AQAR 2.6 – Student Performance and Learning Outcomes

2.6.1 – Program outcomes, program specific outcomes and course outcomes for all programs offered by the institution for the year 2017-18

NAME OF THE PROGRAMME: B.A. HISTORY

PROGRAMME OUTCOME OF B.A. HISTORY:

After completion of the three year degree programme of B.A History student should be able to:

- Understand to evaluate and recognize different empires in Indian History
- Identify and analyze basic historical concepts
- Enable to evaluate and synthesize historical materials and culture

PROGRAMME SPECIFIC OUTCOME OF B.A. HISTORY:

On completion of B.A History programme students are able to:

- Work as a teacher in schools, high schools, as a conservator and tourist guide in historical monuments.
- Find employment with archaeological survey of India or with private farms related to archaeology.

COURSE OUTCOME OF B.A. HISTORY

SEMESTER	COURSE (CORE/ PAPER)	SUBJECT	COURSE OUTCOME
I	C-I	History of India-I	• Study on ancient Indian history with the knowledge of historical geography and identification of ancient historic sites and their importance • Knowledge on Neolithic and Chalcolithic culture • Study on Socio and Political organization with religious believes and practices of the Harappan civilizations • Basic idea on early and later Vedic age
	C-II	Social Formations and Cultural Pattern of the Ancient World	• Study of evolution of man and Neolithic culture • Bronze age civilization • Knowledge on ancient Greece- its politics, economics
II	C-III	History of India-II	• Study on economy and society during the period 300 BCE to circaCE 300 • Changing political formations during Mauryan and post Mauryan empires. • Broad knowledge on Gupta age and post Gupta age during the period circaCE fourth century to CE750 • Knowledge on religion, culture, philosophy and society during the Buddhism and Jainism
	C-IV	Social Formations and Cultural Pattern of the Medieval World	• Polity and economy in ancient Rome and in Europe from 7^{th} to 14^{th} centuries. • Religion and culture in Medieval Europe, especially analysis on medieval church, Monastic communities and Papacy. • Origin and religious developments of Shariah

III	C-V	History of India-III(c.75-1206)	• Study on political structures of early medieval India mainly of Rajputs, Cholas • Trade & commerce and agrarian structure with social changes in the period c.750-1206 • Knowledge on Puranic traditions of Buddhisim and Jainism • Religious and cultural developments and evolution of regional styles of temple architecture
	C-VI	Rise of Modern West- I	• Study on transition on feudalism to capitalism • Early colonial expansion such as voyages and explorations • Emergence of Europen state system in Spain, France, England & Russia • Study on economics developments of 16^{th} century
	C-VII	History of India-IV(c.1206-1526)	• Survey and consolidation of the Sultanate of Delhi • Society and economy and emergence of regional identities especially in Bahamanis, Vijayanagar and Odisha • Knowledge on Sufi silsilas and Bhakti movements
IV	C-VIII	Rise of Modern West-II	• Basic ideas on socio-economic and political crises and development of science from renaissance in 17^{th} century Europe • Origin and spread of Mercantilism in European economy • Significance, political and socio-economic issues of the American revolution.
	C-IX	History of India-V(c.1526-1750)	• Establishment and consolidation of Mughal rule in India • Land rights, revenue system of Zamindars and Peasants • Suphi mysticals and intellectual interventions
	C-X	Historical Theories and Methods	• Basic ideas on definition, nature, scope, object, value, and scope of history • Traditions of historical writing during ancient Greek and ancient Roman traditions • Applications of historical methods and interdisciplinary practices of history
V	C-XI	History of Modern Europe-I(c.1780 -1880)	• Extensive study on French revolution and its European repercussions • Restoration and revolution such as 1830 July revolution and 1848 February revolution • Study on Socio-economic transformation and remaking of states during late 18^{th} to late 19^{th} century
	C-XII	History of India-VII(1750-1857)	• Extensive study on expansion, consolidation, imperial ideology, education, economy and society of colonial power • Popular resistances of Santhal uprising and Indigo rebellion • Causes and consequences of 1857 movement

VI	C-XIII	History of India-VIII(c.1857-1950)	• Reforms and revivals such Brahma Samaj, Arya Samaj and Aligarh movements • Swadeshi movement – trends up to 1919 • Ideas and movements of Gandhian nationalism after 1919
	C-XIV	History of Modern Europe-II(1880-1939)	• Knowledge on liberal democracy, working class movements and socialism in the 19th and 20th centuries • Growth of fascism and Nazism and the Spanish civil war • Major intellectual trends such as mass education, theory of Darwin and Freud since circa 1850

NAME OF THE PROGRAMME: B.A. ECONOMICS

PROGRAMME OUTCOME OF B.A. ECONOMICS:

After completion of the three year degree programme of B.A Economics student should be able to:

- Apply economic theories to issues in fields of economics
- Present economic theory and applications in written and oral form
- Explain and estimate economic models using data, test hypotheses and interpret the estimates

PROGRAMME SPECIFIC OUTCOME OF B.A. ECONOMICS:

On completion of B.A Economics programme students are able to:

- Understand and analyse economics behaviour in practice
- Be exposed to alternate approaches to economics problems
- Write clearly in economic point of view

COURSE OUTCOME OF B.A. ECONOMICS

SEMESTER	COURSE (CORE/ PAPER)	SUBJECT	COURSE OUTCOME
I	C-I	Introductory Micro Economics	• Brief idea on ten principles of economics and market forces • Concepts on budget constraints, applications, Firm & market structures • Value of marginal product of labour and demand for labour
	C-II	Mathematical Methods for Economics-I	• Economic models to know about preliminaries and functions of real variables • Derivatives of a function and its applications • Knowledge on matrix and determinants

II	C-III	Introductory Macro Economics	• Understanding the basic theoretical frame work of Macro economics such as GDP, GNP, NDP and NNP • Concepts on evolution and functions of money • Classical approach of determination of national income
	C-IV	Mathematical Methods for Economics-II	• To transmit the body of basic mathematics that enables the study of economic theory on micro economics, macro economics, statistics and econometrics • Illustrating the methods of applying mathematical to economic theory in general • Study of optimization of with equality constraints
III	C-V	Micro Economics-I	• To have a sound training in micro economic theory to formally analyse the behaviour of individual agents • To facilitate understanding of the basic concepts by using mathematical tools • To have an idea on the behaviour of the consumer and producer as well as the behaviour of competitive firms
	C-VI	Macro Economics-I	• Basic idea on formal modelling of macro economy in terms of analytical tools • Knowledge on various alternative theories of output and employment determination in a closed economy • To have basic idea on various theoretical issues related to an open economy
	C-VII	Statistical Methods for Economics	• To have basic concepts on statistical analysis • To study and measure the relationship between variables • Idea on index number and time series • Development of probability and probability distributions
IV	C-VIII	Micro Economics-II	• To emphasize on conceptual clarity on mathematical tools and reasoning • To have knowledge on market, general equilibrium and welfare, imperfect markets
	C-IX	Macro Economics-II	• Introduction to the long run dynamic issues like growth and technical progress • To provide micro – foundations to the various aggregative concepts

			• Concepts on classical, Keynesian, Monetarist and New classical Macroeconomic thoughts
	C-X	Research Methodology	• To develop a research orientation and to acquaint with fundamentals of research methods • Introduction to the basic concepts used in research and to scientific social research methods and their approach • Knowledge on sampling techniques, research designs and techniques of analysis
V	C-XI	Indian Economy-I	• To study major trends in economic indicators and policy debates in India in the post independence period • To analyse growth stories and current challenges and economic planning in India
	C-XII	Development Economics-I	• Concepts on aggregate models of growth and cross- national comparisons of the growth experience. • To explore and develop measures of inequality and connections between growth and inequality • To link political institutions to growth and inequality
VI	C-XIII	Indian Economy-II	• To examine sector-specific policies and their impact • To evaluate rapid changes taking place in the country • Study on environmental policies related to Indian economy
	C-XIV	Development Economics-II	• Concepts on demography and their evolution • To study structure of markets • To study governance of communities and organizations and to link them to questions of sustainable growth • To study the role of globalisation

NAME OF THE PROGRAMME: B.A. POLITICAL SCIENCE

PROGRAMME OUTCOME OF B.A. POLITICAL SCIENCE:

After completion of the three year degree programme of B.A Political Science student should be able to:

- Analyse and formulate political and policy problems
- Discuss the major theories and concepts of political science and its related fields
- Develop academic proficiency in the fields of public administration, political theory and international relations

PROGRAMME SPECIFIC OUTCOME OF B.A. POLITICAL SCIENCE:

On completion of B.A Political Science programme students are able to:

- Serve as a teachers in schools, high schools
- Serve as a political person, advisor
- Are able to go for higher study such as PG, LLB, MSW, MBA etc.

COURSE OUTCOME OF B.A. POLITICAL SCIENCE

SEMESTER	COURSE (CORE/PAPER)	SUBJECT	COURSE OUTCOME
I	C-I	Understanding Political Theory	• To introduce to the idea of political theory, its history and approaches • To assess the critical and contemporary political trends • To reconcile political theory and practices through reflections on the ideas and practices related to democracy
	C-II	Constitutional Government and Democracy in India	• To acquaint with constitutional design of state structures and institutions • To trace the embodiment of conflicts in constitutional provisions • To study the state of institutions in interaction with larger extra constitutional environment
II	C-III	Political Theory-Concepts and Debates	• Concepts on crucial political issue that requires analysis with the aid of conceptual understanding • To analyse and interpret social practices through conceptual tool kit • To understand the concepts insights and challenges by interpreting the world around us
	C-IV	Political Process in India	• To understand the political processes

			• Study on working of modern institutions • To familiarise with working of the Indian states
III	C-V	Introduction to Comparative Government and Politics	• To familiarise with the basic concepts and approaches to the study of comparative politics • To examine politics in a historical framework • Study of governments of USA & China
	C-VI	Introduction to Public Administration	• To encompass public administration in its historical context • To explore recent trends, including feminism and ecological conservation • To provide comprehensive understanding on contemporary administrative developments
	C-VII	Perspectives on International Relations	• Perspective on international relations • To study evolution of international state system • To introduce different theories in international relations • To provide an overview of major political developments and events starting from 20th century. • To make one aware of the implicit Euro-centricism of IR
IV	C-VIII	Political Process and Institutions in Comparative Perspective	• To train one on the comparative methods to the study of politics • To introduce some of the range of issues, literature and methods
	C-IX	Public Policy and Administration in India	• Study on effectiveness in translating the governing philosophy in to programs and policies • To deal with issues of decentralisation, financial management, citizens and administration • Analysis of social welfare from a non-western perspective
	C-X	Global Politics	• To impart an understanding of the working of the world economy • To analyse the changing nature of relationship between the State and transnational actors and networks • Dealing with global issues such as proliferation of nuclear weapons, international terrorism and human security

V	C-XI	Western Political Philosophy	• To familiarise the manner in which the political questions were first posed • To have a foundation on the modern politics by Hobbes, Locke, Rousseau and Marx • Basically to deal with the Greek antiquity
	C-XII	Indian Political Though (Ancient and Medieval)	• To study on individual thinkers mainly of Indian political thought • To know about Manu and Vedvyasa • Knowledge on the thoughts of Kabir and Abul Faza
VI	C-XIII	Contemporary Political Philosophy	• To expose to the questions of politics • Study on contemporary philosophy of Lenin, Maotsetung, Gramsci and Rawls
	C-XIV	Modern Indian Political Though	• Study on general themes produced by political thinkers • To analyse the philosophy of Gandhi, Ambedkar, Tagore and Savarkar • To have a comparative study on secularism and socialism of Nehru, socialism of Lohia and total revolution of J.P. Narayan

NAME OF THE PROGRAMME: B.A. ODIA

PROGRAMME OUTCOME OF B.A. ODIA:

After completion of the three year degree programme of B.A Odia student should be able to:

- Know about life and the art of living
- Make the future of the country better and stronger
- Communicate among ourselves

PROGRAMME SPECIFIC OUTCOME OF B.A. ODIA:

On completion of B.A Odia programme students are able to:

- Strengthen the personality as well as societal relations
- Be motivated to create a new society
- Produce journalist, artist, poets, writers etc.

COURSE OUTCOME OF B.A. ODIA

SEMESTER	COURSE (CORE/ PAPER)	SUBJECT	COURSE OUTCOME
I	C-I	History of Ancient Odia Literature	• Detail knowledge on ancient literature and their authors

			• To know the strength of own language along with education, culture, policy etc. Of ancient age
	C-II	Medieval odia Literature	• To know about literature of medieval era • To have a knowledge on social, political, cultural and religious background of medieval odia literature
II	C-III	Modern Odia Literature	• To know about publication of magazines, establishment of printing machines etc • To study on poems and stories of Radhanath, Gangadhar, Madhusudan Rao and Fakirmohan
	C-IV	Post Independent Odia Literature	• Study on Odia post independent odia poems • Study on Odia post independent odia drama • Study on Odia post independent odia critics, biography etc.
III	C-V	Odia Bhasa O Lipi Ra Aitihasika Bikasakrama	• Origin and progression of odia literature • Historical evolution of odia scripts • Study on Sarala literature language
	C-VI	Odia Bhasa ra Sangya Swarupa, Odia Bhasa ra Baisistya O Bibidhata	• To know the definition, origin of language • Regional shape of Odia language • Influence of other languages on Odia language
	C-VII	Odia Byaabaharika Byakarana	• Construction of Odia letters and sentences • Grammatical knowledge such as Karaka, Bibhakti, Sandhi, Samasa etc. • Uses of Odia words
IV	C-VIII	Oda Loka Sanskruti O Loka Sahitya	• Knowledge on origin and development of culture and literature • To differentiate between stories and other literatures • To know about colloquial drama and their types such as Pala, Daskathia, Chhau etc.
	C-IX	Sahitya Tatwa (Prachya O Paschatya)	• Knowledge on phonetics • Concepts on classicism and romanticism
	C-X	Odia Kabita Prachina Ru Adhunika	• A detail study on “Duryadhana Nka Rakta Nadi Santarana”, “Rasakallola”(1st Chhanda), “Koti Brahmanda Sundari”(1st Chhanda) • Study on a few modern poems
	C-XI	Odia Nataka O Ekankika	• A study on the drama “Rakta Mati”, “Nandika Kesari” and “Kokua” • Detail study on “Ekankika- Smruti Bibhrata”
	C-XII	Odia katha Sahitya	• Development of katha sahitya • Study on - “Chamana Athaguntha”, “Danapani”

			• Study on stories of odia literature
VI	C-XIII	Odia Gadya Sahitya	• Study on biography and critics • Detail analysis on language and nationalism
	C-XIV	Odia Bhasara Byaabaharika Prayoga	• To prepare on debating, group discussion and interview • To be able to prepare news, features and advertisements • Preparing for writing process in offices • To have knowledge on computerisation of Odia language

NAME OF THE PROGRAMME: B.A. ENGLISH

PROGRAMME OUTCOME OF B.A. ENGLISH

After completion of the three year degree programme of B.A English student should be able to:

- Teach the basic concepts of English language and literature
- Apply literary critical perspectives
- Promote cultural values through English language

PROGRAMME SPECIFIC OUTCOME OF B.A. ENGLISH:

On completion of B.A English programme students are able to:

- Understand the basics of literature and language
- Understand the literary merit and creative use of English language
- Get familiarise with the classic prose and poetry in English literature

COURSE OUTCOME OF B.A. ENGLISH

SEMESTER	COURSE (CORE/ PAPER)	SUBJECT	COURSE OUTCOME
I	C-I	British Poetry and Drama: 14th -17th Centuries	• To introduce the students to explore certain seminal texts from early modern period covering the genesis of modern English poetry • To analyse renaissance that set British poetry and drama on their glorious course to greatness
	C-II	British Poetry and Drama: 17th -18th Centuries	• To acquaint with the Jacobean and the 18th century British poetry and drama • To know about the acid satire and the comedy of humours • To have knowledge of supreme satiric poetry and the comedy of manners
II	C-III	British Prose: 18th Century	• To acquaint with remarkable, newly evolved form of literature i.e the essay • To have knowledge on the shift of emphasis from reason to emotion
	C-IV	Indian Writing in English	• To produce a rich and vibrant body of writing spanning all genres • To strengthen knowledge through a selection of representative poems, novels and plays

III	C-V	British Romantic Literature	• To acquaint with the romantic period and some of its representative writers • To be able to sample some seminal works of the romantic age which gave expression to the key ideas of the period such as return to nature, subjectivity, desire to personal freedom • To make aware about the defiance of classism – imposed restrictions on poetic form
	C-VI	British Literature: 19th Century	• To introduce and exploit the 19th century British literature in prose, especially fiction and cultural criticism • To study the classic literature of Jane Austen and Charles Dicken
	C-VII	British Literature: early 2oth Century	• To study development in society and economy, leading to crisis in western society • Study of the classic poetry written by Eliot, Yeats, Owen
IV	C-VIII	American Literature	• To have an overview of canonical authors from American literature • To study literatures of Arthur Miller and Ernest Hemingway
	C-IX	European Classical Literature	• To have knowledge on European classic literature from 18th century BC to 5th Century AD • To acquaint founding texts of the European canon • Study of literatures of Homer and Aristotle
	C-X	Womens' Writing	• To acquaint with the works of women writers from different cultures and nations • To make aware critically on the issues relating to the workings of Patriarchy, of gender and relations of desire and power.
V	C-XI	Modern European Drama	• To introduce to the best of experimental and innovative dramatic literature of modern Europe • Study of literatures of Ibsen, Ionesco and Brecht
	C-XII	Indian Classical Literature	• To create an awareness regarding the rich and diverse literary and aesthetic culture of ancient India • Study of Sanskrit drama of Kalidasa and Sudraka
VI	C-XIII	Post Colonial Literature	• To introduce the students on post colonial literature • To provide the opportunity to think through the layered response- compliance, resistance, Mimicry, subversion • To study of literatures of Raja Rao, Jean Rhys and Fugard
	C-XIV	Popular Literature	• To know about the genres such as children literatures, detective fiction and campus fiction which can help to gain a better understanding of the popular and folk roots of literature

			• Study of literatures of Lewis Caroll, Doyale and Chetan Bhagat

NAME OF THE PROGRAMME: B.A. PHILOSOPHY

PROGRAMME OUTCOME OF B.A. PHILOSOPHY

- After completion of the three year degree programme of B.A Philosophy student should be able to:
- Demonstrate creative thinking, innovation, inquiry, evaluation and synthesis of information
- Improve their understanding on ethics and their application to contemporary moral problems of society
- Lead peaceful and harmonious life

PROGRAMME SPECIFIC OUTCOME OF B.A. PHILOSOPHY:

On completion of B.A Philosophy programme students are specifically able to:

- Act morally and ethically as the very meaning of Philosophy is 'way of life or 'way of valuable life
- Develop reasoning power to understand something systematically or methodically
- Develop critical thinking and proper use of language

COURSE OUTCOME OF B.A. PHILOSOPHY

SEMESTER	COURSE (CORE/PAPER)	SUBJECT	COURSE OUTCOME
I	C-I	General Philosophy	• Acquire fundamental concepts, terms, definitions about philosophy • Develop an ability to assess the relevance of information to the particular moral problem • Understand different philosophical concepts like realism, idealism, conceptualism etc
	C-II	Logic and Scientific Method	• Develop an ability to assess rational inquiry in logical concepts • Draw certain conclusions through observation, analysis, hypothesis etc by scientific method • Distinguish valid from invalid argument logically
II	C-III	Systems of Indian Philosophy- I	• To know about the depth of knowledge of Indian Metaphysics, epistemology and ethics • To cultivate various systems or schools in Indian philosophy such as heterodox and orthodox schools in Indian philosophy
	C-IV	Symbolic Logic	• To define proposition and argument

			• Express natural language arguments in symbolic language by means of symbolisation
III	C-V	Ethics	• Acquire fundamental concepts, terms, definitions and principals in the study of ethics • Understand various moral problems like violence, punishment, evil etc. • Develop moral character, conduct and behaviour
	C-VI	History of Greek Philosophy	• Introduce basic epistemological issues and problems of Greek philosophy • To understand the nature of pre-Socratic thought and post-Socratic thought • To understand Socratic's method, epistemology and ethics
	C-VII	Systems of Indian Philosophy- II	• Develop an ability to assess the relevance of Upanisadic view of Atma and Brahman • To understand different types of Yoga system of Patanjali popularly known as Astanga Yoga • To know about Indian epistemology
IV	C-VIII	Contemporary Indian Philosophy	• To understand different Philosophical concepts given by Tagore • To assess philosophical teachings of Vivekananda, Sri Aurovindo, Radhakrishnan and M K Gandhi
	C-IX	History of Modern European Philosophy	• To understand different methods, concepts and techniques in European Philosophical • Develop an ability to know about European epistemology and metaphysics
	C-X	Philosophy of Language	• Develop an ability to assess the relevance of linguistic philosophy • To understand the nature of word, word meaning, ambiguity and vagueness • Acquire knowledge about sentence and proposition
V	C-XI	Western Classics: Meditations of Rene Descartes	• Acquire fundamenta concepts, sceptical doubts and nature of God in Descarate's philosophy • Clearly understand the meaning of "Cogito ergo Sun"

			• To know about mind-body dualism, primary and secondary quality
	C-XII	Indian Text: Isa Upanisad	• Develop an ability to understand the relevance of Isa Upanisad in present society • Express the nature of Mantra • To understand various aspects of Brahman(Para and Apara)
VI	C-XIII	Social and Political Philosophy	• To understand the nature of justice, liberty and equality • To know about political doctrines • Ability to know about origin and development of human rights
	C-XIV	Applied Ethics	• Acquire fundamental knowledge about applied ethics • To understand the basic structure of animal rights and taking life of humans like 'Euthanasia' • Ability to assess the relevance of ethics in business and bio-medical issues

NAME OF THE PROGRAMME: B.A. ARTS GENERAL

PROGRAMME OUTCOME OF B.A. ARTS GENERAL:

After completion of the three year degree programme of B.A General Student should be able to:

- develop an awareness and confidence in their own voice as a writer and analyze complex social and natural problems
- Communicate effectively
- Demonstrate a detailed knowledge and understanding of selected fields of study

PROGRAMME SPECIFIC OUTCOME OF B.A. ARTS GENERAL:

On completion of B.A Arts General programme students are able to:

- participate in conversation that builds knowledge collaboratively
- Listen carefully and respectfully to others viewpoints
- Articulate their own ideas and questions clearly prepare, organise and deliver and engaging oral presentation
- express their own ideas independently

NAME OF THE PROGRAMME: B.COM. COMMERCE

PROGRAMME OUTCOME OF B.COM. COMMERCE:

After completion of the three year degree programme of B.Com Commerce student should be able to:

- to make the students learn the writing and interpretation books of accounts
- impart and develop the oral and written communication, Information Technology and statistical skills as well as legal knowledge
- to develop and inculcate entrepreneurial skills among the students.
- to make themselves more productive, self reliant and constructive for benefit of society

PROGRAMME SPECIFIC OUTCOME OF B.COM. COMMERCE:

On completion of B.Com Commerce programme students are able to:

- make the students employable and self employment
- acquire the management skills required to manage the business
- be conversant with the financial and economic environment

COURSE OUTCOME OF B.COM COMMERCE

SEMESTER	COURSE (CORE/ PAPER)	SUBJECT	COURSE OUTCOME
I	C-I	Financial Accounting	The Course outcome of this paper is to • impart skills for recording various kinds of business transactions • acquire conceptual knowledge of financial accounting
	C-II	Business Law	• impart basic knowledge of the important business laws • know the relevant case laws, partnership laws
II	C-III	Cost Accounting	• acquaint with concepts used in cost accounting • Have knowledge on various methods involved in cost ascertainment
	C-IV	Corporate Law	• impart basic knowledge of the provisions of the Companies Act, 2013 and depository Act, 1996 • acquaint with case studies involving issues in corporate laws
III	C-V	Corporate Accounting	• acquire conceptual knowledge of the Corporate Accounting • learn the techniques of preparing the financial statements
	C-VI	Income Tax Law and Practice	• provide knowledge and equip with the application of principles and provisions of Income Tax Act, 1961 • have knowledge on heads of income and provisions governing them
	C-VII	Management Principles and Application	• provide the students with an understanding of basic management concepts, principles and practices • make use of different management principles in the course of decision making in different forms of business organisations
IV	C-VIII	GST and Indirect taxes	• equip students with the principles and provisions of GST

			• have basic working knowledge about GST laws • Know about GST Council and regulatory framework
	C-IX	Fundamentals of Data Management	• have basic working knowledge on Word Processing • be able to prepare Presentations • know the basics of Data Base Management System
	C-X	Management Accounting	• Acquaint with basic concepts of Management Accounting • Basic understanding of tools and techniques used for managerial decision making • Gather confidence in managing cost issues
V	C-XI	Computerised Accounting and e-filing of Tax Returns	• Have knowledge on Computerised Accounting Package by using generic software • Designing Computerised Accounting System • E-filing of Tax returns
	C-XII	Fundamentals of Financial Management	• Familiarize the students with the principles and practices of Financial Management • Understand finance in a better way • Have insight to practical management of long and short finance for real business houses
VI	C-XIII	Auditing and Corporate Governance	• Provide knowledge of auditing principles, procedures and techniques in accordance with current legal requirements and professional standards • Give an over view of the principles of Corporate Governance and corporate social responsibility
	C-XIV	Business Mathematics	• Familiarize the students with the basic mathematical tools • Apply mathematical tools to business and economic situations

NAME OF THE PROGRAMME: B.Sc BOTANY

PROGRAMME OUTCOME OF B.Sc. BOTANY:

After completion of the three year degree programme of B.Sc Botany student should be able to:

- achieve scientific temperament in and outside the scientific community
- know about different types of lower and higher plants their evolution from algae to angiosperm plants their economic and ecological importance.
- acquire knowledge about cell organelles and their function
- gather knowledge on Molecular biology that gives insight about chemical properties of nucleic acid and their role in living system
- have knowledge about laws of in heritance, various genetic interactions chromosomal abrasions and multiple alleles
- describe morphological and reproductive characters of plant and also identify different plant families and classification
- Use modern botanical techniques and decent equipments

PROGRAMME SPECIFIC OUTCOME OF B. Sc. BOTANY:

On completion of B.Sc. Botany programme students are specifically able to:

- know advance techniques in plant science
- acquire fundamental botanical knowledge
- explain plant life, reproductions and their survival in nature
- understood role of living and fossil plants in our life
- start mushroom cultivation, fruit reservation
- create awareness about cultivation and conservation
- gather knowledge on sustainable utilization of biodiversity

COURSE OUTCOME OF B.Sc. BOTANY

SEMESTER	COURSE (CORE/PAPER)	SUBJECT	COURSE OUTCOME
I	C-I	Microbiology and Phycology	• basic study on microbial world • study on Bacteria and Cyanobacteria • general characteristics of Agae, Chlorophyta, Charophyta, Xanthophyta, Phaeophyta and Rhodophyta • Practical knowledge on Microbiology and Phycology
	C-II	Bio molecules and Cell Biology	• Structure and characteristics of Bio-molecules, Enzymes, Lipids, Proteins etc. • Structure, property and characteristics of Cell and Nucleus • Practical knowledge on Cell Biology
II	C-III	Mycology and Phytopathology	• General characteristics of Fungi and allied fungi • Role of fugi in Biotechnology

			• Concepts, symptoms regarding Phytopathology • Practical knowledge on Mycology and Phytopathology
	C-IV	Archegoniate	• Unifying features of Archegoniates • general characteristics of Pteridophytes and Gymnosperms • study on Palaebotany • Practical knowledge on Archegoniate
III	C-V	Anatomy of Angiosperms	• Introduction and scope of plant anatomy • Ideas on Tissues, Stem, Root and Leaf • Adaptive and protective systems • Practical knowledge on Anatomy of Angiosperms
	C-VI	Economic Botany	• Origin of cultivated plants • Study on spices and drugs • Morphology, processing, uses and health hazards of Tobacco • Knowledge on Oils& Fats, Natural Rubber and Timber Plants • Practical knowledge on Economic Botany
	C-VII	Genetics	• History and principles of inheritance of genetics • Variation in Chromosome number and Structure • Types and Detection of gene mutations • Population and evolutionary genetics • Practical knowledge on Genetics
IV	C-VIII	Molecular Biology	• Carriers of genetic information and organisation of DNA • Processing and modification of RNA • Transcription and protein synthesis • Practical knowledge on Molecular Biology
	C-IX	Plant Ecology and Phytogeography	• Concept of Ecology • Formation, composition and components of Soil • Structure, processes and functional aspects of Ecosystem • Practical knowledge on Plant Ecology and Phytogeography
	C-X	Plant Systematics	• Identification, classification and nomenclature of Plants • Terms and concepts on Phylogene

			• Practical knowledge on study of vegetative and flora characters of some materials
V	C-XI	Reproductive Biology of Angiosperms	• History and scope on Reproductive Biology of Angiosperms • Pollination and fertilisation • Concepts on self compatibility • Development, structure functions of Endosperm • Practical knowledge on Anther, Pollen Grains, Ovule and Embryogenesis
	C-XII	Plant Physiology	• Plant-water relationship • Translocation in phloem • Mineral nutrition and Nutrient Uptake • Physiology of Flowering • Practical knowledge on Plant Physiology
VI	C-XIII	Plant Metabolism	• Concepts of Metabolism and Mechanism of signal transduction • Carbon assimilation, Oxidation and • Mechanism of ATP synthesis • Lipid metabolism and Nitrogen metabolism • Practical knowledge on Plant Metabolism
	C-XIV	Plant Biotechnology	• Plant tissue culture • Recombinant DNA • Applications of Biotechnology • Practicals related to Plant Biotechnology

NAME OF THE PROGRAMME: B.Sc ZOOLOGY

PROGRAMME OUTCOME OF B.Sc ZOOLOGY :

After completion of the three year degree programme of B. Sc. Zoology student should be able to:

- Understand the Physiology, Genetics, Biochemistry, Ecology and Evolution
- Create an awareness of the impact of Zoology on the environment, society Demonstrate, solve and understanding of major concepts in all disciplines of Zoology
- Use modern techniques, equipments and Zoology softwares
- Inculcate the scientific temperament in and outside the scientific community

PROGRAMME SPECIFIC OUTCOME OF B.Sc ZOOLOGY:

On completion of B. Sc. Zoology programme students are able to:

- Study and understand the Cell and cell organelle, cell cycle

- Understand the concepts of Ecology, Fishery and Evolution.
- Gather knowledge on Vertebrate animals and Genetics through Theory and Practical
- Understand good laboratory practices and safety
- Develop research oriented skills
- Make aware and handle the sophisticated instruments/equipments.
- Gain the knowledge of Invertebrates through theory and practical
- Understand the Knowledge of Physiology and Biochemistry

COURSE OUTCOME OF B.Sc ZOOLOGY :

SEMESTER	COURSE (CORE/PAPER)	SUBJECT	COURSE OUTCOME
I	C-I	Non-chordates-I: Protista to Pseudocoelomates	• Study of Euglena, Amoeba • General characteristics and classification of Cnidaria & Ctenophora • General characteristics and classification of Platihelminthes and Nemathelminthes • Practical knowledge on Non-chordates
	C-II	Principles of Ecology	• Understand effect of Temperature and Light on animals • Understand Concept, Characteristics, growth and regulation of Population • Understand Community structure, Characters and Community Succession • Understand different types of Ecosystem and dynamics of ecosystem • Practical knowledge on Ecology
II	C-III	Non-chordates-II: Coelomates	• General characteristics and classification of Coelomates and Annelids • General characteristics and classification of Arthropoda and Onycophora • General characteristics and classification of Mollusca and Echinodermata • Practical knowledge on Coelomates
	C-IV	Cell Biology	• Overview of cells and plasma membrane • Structure and functions of Cytoskeleton and Endomembrane System • Structuer and semi-autonomous nature of mitochondria and Peroxisomes • Cell cycle and its regulation • Practical knowledge on Cell Biology
III	C-V	Diversity and Distribution of Chordates	• General characteristics and outline classification of Protochordates • General characteristics of Agnantha, Pisces and Amphibia • General characteristics and classification of Reptilia and Aves • General characteristics and classification of Mammals and Zoogeography • Practical knowledge on Diversity and Distribution of Chordates

	C-VI	Physiology: Controlling and Coordinating Systems	• Structure, location, classification and functions of tissues • Hystology of different types of muscles, testis and ovary • Hystology of Endocrine glands • Classification of hormones and mechanism of hormone action • Practical knowledge on Controlling and Coordinating Systems
	C-VII	Fundamentals of Biochemistry	• Structure, significance and biological importance of carbohydrates & Lipids, Proteins and Nucleic Acids • Nomenclature, classifications and effects of Enzymes • Practical knowledge on Biochemistry
IV	C-VIII	Comparative Anatomy of Vertebrates	• Structure, function and derivatives of integument • Digestive and Respiratory System • Circulatory and Urinogenital System • Nervous System and Sense Organs • Practical knowledge on anatomy of vertebrates
	C-IX	Physiology: Life Sustaining System	• Study on Physiology and Digestion • Physiology of Respiration • Renal physiology and Blood • Physiology of Heart • Practical knowledge on Life Sustaining System
	C-X	Biochemistry of Metabolic Processes	• Overview of Metabolism • Carbohydrates, Lipid and Protein Metabolism • Practical knowledge on Metabolic Processes
V	C-XI	Molecular Biology	• Features of Nucleic acid, DNA Replication & repair • Transcription factors and regulation of transcription • Post-transcriptional modification and processing of Eukaryotic RNA • Gene regulation & regulatory RNAs • Practical knowledge on Molecular Biology
	C-XII	Principles of Genetics	• Understand the Mendel's low of Heredity • Understand the Gene Mutation and Chromosomal Mutation • Sex determination and sex linked Inheritance • Recombination in Bactaria and Viruses & Transposable Genetic Elements • Practical knowledge on Genetics
VI	C-XIII	Developmental Biology	• Introduction to Development Biology, Gametogenesia & Fertilisation • Early Embryonic Development • Late Embryonic Development

			• Post-Embryonic Development & Implications of Developmental Biology • Practical knowledge on Developmental Biology
	C-XIV	Evolutionary Biology	• Theories, Evidences of Evolution and Extinction • Process of Evolutionary changes • Species concept and Speciation • Concept of origin and Evolution of Man • Practical knowledge on Evolutionary Biology

NAME OF THE PROGRAMME: B.Sc PHYSICS

PROGRAMME OUTCOME OF B.Sc PHYSICS:

After completion of the three year degree programme of B.Sc PHYSICS student should be able to:

- a clear understanding of concepts of Physics.
- capacity to think and analyze the experiments on Physics
- solve problems and think methodically
- a scientific bent of mind to create an awareness towards impact of Physics on the society
- have knowledge to inculcate scientific temperament in and outside the scientific community.

PROGRAMME SPECIFIC OUTCOME OF B.Sc. PHYSICS:

On completion of B. Sc. Physics programme students are able to:

- Gain the knowledge of Physics
- Understand good laboratory practices
- Make aware and handle the sophisticated instruments/equipment
- Develop research-oriented skills
- Go for higher studies such as M. Sc.(Physics), Integrated M.Sc., MBA etc.
- Appear in various competitive examinations for jobs in Govt., Private Sector or Public Sector j
- Join in Govt./Private Schools as teachers

COURSE OUTCOME OF B.Sc. PHYSICS

SEMESTER	COURSE (CORE/PAPER)	SUBJECT	COURSE OUTCOME
I	C-I	Mathematical Physics- I	• Knowledge on Calculus and Dirac Delta function • To know the Cartesian, spherical polar and cylindrical co-ordinate systems • Idea on Vector differentiation and integration • Practical knowledge related to computer programming and numerical analysis to emphasise its role in solving problems in Physics
	C-II	Mechanics	• Knowledge on Rotational dynamics, Elasticity and Fluid motion • Gravitation and Central Force Motion • Idea on SHM; Free, forced and damped Oscillations • Practical knowledge related to Mechanics

II	C-III	Electricity and Magnetism	• To know about electric field, potential and potential energy • To know about force on current carrying conductors and its applications • Knowledge on Magnetic Susceptibility, Permeability and Hysteresis • Kirchoff's laws for AC circuits, LCR Circuits • Analysis of Network theorems • Practical knowledge related to Electricity and Magnetism
	C-IV	Waves and Optics	• Formats principle, different types of eye piece • Ripple and gravity waves, Lissajous figures • Interference and interferometer • Study of Fresnel and Fraufoffer Diffraction pattern • Practical knowledge related to Waves and Optics
III	C-V	Mathematical Physics- II	• To expand periodic functions in a series of sine and cosine functions • To study term by term differentiation and integration of Fourier Series • To know about Legendre and Hermite Differential equations • To solve partial differential equations • Practical knowledge related to use of computational methods to solve physical problems by using *SCILAB*
	C-VI	Thermal Physics	• To have a clear understanding of laws of thermodynamics and entropy • To know how absolute zero is unattainable • Study of production of low temperature • Idea on kinetic theory of gases and molecular collision • Practical knowledge related to Thermal Physics
	C-VII	Digital Systems and Applications	• To know about Logic gates and Boolean algebra • To study data processing circuits, arithmetic circuits and CRO • To know how to store data by RAM & ROM and organise memory • Practical knowledge related to Digital Systems and Applications
IV	C-VIII	Mathematical Physics- III	• Study on Complex analysis and applications in solving Definite Integrations • To apply Fourier and Laplace transformations in differential equations • Practical knowledge related to *SCILAB* based simulations experiments based on Mathematical Physics problems
	C-IX	Elements of Modern Physics	• To study extensively the models of atom and atomic spectra • To know about the interesting aspect of wave-particle duality • To know the properties of nucleus likes binding energy, magnetic dipole moment and electric quadruple moment • To understand the concept of radioactivity and decays law

			• To study achievement of Nuclear Models of Physics and its Limitations • Practical knowledge related to Atomic Physics and Quantum Physics
	C-X	Analog Systems and Applicaions	• Idea on Semiconductor diodes and their applications as rectifiers • Idea on transistor connections and their applications as amplifiers • To study Sinusoidal oscillators and Op-Amps • Practical knowledge related to Electronics and Analog Systems
V	C-XI	Quantum Mechanics and Applications	• Basic idea on Schroedinger wave equation and the operators • To study time –independent Schroedinger equation • To know about Quantum mechanical scattering and tunnelling • Idea on Normal and Anomalous Zeeman effect • Practical knowledge related to use of C/C++/ *SCILAB* for solving problems based on Quantum Mechanics
	C-XII	Solid State Physics	• Study on crystal structure • To understand the principles and techniques of X-rays diffraction • To give an extended knowledge about magnetic properties of matter and LASERS • To know the fundamental principles of semiconductors and be able to estimate the charge carrier mobility • Knowledge on Superconductivity • Practical knowledge related to Solid State Physics
VI	C-XIII	Electromagnetic Theory	• To study the formulation of Maxwell's equations. • To illustrate the boundary value problems of electrodynamics. • To apply Maxwell's equations to solve problems in classical electrodynamics. • To understand transport of energy and Poynting vector • Practical knowledge related to
	C-XIV	Statistical Mechanics	• To gather knowledge on macro- and micro-states • To study specific heat with applications • To study the properties and laws related to thermal radiation • To gather knowledge on Fermi-Dirac and Bose-Einstein statistics • Practical knowledge related to Statistical Mechanics

NAME OF THE PROGRAMME: B.Sc. CHEMISTRY

PROGRAMME OUTCOME OF B.Sc CHEMISTRY

After completion of the three year degree programme of B.Sc. Chemistry students should be able to:

- Create awareness of impact of chemistry on the environment and society
- Enrich the basic concepts in Chemistry
- Develop scientific temper
- Develop research oriented skills
- Enhance the skills in instrument handling

PROGRAMME SPECIFIC OUTCOME OF B.Sc CHEMISTRY:

On completion of B. Sc. Chemistry programme students are able to:

COURSE OUTCOME OF B.Sc CHEMISTRY

SEMESTER	COURSE (CORE/PAPER)	SUBJECT	COURSE OUTCOME
I	C-I	Inorganic Chemistry-I	• Understand the concept of Atomic Structure • Discuss in details about covalent bond and various proposed theories with numerous examples • chemical bonding in inorganic compounds • Practical work related to acid-base titration and oxidation-reduction titrimetry
	C-II	Physical Chemistry-I	• Study of Gaseous, Liquid and Solid States • Knowledge on Ionic Equilibria • Practical work related to surface tension, viscosity, pH-metry and ionic equilibria
II	C-III	Organic Chemistry-I	• Basic idea on Organic Chemistry • understand chemical bonding in Organic compounds • Study on Steriochemistry • Study on Aromatic Hydrocarbon • Practical work related to Chromatography and basic Organic Chemistry
	C-IV	Physical Chemistry-II	• Concepts on Chemical Thermodynamics • Criteria of equilibrium • Study on solutions and colligative properties • Practical work related to Chemical Thermodynamics
III	C-V	Inorganic Chemistry-II	• Knowledge on general principles of Metallurgy and Acids & Bases • Chemistry of s and p Block elements • Fundamentals of Noble Gases and Inorganic Polymers • Practical work related to Iodimetric Titration and Inorganic preparation
	C-VI	Organic Chemistry-II	• Study of chemistry of Halogenated Hydrocarbons • Study on Alcohols, Phenols, Ethers and Epoxides • Idea on Carboxyl Compounds

			• Preparation, properties and reaction of Carboxylic acids and their Derivatives • Practical work related to preparion of Organic compounds
	C-VII	Physical Chemistry-III	• Concepts of Phase Equilibria • Study on Chemical Kinetics • Knowledge on Catalysis and Surface Chemistry • Practical works related to Physical Chemistry
IV	C-VIII	Inorganic Chemistry-III	• Concepts on Coordination Chemistry • Study on Transition Elements • Detail analysis of Bioinorganic Chemistry • Practical works related to Inorganic preparation, Complexometric titration, Gravimetric analysis and Chromatography of metal ions
	C-IX	Organic Chemistry-III	• Preparation and reactions of nitrogen containing functional groups • Preparation and their synthetic applications of Diazonium Salts • Study on Heterocyclic Compounds, Alkaloids and Terpenes • Experiments related to qualitative organic analysis of organic compounds
	C-X	Physical Chemistry-IV	• Concepts on Conductance • Study on Electrochemistry • Discussion on electrical properties of atoms and molecules • Practical works related to Conductivity and Potentiometry
V	C-XI	Organic Chemistry-IV	• Fundamentals of UV-, IR-, NMR- Spectroscopy • Occurrence, classification and biological importance of Carbohydrates • Experiments related to Organic Chemistry
	C-XII	Physical Chemistry-V	• Concepts of Quantum Chemistry • Fundamentals of Chemical Bonding • Study on Molecular Spectroscopy • Experiments related to Spectroscopy/Calorimetry and Spectrophotometric Titration
VI	C-XIII	Inorganic Chemistry-IV	• Classification and analysis of Organometallic Compounds • Basic theoretical principles involved in Qualitative Analysis of cations and anions • Thermodynamic & kinetic aspects and reaction mechanism of metal complexes • Practical works related to Qualitative Analysis of Mixtures
	C-XIV	Organic Chemistry-V	• Classification and Characteristics of Amino acids, Peptides, Proteins, Enzymes, Nucleic Acids and Lipids • Concepts of energy in Biosystem

			• Structure and importance of Pharmaceutical compounds • Classification, Colour and Constitution of Dyes • Practical works related to estimation of some organic compounds

NAME OF THE PROGRAMME: B.Sc MATHEMATICS

PROGRAMME OUTCOME OF B.SC MATHEMATICS

After completion of the three year degree programme of B.Sc Mathematics student should be able to:

On completion of the program the students are well poised to identify the applications of mathematics in other disciplines and society

- Understand mathematical ideas from basic axioms
- use the concepts of analysis in solving problems
- Pursue careers in academia, industry and the other areas of Mathematics
- equip themselves with necessary analytic and technical skills to handle problems of mathematical nature as well as practical problems

PROGRAMME SPECIFIC OUTCOME OF B.SC MATHEMATICS

On completion of B.Sc Mathematics programme students are able to: Recognize and appreciate the connections between theory and applications

- Follow independently the survey articles, scholarly books, and online sources
- work effectively in scientific, government, financial, and other positions
- Have a broad background in Mathematics
- Have an appreciation of how its various sub-disciplines are related
- ability to use techniques from different areas, and an in-depth knowledge about topics chosen

COURSE OUTCOME OF B.SC MATHEMATICS

SEMESTER	COURSE (CORE/ PAPER)	SUBJECT	COURSE OUTCOME
I	C-I	Calculus	• Use Leibnitz's rule to evaluate derivatives of higher order, • able to study the geometry of various types of functions, evaluate the area, volume using the techniques of integrations, • able to identify the difference between scalar and vector, acquired knowledge on some the basic properties of vector functions.
	C-II	Discrete Mathematics	• to acquaint students with basic counting principles, set theory and logic, matrix theory and graph theory • acquire knowledge will help students in simple mathematical modelling

			• study advance courses in mathematical modelling, computer science, statistics, physics, chemistry etc
II	C-III	Real Analysis	• to have the knowledge on basic properties of the field of real numbers, studying Bolzano-Weierstrass Theorem , sequences and convergence of sequences, series of real numbers and its convergence etc. • able to handle fundamental properties of the real numbers that lead to the formal development of real analysis and understand limits and their use in sequences, series, differentiation and integration • appreciate how abstract ideas and rigorous methods in mathematical analysis can be applied to important practical problems
	C-IV	Differential equation	• to familiarize the students with various methods of solving differential equations and to have a qualitative applications through models • to solve problems to understand the methods • to solve differential equations and is able to model problems in nature using Ordinary Differential Equations
III	C-V	Theory of Real functions	• to have knowledge on limit- theorems on functions, limits of functions, continuity of functions and its properties, uniform continuity, differentiability of functions, algebra of functions and Taylor's theorem and, its applications • working knowledge on the concepts and theorems of the elementary calculus of functions of one real variable • work out problems involving derivatives of function and their applications • use derivatives to analyze and sketch the graph of a function of one variable and obtain absolute value • can take all other analysis courses after learning this course and relative extreme of functions
	C-VI	Group Theory-I	• to introduce students to basic concepts of group theory and examples of groups and their properties • lead to future basic courses in advanced mathematics, such as Group theory-II and ring theory • idea on concept and examples of groups and their properties

			• understand cyclic groups, permutation groups, normal subgroups and related results • can opt for courses in ring theory, field theory, commutative algebras, linear classical groups etc. • can apply this knowledge to problems in physics, computer science, economics and engineering.
	C-VII	Partial differential equations and system of ODEs	• exposure to Charpit's Method, Jacobi Method and solve wave equation, heat equation, Laplace Equation etc. • learn classification of Partial Differential Equations and system of ordinary differential equations • to take more courses on wave equation, heat equation, diffusion equation, gas dynamics, non linear evolution equations etc.
IV	C-VIII	Numerical Methods and Scientific Computing	• to acquaint students with various numerical methods of finding solution of different type of problems, which arises in different branches of science such as locating roots of equations, finding solution of systems of linear equations and differential equations, interpolation, differentiation, evaluating integration • can handle physical problems to find an approximate solution • can opt for advance courses in numerical analysis in higher mathematics
	C-IX	Topology of Metric spaces	• to impart knowledge on open sets, closed sets, continuous functions, connectedness and compactness in metric spaces. • learn to work with abstract topological spaces
	C-X	Ring Theory	• to gather knowledge on modern algebra which deals with ring theory like rings, subrings, ideals, ring homomorphisms and their properties • help students to continue more courses in advanced Ring theory modules and Galois groups
V	C-XI	Multivariable Calculus	• to introduce functions of several variable to a student after he has taken a course in one variable calculus • introduction to partial derivatives and several of its consequences and double and triple integrals along with line integrals which are fundamental to all streams where calculus can be used

			• to calculate partial derivatives, directional derivatives, extreme values and can calculate double, triple and line integrals • have idea of basic vector calculus including green's theorem, divergence theorem and Stokes theorem
	C-XII	Linear Algebra	• to introduce a student the basics of linear algebra and some of its application • use of this knowledge after undergraduate program • applications in computer science, finance mathematics, industrial mathematics, bio mathematics etc.
VI	C-XIII	Complex analysis	• to provide an introduction to the theories for functions of a complex variable • concepts of analyticity and complex integration • Discussion on Cauchy's theorem and its applications, the calculus of residues and its applications • to handle certain integrals not evaluated earlier • counting the zeros of polynomials
	C-XIV	Group Theory-II	• to be exposed to more advanced results in group theory after completing a basic course • introduction to results on automorphism, commutator subgroup, group action Sylow theorems etc • to study more on field theory • to learn on direct products, group actions, class equations and their applications with proof of all results