biology as a basis for the study of other</p> |

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| | | areas of biology and biochemistry |
| Semester-V | Toxicology | Students will demonstrate an understanding of the core concepts of the science of toxicology, including hazard identification, exposure assessment, dose-response assessment and an understanding of the mechanisms of action and effects of toxic chemicals at multiple levels of biological organization. |
| | Biotechnology | To understand the basic unit of the organism. To differentiate the organisms by its cell structure. To know Components of the Cell and their division. To explain the arrangement of Genes and their interaction. |
| | Zoogeography | Learners will be acquainted with many aspects of different animal species which are scattered around the globe. Learner will study geographic distribution with respect to present and past of animal species around the globe |
| | Endocrinology & Reproductive Biology | The course is designed to provide an understanding to structures and function of endocrine glands. It also provides an understanding of the common endocrine disorders, metabolic regulations, and metabolic abnormalities, and their management. In this course, students will investigate the biological processes of reproduction, including the endocrinology and physiology of male and female reproduction, puberty, lactation and menopause. .. |
| | Cell Biology | Structural and functional aspects of basic unit of life i.e. cell concepts |
| Semester-VI | Appalled & Economic Zoology | Gain knowledge to define the concepts of the applied subjects like Fisheries, Aquaculture and Pest Control. The student will be able to identify, freshwater, marine water fishes. Gain knowledge to explain the tools and techniques used in aquaculture and agricultural practices. The student will be able to describe the fish species commonly used in fishery business. Describe the common agricultural pests from nearby area. Illustrate the diseases in aquaculture and agriculture. Economic zoology should have aroused the students to ponder upon the importance of various useful and destructive organisms from honeybees to cattle, and viruses. |
| | Immunology | After completing the course the student should be able to: Demonstrate the basic knowledge of immunological processes at a cellular and molecular level. Define central immunological principles and concepts outline, compare and contrast the key mechanisms and cellular players of innate and adaptive immunity and how they relate Elucidate the genetic basis for immunological diversity |

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| | | and the generation of adaptive immune responses Outline key events and cellular players in antigen presentation, and how the nature of the antigen will shape resulting effect or responses Understand and explain the basis of allergy and allergic diseases. |
| | Mammalian Physiology | Explain human anatomy and physiology: describe cellular levels of organization, and the basics of biochemistry and cell biology. Explore the skin and examine the body's skeletal and muscular systems, following a traditional sequence of topics. Discuss system physiology and system control and regulation. Explain and examine histological samples and basic laboratory practice in cell culture Discover the interaction between body systems and the outside environment for the exchange of materials, the capture of energy, the release of waste, and the overall maintenance of the internal systems that regulate the exchange. |
| | Developmental Biology | Students who successfully complete the course will be able to: Name, describe and order the main stages of development common to most multi cellular organisms. Describe the main anatomical changes that occur during development. Identify the cellular behaviours that lead to morphological change during development. |

Faculty Of commerce

The Bachelor of Commerce requires three years of full time study consisting of six semesters. The college offers honours course in Accountancy and Commerce program in Accountancy. It aims to provide students with the knowledge, tools of analysis and skills to understand and participate in the modern business and economic world.

Program Outcome

- This program could provide Industries, Banking Sectors, Insurance Companies, Financing companies, Transport Agencies, Warehousing etc., well trained professionals to meet the requirements.
- After completing graduation, students can get skills regarding various aspects like Marketing Manager, Selling Manager, over all Administration abilities of the Company.
- Capability of the students to make decisions at personal & professional level will increase after completion of this course.
- Students can independently start up their own Business.
- Students can get thorough knowledge of finance and commerce.
- The knowledge of different specializations in Accounting, costing, banking and finance with the practical exposure helps the students to stand in organization.

Program Specific Outcome

- The students can get the knowledge, skills and attitudes during the end of the B.com degree course.
- By goodness of the preparation they can turn into a Manager, Accountant, Management Accountant, cost Accountant, Bank Manager, Auditor, Company Secretary, Teacher, Professor, Stock Agents, Government employments and so on.,
- Students will prove themselves in different professional exams like C.A., C S, CMA, MPSC, UPSC. As well as other co-occurring.
- The students will acquire the knowledge, skill in different areas of communication, decision making, innovations and problem solving in day to day business activities.
- Students will gain thorough systematic and subject skills within various disciplines of finance, auditing and taxation, accounting, management, communication, computer.
- Students can also get the practical skills to work as accountant, audit assistant, tax consultant, and computer operator. As well as other financial supporting services.
- Students will learn relevant Advanced accounting career skills, applying both quantitative and qualitative knowledge to their future careers in business.
- Students will be able to do their higher education and can make research in the field of finance and commerce.

Course Outcome

| Semester | Syllabus Paper-wise | Outcome |
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| Semester I | Financial Accounting I | <ul style="list-style-type: none">• To enable the students to learn principles and concepts of Accountancy.• To find out the technical expertise in maintaining the books of accounts.• The student will get thorough knowledge on the accounting practice prevailing in partnership firms and other allied aspects. |
| | Business Law | <ul style="list-style-type: none">• Basic and broad knowledge in business laws in management.• Awareness of the different business laws.• Explain the concepts in business laws with respect to foreign trade.• Analyse the principle of international business and strategies adopted by firms to expand globally. |
| Semester II | Management Principles and Applications | <ul style="list-style-type: none">• Understand the concepts related to Business.• Analyze effective application of PPM knowledge to diagnose and solve organizational problems and develop optimal managerial decisions. |
| | Corporate Laws | <ul style="list-style-type: none">• The student will well verse in basic provisions regarding legal frame work governing the business world.• To develop the awareness among the students regarding these laws affecting trade business, and commerce. |
| Semester III | Financial Accounting II | <ul style="list-style-type: none">• To impart the knowledge about accounting methods, procedures and techniques.• To acquaint students with practical approach to accounts writing by using software package and by learning various accounts. |

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| | Income Tax Law and Practice | <ul style="list-style-type: none"> It enables the students to insights the basics of Income Tax Act and its implications in computing tax liability of an individual. |
| | Human Resource and Management | <ul style="list-style-type: none"> To develop the understanding of the concept of human resource management and to understand its relevance in organizations. To analyse the strategic issues and strategies required to select and develop manpower resources. To integrate the knowledge of HR concepts to take correct business decisions. |
| Semester IV | Indirect Tax | <ul style="list-style-type: none"> Students should be able to understand various terms related to Goods and Service tax (GST). Students should be able to understand the difference between forward charge and reverse charge mechanism and also to understand the difference between composite and mixed supply. Students will be able to determine whether a person is required to obtain registration under GST law. |
| | Corporate Accounting | <ul style="list-style-type: none"> This course aims to enlighten the students on the accounting procedures followed by the Companies. Student's skills about accounting standards will be developed. To impart knowledge about holding company accounts, amalgamation, absorption and reconstruction of company. |
| | Computer Applications in Business | <ul style="list-style-type: none"> To make students familiar with computer environment & operating systems To introduce students with accounting packages like tally. To develop skill and knowledge among students in applications of internet in education of commerce. |
| Semester V | Cost and Management Accounts | <ul style="list-style-type: none"> To understand Basic Cost concepts, Elements of cost and cost sheet. Student's Capability to apply theoretical knowledge in practical situation will be increased. Providing knowledge about difference between financial accounting and cost accounting. |
| | Principles of Marketing | <ul style="list-style-type: none"> Demonstrate the ability to critically evaluate a marketing program from consumer and marketing practitioner viewpoints, including consideration of ethical implications. Communicate clearly, in an organized fashion, the concepts of marketing in both oral and written work. Demonstrate an understanding of how marketing fits with the other business disciplines within an organization. |

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| Semester VI | Principles and Practices of Insurance | <ul style="list-style-type: none"> • Identify what insurance is, why insurance works and how to determine insurance needs. • Explain insurance operation, including functions of insurance, insurance markets, insurance regulations and the use of insurance as a tool to avoid losses and reduce risk. • Familiarise themselves with major insurance products, such as life insurance, health insurance, property and liability insurance. |
| | Business Statistics | <ul style="list-style-type: none"> • Describe and discuss the key terminology, concepts tools and techniques used in business statistical analysis. • Critically evaluate the underlying assumptions of analysis tools. • Understand and critically discuss the issues surrounding sampling and significance. |