Department of English

Programme outcomes:

This course in English while providing a sound knowledge to articulate and communicate effectively in social and professional contexts, it offers a critical insights in to the study of English literature to examine texts in the light of its different tradition S, genres and theories ranging from ancient to the modern. The knowledge acquired through this study can be applied to life skills, career choice, research and understanding of life in relation to the local and global scenario.

Programme Specific outcomes:

- To articulate and communicative in English effectively.
- > To examine a text critically in the contexts of tradition and theories.
- To understand the socio, economic, politico, religious background of the age in which it is written.
- To apply literary awareness in everyday life while responding to immediate and global environment.
- To take higher study, research and career with confidence.

Semester 1/2

COURSE

- 1. History of English Literature I & II
- 2. Poetry of English I &II

Semester 3/4

COURSE

- 1. English Drama
- 2. English Prose
- 3. Critical Essays
- 4. Novel in English
- 5. Indian writing in English

Outcomes

- After completion of this curse the students are familiarized with tradition of British Literature from Renaissance to 19th Century and acquire a over view of English poetry.
- Enable students to formal and thematic aspect of poetry from Victorian to Romantic period and literary tradition of British Literature.

- To understand play of different genres from early 17th C. To 20th C. England
- To understand the formal and cultural aspect of essay as a genre in writing skill.
- Help conceptualise the premises of literary appreciation in the light of the works of literary critics and the shifting paradigm of criticism.
- Enable students to study novel as an artistic form and representation

Semester 5/6 COURSE

- 1. American Literature
- 2. Literary Theory
- 3. European Literature in Translation Studies
- 4. Women's Writing

DSE 1,2,3, &4 COURSE

- Modern Indian Writing in Tradition
- 2. Partition Literature
- 3. Literature of the Diaspora
- 4. Partition Literature

AECC COURSE

- 1. Communicative English
- 2. Grammar
- 3. LSRW Scheme
- 4. Composition skill

- of society, culture and events across the globe.
- Understand the genre of poetry and short stories in Indian writing in English.

Outcomes

- Introduces the students colonial author of American literature through poetry.
- Exposes students to the major theoretical premises and approaches viz. Liberal Humanism, Marxist Criticism, Feminist Criticism and Eco criticism language through Women's writing fiction and non-fiction.
- Gets an overview of Master pieces from Europe in the genre of like fiction, play, poetry and autobiography.
- Enable students to understand the issues of patriarchy and oppression in terms of gender, race, caste and language through Women's writing fiction and non-fiction.

- Familiarize students with the basic rules of grammar and structure and application of its usage in different context of communication.
- Enable the learner to master the 4 communication skill (LSRW) and use them effectively in everyday and global transaction.
- Familiarize the learners with a different form of

letters, application, memo ad resume etc. For use in practical life.

Department of Economics

Programme Outcomes

The programme aims at giving the students an understanding of the theory and principles of Economics and the application of mathematical tools in the critical thinking of theories in problem solving. The course offers an overview of Indian economy and helps students to pursue further education, undertake research and choose a career in professional fields with confidence.

Programme Specific Outcomes

- ➤ Enable students to get a clear understanding of the theories and principles of economics.
- Gives an overview of the macro- micro, banking systems of the Indian economy.
- Offers an insight in to analysis and interpretation of data but means of mathematical tools.
- ➤ Helps students to pursue higher study, undertake research and work as professional in the field.

Semester 1

COURSE

- 1. Introductory Microeconomics
- 2. Mathematical Economics

Semester -2 COURSE

- 3. Introductory Macroeconomics
- 4. Mathematical Economics

Outcomes

- Microeconomics theory enables students to explore subjects viz. Scope and method, economic problems scarcity and choice and the basic aspect of price, profits, incentives through graphs.
- Mathematical economics is the application of mathematical method to represent theories and analyze problems in economics.

- ➤ Enable students to understand the basic concept of Macroeconomics and its variable like saving, investment, GDP, Money Inflation, balance of payment.
- To apply mathematics techniques to economic theory such as sets, real variables, derivative linear models, dynamic method etc.

Semester -3

COURSE

- 5. Intermediate Microeconomics
- 6. Intermediate Macroeconomics
- 7. Statistical Method

Semester -4 COURSE

- 8. Intermediate Microeconomics II
- 9. Economics:
- 10. Intermediate Macroeconomics II

Semester -5 & 6

COURSE

- 11. Indian Economy (I & II)
- 12. Development Economics (I & II)

DSE I, II, III, IV

COURSE

- 1. Money and Financial Markets
- 2. Public Economics
- 3. Environmental Economics

Outcomes

- The course of this paper provides a rigorous intermediate level treatment of microeconomic theory with applications to business and public policy.
- The goal of this paper is to provide students with a rigorous overview of modern macroeconomics
- Statistical knowledge helps students to use the proper method to correct datas, employ the correct analysed and effectively presents the results.

Outcomes

- Helps in analysing and accessing microeconomic policies implication and advantage.
- This course provided an introduction to economic methods their application. It also introduces students to linear regression model used in empirical economic analyses.
- This course aims to brings students up- to date with modern development in macroeconomic theory and offer fresh perspective on the challenges of the day.

Outcomes

It helps students to understand different characteristics of world demographic and explain how population growth affects other economic circumstances.

- ➤ It enables the students to know the different component of financial systems & their role.
- > It introduces students to the major

4. International Economics	themes of public economics & to develop their skill in using microeconomics.
	It provides students with an economics perspective on environmental issues.
	The course introduces the students to the main concept of international economics and be familiar with the main economic theories & models of International Trade.

Department of Odia

Keeping in view the common syllabus presented by UGC, the programme in Odia for Hons. U.G. students has been designed with a view to enlarge the student's knowledge and understanding the Odia literature. So as enable to them to demonstrate their skill in regional and national level and to develop a literary sensibility for the promotion of research and professional skill in Indian literature.

Programme Specific Outcomes

- > Students learn the evolution of Odia language & literature and get acquainted with the tradition and genres.
- To access colonial and post-colonial literature with nationalistic fervour.
- Application of Eastern and Western theories in Odia literature
- ➤ To take national and state level examination, undertake research and prepare themselves as professional with confidence.

Semester 1/2

COURSE

- 1. History of Odia Literature
- 2. History of Modern Odia Literature
- 3. Post-colonial Literature

Semester 3/4

COURSE

- 1. Evolution of Odia Literature
- 2. Functional Grammar
- 3. Popular culture & Literature
- 4. East-West Theories
- 5. Odia drama & one Act play
- 6. Ancient Odia Literature

Outcomes

After completion of this course students learn the growth and development of Odia literature and acquire the knowledge to approach literature with reference to socio-political, economic and religious background.

Outcomes

Students learn to approach literature with reference to Fiction, mythical, rhetorical and narrative writings written in the form of Champu, Boli, Chaupadi, Chautisa, Bhajan etc.

Semester 5/6

COURSE

- 1. Evolution of Modern Literature
- 2. Odia stories : evolution & growth
- 3. Odia prose writing
- 4. Forms and definition of Odia literature. Its works and authors.
- 5. Development of Essays , drama, Novel, short stories etc.

- ➤ Enable students to place Odia literature alongside national literature.
- ➤ To imbibe nationalistic feeling and global relationship through modern writing.
- Comparative study of Odia Literature in relation to other Indian Literature
- ➤ Through this stories of essays drama and fiction.

DEPARTMENT OF HISTORY

Programme outcome

The programme aims are imparting knowledge of History of India from ancient to modern time as well as the history of the world from Pre-historic period to present era. With the changing of times, students should be aware of the history of India, Asia and the world at large so that their outlook will be broaden.

Programme specific outcome:

- Offers a learning of the past for the understanding of the present.
- Develop physical ability to think and analyze events and take research oriented perspective.
- Provide opportunity for career option and take various examination of national importance with confidence.

Semester 1

COURSE

- 1. History of India-I
- 2. Social Formation and Cultural Patterns of The Ancient World

Semester 2 COURSE

- 3. History Of India-II
- 4. Social Formation and Cultural Patterns of The Medieval World

Outcomes

- Gain knowledge about prehistoric life and culture of India and an understanding of Ancient Indian Society.
- ➤ Learn the way of life and culture pre historic period of the world along with the dawn of civilizations. Able to compare the origin nature and composition of different societies in the ancient world.

Outcomes

> Acquire knowledge about the economy and society of ancient India from 300 B.C.E. to 300 C.E. It will enable them to know the polity and administration of ancient Indian dynasties like The Mouryas, The Guptas, The Kushanas, The Satavahanas, and The Gana Sanghas. Moreover, it will expand their knowledge regarding early medieval society, economy, and the religious beliefs of people in medieval India. It also imparts knowledge about the evolution of

- Indian literature in various languages like Sanskrit, Pali, Prakit and Tamil.
- understand the medieval societies across the world. Students will gain knowledge regarding Roman Republic, slave society agrarian economy trade and urbanization of ancient Rome. They will know about feudal culture in medieval Europe. Besides, students will be informed about the society in the central Islamic lands, rise of Sultanate, Caliphate and origin of Shariah and Sufism.

Semester 3 COURSE

- 5. History of India-III
- 6. Rise of Modern West-I
- 7. History of India-Iv (C.1206-1550)

- ➤ Learn about Indian Feudalism and rise of Rajputs in early medieval period. They will acquire knowledge as to how socioeconomic and political scenario changed in India due to the rise of Rastrakutas, Palas, Pratiharas, Rajputs and Cholas. Beside this paper enable them to gain information regarding social, economic, cultural and religious development in India during the given period.
- Knowledge about transition of socio-economic pattern in modern west from feudalism to capitalism. They will also know about colonial expansion religious reformation renaissance along with rise of new state system in European countries.
- To know about the political, administrative system of Delhi Sultanate. Students also know about the socio-economic

Semester 4 COURSE

- 8. Rise Of Modern West-li
- 9. History Of India-V (C.1526-1605)
- 10. History Of India-Vi (C.1605-1750)

condition of India. It imparts information about regional dynasties and regional art, architecture, literature and religious reform movement (Bhakti Movement) of this period.

Outcomes

- ➤ To understand social, economic and political changes in modern west particularly in Europe during 17th and 18th century. Students acquire knowledge about mercantilism parliamentary monarchy and absolutism in Europe.
- > To expand knowledge about the sources of early Mughal Empire and their historiography. Students obtain detail information about the great Mughal emperors like Babur, Humayun and Akbar. It also throughs light on their polity, economy and society, the religious Faith of Akbar; Sulk-i-kul (Din-i-ilahi).
- Know the literary sources of Mughal history from Jahangir to Aurangzeb. Expansion of Mughal empire under Jahangir, Shah Jahan and Aurangzeb. Students acquire knowledge about Mughal culture like art, architecture, trade and commerce and the causes of the downfall of the Mughal empire.

Semester 5 COURSE

- 11. History of Modern Europe-I
- 12. History of India-Vii (C.1750-1857).

Outcomes

French Revolution and its phases and fall of monarchy. It envisages the restoration of old hierarchy in Europe. Social, political, intellectual currents of radical movements (1830-1848). This

paper imparts idea about the rise of nationalism and emergence of new nation states in Europe. It also makes students know about changing trends in demography, population, economic condition during the given period.

Understand the literary sources of Mughal history from Jahangir to Aurangzeb. Expansion of Mughal empire under Jahangir, Shah Jahan and Aurangzeb. Students acquire knowledge about Mughal culture like art, architecture, trade and commerce and the causes of the downfall of the Mughal empire.

Semester 6 COURSE

- 13. History of India-VIII
- 14. History Of Modern Europe-li (C.1780-1939)

- > Understand renaissance in 19th century in India that brought about socio-cultural and religious reform in India and side by side instills nationalistic feeling and pride for the glorious past. This paper deals with Indian freedom movement from 1885 to 1947. Gandhian movements moreover, students acquire knowledge about communalism, popular movements and partition of India.
- ➤ Knowledge about the workers movements for the establishment of socialism in the 19th and 20th century. Causes of Russian Bolsheviks Revolution and foundation of the U.S.S.R. Causes of the 1st world war and its consequences. This paper also imparts knowledge about the causes of the 2nd World War, imperialism, Fascism and Nazism. lt also discusses

institutionalization of disciplines History, Sociology and Anthropology.

DSE I, II , III & IV COURSE

- 1. Landmarks In Odishan History (Early Time To 1568)
- 2. Landmarks In Odishan History (C.1568-1950)
- 3. Cultural History Of Odisha
- 4. Archaelogy: Principles and Methods

- Learn history of Odisha from early time to 1568. This paper expands the knowledge of the learners regarding Ashoka and Kalinga Kharavela and achievements. They also obtain knowledge about local kingdoms, imperial powers in Odisha. Moreover, this paper makes students know about the religious faith of ancient Odisha like Buddhism, Saivaism Jainism, Vaishnavism and Jagannath cult.
- > Imparts knowledge about medieval Odisha. The Muslim rule and the Maratha rule in Odisha British conquest of Odisha and protest by Odishan (Paik Rebellion). Students obtain about knowledge freedom fighters of Odisha. VIR Surandra Sai, Chakara Bisoyi and Dharani Naik. Besides, 1866 financial and growth of Odia nationalism are also included in this paper. Students learn about formation Odisha as a separate province. Growth of Odia literature and post-independence Odisha.
- aware of Odisha's social system from ancient time to modern. Students also gain knowledge about economic life of Ancient and Medieval Odisha along with religious beliefs of Odishan people.

To know about archaeology as a part historical of studies relationship of archaeology with other social sciences. Students know about the methods and technique of exploration and excavation. Besides they know about study of pottery, stone and technological tools development of archaeological culture.

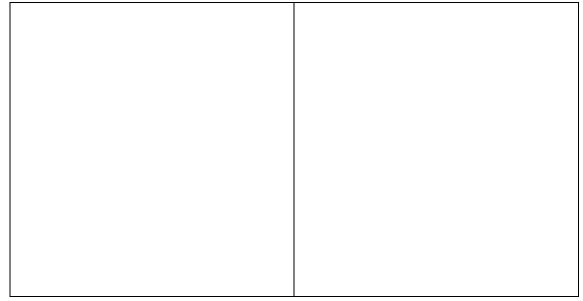
Outcomes

- Acquire knowledge about various facets of research methodology. They will learn how to interpret historical data. They will learn the relation history with other social sciences. This paper will enable them to learn different methods of historical research and writing history.
- Gain knowledge about Government of India Act 1935, popular movements, partition of India, drafting of Indian constitution and merger princely states. This paper also impart knowledge about Indian democracy at work from 1950-70s. Students will know about the economy, industry, labour science, education, status of women literature, art and culture of Post-Independence Era.
- To know about colonialism and nationalism, the 2nd World War, The UNO, Cold War and NAM. This paper enables them to know globalization, social movements like feminist, human rights issues, media and consumption.

Generative Electives

Course

- 1. Research Methodology
- 2. Issues In Contemporary India
- 3. Issues In Contemporary World



Department of Political Science

Programme outcome

Political science helps the students to know their rights and duties towards the society and state. It helps them to understand the different theories, ideologies of various political thinkers and about the local, national, and international political affairs. This programme aims to make the students good citizen whereby they may take active part in the day to day political activities of the state. It also helps them in their future career.

Programme Specific Outcome

- It enables the students to know about the basic principles of political science.
- It gives the knowledge about the Indian constitution, local & urban self government, organs of government, administrative process.
- ➤ It widens the knowledge of the students in the fields of comparative politics, international relations and western and Indian political thoughts.
- It gives the opportunities to students for higher studies, research works and various all India comparative exams.

Semester 1&2 COURSE

- 1. Understanding Political Theory
- 2. Constitutional Government And Democracy In India.
- 3. Political Concepts And Debates
- 4. Political Process In India

- Helps the students to understand the basic ideas of Political theory, its history, approaches and reflections on the ideas and practices related to democracy.
- Enables the students to know about the constituent assembly, constitution of India, Government

Semester 3 &4 COURSE

- 5. Introduction to Comparative Government and Politics.
- 6. Perspective of Public Administration
- 7. Perspective on International Relations and World History.
- 8. Political Process and Institutions In Comparative.
- 9. Public Policy and Administration In India.
- 10. Global Politics

- and its organs and functions of democracy in India since independence.
- Makes the students clear understanding of basic normative concepts such as FREEDOM, EQUALITY, JUSTICE and RIGHTS.
- Deals with the working modern political institutions in India, which helps the students to develop their understandings regarding party system, voting behaviours, religion & politics, caste & politics in India.

Outcomes

- Helps the students to acquire knowledge about the basic concepts to study the comparative politics.
- The purpose of this course is to take the students understand about the various historical & modern approaches of public administration. And also the various public policies undertaken by the government.
- Helps the students to know the importance and various determinants of international relations. The role of world history of twentieth century in the International relations
- The aim of this course is to familiarize the students with electoral system, party system, nation state system of different states.
- Helps the students to know the administrative policy, decentralisation of power, financial system, citizens & administration and administration in the social welfare of India.
- Gives the introductions to the students about the term

Semester 5 &6 COURSE

- 11. Classical Political Philosophy
- 12. Indian Political Thoughts
- 13. Modern Political Philosophy

- 14. Indian Political Thought II.
- 15. Citizenship In Globalizing World
- 16. Human Rights in Comparative Perspective.
- 17. Development Process and Social Movement In Contemporary India.
- 18. Indian Foreign Policy in a Globalizing World

Generic Electives 1 &2 COURSE

- 1. Nationalism In India
- 2. Gandhi And The Contemporary World.
- 3. Understanding Ambedkar
- 4. Governance: Issues And Challenges

globalization with various dimensions like social, political, economic & technological and makes them aware of the contemporary global issues.

- Introduces the students with ancient political philosopher and their political thoughts regarding political ideas.
- Helps the student to understand about the classical Indian political thought and their ideas about the laws, state, polity, kingships and monarchy.
- Seeks to develop the knowledge of the student about the modern, liberal, radical, romanticism thoughts and political questions of existence.
- Enables the students to broaden thler knowledge in modern Indian political thoughts and theories of Rights, Gender, Swaraj Community, Hindutva, Secularism and Socialism.
- Students come to know about the concept of citizenship, legal and political rights of the citizenship in political community in the modern age.
- ➤ Deal with human rights of different states. It helps the students to understand specific issues with regards to human rights and important for the students to understand the different forms of human rights.
- Proposes to introduce students to the conditions, contexts and forms of political contestation over development paradigms and their bearing on the recovery of voice of citizens.
- Helps the students to know the Genesis and practice of India's foreign policy. India's relations with superpowers. India's negotiating styles and strategies in international issues.

- Aims to help the students to understand the freedom struggle of India from British colonialism.
- Helps the students to know the Gandhian Principles. Its importance and implications in the modern world.
- Deals with the concept of governance and highlights major issues and challenges of governance in contemporary time.
- Gives knowledge of Ambedkar philosophy and its relevance in the modern India. It widens the idea of students with regards to Caste, Religion Gender, Cultural and Women issues.

DEPARTMENT	OF EDUCATION
Programme Outcome:	The course will help to develop scientific attitude towards teaching learning process and enable the learners to become a good citizen by imbibing values of virtue.
Programme Specific Outcome:	On the completion of the programme students will be able to acquire skills and competencies to become a successful teacher, counselor, administrator, curriculum planner and policy maker.
Course	Course Outcomes After completion of the course students will be able to-
Basics in Education	 Establish relationship between Education and Philosophy. Describe and appreciate the contribution of Indian School of Philosophy, Western School of Philosophy and the Great Indian Thinkers to the field of Education.
Education and society	 Explain the interrelationship between Education and Society, State, Custom and Value System. Describe the role of Education towards socialization, social change, social mobility, development of marginalized national integration and international understanding.
The Learner and learning process	 Establish relationship between Education and Psychology and its relevance for a teacher. Understand concepts like growth and development, intelligence, creativity, learning, motivation and personality and the different principles or theories associated with it.
Pedagogical skills	 Define different terms like teaching, learning and establish relationship between them. Understand different theories of teaching, principles and maxims of teaching and approaches and methods of teaching and use it in teaching learning process.
Technology and innovations in Education	 Explain Educational Technology, Communication Process and its types. Describe different models of teaching and its usage in a classroom scenario.
Pedagogy of school subjects	 Describe pedagogical approaches of

	Annahina different e litera
	teaching different subjects.
	Develop subject specific lesson plan,
	prepare teaching-learning materials and
	construct test.
Statistics in education	Explain Statistics and its usage in
	Education.
	Compute measures of central tendency
	and dispersion and correlation.
Curricular development and	Describe the meaning, components and
educational guidance	types of curriculum and the curriculum
	process.
	Explain meaning and types of guidance
	and counseling and organization of
	guidance services in a school.
Educational assessment and	Describe test, measurement, assessment
evaluation	and evaluation and its role in Education.
	Develop a good achievement test.
Introduction to educational	Explain different types of Educational
research	Research.
	 Understand research design, data analysis
	and Interpretation.
	Prepare a Research Report.
History of education in India	Critically examine the Education System
	during Ancient India, Medieval India,
	British Period and Independent India.
Comparative education	Explain the purpose, scope and methods
	of Comparative Education.
	Compare different systems of Education in
	India, U.K, U.S.A, Japan and China.
Educational planning	Elaborate the concepts of Educational
Administration and Management	Planning, Administration, Management
	and Economics of Education.
Contemporary concern is Indian	Describe the challenges in Elementary
Education	Education, Secondary Education and
	Higher Education and importance of UEE,
	SSA, DPEP,RMSA and RUSA.
	Describe the emerging concerns in
	Education like Environmental Education,
	Value education and Life skills Education.
ICT in Education	Explain the meaning and importance of ICT
	and e-Learning.
	 Describe the usage of various ICT
	resources in classroom and school.
Special education	Understand the concept, characteristics,
•	ways of identification and educational
	,

	provisions of different exceptional children.
Distance education	 Explain the aims, objectives and importance of distance education. Understand Distance Learning Institutions and Distance Learners. Develop Self Learning Material.
Project work	Prepare a project on educational problem.

DEPART	MENT OF MATHEMATICS
Programme Outcome:	This programme inculcates reasoning ability, analytical ability, scientific skills and temper among students.
Programme Specific Outcome:	This course also prepares the students for jobs as scientists, researchers, Statistical investigators, software researchers, Coding analysts etc.
Course	Course Outcomes
Calculus	Students will be able to calculate the limit and examine the continuity of a function at a point and apply derivative tests in optimization problems appearing in social sciences, physical sciences, life sciences and ahost of other disciplines.
Discrete Mathematics	Students will be able to understand Boolean algebra and Boolean functions, logic gates, switching circuits and their applications. They will be able to solve real life problems using finitestate and Turing machines.
Real Analysis	Students will be able to recognize bounded, convergent, divergent, Cauchy and monotonic sequences and calculate their limit superior, limit inferior and the limit of a bounded sequence.
Differential Equations	Students will be able to learn Serret-Frenet formulae, relation between tangent, normal and binormals. Students will have scope to take more advanced courses in surface theory and geometry.
Theory of Real Functions	Students will be able to acquire working knowledge on the concepts and theorems of the elementary Calculus of functions of one Real Variables.
Group Theory	Students will be able to recognize mathematical objects called groups and their types. They will be able to analyze consequences of Lagrange's theorem.
Partial Differential Equations	Students will be able to apply a range of techniques to solve first & second order partial differential equations and model physical phenomena using partial differential equations such as the heat and wave equation.
Ring Theory	Students will be able to understand group actions, Sylow theorems, ring theory, polynomial rings and quotient rings.
Multivariate Calculus	Students will be able to apply multivariate calculus in optimization problems. They will also be able to apply the multivariate calculus tools in Physics and Economics.

Linear Algebra	Students will be able to realize the importance of
	vector spaces, subspaces, bases, dimension,
	matrices and inner product spaces.
Linear Programming	Students will be able to analyze and solve linear
	programming models of real life situations.

DEPARTMENT	OF CHEMISTRY
Programme Outcome:	This programme helps in learning the scientific skills and temper for higher research in the fields of pure chemistry and allied fields like molecular biology, genetics, material science, nano science and technology environmentalscience etc.
Programme Specific Outcome:	This course also prepares the students for jobs as chemist and technical assistants in various industries like fertilizers and polymers, pharmaceuticals, chemical plants, iron and steel industries, power generating plants, nuclear plants etc. As a whole this programme of B.Sc. (Chemistry Honours) holds a lot of promises and prospects for the students both in academic pursuits as well as employment. As has been observed over the years a B.Sc. in Chemistry is a very fruitful career build up course.
Course Inorganic Chemistry	Course Outcomes Elements and their compounds, their structures through various types of bondings, their behaviour and applications constitute this vast branch which provides very basic and fundamental knowledge for further studies of higher and complex Chemistry.
Organic Chemistry	This enables the students to understand the huge branch consisting of millions of compounds, their synthesis, properties and applications along with the mechanisms of reactions. Organic Chemistry helps the students to prepare for placement in various industries.
Physical Chemistry	Teaching and learning of Physical Chemistry constitute an important part of this course where students learn the critical aspects of physical phenomenon and laws governing them.
Green Chemistry	As a new, innovative and promising branch both

	for the teachers and students, Green Chemistry provides alternative pathways for synthesizing clean non- hazardous and energy conserving products. This do away with environmental ills. This course enables the students to explore alternative possibilities and reaction pathways in a more ecofriendly manner.
Polymer Chemistry	Polymer Chemistry constitute the mainstay of materials for human use and it trains the students on structure, properties and applications of macromolecules.
Industrial Chemistry	Pursuing this course students acquire basis knowledge in different aspects of industries and chemical processes. This study is of high use for the students to pursue a career in various industries.

DEPART	TMENT OF PHYSICS
Programme Outcome:	This programme will enhance students' understanding of relationship between science and society. It will help in development of scientific temper among students and enable them to perform experiments to verify the findings scientifically.
Programme Specific Outcome:	It is a modern age science that deals with technologies. It will enable students develop technologies like satellite, mobile, communication etc. After the successful completion of this programme the students can opt for career like Lab Technician, Radiologist Assistant, Accelerator Operator, Consulting Physicist, Research Assistant or Scientist.
Course	Course Outcomes
Mathematical Physics	It enhances mathematical ability and reveals the analytical picture of various branches of Physics.
Mechanics	It reveals the area of Physics concerns with matter, physical objects, force, motion, work, energy, power which are basics of all modern sciences.
Electricity & Magnetism	Students learn about electricity and magnetism are inherently related which can't be separated. Most of the devices used in daily lives run be electricity and magnetism and with their inter conversion.
Waves & Optics	It imparts basic knowledge of light regarding their interaction with matter its propagation and behavior. To reveal the facts in connection with telescopes, microscopes, laser, optical fiber, spectroscopy, X-ray, LEDs and other light sources.
Thermal Physics	It reveals the knowledge of heat, temperature, radiation which are mostly used in Heat Engine, Reactions, Nuclear Power Plants, Refrigerators the conventional sources of energy.
Digital Systems & Applications	Broadly used in electronic and communication as we are moring towards digitalization highly used in hardware, software and reprogram ability.
Elements of Modern Physics	Makes students acquainted with knowledge with modern topics like many relativity properties and behavior of atoms, uncertainty principal and makes a way to higher research.
Analog Systems & Applications	Highly used in semiconductor devices like diode, P-N junction, transistor upon which the modern science rely upon.
Quantum Mechanics & Applications	It provides necessary descriptions of physical

Solid State Physics	properties of water at the scale of atoms and subatomic particles which classical many cannot do. It provides the foundation of quantum field theory and quantum technology and quantum information science. This branch is highly essential in the study of rigid matter, quantum mechanics, crystallography and condensed matter physics.
Electromagnetic Theory	It establishes the basic principles of electrical and electronic circuits based on Maxwell's equation. It also locals with the interaction between electric field and magnetic field.
Statistical Mechanics	it provides the mathematical framework in statistical methods and probability to large macroscopic entities consisting of extremely large microscopic particles.
Classical Dynamics	It gives information regarding physical they regarding motion of macroscopic objects, astronomic objects and general theory of relatively.
Physics of Devices & Instruments	To acquaint the students with knowledge of electronic devices, electrical devices and integrated circuits which are back bones of Applied Physics.
Nuclear & Particle Physics	It mainly deals with the study of the structure of matter at atomic and subatomic level. Its application are nuclear medicine, ion implantation in material engineering, carbon dating and to release huge energy in nuclear fission and fusion.
Astronomy & Astro-Physics	It encourages the students to explore the hidden treasures behind celestial bodies and the hidden facts behind the creation of the universe.

DEPART	MENT OF BOTANY
Programme Outcome:	The programme aims at creating and developing advanced research and theoretical skills in the branch of science. It gives a knowledge of structure, growth, development and metabolism of plants, algae, fungi. The programme provides a complete learning and training in plant forms, molecular genetics, geographical distribution, biotechnology and cell.
Programme Specific Outcome:	 This gives a platform for an academic and professional carrier. Candidates have a wide range of job opportunities in the area of pharmaceuticals and chemical industries, research and development, environmental protection and public health sectors, clinical research etc. Students learn to carry out practical work in the field and in the laboratory with minimal risk. Students use research-based knowledge and research methods including design of experiment, analysis and interpretation of data and development of the information to provide valid conclusion.
Course	Course Outcomes
1 st Semester	
P-I Microbiology and Phycology	On completion of the course, students are able to know the systematic position, structure and life cycle pattern of bacteria, virus and algae.
P-II Biomolecules and Cell Biology	It enables the students to understand biochemical nature of cell and chemical nature of biomolecules.
2 nd Semester	
P-III Mycology and Phytopathology	Students are able to understand biodiversity of fungi and know economic importance of fungi.
P-IV Archegoniate	Helps to understand the morphological diversity and economic importance of Bryophytes, Pteridophytes and Gymnosperms.
3 rd Semester	
3 rd Semester P-V Anatomy of Angiosperms	Students understand the scope of anatomy, know various tissue system.
	,
P-V Anatomy of Angiosperms	various tissue system. Students gain knowledge about various plants of

P-VIII Molecular Biology	Gain knowledge about the mechanism of DNA Replication and know about genome and chromosome.
P-IX Ecology	Students are able to know about energy and nutrient flow through the environment.
P-X Plant Systematics	Students develop knowledge about identification and classification of plants.
5 th Semester	
P-XI Reproductive Biology	Students gain knowledge on the method of pollination, fertilization and embryogeny.
P-XII Plant Physiology	Students learn about mineral, nutrition, photosynthesis and respiration in plants. They understand the process of transpiration, translocation of solutes.
DSE-I Plant Breeding	Students are able to study the techniques of production of new, superior disease resistant crop varieties.
DSE-II Natural Resource Management	Students are able to know about the utility of plant resources that inturn enables them to contribute towards the management and sustainable use of natural resource.
6 th Semester	
P-XIII Plant Metabolism	Students are able to know about various aspects and plant metabolism like nitrogen metabolism, carbon assimilation, carbohydrate metabolism etc.
P-XIV Plant Biotechnology	Students get knowledge about the Genetic Engineering, fundamentals of Recombinant DNA Technology and Principle of Plant Tissue Culture.
DSE-III Horticulture Practice and Post Harvest	It has the ability to meet food requirement of
Technology	growing population by eliminating losses. Post harvest technology has potential to create rural industries.
DSE-IV BioStatistics	Students learn how to collect data, describe data and use data to make inferences and conclusions about wide variety phenomena.

DEPARTMENT OF ZOOLOGY Programme Outcome: The Zoology programme aims at the development of the students and will provide them lots and lots of knowledge. After studying the programme, the students would be eager to learn more about zoological science. This knowledge will help the students to innovate ideas. They would be able to realize their real potential and capabilities. This program will make the students an asset who would even encourage others to work for the betterment of the community as well as the nation. This would be beneficial for the individuals as well as the entire nation. **Programme Specific Outcome:** To help the students gain more knowledge and make them eager to understand and know about the nature and basic concept of Cell Biology, Genetics, Taxonomy, Physiology, Ecology and Applied Zoology and to make them analyze about the relationship between the living organism(like animals, plants and microbes) with their environment. make the students follow the procedures in laboratories in the areas of Cell Biology, Genetics, Physiology, Biochemistry, Molecular Biology, Developmental Taxonomy, Biology, Immunology and Economic Zoology. To help the students in learning the concepts of zoological science Apiculture(Honeybee culture), Sericulture(Silkworm culture), aquaculture (culture of edible aquatic animals), pisciculture (culture of fish), polutry (fowl farming), diary farming etc. and help them to develop the entrepreneurship qualities in these fields. To make the students realise about the importance of knowledge and to make them eager to learn about the research methodologies effective and communication. It also helps in developing the skills of problem solving methods through their projects and to encourage them for higher education and research activities.

Course	Course Outcomes
Animal Diversity: Non Chordates	 It helps to know about the structure, various physiological function and classification of Non-Chordates along with the specimens that is in the course.
Ecology	 It helps to gain knowledge about understanding the structure and different component parts of eco- system and the inter-relationship and interactions that occurs among the living organisms on earth. It provides knowledge about different types of biodiversity in the world and and the biodiversity found in the ecosystem of India.
Animal Diversity: Chordates	 It provides knowledge about various physiological functions, adaptation with their environment and classification of chordates.
Cell Biology	 It helps to learn about the structure and function of basic unit of life i.e. cell and it's organelles. It helps to know about the structure, function and different types of transportation that occurs through cell membrane. It helps the students to learn about cell division like mitosis and meiosis and its regulation.
Animal Physiology: controlling and coordinating system	It provides knowledge about different types of tissue and tissue system, nervous system, different types of muscles, reproductive system, endocrine system and their regulation in the body.
Fundamentals of Biochemistry	 It helps to know about the structure, classification and nomenclature of different macromolecules like carbohydrates, protein, lipids and nucleic acid (DNA and RNA) – their metabolism and biological importance. It helps to learn about the different types of enzymes, mechanism of enzyme action,

	enzyme kinetics, their regulation and different factors that controls it.
Physiology : Life Sustaining System	 To impart the knowledge about metabolic process and physiological mechanism of human body like digestion, respiration, excretion and blood circulation that occurs inside the body of human which are essential for existence of life.
Comparative Anatomy of Vertebrates	 It helps to know about the anatomy of different vertebrates from fish to mammals like integumentary, skeletal, digestive, respiratory, circulatory, urinogenital, nervous system and sense organ of the body. It helps in understanding about the evolution of simpler organism to more complex form.