GOVERNMENT OF MANIPUR
OFFICE OF THE PRINCIPAL
✆ 0385-2452358

THE ORIENTAL COLLEGE

(AUTONOMOUS) IMPHAL, MANIPUR

Affiliated to Manipur University, Canchipur

(Accredited "B" - Grade by NAAC)

www.orientalcollege.edu.in e-mail - oriental.dlink@gmail.com

Ref No.: ..... Date: .....

B. SC. PROGRAMME

PROGRAMME OUTCOMES (POS)

On completion of this course the learner will be able to:

PO-1: Knowledge & understanding:
Gain thorough knowledge and understanding of the scientific principles and patterns governing the various subject domains and demonstrate the same.

PO-2: Critical Thinking:
Use critical thinking of scientific phenomenon so as to formulate and articulate ideas.

PO-3: Effective Communication, Social interaction, Effective Citizenship/ social responsibilities:
Acquire and demonstrate clarity of thought and reasoning and thereafter, effectively express it from micro to macro level.

PO-4: Environment and Sustainability:
Display a strong sense of responsibility towards nature and environmental challenges.

PO-5: Morals and Ethics:
Demonstrate moral and ethical correctness in all aspects of their lives.

PO-6: Problem solving and Analytical skills:
Able to identify, analyse and devise solutions for complex problems.

PO-7: Modern tool usage:
Create, select and apply appropriate techniques, resources and tools to understand, analyse and solve problems

Dr. S. Ranjit Singh
Principal
Oriental College (Autonomous), Takyel, Imphal

Principal
Oriental College, Imphal
Govt. of Manipur

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B. A. PROGRAMME
PROGRAMME OUTCOMES (POS)

On completion of this course the learner will be able to:

PO-1: Knowledge.
The learner will demonstrate an academic perspective to address the concerns of the society.

PO-2: Problem analysis.
The learner will be able to apply the knowledge and skill sets in his/her personal and professional life to analyse problems.

PO-3: Environment sustainability
The learner will display commitment to implement healthy practices in conservation and sustainability of environment.

PO-4: Ethics and Communication:
The learner will be able to inculcate and demonstrate professional ethics, personal values and communication skills to be used in different life situations.

PO-5: Individuality and Teamwork:
The learner will be able to work efficiently either individually or collaboratively, with diverse groups towards the achievements of personal and common goals.

PO-6: Competencies for Employment:
The learner will achieve and practice professional competencies and values required to be in positions of responsibility.

PO-7: Life Skills:
The learner will possess and display basic life skills to live in harmony with the environment and society, be compassionate and considerate towards the underprivileged and the marginalised.

COURSE OUTCOMES OF BSc ANTROPOLOGY

Semester-I

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
ANT HC 501	FUNDAMENTALS OF BIOLOGICAL ANTHROPOLOGY	6	1. Students will learn about the aspects from which variation and evolution are studied. 2. Students will learn about the genesis and development of Biological Anthropology and how it is related with other discipline. 3. Students will also learn about the relationship between non-human and human primates 4. From the practical component, they will learn about how to measure and study various parts of the human body
ANT HC 502	FUNDAMENTALS OF SOCIAL & CULTURAL ANTHROPOLOGY	6	1. The students will learn about the scope and relevance of Social-Cultural Anthropology and its relationship with other branches of anthropology. 2. They will learn about concepts of society, culture, social stratification, etc. 3. They will also learn about important institutions like family, marriage and kinship. 4. The students will learn about some important aspects of linguistic anthropology. 5. From the practical component, they will learn how to follow up on some of the commonly used techniques of data collection in Social-Cultural Anthropology.
ANT SE 501	PUBLIC HEALTH AND EPIDEMIOLOGY	4	1. The students will learn about how a community health centre works and delivers healthcare to the people. 2. They will also learn how to document the healthcare delivery systems as they exist in actual situations. 3. From the practical component, they will learn about the collection of data on healthcare delivery or health knowledge, attitude and practices of health issues and preparation of a report on the same.

Semester-II

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
ANT HC 503	FUNDAMENTALS OF PREHISTORIC ARCHAEOLOGY	6	1. The students will learn about archaeological anthropology and its relationship with other sciences. 2. They will learn about how the past is reconstructed. 3. They will also learn about the method of understanding prehistoric culture on the basis of archaeological finds. 4. The students will also learn some important aspects of typo-technology of tools. 5. From the practical component, they will learn about the identification and interpretation of prehistoric tools.
ANT HC 504	HUMAN ORIGIN AND EVOLUTION	6	1. The students will learn about the origin of hominoid group in the primates. 2. They will learn about the origin, distribution and characteristics of extinct hominids and the process of hominization. 3. They will also learn how fossil finds explain the evolutionary development of man. 4. The components of the Practical paper will help students to understand how craniometric measurements and derived indices are useful in studying evolutionary changes in modern humans.
ANT SE 502	TOURISM ANTHROPOLOGY	4	1. The students will learn about various types of tourism and how anthropologists look at them. 2. They will also learn about various aspects of tourism management, promotion of tourism, local culture and local economy. 3. From the practical component they will learn how tourism and travel agencies actually function, how they serve the tourists, and how they make a living not only for themselves but also for many engaged in subsidiary activities like providing transport, guide, etc.

Semester-III

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
ANT HC 601	TRIBES AND PEASANTS IN INDIA	6	1. The students will learn about the concepts of tribes, their classification and distribution. 2. They will learn about how tribes are linked with the wider world. 3. They will also learn about peasantry and how it is related to tribes. 4. From the practical component they will learn to read original ethnographies and extract relevant information from the same.
ANT HC 602	HUMAN ECOLOGY: BIOLOGICAL & CULTURAL DIMENSIONS	6	1. The students will learn about biological aspects of ecology and adaptation. 2. They will learn about cultural aspects of ecology and adaptation. 3. They will also learn about the relationship between ecology and state formation. 4. From the practical component they will learn about measurement of various parts of the human body and about preparing a research design on study of any environmental problem.
ANT HC 603	BIOLOGICAL DIVERSITY IN HUMAN POPULATION	6	1. The students will learn about the use of various markers of biological variation. 2. They will learn about the mechanisms of human adaptability. 3. They will also learn about the contribution of some anthropologists towards understanding the population diversity in India. 4. From the practical component they will learn about the use of blood group antigens and dermatoglyphic traits in measuring biological diversity

Semester-IV

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
ANT HC 604	THEORIES OF CULTURE AND SOCIETY	6	1. The students will learn about the classical theories of culture like evolutionism, diffusionism and culture area. 2. They will learn about historical particularism and neo-evolutionism. 3. They will also learn about functionalism, structuralism and other more recent theories. 4. From the practical component they will learn about formulation of research questions and hypotheses, testing of hypotheses, etc.
ANT HC 605	HUMAN GROWTH AND DEVELOPMENT:	6	1. The students will learn about the concepts and indicators of human growth and development. 2. They will learn about pre-natal and post-natal growth. 3. They will also learn about various bio-cultural factors that influence growth. 4. From the practical component they will learn about how to assess growth, obesity and nutritional status.
ANT HC 606	ANTHROPOLOGICAL DEMOGRAPHY	6	1. The students will learn about demographic anthropology and its importance in anthropology. 2. They will learn about major theories of population. 3. They will also learn about the various sources of data in population studies. 4. From the practical component they will learn about how to collect demographic data from various sources and prepare a project report on the same.

Semester-V

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
ANT HC 701	FUNDAMENTALS OF HUMAN GENETICS	6	1. The students will learn about genetics and the principles of human genetics. 2. They will learn about inheritance and the factors influencing inheritance. 3. They will also learn about the role of admixture in population structure. 4. From the practical component they will learn about identifying colour blindness and PTC tasters, and also karyotyping and pedigree analysis
ANT HC 702	ANTHROPOLOGY OF INDIA	6	1. The students will learn about how anthropology originated and evolved in India. 2. They will learn about Indian society on the basis of some key concepts developed by various anthropologists and sociologists. 3. They will also learn about the contributions of some western anthropologists to understanding Indian society and culture. 4. From the practical component they will learn about diversities in Indian society on the basis of biological and cultural traits.
ANT HE 701	ANTHROPOLOGY OF HEALTH	6	1. The students will learn about the relationship between anthropology and health. 2. They will learn about epidemiology of communicable diseases. 3. They will also learn about variation in healthcare systems in India. 4. From the practical component they will learn about how to map the diseases, identify the symptoms and take preventive or curative measures.
ANT HE 701	ANTHROPOLOGY OF RELIGION, POLITICS AND ECONOMICS	6	1. The students will learn about anthropological approach to understanding religion, economy and politics of simple societies. 2. They will also learn about how religion, economy and politics interface with each other. 3. From the practical component they will learn how to conduct a case study of one of the religious, economic or political institutions of a given society.
ANT HE 701	MUSEOLOGY	6	1. The students will learn about history of museums in India and the relationship between museums and anthropology. 2. They will learn about museum collection, documentation and display. 3. They will also learn about security, storage and marketing. 4. From the practical component they will learn about how to document, conserve and prepare a profile of a museum.

Semester-VI

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
ANT HC 703	FORENSIC ANTHROPOLOGY	6	1. The students will learn about the aims and scope of forensic anthropology. 2. They will learn about identification of skeletal and non-skeletal human remains. 3. They will also learn about various methods of identifying living persons. 4. From the practical component they will learn about identification of individuals on the basis of bones, blood, urine, semen, saliva, fingerprint and handwriting.
ANT HC 704	ANTHROPOLOGY IN PRACTICE	6	1. The students will learn about various applications of anthropological knowledge and techniques. 2. They will learn about the role of anthropology in development practices. 3. They will also learn about various constitutional provisions that protect human rights. 4. From the practical component they will learn about how to prepare report on an NGO or a project on tourism.
ANT HE 702	PHYSIOLOGICAL ANTHROPOLOGY	6	1. The students will learn about the fundamentals of work physiology. 2. They will learn about physiological adjustments to various environmental stresses. 3. They will also learn about the influence of factors like smoking, drinking and pollution on physiological performance. 4. From the practical component they will learn about how to measure cardiovascular function, respiratory function, etc.
ANT HE 702	GENDER ANTHROPOLOGY	6	1. The students will learn about the concepts and theories of gender. 2. They will learn about the relationship between gender and anthropology. 3. They will also learn about changing gender roles in societies. 4. From the practical component they will learn about collected gender data and writing a report on a given gender subject.
ANT HE 702	PREHISTORY OF INDIA	6	1. The students will learn about prehistoric culture of India through the technique of manufacturing tools, history of Indian Archaeology 2. They will learn about the methods of climatic reconstruction. 3. They will also learn about Pleistocene, Holocene and post Holocene chronology of India. 4. From the practical component they will learn about identification of tools and lithic technology.

Semester-VII

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
ANT HC 801	MEDICAL ANTHROPOLOGY	6	1. The students will learn about the relationship between anthropology and health. 2. They will learn about epidemiology of communicable diseases. 3. They will also learn about variation in healthcare systems in India. 4. From the practical component they will learn about how to map the diseases, identify the symptoms and take preventive or curative measures.
ANT HC 802	HUMAN POPULATION GENETICS	6	1. Student will have basic understanding of genetic principles of human populations. 2. They will learn the concept of polymorphisms and its applications in understanding genetic structure of human populations. 3.They will learn about the different types of evolutionary forces and how these forces shapes population structure. 4. The students will learn about the role of genetic variation in studying human populations and human evolution. 5. From the practical, the students will learn genetic data collection and analyzing population structure.
ANT HE 801	URBAN ANTHROPOLOGY	6	1. Explore the socio-cultural dynamics of urban environments and communities. 2. Analyze urbanization processes and their impacts on social organization, identity, and lifestyle. 3. Understand the challenges and opportunities of urban living from a cross-cultural perspective.
ANT HE 801	PREHISTORY OF EUROPE	6	1. The students will learn about prehistoric culture of India through the technique of manufacturing tools, history of Indian Archaeology 2. They will learn about the methods of climatic reconstruction. 3. They will also learn about Pleistocene, Holocene and post Holocene chronology of Europe. 4. From the practical component they will learn about identification of tools and lithic technology.
ANT HE 801	HUMAN GENETICS AND VARIATION	6	1. The students will learn about human genes, their structure, replication and function. 2. They will learn about how genetic information is expressed. 3. They will also learn about the methods of studying human genes. 4. From the practical component they will learn about DNA extraction, quantification, gel documentation, etc.
ANT HE 801	URBAN ANTHROPOLOGY	6	1. The students will learn about urban anthropology and the role of an urban anthropology in planning and design of a city. 2. They will learn about how an urban society is formed. 3. They will also learn about the methodology of studying urban issues like slums and crimes. 4. From the practical component they will learn about studying, documenting and preparing a report on one of the problems of urban society.

Semester-VIII

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
ANT HC 803	APPLIED AND ACTION ANTHROPOLOGY	6	1. The students will learn about various applications of anthropological knowledge and techniques. 2. They will learn about the role of anthropology in development practices. 3. They will also learn about various constitutional provisions that protect human rights. 4. From the practical component they will learn about how to prepare report on an NGO or a project on tourism.
ANT HC 804	RESEARCH METHODOLOGY	6	1. The students will learn about the similarities and differences between technique, method and methodology. 2. They will learn about fieldwork traditions in Anthropology. 3. They will also learn about tools and techniques of data collection. 4. From the practical component they will learn about how to construct tables, make observations and conduct interviews.
ANT HE 802	DISSERTATION	6	1. The students will learn about how to do fieldwork. 2. They will learn about use of various techniques of data collection. 3. They will learn about classification, interpretation and presentation of data. 4. They will also learn about writing a dissertation, selecting chapter headings and subheadings, writing references, footnotes, endnotes, etc.

GENERIC COURSES IN ANTROPOLOGY

	COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
SEMESTER -III	ANT HG 601	GENERAL ANTHROPOLOGY	6	1. Students will learn about the definition, aim , scopes of anthropology and the relationship of anthropology and other disciplines. 2. Students will learn about the origin, evolution and variation of man. 3. Students will learn about social stratification , culture and various other roles of society. 4. Students will learn and have knowledge about tool typology and different dating techniques
SEMESTER -IV	ANT HG 602	ANTHROPOLOGY OF TRIBAL DEVELOPMENT:	6	1. The students will learn about concepts and distribution of tribes in India. 2. They will learn about history of tribal policies from colonial to present times. 3. They will also learn about the varieties of their livelihoods. 4. From the practical component they will learn about how to prepare a term paper on any aspect of a tribe.
SEMESTER -V	ANT HG 701	FUNDAMENTALS OF PREHISTORIC ARCHAEOLOGY	6	1. The students will learn about archaeological anthropology and its relationship with other sciences. 2. They will learn about how the past is reconstructed. 3. They will also learn about the method of understanding prehistoric culture on the basis of archaeological finds. 4. the students will also learn some important aspects of typo-technology of tools. 5. From the practical component, they will learn about the identification and interpretation of prehistoric tools.
SEMESTER -VI	ANT HG 702	PALAEOANTHROPOLOGY	6	1. The students will learn about geological time scale and dating methods. 2. They will learn about primate speciation and evolution. 3. They will also learn about primate and non-primate hominid behaviour. 4. From the practical component they will learn about identification and description of nonhuman primates, fossil casts, etc.
SEMESTER -VII	ANT HG 801	MUSEUM AND CULTURAL RESOURCE MANAGEMENT	6	1. The students will learn about history of museums in India and the relationship between museums and anthropology. 2. They will learn about museum collection, documentation and display. 3. They will also learn about security, storage and marketing. 4. From the practical component they will learn about how to document, conserve and prepare a profile of a museum.
SEMESTER -VIII	ANT HG 802	ANTHROPOLOGY OF HEALTH	6	1. The students will learn about the relationship between anthropology and health. 2. They will learn about epidemiology of communicable diseases. 3. They will also learn about variation in healthcare systems in India. 4. From the practical component they will learn about how to map the diseases, identify the symptoms and take preventive or curative measures.

COURSE OUTCOMES OF BSc BOTANY

Semester-I

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
BOT HC 501	INTRODUCTION TO MICROBIAL WORLD, VIRUS, BACTERIA, FUNGI AND PHYTOPATHOLOGY	6	1. Know Characteristics, diversity, nutrition and importance of microbes. 2. Classify viruses, bacteria, fungi and lichens based on their characteristics and structures. 3. Replication of viruses 4. Bacterial reproduction and genetic recombination. 5. Reproduction and life cycle of representative species of different groups of fungi. 6. Develop critical understanding of plant diseases and their remediation.
BOT HC 502	ALGAE, BRYOPHYTES, PTERIDOPHYTES AND GYMNOSPERMS	6	1. Understand the classification, characteristic features, reproduction, life cycle patterns, biodiversity and economic importance of various groups of marine and fresh water algae. 2. Demonstrate an understanding of Bryophytes, Pteridophytes and Gymnosperms. 3. Develop critical understanding on morphology, anatomy and reproduction of Bryophytes, Pteridophytes and Gymnosperms. 4. Understanding of plant evolution and their transition to land habitat. 5. Demonstrate proficiency in the experimental techniques and methods of appropriate analysis of Algae, Bryophytes, Pteridophytes, Gymnosperms
BOT SE 501	BIOFERTILIZERS	4	1. Identification, growth, multiplication of eco-friendly fertilizers like Rhizobium, Azospirilium, Azotobactor, cyanobacteria, mycorrhizae, etc. their role in mineral cycling and nutrition to plants. 2. Organic farming and recycling of the organic waste 3. The student would have a deep understanding of ecofriendly fertilizers 4. Methods of decomposition of biodegradable waste and convert into the compost
BOT SE 501	MUSHROOM CULTIVATION	4	1. Identify various types and categories of mushrooms. 2. Demonstrate various types of mushroom cultivating technologies. 3. Value the economic factors associated with mushroom cultivation 4. Device new methods and strategies to contribute to mushroom production.
BOT SE 501	FERMENTATION TECHNOLOGY	4	1. Understand the design of various reactors used in Industries. 2. Comprehend the criteria for selection of media for microbial growth 3. Develop knowledge about methods for strain improvement and preservation of cultures. 4. Gain better perspective about upstream as well as downstream processing involved in fermentation industries

Semester-II

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
BOT HC 503	PLANT SYSTEMATICS	6	1. Classify Plant systematics and recognize the importance of herbarium and Virtual herbarium 2. Evaluate the Important herbaria and botanical gardens 3. Interpret the rules of ICN in botanical nomenclature 4. Assess terms and concepts related to Phylogenetic Systematics 5. Generalize the characters of the families according to Bentham & Hooker's system of classification
BOT HC 504	BIOMOLECULES AND CELL BIOLOGY	6	1. Develop understanding on chemical bonding among molecules 2. Identify the concept that explains chemical composition and structure of cell wall and membrane 3. Classify the enzymes and explain mechanism of action and structure 4. Compare the structure and function of cells & explain the development of cells 5. Describe the relationship between the structure and function of biomolecules
BOT SE 502	BOTANICAL GARDEN AND LANDSCAPING	4	1. Apply the basic principles and components of gardening 2. Conceptualize flower arrangement and bio-aesthetic planning 3. Design various types of gardens according to the culture and art of bonsai 4. Distinguish between formal, informal and free style gardens 5. Establish and maintain special types of gardens for outdoor and indoor landscaping
BOT SE 502	NURSERY AND GARDENING	4	1. Understand the process of sowing seeds in nursery 2. Learn the resources required for the development of nursery 3. Distinguish among the different forms of sowing and growing plants 4. Analyse the process of Vegetative propagation 5. Appreciate the diversity of plants and selection of gardening 6. Examine the cultivation of different vegetables and growth of plants in nursery and Gardening
BOT SE 502	FLORICULTURE	4	1. Develop conceptual understanding of gardening from historical perspective 2. Analyze various nursery management practices with routine garden operations. 3. Distinguish among the various Ornamental Plants and their cultivation 4. Evaluate garden designs of different countries 5. Appraise the landscaping of public and commercial places for floriculture. 6. Diagnoses the various diseases and uses of pests for ornamental plants

Semester-III

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
BOT HC 601	PLANT METABOLISM	6	1. Differentiate anabolic and catabolic pathways of metabolism 2. Learn the similarity and differences in metabolic pathways in animals and plants. 3. Recognize the importance of Carbon fixation and assimilation in plants. 4. Explain the ATP-Synthesis 5. Interpret the Biological nitrogen fixation in metabolism 6. Grasp the concept of signal reception and transduction in a cell
BOT HC 602	ECOLOGY AND PHYTOGEOGRAPHY	6	1. Understand the complex interrelationship between organisms and environment 2. Knowledge on different methods for vegetation analysis 3. Evaluate community patterns and processes including ecosystem functions 4. Understand evolving strategies for sustainable natural resource management and biodiversity conservation. 5. Knowledge on principles of phytogeography and plant endemism 6. Gain practical knowledge on different instruments used for analyzing soil & climate variables 7. Conduct qualitative and quantitative analysis for different parameters of both soil and water
BOT HC 603	GENETICS AND CYTOGENETICS	6	1. Possess conceptual understanding of laws of inheritance, genetic basis of loci and alleles and their linkage. 2. Comprehend the effect of chromosomal abnormalities in numerical as well as structural changes leading to genetic disorders. 3. Develop critical understanding of chemical basis of genes and their interactions at population and evolutionary levels. 4. Analyse the effect of mutations on gene functions and dosage. 5. Examine the structure, function and replication of DNA.

Semester-IV

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
BOT HC 604	ECONOMIC BOTANY AND PLANT RESOURCE UTILIZATION	6	1. After studying Economic Botany, students would have first-hand information of plants used as food, the various kinds of nutrients available in the plants. 2. The dietary requirements of proteins, fats, amino-acids, vitamins etc that can be met by plants. 3. The students will learn to perform the micro-chemical tests to demonstrate various components. 4. The students will learn about the use of fiber plants, beverages, fruits and vegetables that are integral to day to day life of plants. 5. Students will learn to explore the regional diversity in food crops and other plants and their ethno-botanical importance as well.
BOT HC 605	MOLECULAR BIOLOGY	6	1. Develop an understanding of nucleic acid, organization of DNA in prokaryotes and eukaryotes, DNA replication mechanism, genetic code and transcription process. 2. Understand the mechanisms involved in processing and modification of RNA and translation process, function and regulation of expression. 3. Gain insights into the application in biotechnology in plant, animal and microbial sciences
BOT HC 606	PLANT MORPHOLOGY AND ANATOMY	6	1. Develop an understanding of concepts and fundamentals of plant morphology and anatomy 2. Use various morphological terminologies while describing a plant 3. Understand the Knowledge of various cells and tissues, meristem, epidermal and vascular tissue system in plants. 4. Develop critical understanding on the evolution of concept of organization of shoot and root apex. 5. Correlate the anatomical structure with morphology and functions. 6. Analyze the composition of different parts of plants and their relationships 7. Evaluate the adaptive and protective systems of plants

Semester-V

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
BOT HC 701	REPRODUCTIVE BIOLOGY OF ANGIOSPERMS	6	1. Recall the history of reproductive biology of angiosperms & recognize the importance of genetic and molecular aspects of flower development 2. Understand structure and functions of anther wall and pollen wall 3. Evaluate the special structures of Ovule 4. Solve Self-incompatibility in Pollination and fertilization & relate between Embryos, Endosperm and Seed 5. Comprehend the causes of Polyembryony and apomixes with its classification
BOT HC 702	PLANT PHYSIOLOGY	6	1. Understand water relation of plants with respect to various physiological processes. 2. Explain chemical properties and deficiency symptoms of mineral elements in plants 3. Realize the roles of hormones in plant growth and development and their applications in agriculture and horticulture 4. Understand the role of light in various developmental processes such as flowering germination and dormancy. 5. Understand transport mechanisms and translocation in the phloem, 6. Appreciate the commercial applications of plant physiology
BOT HE 701	STRESS PHYSIOLOGY	6	1. Develop the understanding of concept of stress, stress factors and resistance mechanisms. 2. Explain different types of stress with examples. 3. Develop the ability for critical appraisal of various physiological mechanisms that protect the plant from environmental stress i.e. adaptation, avoidance and tolerance. 4. Analyze the role of production and scavenging mechanisms
BOT HE 701	NATURAL RESOURCE MANAGEMENT	6	1. Understand the concept of different natural resources and their utilization. 2. Criticallyanalyze the sustainable utilization land, water, forest and energy resources. 3. Evaluate the management strategies of different natural resources. 4. Reflect upon the different national and international efforts in resource management and their conservation.

Semester-VI

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
BOT HC 703	BIOSTATISTICS AND BIOINFORMATICS	6	1. Understand subject matter and relevance of statistics and bioinformatics to biological sciences. 2. Understand the classification and structuring of biological data. 3. Understand the construction of histogram and frequency distribution table. 4. Understand the numerical calculation, procedure of location and variability of data. 5. Understand the logic behind probability and probability distribution models in biology. 6. Understand the importance of hardware and software tools in accessing and retrieving biological data through internet. 7. Understand the relevance and development of bioinformatics in biology. 8. Know the use of basic tools involve in understanding bioinformatics. 9. know the importance of biological databases in sequencing nucleic acid and proteins.
BOT HC 704	PLANT BIOTECHNOLOGY	6	1. Learn the basic concepts, principles and processes in plant biotechnology. 2. Have the ability of explanation of concepts, principles and usage of the acquired knowledge in biotechnological, pharmaceutical, medical, ecological and agricultural applications. 3. Use basic biotechnological techniques to explore molecular biology of plants
BOT HE 702	BIODIVERSITY CONSERVATION	6	1. Students will be able to judge the value of biodiversity. 2. Understand the role of biodiversity in stabilizing the climate and economy 3. Know the causes and consequences of loss of biodiversity and planning of conservation strategies.
BOT HE 702	HORTICULTURAL PRACTICES AND POST-HARVEST TECHNOLOGY	6	1. Students will acquire knowledge on post-harvest management tools and novel packaging techniques

Semester-VII

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
BOT HC 801	PHARMACOGNOSY AND PHYTOCHEMISTRY	6	1. Understanding of the importance of plant metabolites and its further research. 2. Developing entrepreneurship skills to promote pharmacological products.
BOT HC 802	ETHNOBOTANY	6	1. Students would have an understanding of the treasure, value and usefulness of the natural products and their efficient use by the local communities as food and medicine and their conservation practices.
BOT HE 801	ANALYTICAL TECHNIQUES IN PLANT SCIENCES	6	1. Understand the principles of Light microscopy, Compound microscopy, Fluorescence microscopy and Confocal microscopy. 2. Develop conceptual understanding of cell fractionation.

Semester-VIII

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
BOT HC 803	INDUSTRIAL AND ENVIRONMENTAL MICROBIOLOGY	6	1. Understand the concept and role of microbes in industry and environment. 2. Critically analyze the types of bioreactors and the fermentation process. 3. Evaluate the role of microorganisms in industry and microbes in agriculture. 4. Reflect upon different Landscaping practices and garden design 5. Develop skills on the remediation process of contaminated soils
BOT HC 804	RESEARCH METHODOLOGY	6	1. Understand the concept of research and different types of research in the context of biology. 2. Have basic knowledge on qualitative research techniques and also acquainted with practical knowledge of research work. Develop laboratory experiment related skills. 3. Develop competence on data collection, data analysis, hypothesis testing procedures and process of scientific documentation. Evaluate the different methods of scientific writing and reporting
BOT HE 802	PROJECT WORK / DISSERTATION	6	1. Understand field work techniques 2. Understand pilot survey relevance 3. To teach about specific Survey/laboratory techniques chosen by the student. 4. Prepare report on the basis of data and analysis undertaken

GENERIC COURSES IN BOTANY

	COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
SEMESTER-III	BOT HG 601	BIODIVERSITY	6	1. Combination of Theoretical and Practical components will provide comprehensive information and insight into the fascinating world of Microbes and Plants. 2. Hands on Training will help students learn use of microscope, mounting, section-cutting and staining techniques for the study of plant materials. 3. Making Drawings in Practical Records will enhance understanding morphological and structural details and related functional aspects in diverse plant groups. 4. Use of Illustrations, Photographs, Charts, Permanent Slides, Museum and Herbarium Specimens along with ICT Methods will provide an interesting insight into the beautiful world of microbes and plants . 5. Scope of Biodiversity includes Medicinal field, Industry, Agriculture, Research and Study, Job Opportunities and Environmental Conservation. This paper is both informative and interesting and will enable students to learn about Biodiversity not only as a plant or nature lover, but also for higher academic pursuits, particularly in the field of Biological Sciences, Environment and Biodiversity Conservation.
	BOT HG 601	ALGAL BIOTECHNOLOGY	6	1. Comprehend Engineering Properties / various post-harvest process on agriculture produce and its applications. 2. Determine various properties & parameters of Agriculture Produce. 3. Evaluate Engineering Properties / Management of storage structures and losses during storage agricultural produce.
SEMESTER-IV	BOT HG 602	FOOD SCIENCE	6	1. Classify the proteins, lipids and Minerals in food chemistry. 2. Recognize Sources of microorganisms and food borne illness. 3. Evaluate the food Processing industries and preservation techniques. 4. Comprehend the interrelationships among different components of beverages technology and Check Food Packaging. 5. Assess food laws and quality control at international standards.

				6. Classify into harmful and beneficial bio-colors, flavors, vitamins, bio-preservatives, antibiotics and industrial alcohol
	BOT HG 602	PLANT ECOLOGY AND TAXONOMY	6	1. Comprehend the basic concepts of plant ecology and taxonomy and botanical nomenclature. 2. Analyze the characteristics of different plant communities. 3. Examine the structure and functions of eco-system. 4. Evaluate the significance of herbarium. 5. Analyze the implications of biometrics, numerical taxonomy and cladistics
SEMESTER-V	BOT HG 701	PLANT PHYSIOLOGY AND METABOLISM	6	1. Comprehend the basic concepts of plant-water relations understanding transpiration and its significance. 2. Elaborate on the role of essential elements and mechanism of ion transport across cell membrane. 3. Understand the concept of photosynthesis, Electron transport, mechanism of ATP synthesis and Photorespiration. 4. Imbibe the concepts of Glycolysis, anaerobic respiration, TCA cycle and Oxidative phosphorylation. 5. Examine the structure and properties of enzymes. 6. Analyze the implications of biometrics, numerical taxonomy and cladistics.
	BOT HG 701	ENVIRONMENTAL MONITORING AND MANAGEMENT	6	1. Understand the fundamental concepts of environmental monitoring and management. 2. Analyze the different methods of air, water, and soil quality monitoring process. 3. Examine different environmental management systems and trade related intellectual properties (TRIPs), intellectual property rights (IPRs). 4. Evaluate the status of environmental education and public awareness along with their Implications
SEMESTER-VI	BOT HG 702	GLOBAL WARMING AND CLIMATE CHANGE	6	1. Develop understanding on the concept and issues of global environmental change 2. Analyse the causes and effects of depletion of stratospheric ozone layer 3. Examine the climate change and its effect on living beings. 4. Understand the physical basis of natural green gashouse effect on man and materials. 5. Evaluate human influenced driver of our climate system and its applications
	BOT HG 702	ECONOMIC BOTANY	6	1. After studying Economic Botany, students would have first hand information of plants used as food, the various kinds of nutrients available in the plants.

				2. The dietary requirements of proteins, fats, amino-acids, vitamins etc that can be met by plants. 3. The students will learn to perform the micro-chemical tests to demonstrate various components. 4. The students will learn about the use of fiber plants, beverages, fruits and vegetables that are integral to day to day life of plants. 5. Students will learn to explore the regional diversity in food crops and other plants and their ethno-botanical importance as well.
SEMESTER-VII	BOT HG 801	PLANT ANATOMY AND EMBRYOLOGY	6	1. Knowledge regarding anatomy equipped the students to identify different types of tissues and make them able to correlate their physiology in a better away. 2. This will also help them to understand how different plant tissue evolve and modify their structure and functions with respect to their environment. 3. Knowledge regarding embryology make them understand how reproduction play significant role in defining population structure, natural diversity and sustainability of ecosystem in a better way
SEMESTER-VIII	BOT HG 802	CURRENT TRENDS IN PLANT SCIENCES	6	1. Students will learn the basic idea of Parmacopoeia and secondary metabolites along with the various adulterants. 2. Students will learn about Agro-forestry, organic farming and economic plants of India. 3. Students will be able to apply the knowledge of Tissue culture

COURSE OUTCOMES OF BSc CHEMISTRY

Semester-I

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
CHM HC 501	INORGANIC CHEMISTRY-I	6	1. Electronic configuration of various elements in periodic table 2. Predicting structure of molecules. 3. How hydrogen bonding, metallic bonding is important in common materials' scientific applications to material fabrication.
CHM HC 502	ORGANIC CHEMISTRY - I	6	1. Design and syntheses of organic molecules. 2. Structure identification through IR, NMR and Mass spectroscopic data. 3. Lab/Instrumentation techniques used for analyzing reaction mechanisms. 4. Advanced soft-wares / Models used for predicting stereochemistry / study of energy minimization of organic molecules.
CHM SE 501	IT SKILLS FOR CHEMISTS	4	1. Develop skills related to basic computer operations and information technology. 2. Learn BASIC programing language and handling numeric data.
CHM SE 501	BASIC ANALYTICAL CHEMISTRY	4	1. Understand the basic principles of chemical analysis techniques. 2. Analyze data following scientific methodology.
CHM SE 501	CHEMICAL TECHNOLOGY & SOCIETY	4	1. Learn terminologies in chemical industry, like mass balance, energy balance etc. 2. Understand social issues related to soil, air, water pollution and energy crisis. 3. Develop ideas for search of alternative ways to address the above mentioned issues.
CHM SE 501	CHEMOINFORMATICS	4	1. Learn the utility of computers and software tools in solving chemistry related problems. 2. Analyze, apply, compare and predict chemical structures, properties, and reactivity of molecules.
CHM SE 501	BUSINESS SKILLS FOR CHEMISTS	4	1. Learn the important steps of business operations, finance and intellectual property as applied to chemical industry.
CHM SE 501	INTELLECTUAL PROPERTY RIGHTS (IPR)	4	1. Understand the importance and types of IPR. 2. Understand the legal and economic aspects of the IP system.

Semester-II

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
CHM HC 503	ANALYTICAL CHEMISTRY	6	1. Thermo-gravimetric Analysis of different compounds and application of mathematical models. 2. Study of different kinds of chromatograms; calculation of R_f, 3. Analysis of GC/HPLC data for known materials/compounds.
CHM HC 504	PHYSICAL CHEMISTRY - I	6	1. Determination of lattice parameters of given salt. 2. Study of X-Ray diffraction pattern and finding out reference from JCPDI file. 3. Numerical related to salt hydrolysis, ionic equilibria.
CHM SE 502	ANALYTICAL CLINICAL BIOCHEMISTRY	4	1. Understand the structures, properties and functions of carbohydrates, lipids, proteins, enzymes etc. 2. Learn the biochemistry of analysis of urine and blood
CHM SE 502	PHARMACEUTICAL CHEMISTRY	4	1. Learn the design and development process of drugs. 2. Understand the applications of some common drugs.
CHM SE 502	PESTICIDE CHEMISTRY	4	1. Understand the different types of pesticides, their activity/toxicity and their applications. 2. Learn to search for alternatives of chemical pesticides based on natural products.
CHM SE 502	FUEL CHEMISTRY	4	1. Understand classes of renewable and non-renewable energy sources. 2. Learn to determine industrially significant physical parameters for fuels and lubricants.
CHM SE 502	RENEWABLE ENERGIES (SOLAR AND BIOGAS)	4	1. Understand the concept of renewable energies. 2. Learn the methods for estimating solar radiation, global radiation, diffused components etc. 3. Learn the chemical composition of biomass Cellulose, hemicelluloses and lignin content in common agricultural residues and their estimation
CHM SE 502	BIOFERTILIZER	4	1. Understand the concept of bio-fertilizer and identify the different forms of biofertilizers. 2. Develop the idea of integrated management for better crop production by using both nitrogenous and phosphate bio fertilizers

Semester-III

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
CHM HC 601	GREEN CHEMISTRY	6	1. Use of green chemistry in designing new laboratory experiments. 2. Use of principle of atom economy and design experiments using the principle. 3. Use of green chemistry in combinatorial chemistry and biomimetic catalyst.
CHM HC 602	INORGANIC CHEMISTRY-II	6	1. Extraction of metals through metallurgical operations and their uses. 2. Bonding of various s and p block elements. 3. Use of boron compounds. 4. Chemistry of inorganic polymers and their uses.
CHM HC 603	PHYSICAL CHEMISTRY-II	6	1. Use of thermochemical equations for calculation of energy and related terms. 2. Use of thermodynamics in explaining chemical behavior of solute/solvent and reactions. 3. Study of calorimeter principle and its use.

Semester-IV

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
CHM HC 604	MOLECULAR SPECTROSCOPY AND PHOTOCHEMISTRY	6	1. Determination of bond length of diatomic and linear triatomic molecules. 2. Vibration-rotation spectroscopy: diatomic vibrating rotator, P, Q, R branches. 3. Qualitative treatment of Rotational Raman effect 4. Discussion of Electronic spectra and photochemistry (Lambert-Beer law and its applications).
CHM HC 605	INORGANIC CHEMISTRY-III	6	1. IUPAC nomenclature of coordination compounds/complexes. 2. Prediction of structure of complexes using various theories; color and magnetic properties of different complexes. 3. Use of lanthanide/actinide compounds in industries. 4. Toxicity of various metals and mechanism of metal-biological system interactions.
CHM HC 606	ORGANIC CHEMISTRY-II	6	1. Elucidating reaction mechanisms for organic reactions. 2. Organometallic compounds and their uses. 3. Use of active methylene groups inorganic mechanism and preparation of new organic compounds.

Semester-V

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
CHM HC 701	INTRODUCTION TO QUANTUM CHEMISTRY	6	1. Understanding the application of quantum mechanics in some simple chemical systems such as hydrogen atom or hydrogen like ions. 2. Quantum mechanical treatment of covalent bonding in simple molecules.
CHM HC 702	ORGANIC CHEMISTRY-III	6	1. Use of benzene diazonium salt in organic synthesis. 2. Applications of heterocyclic compounds in pharmaceutics/drugs and the mechanism of actions. 3. Pharmaceutics / Biomedical applications of alkaloids and terpenes. 4. Nitrogen containing organic compounds / heterocyclic compounds in synthetic chemistry.
CHM HE 701	APPLICATIONS OF COMPUTERS IN CHEMISTRY	6	1. Analyze laboratory/raw data. 2. Understand curve fitting of experimental data 3. Understand quantum mechanical calculations for various molecular models.
CHM HE 701	ANALYTICAL METHODS IN CHEMISTRY	6	1. Understand about various analytical techniques used for qualitative and quantitative characterization of samples. 2. Develop analytical skills with hands on experience of the discussed techniques.
CHM HE 701	MOLECULAR MODELLING & DRUG DESIGN	6	1. Introduction to molecular modelling. 2. Concept of energy minimization. 3. Understand the basic idea of some simulation techniques.

Semester-VI

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
CHM HC 703	MATERIALS CHEMISTRY	6	1. Hybrid materials/functionalized hybrid materials and their applications in industry. 2. Applications of nano-structured materials in targeted drug delivery/pharmaceutical applications/industrial applications. 3. Use of composites in industry.
CHM HC 704	PHYSICAL CHEMISTRY-III	6	1. Application of phase diagram. 2. Study of reaction kinetics, Fast reactions. 3. Heterogeneous catalysis used in industry and its mechanism of action.

			4. Application of adsorption isotherms and significance.
CHM HE 702	NOVEL INORGANIC SOLIDS	6	1. Learn the synthesis and modification of some industrially important inorganic solids. 2. Understand the preparation and applications composite materials
CHM HE 702	INTRODUCTION TO NANOCHEMISTRY AND APPLICATIONS	6	1. Idea of nanoparticles. 2. Understand the preparation and applications some nano materials
CHM HE 702	HETEROCYCLIC CHEMISRTY	6	1. Learn the synthetic approaches and reactivities of oxiranes, aziridines, episulphides. oxaziranes, diaziridines, diazirines oxitanes, azatidanes and thietanes. 2. Learn the synthesis of Peniciline and cephalosporine. 3. Understand the chemistry of Benzofuran, indoles and benzothiazoles.
CHM HE 702	BIOCHEMISTRY	6	1. Understand the classification of Biomolecules. 2. Learn the importance of carbohydrates, proteins, lipids, enzymes and structures of RNA and DNA.

Semester-VII

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
CHM HC 801	POLYMER CHEMISTRY	6	1. Definition and classifications of polymers 2. Kinetics of polymerization, molecular weight of polymers, glass transition temperature, and polymer solutions. 3. Preparation, structure and properties of some industrially important and technologically promising polymers.
CHM HC 802	INORGANIC CHEMISTRY-IV	6	1. Ligand substitution and redox reactions in coordination complexes. 2. Catalysts based on transition metals and their application in industry. 3. Concepts of solubility product, common ion effect, pH etc. in analysis of ions. 4. Coordination compound synthesis, calculation of 10Dq, controlling factors etc.
CHM HE 801	RESEARCH METHODOLOGY FOR CHEMISTRY	6	1. Understand the basic concepts of research. 2. Learn to develop research problems. 3. Learn chemical safety and ethical handling of chemicals. 4. Develop scientific method and design of experiments.
CHM HE 801	INORGANIC MATERIALS OF	6	1. Establish the basic foundation of industrially important inorganic materials.

	INDUSTRIAL IMPORTANCE		2. Understand the manufacturing process of glass, cement, ceramics, fertilizers, alloys etc. 3. Learn the basic idea of chemical explosives and propellants. 4. Analysis of the inorganic materials which are used in our daily life.

Semester-VIII

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
CHM HC 803	ORGANIC CHEMISTRY-IV	6	1. Understand important features of nucleic acids, amino acids, enzymes, lipids etc. 2. Commercial pharmaceutical compounds. 3. Concept of energy in biosystems.
CHM HC 804	PHYSICAL CHEMISTRY-IV	6	1. Understand the theories of conductance and electrochemistry. 2. Learn the concept of solubility and solubility products, ionic products of water, conductometric titrations etc. 3. Understand Faraday's Laws of electrolysis. 4. Develop basic theoretical idea of electrical & magnetic properties of atoms and molecules.
CHM HE 802	INDUSTRIAL CHEMICALS AND ENVIRONMENT	6	1. Learn the manufacture, applications and safe ways of storage and handling gaseous and inorganic industrial chemicals. 2. Students will get to know about industrial metallurgy and the energy generation industry. 3. Understand environmental pollution by various gaseous, liquid wastes and nuclear wastes and their effects on living beings. 4. Learn about industrial waste management, their safe disposal and the importance of environment.
CHM HE 802	Dissertation	6	Develop Research ideas, Research skills and writing Dissertation

GENERIC COURSES IN CHEMISTRY

	COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
SEM III	CHM HG 601	CHEMISTRY-1 (ATOMIC STRUCTURE, BONDING, GENERAL ORGANIC CHEMISTRY & ALIPHATIC HYDROCARBONDS)	6	1. Understand concepts related to atomic and molecular structure, 2. Learn chemical bonding. 3. Understand the basic ideas used in organic chemistry, functional group , alkanes, alkenes, alkynes etc.
SEM IV	CHM HG 602	CHEMISTRY-2 (s-AND p-BLOCK ELEMENTS, TRANSITION ELEMENTS & STATES OF MATTER)	6	1. Learn periodic properties in main group elements, transition metals (3d series). 2. Learn kinetic theory of gases, ideal gas and real gases properties. 3. Understand surface tension, viscosity, vapour pressure of liquids and basic solid state chemistry.
SEM V	CHM HG 701	CHEMISTRY-3 (CHEMICAL ENERGETICS, EQUILIBRIA & FUNCTIONAL GROUP ORGANIC CHEMISTRY-I)	6	1. Understand the chemical systemS from thermodynamic points of view. 2. Learn two very important topics in chemistry- chemical equilibrium and ionic equilibrium. 3. Learn various classes of organic molecules-alkyl halides, aryl halides, alcohols, phenols, ethers, aldehydes and ketones.
SEM VI	CHM HG 702	CHEMISTRY-4 (SOLUTIONS, PHASE EQUILIBRIUM, CONDUCTANCE & FUNCTIONAL GROUP ORGANIC CHEMISTRY –II)	6	1. Understand phase rule and its application in specific cases, basics of conductance and electrochemistry. 2. Learn some important topics of organic and biochemistry-carboxylic acids, amines, amino acids, peptides, proteins and carbohydrates.
SEM VII	CHM HG 801	CHEMISTRY-5 (COORDINATION CHEMISTRY, ACIDS AND BASES, NOBLE GASES, STEREOCHEMISTRY, AMINO ACIDS, PEPTIDES AND PROTEINS)	6	1. Understand the concepts coordination chemistry. 2. Learn basic ideas of stereochemistry and reactions and properties of amino acids, peptides and proteins etc.

SEM VIII	CHM HG 802	CHEMISTRY-6 (ELECTROCHEMISTRY, CHEMICAL KINETICS, TRANSITION ELEMENTS, LANTHANOIDS AND ACTINOIDS)	6	1. Understand the difference between first, second and third transition series. 2. Learn electrochemistry and chemical kinetics.

COURSE OUTCOMES OF BA ECONOMICS

Semester-I

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
ECO HC 501	INTRODUCTORY MICROECONOMICS	6	1. The course introduces the students to the first course in economics from the perspective of individual decision making as consumers and producers. 2. The students will learn some basic principles of microeconomics, interactions of supply and demand, and characteristics of perfect and imperfect markets.
ECO HC 502	MATHEMATICAL METHODS IN ECONOMICS–I	6	1. The course will sharpen and upgrade the mathematical skills acquired in school and paves the way for the second semester course Mathematical Methods in Economics II. 2. Learn the mathematical foundations necessary for further study of a variety of disciplines including economics, statistics, computer science, and finance and data analytics. 3. The analytical tools introduced in this course have applications wherever optimisation techniques are used in business decision-making. These tools are necessary for anyone seeking employment as an analyst in the corporate world. 4. The course will make the student more logical in making or refuting arguments.
ECO SE 501	DATA ANALYSIS	4	1. The course will help students to learn about data types, their organization and visual representation. 2. They will learn how to compute summary statistics and do some basic statistical inference.

Semester-II

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
ECO HC 503	INTRODUCTORY MACROECONOMICS	6	1. This course aims to develop the broad conceptual frameworks which will enable students to understand and comment upon real economic issues like inflation, money supply, GDP and their inter-linkages. 2. It will also allow them to critically evaluate various macroeconomic policies in terms of a coherent logical structure.
ECO HC 504	MATHEMATICAL METHODS IN ECONOMICS - II	6	1. The course provides the mathematical foundations necessary for further study of a variety of disciplines including postgraduate economics, statistics, computer science, finance and data analytics. 2. The analytical tools introduced in this course have applications wherever optimization techniques are used in business decision-making for managers and entrepreneurs alike. These tools are necessary for anyone seeking employment as an analyst in the corporate world.
ECO SE 502	RESEARCH METHODOLOGY	4	1. The course imparts skills to undertake data based research. The student enrolling in this course would develop competency in executing sample surveys and would have reasonable exposure to a variety of secondary data sources.

Semester-III

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
ECO HC 601	INTERMEDIATE MICROECONOMICS -I	6	1. The course trains the students of Economics about the basic elements of consumer theory and production theory and the functioning of perfectly competitive market. 2. This course aims to give students a solid grasp of microeconomic analysis at the intermediate-level using mathematical techniques where appropriate.
ECO HC 602	INTERMEDIATE MACROECONOMICS –I	6	1. This course enables students to analyse the macroeconomic performance of various countries using formal analytical tools. 2. It also allows them to evaluate important macroeconomic policies and their implications
ECO HC 603	STATISTICAL METHODS FOR ECONOMICS	6	1. At the end of the course, the student will understand the concept of random variables and be familiar with some commonly used discrete and continuous distributions of random variables. 2. They will be able to estimate population parameters based on random samples and test hypotheses about these parameters. 3. An important learning outcome of the course will be the capacity to analyse statistics concerned with various problems.

Semester-IV

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
ECO HC 604	INTERMEDIATE MICROECONOMICS-I	6	1. This course helps the students to understand efficiency of markets and the environment where the standard market mechanism fails to generate the desirable outcomes. The issues of market imperfection and market failures are important building blocks of this course
ECO HC 605	INTERMEDIATE MACROECONOMICS – II	6	1. This course will enable students to combine their knowledge of the working of the Macro economy with long run economic phenomena like economic growth, technological progress, R&D and innovation. 2. It will also enable students to understand business cycles and the concomitant role of policies.
ECO HC 606	INTRODUCTORY ECONOMETRICS	6	1. Students will learn to estimate linear models using ordinary least squares and make inferences about population parameters. 2. They will also understand the biases created through mis-specified models, such as those that occur when variables are omitted

Semester-V

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
ECO HC 701	INDIAN ECONOMY-I	6	1. At the end of the course, a student should be able to understand the development paradigm adopted in India since independence and evaluate its impact on economic as well as social indicators of progress and well-being. 2. Further the students will be aware of the economy of north eastern states and institutions relating to the development of the region.
ECO HC 702	DEVELOPMENT ECONOMICS-I	6	1. This course introduces students to the basics of development economics, with in depth discussions of the concepts of development, growth, poverty, inequality, as well as the underlying political institutions.
ECO HE 701	POLITICAL ECONOMY-I	6	1. This course prepares the students to develop critical thinking by exposing them to elements of economic thought, juxtaposing ideas and theoretical structures based largely on original texts and journal articles. Students learn to assimilate from a diverse range of opinions and crystallize their own thought processes and standpoints. 2. This also helps them to develop advanced writing, presentation and research skills. It further enables them to comprehend a larger view of the world around us by analysing the existing social and political structures and their links with the economic processes. It is thus a crucial course, which exposes the social science dimension of economics to the students and also provides them skills to think and analyse in an interdisciplinary manner. The exposure to interdisciplinary thinking further enables the students for pursuing studies in diverse related areas such as development studies, economic sociology, critical geography, gender studies and social work as also for taking up employment in organisations ranging from international development agencies to development NGOs and corporate CSR. 3. It also prepares the students to face the practical world of work, where economics, business, civil society organisations, social institutions and politics often cohabit in a complex interlinked structure.
ECO HE 701	TOPICS IN MICROECONOMICS – I	6	1. The students will learn how to model multi-person decision making in an interactive setting. They will understand how to formulate different real life situations as games and learn to predict the optimal strategies of players and how the players can exploit strategic situations for their own benefit. Game theory is an integral part of modern economic analysis. 2. Topics in Microeconomic- I introduces the students to elementary game theory under complete information.

			3. This course introduces the basic concepts of game theory in a way that allows students to use them in solving simple problems. The course will deal with the solution concepts for normal form and extensive form games along with a variety of economic applications.
ECO HE 701	MONEY AND FINANCIAL MARKETS	6	1. This course will allow students to understand current monetary policies and financial market outcomes. It also enables them to critically evaluate policies.

Semester-VI

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
ECO HC 703	INDIAN ECONOMY-II	6	1. At the end of the course, a student should be able to understand the role of economic policies in shaping and improving economic performance in agriculture, manufacturing and services.
ECO HC 704	DEVELOPMENT ECONOMICS –II	6	1. This course teaches the student various aspects of the Indian economy, as well as important themes relating to the environment and sustainable development. 2. It also introduces them to some issues of globalization.
ECO HE 702	POLITICAL ECONOMY-II	6	1. This course exposes the students to the realities of the contemporary world economy and teaches them to develop critical analysis in an integrated and broader political economy framework. It thus enables them to form a more informed view of the world we live by analyzing some of the most contemporary trends and developments from diverse perspectives. 2. It also exposes the students to interdisciplinary skills and written argumentation, and prepares them for a more holistic research framework. The exposure to interdisciplinary thinking further enables the students for pursuing studies in diverse related areas such as development studies, economic sociology, critical geography, gender studies and social work as also for taking up employment in organisations ranging from international development agencies to development NGOs and corporate CSR. 3. It also prepares the students to face the practical world of work, where economics, business, civil society organisations, social institutions and politics often cohabit in a complex interlinked structure, and employees are expected to comprehend and synthesize materials from diverse sources and perspectives.
ECO HE 702	ENVIRONMENTAL ECONOMICS	6	1. The module aims to introduce students to the main theoretical and empirical concepts in environmental economics, equip students with a thorough analytical grasp of environmental policy theory, ranging from externalities to international environmental agreements, and familiarize students with the main issues in environmental valuation and with the basic features of the environmental policy tools. 2. At the end of the module the students should be able to demonstrate their understanding of the economic concepts of environmental policy. In some models, the student will be required to deal with simple algebra problems that will help them to better understand these concepts, use diagrammatic analysis to demonstrate and compare the economic welfare effects of various environmental policy options, demonstrate their understanding of the usefulness and problems related to environmental valuation, and demonstrate their critical understanding of environmental policies.

Semester-VII

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
ECO HC 801	INTERNATIONAL ECONOMICS	6	1. The module will introduce students to the main theoretical and empirical concepts in international trade, equip students with a thorough analytical grasp of trade theory, ranging from Ricardian comparative advantage to modern theories of intra-industry trade, and familiarise students with the main issues in trade policy and with the basic features of the international trading regime. 2. At the end of the course, the students should be able to demonstrate their understanding of the economic concepts of trade theory. In some models, the student will be required to deal with simple algebraic problems that will help them to better understand these concepts, use diagrammatic analysis to demonstrate and compare the economic welfare effects of free trade and protection, demonstrate their understanding of the usefulness and problems related to topics in international trade, and demonstrate their critical understanding of trade policies.
ECO HC 802	PUBLIC FINANCE	6	1. The module aims to introduce students to the main theoretical and empirical concepts in public economics, equip students with a thorough analytical grasp of implications of government intervention for allocation, distribution and stabilization, and familiarise students with the main issues in government revenues and expenditure. 2. At the end of the module the students should be able to demonstrate their understanding of the public economics. In some models, the student will be required to deal with simple algebra problems that will help them to better understand these concepts, use diagrammatic analysis to demonstrate and compare the economic welfare effects of various environmental policy options, demonstrate their understanding of the usefulness and problems related to taxation and government expenditure, and demonstrate their critical understanding of public policies
ECO HE 801	APPLIED ECONOMETRICS	6	1. Students will learn the theoretical basis for techniques widely used in empirical research and consider their application in a wide range of problems.
ECO HE 801	ECONOMIC HISTORY OF INDIA 1857-1947	6	1. The course develops critical analytical skills and exposes students to understanding the intricacies of India's economic, political and social developments both in the past and present times. 2. It increases their employability by enhancing their ability to deal with a variety of textual and statistical sources, and to draw upon them to construct a coherent argument. These skills would be useful in a variety of careers in academics, research, journalism and the government.
ECO HE 801	ECONOMICS OF HEALTH AND EDUCATION	6	1. The students will learn the role of health and education in human development. They will be able to apply economic theory to understand the demand for health care, market failure in health insurance, economic evaluation of health care programmes and the role of public policy in the healthcare industry.

			2. They will also learn to analyse the returns to education, its role in labor market signalling, and the progress of schooling in India. They will also be exposed to the theories of discrimination.

Semester-VIII

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
ECO HC 803	ECONOMY OF MANIPUR	6	1. At the completion of the course, students will have the knowledge of the real economic issues of the state and consequently. 2. They will have the capability of finding out appropriate steps for the development of the state.
ECO HC 804	ENVIRONMENTAL ECONOMICS	6	1. The module aims to introduce students to the main theoretical and empirical concepts in environmental economics, equip students with a thorough analytical grasp of environmental policy theory, ranging from externalities to international environmental agreements, and familiarize students with the main issues in environmental valuation and with the basic features of the environmental policy tools. 2. At the end of the module the students should be able to demonstrate their understanding of the economic concepts of environmental policy. In some models, the student will be required to deal with simple algebra problems that will help them to better understand these concepts, use diagrammatic analysis to demonstrate and compare the economic welfare effects of various environmental policy options, demonstrate their understanding of the usefulness and problems related to environmental valuation, and demonstrate their critical understanding of environmental policies.
ECO HE 802	DISSERTATION	6	1. The students will learn about how to do fieldwork. 2. They will learn about use of various techniques of data collection. 3. They will learn about classification, interpretation and presentation of data. 4. They will also learn about writing a dissertation, selecting chapter headings and subheadings, writing references, footnotes, endnotes, etc.
ECO HE 802	CONTEMPORARY ECONOMIC ISSUES	6	1. Students will have the capability to understand government policies and will in general be informed participants in economic decision making.

GENERIC COURSES IN ANTROPOLOGY

	COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
SEMESTER-III	ECO HG 601	INTRODUCTORY MICROECONOMICS	6	1. The course introduces the students to the first course in economics from the perspective of individual decision making as consumers and producers. 2. The students will learn some basic principles of microeconomics, interactions of supply and demand, and characteristics of perfect and imperfect markets.
SEMESTER-IV	ECO HG 602	INTRODUCTORY MACROECONOMICS	6	1. This course aims to develop the broad conceptual frameworks which will enable students to understand and comment upon real economic issues like inflation, money supply, GDP and their interlinkages. 2. It will also allow them to critically evaluate various macroeconomic policies in terms of a coherent logical structure.
SEMESTER-V	ECO HG 701	INDIAN ECONOMY-I	6	1. At the end of the course, a student should be able to understand the development paradigm adopted in India since independence and evaluate its impact on economic as well as social indicators of progress and well- being. 2. The students will gain preliminary idea on North Eastern Region's economy.
SEMESTER-VI	ECO HG 702	INDIAN ECONOMY -II	6	1. At the end of the course, a student should be able to understand the role of economic policies in shaping and improving economic performance in agriculture, manufacturing and services.
SEMESTER-VII	ECO HG 801	ENVIRONMENTAL ECONOMICS	6	1. The module aims to introduce students to the main theoretical and empirical concepts in environmental economics, equip students with a thorough analytical grasp of environmental policy theory, ranging from externalities to international environmental agreements, and familiarise students with the main issues in environmental valuation and with the basic features of the environmental policy tools. 2. At the end of the module the students should be able to demonstrate their understanding of the economic concepts of environmental policy. In some models, the student will be required to deal with simple algebra problems that will help them to better understand these concepts, use diagrammatic analysis to demonstrate and compare the economic welfare effects of various environmental policy options, demonstrate

				their understanding of the usefulness and problems related to environmental valuation, and demonstrate their critical understanding of environmental policies.
SEMESTER-VIII	ECO HG 802	PUBLIC FINANCE	6	1. The module aims to introduce students to the main theoretical and empirical concepts in public economics, equip students with a thorough analytical grasp of implications of government intervention for allocation, distribution and stabilization, and familiarise students with the main issues in government revenues and expenditure. 2. At the end of the module the students should be able to demonstrate their understanding of the public economics. In some models, the student will be required to deal with simple algebra problems that will help them to better understand these concepts, use diagrammatic analysis to demonstrate and compare the economic welfare effects of various environmental policy options, demonstrate their understanding of the usefulness and problems related to taxation and government expenditure, and demonstrate their critical understanding of public policies

COURSE OUTCOMES OF BA EDUCATION

Semester-I

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
EDN HC 501	PRINCIPLES OF EDUCATION	6	1. Understand the meaning, nature, scope and aims of education. 2. Acquire knowledge of education and their interrelationship. 3. Acquire knowledge of different agencies of education that influence education. 4. Acquainted with the concept of child-centricism and play-way in education.
EDN HC 502	EDUCATIONAL PHILOSOPHY	6	1. Introduce the general foundations of Philosophy and Education. 2. Emphasis on how philosophical ideas about education are built up. 3. Develop how ideas have influenced mankind in ways of life and their advancement. 4. Develop ideas about education and provide thinking tools from the philosophy and education
EDN SE 501	GUIDANCE AND CONSELLING	4	1. Understand the concept of educational, vocational and personal guidance. 2. Understand the meaning, purpose and steps, directive and non-directive theories of counseling. 3. Learn how to organize guidance service at Elementary and Secondary level.

Semester-II

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
EDN HC 503	EDUCATIONAL SOCIOLOGY	6	1. Understand meaning, importance of Sociology, Relationship between Sociology and Education, concept and scope of educational sociology and sociology of education. 2. Study about social institutions like Social group, family and schools, and to understand problem and remedial measures of Educations of under privilege sections. 3. Understand relationship between Educational and society and to analyze about school and mass media as a social sub-system. 4. Develop an understanding about meaning, significant, kinds of culture and interrelationship between education and culture
EDN HC 504	EDUCATIONAL PSYCHOLOGY	6	1. Make the students understand the relationship between education and psychology. 2. Explain the need of educational psychology in the teaching learning process. 3. Describe the nature and theories of learning and role of motivation in learning. 4. Understand intelligence, its theories, measurement, and concept of multiple intelligence. 5. Acquainted with different types of personality and the adjustment mechanism
EDN SE 502	PRE SCHOOL MANAGEMENT	4	1. Study the aims and objectives of ECCE. 2. Learn the concept of Day care center, Creche, Kindergarten. 3. Familiarize the students how to organize preschool. 4. Enable the students to understand curriculum activities, Nutritional requirements of early childhood years.

Semester-III

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
EDN HC 601	DEVELOPMENT OF EDUCATION IN INDIA	6	1. Acquaint the students with the ancient and medieval system of education in India. 2. Understand the development of education in India during the British Period. 3. Acquaint the students with the development of education in India during pre, post-independence period. 4. Acquaint the students with the development of education in our regional context.
EDN HC 602	EDUCATIONAL MANAGEMENT	6	1. Develop an understanding of the concept of educational management and administration. 2. Enable the students to understand the essentials of educational planning and educational finance. 3. Enable the students to understand the essentials of educational organization and supervision
EDN HC 603	GUIDANCE AND COUNSELLING IN EDUCATIO	6	1. Help the students understand the concept, needs and importance of guidance and counseling. 2. Enable the students to know the different approaches to guidance and counseling. 3. Familiarize the students with the significance of guidance and counseling

Semester-IV

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
EDN HC 604	EDUCATIONAL TECHNOLOGY	6	1. Develop an understanding the concepts and approaches to Educational Technology. 2. Develop an understanding of the use of computer in education and communications. 3. Acquainted with the instructional techniques and different models of teaching. 4. Develop and understand the innovation of Educational Technology.
EDN HC 605	EDUCATION FOR CURRICULUM DEVELOPMENT	6	1. Develop an understanding about concept, nature and scope of curriculum. 2. Analyse the different bases of curriculum. 3. Critically evaluate the national curriculum frameworks and discuss on role of local, State and national agencies in curriculum development. 4. Identify the criteria for organization and transaction of curriculum. 5. Develop insight into issues connected to Evaluation & reform of curriculum.
EDN HC 606	INCLUSIVE EDUCATION	6	1. Understand the concept, nature and scope of Inclusive Education. 2. Understand the different types of disabilities. 3. Identify criteria for inclusion in different spheres. 4. Develop insight into Divyang (CWSN) & reforms of the policies.

Semester-V

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
EDN HC 701	EDUCATIONAL EVALUATION	6	1. Acquaint the students with the basic concepts and practices adopted in educational measurement and evaluation. 2. Orient the students with tools and techniques of measurement and evaluation. 3. Develop skills and competencies in constructing and standardizing a test. 4. Make the students understand how various requirements of education are measured, evaluated, interpreted and their results are recorded to help learners. 5. Develop the ability to explain and use appropriate statistical techniques and tests of significance in measurement and evaluation
EDN HC 702	EDUCATIONAL STATISTICS	6	1. Compute different types of Statistical Measures. 2. Practical orientation involving selection of appropriate data analysis techniques. 3. Understand and apply various statistical techniques to field-based educational data. 4. Explain and illustrate the concept and application of measures of central tendency dispersion and relative positions. 5. Describe the meaning, assumptions, computations and uses of some tests of significance. 6. Illustrate the meaning and significance of Normal Probability Curve (NPC)
EDN HE 701	ADOLESCENT EDUCATION	6	1. Develop knowledge of major concepts and trends in adolescent education. 2. Understand and apply psychological principles to different areas of adolescent life. 3. Identify the problems occurring in adolescence with a focus on prevention.
EDN HE 701	CONTINUING EDUCATION	6	1. Understand the concept, importance and the value of continuing education. 2. Describe the various system of continuing education in relation to future perspectives. 3. Identify the continuing education system through NGO, post-graduate and college in formal lectures and various module.
EDN HE 701	ECONOMICS OF EDUCATION	6	1. Introduce the concept of economics in education and its contribution. 2. Develop the concept of resource and its significance. 3. Introduce the concept of cost benefit analysis in education. 4. Develop knowledge of how to calculate the rate of return in education

Semester-VI

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
EDN HC 703	PSYCHOLOGY OF ADJUSTMENT	6	1. Understand the concept of adjustment, maladjustment and some commonly found problem behavior. 2. Know the multi-axial classification of mental disorders. 3. Aware about different coping strategies for stressful situation. 4. Know the administration, scoring and interpretation of the psychological tests.
EDN HC 704	EARLYCHILDHOOD CARE& EDUCATION	6	1. Understand the concept of early childhood care and education. 2. Know the role of heredity and environment in the development of children. 3. Understand the role of parents in bringing up their children. 4. Understand the role of nursing mother and its educational implications. 5. Understand child-rearing practices and child rights and their protection. 6. Understand the developmental age of children
EDN HE 702	EDUCATION IN MANIPUR	6	1. Impart knowledge of pre-post independence period in Manipur. 2. Impart knowledge of development of school education in Manipur. 3. Impart knowledge of development of Collegiate and University Education in Manipur. 4. Impart knowledge of development of different trends and problems of Education in Manipur
EDN HE 702	ELEMENTARY EDUCATION	6	1. Understanding of elementary education as a specific stage of education. 2. Orienting the learners to the organizational structure, policy and practices of elementary education. 3. Guide and make them aware the functions of elementary education. 4. Sensitize the students about decentralization of authority, budget and expansion of elementary education
EDN HE 702	ENVIRONMENTAL EDUCATION	6	1. Acquainted with concept, objectives, scope and importance of environmental education, and relationship between human and environment. 2. Develop an understanding of environmental hazards, existing of flora and Fauna & environmental education programme taken up at district, state and national level. 3. Understand the strategies/approaches and methods in regarding the awareness of environmental education. 4. Aware of how far this environmental education is effective by conducting assessment.

Semester-VII

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
EDN HC 801	COMPARATIVE EDUCATION	6	1. Acquaint the student with educational systems in terms of factors and approaches of comparative education. 2. Orient the students with skills to assess the efficiency of educational systems of various countries in terms of prevailing trend in those countries. 3. Create a perspective in the students about the implications of education for solving the prevailing problems of education in India
EDN HC 802	EDUCATIONAL THINKERS	6	1. Familiarize the students with different educational philosophies of various thinkers. 2. Enable the students to understand the contribution of various educational thinkers in the field of education.
EDN HE 801	GENDER EDUCATION	6	1. Understand meaning of Gender school, Society, importance of Sexuality Education, basic distinction and gender bias, stereotyping distinction between sex and gender. 2. Develop the socialization of the student in the school and playgrounds, interaction between teacher and students between pupils themselves. 3. Understand the theories of Gender and its application. 4. Develop National policies and Gender issues in relation to education.
EDN HE 801	VALUE EDUCATION	6	1. Understand meaning and nature of ethics. 2. Study moral judgement and moral action. 3. Study value education and need for value education 4. Know the meaning, nature and scope of human values. 5. Understand how values can be fostered by parents, teachers, religion, and mass media
EDN HE 801	POPULATION EDUCATION	6	1. Know the concept of Population Education. 2. Understand population growth and its impact and responsibilities. 3. Understand population education and role of School.

Semester-VIII

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
EDN HC 803	TRENDS AND ISSUES IN INDIAN EDUCATION	6	1. Understand of Universal Elementary Education (UEE) and Universal Secondary Education (USE) with special reference to SSA-SSM, RTE Act 2009, DPEP, RMSA, Samagra Shiksha Abhiyan. 2. Understand of Higher· Education with special references to RUSA, NAAC, UGC, NTA, PPP Model, National Knowledge Commission, NEP 2020 on Higher Education. 3. Understand the need for Alternative Education and Schooling, Open and Distance Learning System (ODLS), Virtual Education, Life-long learning, Continuing Education. 4. Understand the some major issues and trends in contemporary Indian education
EDN HC 804	EDUCATIONAL RESEARCH	6	1. Make understand concepts of research and educational research. 2. Learn basic knowledge of conducting a research. 3. Understand the procedural steps and research design to be followed. 4. Enable how to write a research proposal or synopsis. 5. Understand the nature of analysis and interpretation of collected data. 6. Learn how to make writing research report.
EDN HE 802	DISSERTATION/ /PROJECT/INTERNSHIP	6	1. The students will learn about how to do fieldwork. 2. They will learn about use of various techniques of data collection. 3. They will also learn about writing a dissertation, selecting chapter headings and subheadings, writing references, footnotes, endnotes, etc. 4. Learn development of lesson plan for practice teaching.

GENERIC COURSES IN EDUCATION

	COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
SEMESTER-III	EDN HG 601	PHILOSOPHICAL AND SOCIOLOGICAL FOUNDATION OF EDUCATION	6	1. Understand and explain concept of philosophical and sociological education. 2. Analyse the role of philosophy in education. 3. Understand the meaning, concept, importance of freedoms and discipline.
SEMESTER-IV	EDN HG 602	EDUCATIONAL PSCYCOLOGY AND PEDAGOGY	6	1. Understand and explain the meaning, scope of education and psychology, relationship between education and psychology. 2. Study the development of learning and personality of human according to psychologists and summarize them in writing with their personal views. 3. Analyse the pedagogy and its implications of teaching learning process in educational psychology.
SEMESTER-V	EDN HG 701	DEVELOPMENT OF EDUCATION IN INDIA	6	1. Analyse the education system of ancient India in accordance with aims, curriculum of Buddhist and Vedic education. 2. Understand the types, objectives and curriculum of Islamic education. 3. Study the development of education in Manipur.
SEMESTER-VI	EDN HG 702	ISSUES AND TRENDS IN CONTEMPORARY INDIAN EDUCATION	6	1. Understand aims and objectives, functions of DIETS, NCERT, SCERT, primary education programmes and SSA. 2. Study the Secondary education of NCERT, SCERT, CBSE, BOSEM and COHSEM. 3. Understand the meaning of population education, value education and work experience
SEMESTER-VII	EDN HG 801	EVALUATION AND STATISTICS	6	1. Study and explain the concept, needs, types of measurement and evaluation and their relationship. 2. Understand the measuring instruments and their classifications of measurement and evaluation. 3. Understand the types of data and variate distribution of statistics in education.
SEMESTER-VIII	EDN HG 802	EDUCATIONAL MANAGEMENT AND EDUCATIONAL TECHNOLOGY	6	1. Understand meaning, nature, scope, types of educational management. 2. Analyse the financial and educational planning of educational management. 3. Study system approach to instruction, programme learning and computer assisted instruction of educational technology

COURSE OUTCOME OF B.A IN ENGLISH

ORIENTAL COLLEGE (AUTONOMOUS) IMPHAL, TAKYEL, MANIPUR

SEMESTER I			
Course Code	**Course name**	**Credit**	**Course Outcome**
ENG-HC 501	Indian Classical Literature	**6**	1. To explain the eco-socio-political-cultural context of the age that produced Indian classical literature from its early beginning till 1100 AD 2. To appreciate the pluralistic and inclusive nature of Indian classical literature and its attributes 3. To historically situate the classical literature and diverse literary cultures from India, mainly from Sanskrit, but also Prakrit and Pali by focusing on major texts in the principal genres 4. To trace the evolution of literary culture(s) in India in its/their contexts, issues of genres, themes and critical cultures 5. To understand, analyse and appreciate various texts with comparative perspectives
ENG -HC 502	European Classical Literature	**6**	1. To historically situate classical European, i.e., Greek and Latin literary cultures and their socio- political-cultural contexts 2. To engage with classical literary traditions of Europe from the beginning till the 5th century AD 3. To grasp the evolution of the concept of classic and classical in the European literary thought and its reception over a period of time 4. To appreciate classical literature of Europe and pursue their interests in it 5. To examine different ways of reading and using literary texts across a wide range of classical authors, genres and periods with comparative perspectives
ENG -SE 501	Translation Studies	**4**	1. To critically appreciate the process of translation 2. To engage with various theoretical positions on Translation 3. To think about the politics of translation 4. To assess, compare, and review translations translate literary and non-literary texts

GEN-AE 1	English Language and Literature	**4**	1. To develop an appreciation about the use of language in practically and equip them with the different skills related to the proper use of language. 2. To develop specific skills related to speaking, reading writing and comprehension in the English language 3. To identify the significant genres of literature especially poetry and prose through the learning and appreciation of some classical pieces of English literature.

Semester II			
ENG -HC 503	India Writing in English	**6**	1. To appreciate the historical trajectory of various genres of IWE from colonial times till the present 2. To critically engage with Indian literary texts written in English in terms of colonialism/postcolonialism, regionalism, and nationalism 3. To critically appreciate the creative use of the English language in IWE 4. To approach IWE from multiple positions based on historical and social locations
ENG -HC 504	British Poetry and Drama:14th to 17th century.	**6**	1. To understand the tradition of English literature from 14th to 17th centuries. 2. To develop a clear understanding of Renaissance Humanism that provides the basis for the texts suggested 3. To engage with the major genres and forms of English literature and develop fundamental skills required for close reading and critical thinking of the texts and concepts 4. To appreciate and analyse the poems and plays in the larger socio-political and religious contexts of the time.
ENG -SE 502	Creative Writing	**4**	1. To recognize creativity in writing and discern the difference between academic/non creative and creative writing 2. To develop a thorough knowledge of different aspects of language such as figures of speech, language codes and language registers so that they can both, identify as well as use these; in other words, they must learn that creative writing is as much a craft as an art 3. To develop a comprehensive understanding of some specific genres such as fiction, poetry, drama and newspaper writing 4. To distinguish between these as well as look at the sub divisions within each genre 5. To process their writing for publication and so must have the ability to edit and proof read writing such that it is ready to get into print.

Semester III			
ENG -HC 601	American Literature	**6**	1. To understand the depth and diversity of American literature, keeping in mind the history and culture of the United States of America from the colonial period to the present (17th century to 21st century) 2. To understand the historical, religious and philosophical contexts of the American spirit in literature; social-cultural-ecological-political contexts may, for example, include the idea of democracy, Millennial Narratives, the Myth of Success, the American Adam, the Myth of the Old South, the Wild West, Melting pot, Multiculturalism, etc. 3. To appreciate the complexity of the origin and reception of American literature, given its European and non-European historical trajectories, particularly in relation to writers of European (Anglo-Saxon, French, Dutch and Hispanic) descent, as well as writers from black and non-European (African, American Indian, Hispanic-American and Asian) writing traditions 4. To critically engage with the complex nature of American society, given its journey from specific religious obligations and their literary transformations (such as Puritanism, Unitarianism, Transcendentalism, etc.) to the growth of anti- or non-Christian
ENG -HC 602	British Poetry and Drama: 17th to 18th century.	**6**	1. To identify the major characteristics of the Comedy of Manners and Mock-Heroic poetry 2. To demonstrate in-depth knowledge and understanding of the religious, socio-intellectual and cultural thoughts of the 17th and 18th centuries 39 3. To examine critically keys themes in representative texts of the period, including Sin, Transgression, Love, Pride, revenge, sexuality, human follies, among others 4. To show their appreciation of texts in terms of plot-construction, socio-cultural contexts and genre of poetry and drama 5. To analyse literary devices forms and techniques in order to appreciate and interpret the texts

ENG -HC 603	British Literature:18th century	**6**	1. To explain and analyse the rise of the critical mind 2. To trace the development of Restoration Comedy and anti-sentimental drama 3. To examine and analyse the form and function of satire in the eighteenth century 4. To appreciate and analyse the formal variations of Classicism To map the relationship between the formal and the political in the literature of the neoclassical period
ENG -HG 601	Introduction to Literature (or)	**6**	1. Understanding of issues like literature, literariness, literary values and basic literary concepts 2. To have a basic understanding of development of English literature in terms of various movements 3. To engage with the genres and forms of English literature and develop fundamental skills required for close reading and critical thinking of the texts and concepts 4. To appreciate and analyse the select literary poems and plays in the larger socio-cultural contexts of the time 5. To develop skills of critical analysis and interpretation of selected poems in order to understand the theme, language, tone and style, and elements of prosody
ENG -HG 601	Literary Cross Currents: Prose, Poetry, Fiction and Drama	**6**	1. To explain and analyse the rise and development of important movements in literary history To trace the development of the important forms and genres of English literature 2. To appreciate and analyse the formal variations different genres of literature through the study of selected texts of prose, poetry, fiction and drama

Semester IV			
ENG -HC 604	Literary Criticism	**6**	1. To understand the historical and philosophical contexts that led to the development of literary criticism and its practice in different traditions and periods 2. The students will be able to understand fundamental literary and critical concepts and underlying distinctions amongst them (e.g.., difference between literary criticism and literary theory) 3. The students will be able to grasp a wide range of literary philosophers and critics whose works had informed and shaped the discourse of literary theory The students will have knowledge about major, critical movements and critics in various critical traditions – Indian (schools of Rasa, Alamkar, Riti, Dhwani, Vakroti, Auchitya) and Western (Greek, Roman, English, German, Russian and French) 4. The students will be able to identify theoretical and critical concepts with critics/texts/movements with which they are associated and understand them in their contexts 5. The students will be able to apply various theoretical frameworks and concepts to literary and cultural texts 6. The students will be able to evaluate and analyse strengths and limitations of critical/theoretical frameworks and arguments 7. The students will be able to strengthen and deepen their interpretative skills
ENG -HC 605	British Romantic literature	**6**	1. To understand Romanticism as a concept in relation to ancillary concepts like Classicism 2. To understand the Romantic period in English literature in terms of its social, philosophical, intellectual, literary backgrounds including German and French influences 3. To analyse and understand the main characteristics of Romanticism 4. To appreciate the canonical and representative poems and prose of the writers of the Romantic period.

			5. To develop skills of critical analysis and interpretation of selected poems in order to understand the theme, language, style, and elements of prosody. To appreciate and analyse the sensibility of the British Romantic period: common man, equality, freedom, sense of community and fraternity
ENG -HC 606	British literature: 19th century	**6**	1. To identify and analyse the socio-economic-political contexts that inform the literature of the period 2. To comment on the historical and political awareness of literary texts as reflected in the transition from nature to culture across various genres 3. To understand the conflict between self and society in different literary genres of the period 4. To link the rise of the novel to the expansion of Colonialism and Capitalism 5. To understand the transition from Romantic to Victorian in literature and culture 6. To link the Victorian temper to political contexts in English colonies 7. To link the changes in the English countryside to changes brought about in similar settings in India
ENG -HG 602	Language and Linguistics (or)	**6**	1. To recognize/understand the existence of language in the form of different dialects based on a set of established factors Language: language and communication; language varieties: standard and non- standard language; language change 2. To identify and understand that all languages behave alike and develop a tolerance for other languages 3. To understand that making errors is a process of learning and not hesitate to use language for the fear of making errors
ENG-HG-602:	Text And Performance	**6**	1. To distinguish between a dramatic text and a performance text 2. To appreciate the evolution of drama in the West and in India in terms of both, form and content, from tradition to modernity, as well as have a thorough knowledge of different theatre styles in India and the West 3. To appreciate the difference between drama and other genres 4. To develop a comprehensive understanding of the process of performance and the entire paraphernalia involved from theatrical space and lights/sound/costume to the use of voice and body

			5. To learn a wide variety of skills from acting and directing to script writing, costume designing, prop making and technical skills like sound and light as well as production

Semester V			
ENG -HC 701	Literary Theory	**6**	1. To have a historical overview of major literary theorists, particularly of the 20th century 2. To show an understanding of historical and philosophical contexts that led to the development of literary theory and its practices 3. To develop awareness of various literary theories and the way they enrich and change our thinking about language, literature and society 4. To historically situate literary theorists whose works had informed and shaped various literary theoretical discourses 5. To identify theoretical concepts with theorists and movements with which they are associated and in the process understand their contexts 6. To apply various theoretical frameworks and concepts to literary and cultural texts To evaluate and analyse strengths and limitations of theoretical frameworks and arguments 7. To sharpen interpretative skills in the light of various theoretical frameworks
ENG -HC 702	British Literature: The early 20th century	**6**	1. To trace the history of modernism in the socio-cultural and intellectual contexts of late nineteenth century and early twentieth century Europe 2. To link and distinguish between modernity and modernism 3. To explain the links between developments in science and experiments in literature To explain the history of early twentieth-century modernism in the light of stream of consciousness, Jungian and Freudian ideas, Psychoanalysis, Imagism, Cubism, Vorticism 4. To identify and analyse the use and modernist technique in different genres in early twentieth century British literature 5. To trace the history of the self and subjectivity in literature in the light of colonial consciousness 6. Explain and analyse the idea of from in modernist literary texts from across major genres

ENG -HE 701	Modern Indian Writing in English literature (or)	**6**	1. To appreciate the diversity of modern Indian literatures and the similarities between them 2. To understand and creatively engage with the notion of nation and nationalism 3. To appreciate the impact of literary movements on various Indian literatures 4. To critically engage with significant social issues like caste and gender 5. Understand the historical trajectories of Indian literatures
ENG-HE 701:	Literature of the Indian Diaspora	**6**	1. To understand the importance of Diasporic Writing and its focus on ideas of transnationalism, exile, migration, displacement, and so on. 2. To understand the diasporic experience with particular reference to Indian diasporic writers.
ENG HG 701	Language and Indian Literature (or)		1. To see literature as a fine form of expression. 2. To use literature for analysis to understand the use of language 3. To see language as a major source of transmitting culture To show the understanding of literature in the form of extrapolation (see the relevance of a story, poem, play etc. in their own lives)
ENG HG 701	Individual and Society	**6**	1. Students will understand the individual-society relationships and how it is represented in different historical periods of literature. 2. Understand the relationship between the individual writer and the society about/in which she writes. 3. Develop the understanding about race, gender and cultural difference. 4. Learn to distinguish between literary representation and actual character and milieu.

Semester VI			
ENG -HC 703 Modern European Drama		**6**	1. To understand the role of theatre and drama in the introduction and shaping of modernity 2. To understand and engage with concepts like realism, naturalism, symbolism, expressionism, the Avant Garde, the epic theatre, the theatre of the absurd, etc. 3. understand how meaning is created in theatre and be able to write about innovations introduced into theatrical practice in the late nineteenth and the twentieth century
ENG-HC 704:	Postcolonial Literatures	**6**	1. Understand the social-historical-political-economic contexts of colonialism and post colonialism in India and other countries affected by colonial rule 2. Understand the scope of postcolonial literatures in India and elsewhere, primarily as a response to the long shadow of colonialism, not just of colonial occupation 3. To see through a corpus of representative postcolonial texts from different colonial locations: the effects of colonial rule on the language, culture, economy and habitat of specific groups of people affected by it 4. To appreciate and analyse the growing spectres of inequality arising out of colonial occupation and the role played by postcolonial literatures to resist it in India and similar locations 5. To critically engage with issues of racism and imperialism during and after colonial occupation 6. To appreciate the changing role and status of English in postcolonial literatures
ENG-HE 702:	British Literature; Post-World War II (OR)	**6**	1. To understand the social-historical-political-economic contexts of Post-World War II British Literature 2. To understand the relationship between World war II and the end of colonialism

			3. To identify the social-historical-political changes in England after World War II 4. To see through a corpus of representative texts the rise of multiculturalism in England in the wake of migrations of people from colonial territories 5. To grasp the changing role of English in the new world order 6. To critically analyse and link changes in social norms to new literary forms 7. Engage with the idea of the postmodern and the rise of the postmodernist aesthetics To appreciate the importance of location in understanding the self and the other
ENG-HE 702:	Writings from North East India	**6**	1. Explore the diverse literary traditions and cultural expressions of North East India through a range of texts. 2. Analyse and critically evaluate the themes, styles, and techniques employed in writings from North East India. 3. Examine the historical, social, and political contexts that shape the literature of the region. 4. Develop a deeper understanding of the cultural identities, languages, and oral traditions prevalent in North East India. 1. 5. Enhance writing and critical thinking skills through engagement with texts and participation in discussions and assignments.
ENG-HG 702:	American and British Literature	**6**	1. To understand the depth and diversity of American literature, keeping in mind the history and culture of the United States of America from the colonial period to the present (17th century to 21st century) 2. To critically engage with the complex nature of American society, given its journey from specific religious obligations and their literary transformations (such as Puritanism, Unitarianism, Transcendentalism, etc.) to the growth of anti- or non-Christian sensibilities 3. To critically appreciate the diversity of American literature in the light of regional variations in climate, cultural traits, economic priorities 4. To explore and understand the nature of the relationships of human beings to other human beings and other life forms in relation to representative literary texts in various genres

			5. To analyse the American mind from global and Indian perspectives and situate the American in the contemporary world 6. To engage with the major genres and forms of English literature and develop fundamental skills required for close reading and critical thinking of the texts and concepts
ENG-HG 702:	(or) Media and Communication Skills	**6**	1. To develop the professional ability to communicate information clearly and effectively in all kinds of environment and contexts. 2. To demonstrate practical skills of various types of media writing, reviews, reports, programmes and discussions. 3. To demonstrate their familiarity with the new media, its techniques, practices of social media and hypermedia. 4. To critically analyse the ways in which the media reflects, represents and influences the contemporary world. 5. To identify career avenues in print and electronic media.

SEMESTER VII			
ENG-HC 801:	Popular Literature	**6**	1. To trace the early history of print culture in England and the emergence of genre fiction and best sellers 2. To engage with debates on high and low culture, canonical and non-canonical literature 3. To articulate the characteristics of various genres of non-literary fiction To investigate the role of popular fiction in the literature of various linguistic cultures To demonstrate how popular literature belongs to its time 4. To use various methods of literary analysis to interpret popular literature
ENG-HC 802:	Women's Writing	6	1. To recognise the importance of gender specificity in literature 2. To understand and appreciate the representation of female experience in literature 3. To explain the difference between the feminine and the feminist as opposed to the female 4. To examine and appreciate the role played by socio-cultural-economic contexts in defining woman 5. To link the status of woman to social discrimination and social change 6. To draw a location specific trajectory of female bonding or empowerment 7. To understand the complexity of social and biological constructions of manhood and womanhood 8. To examine the relationship of women to work and production
ENG-HE 801:	Literature and Cinema (Or)	6	1. To demonstrate a historically-grounded knowledge of literature and cinema as expressive arts 2. To examine different theories of adaptation and link then to contexts of expression and reception 3. To organize different sets of activities to identify and make use of skills that distinguish the medium of cinema from that of literature 4. To present a coherent view of the relationship between written and cinematic texts To communicate the role of location in adaptation

ENG-HE 801:	Science Fiction And Detective Literature	6	1. To write critically about the two genres: Science Fiction, and Detective Literature 2. To engage with the philosophical and psychological and social issues that are an intrinsic part to the two genres 3. To think through the concept of progress, and the role of technology in our life and the interaction between technology and human behaviour 4. To engage with the social and historical construction of crime 5. To analyse individual or multiple texts in the two genres in terms of key concepts including genre, implied audience, plot construction, linguistic texture, authorial identity, publication context, and sociocultural context
ENG-HG 801:	New Literatures in English	6	1. To show familiarity with the emergent body of literature being produced by writers from South Africa, Caribbean, South Asia, Australia and Canada and its socio-political- cultural contexts 2. To demonstrate ability to show an understanding of cultural exchange processes as represented through literature will have knowledge about the prominent concepts in this body of literature. 3. To appreciate new works in literature and pursue their interests in it 4. To examine different ways of reading and using literary texts across wide range of classical authors, genres and periods with comparative perspectives 5. To develop ability to pursue research in the field of new literatures in English
ENG-HC 803:	Research methodology	6	1. To develop a simple questionnaire to elicit specific information. 2. To collect data based on a survey and arrive at inferences using a small sample 3. To discuss and draft a plan for carrying out a piece of work systematically 4. To refer to authentic sources of information and document the same properly. 5. To provide proper explanation for technical terms in simple language.

ENG-HC 804:	World literatures	6	1. To explain the concept of World Literature and its evolution in relation to other related concepts e.g. national literature, general literature, comparative literature and Vishwa Sahitya. 2. To appreciate the connectedness and diversity of human experiences and literary responses to them in different parts of the world 3. To analyse and appreciate literary texts from different parts of the world and receive them in the light of one's own literary traditions. 4. To analyse and interpret literary texts in their contexts and locate them.
ENG-HE 802:	Dissertation	6	1. The student will gain a complete understanding of the whole research process through the completion and submission of the dissertation.
ENG-HG 802:	Contemporary India-Women And Empowerment (Or)	6	1. The students will have an in-depth understanding of the evolution of the society, the importance of social actions and interactions performed by the individuals. 2. Through the course will understand the different aspects of the functioning of the society 3. The students will also have gained the knowledge about the role of women in the society and the significance of stages of women's movement
ENG-HG 802:	British Romantic Literature	6	1. To understand Romanticism as a concept in relation to ancillary concepts like Classicism 2. To understand the Romantic period in English literature in terms of its social, philosophical, intellectual, literary backgrounds including German and French influences 3. To analyse and understand the main characteristics of Romanticism 4. To appreciate the canonical and representative poems and prose of the writers of the Romantic period. 5. To develop skills of critical analysis and interpretation of selected poems in order to understand the theme, language, style, and elements of prosody.

COURSE OUTCOMES OF BA GEOGRAPHY

Semester-I

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
GEO HC 501	PHYSICAL GEOGRAPHY	6	1. Understand the various components of the earth system and the process which shapes the earth. 2. Distinguished various types of wind, and the spheres of the earth. 3. Identify various type of landforms and their formation processes
GEO HC 502	CARTOGRAPHIC TECHNIQUES	6	1. Differentiate between various type scales and map projections. 2. Define various type map projections and their uses and importance. 3. Read and prepare map
GEO SE 501	POLITICAL GEOGRAPHY	4	1. Learn the concept of nation and state and geopolitical theories. 2. Understand the different dimensions of electoral geography and resource conflicts. 3. Have sound knowledge of politics of displacement, focusing on dams and SEZ

Semester-II

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
GEO HC 503	HUMAN GEOGRAPHY	6	1. Students will be able to define the nature and scope of human geography and its relevance. 2. Know population and settlement patterns and their determinants.
GEO HC 504	THEMATIC CARTOGRAPHY	6	1. After the completion of the course, students will be able to Classify various types of maps and read them. 2. Represent different data by diagrams
GEO SE 502	BASIC STATISTICAL TECHNIQUE	4	1. Understand the basics of data collection and processing for the meaningful outcomes. 2. Comprehend the representation and interpretation of the results. 3. Put into practice results obtained in representation as well as day-to-day life.

Semester-III

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
GEO HC 601	GEOGRAPHY OF INDIA	6	1. Understand the physical profile of the country 2. Understand the resource endowment and its spatial distribution and utilization for sustainable development 3. Students will be able to synthesise and develop the idea of regional dimensions.

GEO HC 602	REGIONAL GEOGRAPHY	6	1. Students will be able to identify various regions and the basis of its classification. 2. Apply the models and theories of regional planning in real life 3. Understand the regional problems and various regional development projects.
GEO HC 603	STATISTICAL METHOD IN GEOGRAPHY	6	1. Understand the basics of data collection and, processing for the meaningful outcomes. 2. Understand the selection of proper sampling techniques for the collection of data. 3. Put into practice the results obtained for spatial analysis of results and to apply various statistical softwares for the study

Semester-IV

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
GEO HC 604	ECONOMIC GEOGRAPHY	6	1. Students will be able to distinguish different types of economic activities and their utilities. 2. Appreciate the factors responsible for the location and distribution of activities. 3. Examine the significance and relevance of theories in relation to the location of different economic activities.
GEO HC 605	GEOGRAPHICAL THOUGHT	6	1. Students will be able to distinguish the paradigms in geography discipline through time. 2. Understand the geographical thinking in different regions of world. 3. Appreciate the past and future trends of world geography in general and Indian geography in particular
GEO HC 606	REMOTE SENSING	6	1. Understand basics of remote sensing and applications 2. Learn satellite remote sensing, image proceesing

Semester-V

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
GEO HC 701	POPULATION GEOGRAPHY	6	1. Learn the role of demography and population studies as distinct fields of human geography. 2. Have sound knowledge of key concept, different components of population along with its drivers

			3. Examine population dynamics and characteristic with contemporary issues
GEO HC 702	FIELD WORK AND RESEARCH METHODOLOGY	6	1. Students will be able to conduct proper field work for the collection of primary data to bring out grassroots realities. 2. Make use of proper tools and surveying methods for measurement in context of collection and processing of data. 3. Prepare a report based on field data.
GEO HE 701	RESOURCE GEOGRAPHY	6	1. Understand the basic concept of sustainable resource development and differentiate between the Millennium development goals and Sustainable development goals. 2. Assess the issues associated with the Inclusive Development. 3. Students will be able to explain the sustainable development policies and programmes
GEO HE 701	SETTLEMENT GEOGRAPHY	6	1. Students will be equipped with the basic of settlement planning and the various factors associated with it. 2. Understand settlement problem in rural and urban areas
GEO HE 701	GEOGRAPHY OF HEALTH AND WELL BEING	6	1. The course will provide more awareness on health aspects such as identifying the determinants of poor health. 2. Raise awareness issue on the environmental pollution

Semester-VI

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
GEO HC 703	CLIMATOLOGY	6	1. Understand the elements of weather and climate and its impacts at different scales. 2. Comprehend the climatic aspects and its bearing on planet earth. 3. Understand the oceanic process and availability of resources.
GEO HC 704	GEOGRAPHICAL FIELD SURVEY REPORT	6	1. Students will learn the various steps and procedures to conduct field survey. 2. Learn how to write survey report.
GEO HE 702	HYDROLOGY AND OCEANOGRAPHY	6	1. Understand the basic components of hydrological cycle and comprehend practices of integrated watershed management. 2. Evaluate the water balancing and river basin and water disputes. 3. Understand the ocean floor topography, oceanic water movements, salinity and oceanic landform
GEO HE 702	BIOGEOGRAPHY	6	1. Familiarize the dynamics of climate and related theories. 2. Understand of Vegetation as an index of climate. 3. Assess of different aspects of floral and faunal provinces.

GEO HE 702	ENVIRONMENTAL GEOGRAPHY	6	1. Understand the dynamic interactive relationship between man and environment. 2. Have sound understanding on distribution, utilization and proper management of natural resources at global level. 3. Make assessment and review of planning and policies related to environment and natural resources.

Semester-VII

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
GEO HC 801	SOCIAL GEOGRAPHY	6	1. Understand the nature and scope of social geography and relationships of geography with the social system. 2. Acquire knowledge on spatial dimensions of social diversity components. 3. Appreciate the social welfare programs related to inclusive and exclusive policies in India.
GEO HC 802	GEOMORPHOLOGY	6	1. Understand the functioning of Earth systems in real time and analyse how the natural and anthropogenic operating factors affect the development of landforms. 2. Distinguish between the mechanisms that control these processes. 3. Assess the roles of structure, stage and time in shaping the landforms, interpret geomorphological maps and apply the knowledge in geographical research.
GEO HE 801	URBAN GEOGRAPHY	6	1. Understand the fundamentals and patterns of urbanization process. 2. Learn the functional classification of cities and Central Place Theory. 3. Know contemporary problems of Delhi, Mumbai, Kolkata and Chennai
GEO HE 801	RURAL GEOGRAPHY	6	1. Appreciate the concepts, needs and various approaches to rural development. 2. Understand the strong economic bases of rural areas of India. 3. Appreciate the area based and target group based approaches and provision of services to rural development.
GEO HE 801	GEOGRAPHY OF NORTHEAST INDIA AND MANIPUR	6	1. After the completion of the course the students will be able to acquire basic geographical knowledge of the Northeast India and Manipur. 2. Understand the population pattern, resource distribution and industrial development of the region. 3. Explore the tourism potential and other prospect of the region.

GEO HE 801	SUSTAINABLE RESOURCE DEVELOPMENT	6	1. Understand difficulties in defining the components of sustainable development. 2. Distinguish the patterns of regional development of the world and the need for sustainable development plan. 3. Appreciate the efforts and initiatives of the Governments in reducing the levels of poverty and inequality among the people of various countries.

Semester-VIII

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
GEO HC 803	RESEARCH METHODOLOGY IN GEOGRAPHY	6	1. Students will be able to conduct geographical enquiry and acquire knowledge on various research methods in geography. 2. Collect geographical data and analyzes them using various methods. 3. Write research report
GEO HC 804	MAPS AND TOPOGRAPHICAL INTERPRETATION	6	1. After completion of this course students will be able to understand various maps. 2. Understand the topographical interpretation.
GEO HE 802	SURVEYING AND TOPOGRAPHICAL SHEET INTERPRETATION	6	1. After the completion of the course the students will be able to conduct various surveys like chain and tape, plane table , dumpy, theodolite and total station. 2. Interpret topographical map and Indian Toposheets.
GEO HE 802	DISSERTATION	6	1. After the completion of the course, students will be able to prepare dissertation report on any given topics

GENERIC COURSES IN GEOGRAPHY

	COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
SEMESTER-III	GEO HG 601	HUMAN AND ECONOMIC GEOGRAPHY	6	1. At the end of the course, the students will be able to define the nature and scope of human geography. 2. Understand the man environment relationship and human adaptation to the environment. 3. Study the economic cooperation among various countries of the world and the major races of the world.
SEMESTER-IV	GEO HG 602	INDUSTRIAL GEOGRAPHY	6	1. After Studying, Students will be able to acquaint with the nature and scope of Industrial geography and theories of location of industries. 2. Classify the typology of Industries and understand the physical, cultural, economic and demographic aspects with reference to mega industrial complexes of India. 3. Assess the impacts of industrialization and industrial policy on India.
SEMESTER-V	GEO HG 701	AGRICULTURAL GEOGRAPHY	6	1. After the completion of course, the students will have ability to conceptualise the agriculture and its determinants. 2. Get the overview of Indian and World agriculture regions and systems. 3. Have sound knowledge of agriculture revolutions and food security
SEMESTER-VI	GEO HG 702	ENVIRONMENTAL GEOGRAPHY	6	1. Understand the dynamic interactive relationship between man and environment. 2. Have sound understanding on distribution, utilization and proper management of natural resources at global level. 3. Make assessment and review of planning and policies related to environment and natural resources.
SEMESTER-VII	GEO HG 801	SUSTAINABLE RESOURCE DEVELOPMENT	6	1. Understand difficulties in defining the components of sustainable development. 2. Distinguish the patterns of regional development of the world and the need for sustainable development plan. 3. Appreciate the efforts and initiatives of the Governments in reducing the levels of poverty and inequality among the people of various countries.
SEMESTER-VIII	GEO HG 802	FLUVIAL GEOMORPHOLOGY	6	1. Acquire knowledge about Fluvial Geomorphology and fluvial processes. 2. Study drainage basin as geographic unit.

				3. Understand the ways in which human being adjust to fluvial landforms and techniques of studying fluvial environment.

COURSE OUTCOMES OF BA HISTORY

Semester-I

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
HIS HC 501	THE IDEA OF BHARAT	6	1. Students will acquire knowledge regarding the primitive life and cultural status of the people of ancient India. 2. They can gather knowledge about the society, culture, religion and political history of ancient India. 3. They will also acquire the knowledge of changing socio-cultural scenarios of India.
HIS HC 501	HISTORY & INDIAN HISTORIOGRAPHY	6	1. Understand different aspects of History and general trend of History writing. 2. The course will definitely be helpful in familiarizing the Indian notion of history and history writing in different phases of her historical development. 3. Understand the different schools of historiography in India.
HIS HC 502	HISTORY OF WORLD CIVILIZATION	6	1. Student will acquire knowledge about the evolution of human society, and transformation of ancient civilizations like Mesopotamia, Greece, China, Roman, and Medieval Europe. 2. They can acquire knowledge about the origin, features, nature and class composition of various societies. They can compare to each and other among the several societies of the world.
HIS SE 501	INTRODUCTION TO ARCHAEOLOGY	4	1. Know about the principles, methods and theoretical framework of archaeology.
HIS SE 501	ARCHIVES & MUSEUMS	4	1. Students will learn how to maintain documentary, visual and material remains of the past either in house or Institutions. 2. Understand the importance and significance of such institutions to build the history of India.
HIS SE 501	MYANMARESE OR BURMESE LANGUAGE	4	1. Students will learn the basics of Myanmarese/Burmese language along with an introduction to the land and people of the country.

Semester-II

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
HIS HC 503	HISTORY OF INDIA-EARLIEST TIME TO 550 C.E.	6	1. Student will learn about the historiographical trends, interpretation of the historical sources of ancient India as well. 2. They will acquire knowledge about the Vedic Period and the rise of Jainism and Buddhism culture in ancient times of India
HIS HC 504	HISTORY OF EUROPE - 13TH	6	1. Understand Europe from a theocratic society to modern Nation state system.

	CENTURY TO 1789 C.E.		2. Understand the Renaissance in Europe and its effects on the society, economy, polity and culture of European states leading to subsequent development of Nation States and emergence of new ideologies culminating in the form of French Revolution.
HIS SE 502	UNDERSTANDING HERITAGE	4	1. Understand the different facets of heritage and their significance. 2. Understand about the legal and institutional frameworks for heritage protection in India as the challenges facing it.
HIS SE 502	UNDERSTANDING POPULAR CULTURE OF INDIA	4	1. Understand the various aspects of Indian cultural heritage and cultural diversity in a historical perspective.
HIS SE 502	HISTORICAL TOURISM IN N-E INDIA	4	1. Learn about Tourism in North East India with special reference to the historical monuments, cultural elements and places of the northeastern region of India as heritage sites. 2. Acquaint them with the growing vocation of tourism as an industry and the applicability of historical knowledge for its growth and expansion.

Semester-III

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
HIS HC 601	HISTORY OF INDIA - 550 C.E. TO 1200 C.E	6	1. Students will learn and analyze about the transition from historic centuries to the early medieval. 2. They'll be able to delineate changes in the realm of polity and culture; Puranic religion; the growth of vernacular languages and newer forms of art and architecture
HIS HC 602	HISTORY OF EUROPE - 1789 TO 1919 C.E.	6	1. The students will be able to analyze the historical developments in Europe in between 1789-1919 C.E. as it focuses on the democratic & socialist foundations of modern Europe. 2. They will be able to situate historical developments of socialist upsurge & the economic forces of the wars, other ideological shifts.
HIS HC 603	HISTORY OF INDIA - 1200 C.E. TO 1707 C.E.	6	1. Students will be able to identify the major political developments in the History of India during the period between the twelfth and the seventeenth century. 2. They will be able to outline the changes and continuities in the field of culture, especially with regard to art, architecture, bhakti movement and sufi movement. Delineate the development of trade and urban complexes during this period.

Semester-IV

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME

HIS HC 604	HISTORY OF MODERN WORLD- 1919 TO 1945 C.E.	6	1. Understanding of an era of shifting history from Euro centric to World. 2. Understand the turbulent times when totalitarianism rose as an alternative to democratic and liberal ideal and also the growing desire for peace through formation of organizations such as United Nations.
HIS HC 605	HISTORY OF INDIA - 1707 C.E. TO 1857 C.E.	6	1. The students will be able to trace the British colonial expansion in the political contexts of eighteenth century India. 2. They will learn about the changes in society, politics, religion and economy during this period. 3. They'll also acquire knowledge about the freedom struggle.
HIS HC 606	INDIAN NATIONAL MOVEMENT- 1857-1947 C.E.	6	1. The students are equipped to focus upon the core ideas of national movement in its contextuality. 2. India's quest for independence and nation building are interwoven script of history, debated most widely at global level with various angles. 3. Understand India's national movement has vast and divergent ideological base with inner contradictions.

Semester-V

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
HIS HC 701	HISTORY OF MODERN INDIA- 1947-2000 C.E.	6	1. Students will learn about the post war Developments of social, political and economic scenarios of India.
HIS HC 702	CULTURAL HERITAGE OF INDIA	6	1. This course will enable students to explore various aspects of cultural heritage and cultural diversity in historical perspective that discusses numerous cultural practices that have evolved over centuries. 2. They will acquire knowledge of changing socio-cultural scenarios of India. 3. They can gather knowledge about the cultural heritage, cultural forms and cultural expressions performing arts, fairs and festivals
HIS HE 701	HISTORY OF THE UNITED STATES OF AMERICA (1776-1945 C.E.)	6	1. Students will know the history of America. 2. It will help them understand, synthesize and analyze the major themes and debates in the historiography of America.
HIS HE 701	HISTORY OF THE USSR (1917-1964 C.E.)	6	1. Students will be aware about the Russian War of 1917 which affected to the contemporary society and politics of the European countries.

			2. They will learn about the foreign policy of Russia which affected to the entire World.
HIS HE 701	HISTORY OF AFRICA (1500-1960S C.E.)	6	1. Students will gain a broad understanding of the political, social, economic and cultural history of Africa, an appreciation of the nature and impact of the key forces shaping the continent's history, and an awareness of how the deeper past has shaped present-day Africa

Semester-VI

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
HIS HC 703	ASIAN RESURGENCE	6	1. Students will be able to analyze how global forces of economic, political and cultural change affect contemporary Asian Societies. 2. Understand the basic historical linkages between Asia and the world, including economic and cultural linkages.
HIS HC 704	HISTORY OF MANIPUR – EARLIEST TIME TO 1891 A.D	6	1. Students will gather knowledge towards the history, polity and culture of early Manipur. 2. Knowledge about emergence of Manipur as a nation state. 3. Understand the history of Manipur from the earliest times to the occupation of Manipur by the British in the last quarter of the 19th century. 4. Acquaint the students with major stages of developments of the kingdom as a nation state and its loss of independence to the British in the eventful Anglo-Manipur war of 1091. 5. The introduction of this course has become more relevant as Manipur served as the gateway between India and the countries of Southeast Asia in the historical past.
HIS HE 702	HISTORY OF SOUTH EAST ASIA (19TH & 20TH CENTURIES)	6	1. Understand the history of region that we now know as Southeast Asia - Indonesia, Malaysia, Thailand, Burma, Vietnam, Cambodia and the Philippines. Chronologically the 'past' covered in the subject is from 'earliest times' to 2oth Century.
HIS HE 702	HISTORY OF LATIN AMERICA (1500-1960S C.E.)	6	1. The student will understand and interpret foundational knowledge relating to historical, socio-cultural, geographic and economic conditions in Latin America, as well as how Latin America interacted with world powers.
HIS HE 702	ISSUES IN CONTEMPORARY WORLD	6	1. This course enables students to identify the contemporary challenges like social transformation, liberalization, privatization and globalization.

Semester-VII

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
HIS HC 801	HISTORY OF MODERN MANIPUR	6	1. Students will gather knowledge about the history of colonial Manipur, processes, impact and response of the people towards colonial rule, freedom and integration to India.
HIS HC 802	HISTORY OF COMMUNICATION IN INDIA	6	1. This course will be helpful to make students aware of past history of communication in India. 2. This curriculum provides in depth study of various dimensions of communication in Indian Past.
HIS HE 801	HISTORY OF EAST ASIA (1840 TO 1949 C.E.)	6	1. Students will learn about the nature and structure of the traditional Chinese, Japanese and Korian societies and how to transform their societies from traditional to modern cultures. 2. Learn to think critically and comparatively about historical events in modern East Asia. 3. Understand and identify historical themes, causes, and effects.
HIS HE 801	ENVIRONMENTAL ISSUES IN INDIA	6	1. Understanding and addressing complex environmental issues from a problem-oriented, interdisciplinary perspective. 2. They will learn to appreciate the ethical, cross-cultural, and historical context of environmental issues and the links between human and natural systems. 3. Understand the transnational character of environmental problems and ways of addressing them, including interactions across local to global scales
HIS HE 801	HISTORY OF THE NORTH EAST INDIA- FROM 1826 TO 1947	6	1. Aware of the historical development of North East India as a region and its role in the making of India.

Semester-VIII

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
HIS HC 803	HISTORY OF CONTEMPORARY MANIPUR	6	1. Understand the contemporary History of Manipur after the Merger with the dominion of India. 2. Knowledge of changing socio-political life of the people of Manipur in a democratic India.
HIS HC 804	RESEARCH METHODOLOGY IN HISTORY	6	1. Understand research methods and report writing. 2. Understanding on various kinds of research, objectives of doing research, research process, research designs and sampling. 3. Have basic knowledge on qualitative research techniques.
HIS HE 802	DISSERTATION	6	1. Learn to conduct research and prepare report on given topic. 2. Develop understanding on various kinds of research, objectives of doing research, research process, research designs and sampling.

GENERIC COURSES IN HISTORY

	COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
SEMESTER-III	HIS HG 601	HISTORY OF MANIPUR- FROM 33 A.D. TO 1891 A.D.	6	1. Understanding of the emergence of Manipur as an independent kingdom till its defeat in the hands of British. 2. Understand this course within the perspective of regional, national and global perspective.
SEMESTER-IV	HIS HG 602	HISTORY OF ANCIENT INDIA	6	1. Understand the various stages of ancient Indian history from pre-historic age, political, economic and social history.
SEMESTER-V	HIS HG 701	HISTORY OF MEDIEVAL INDIA	6	2. The students will learn the various aspects of medieval Indian history and culture, political, economic and social history of the given period.
SEMESTER-VI	HIS HG 702	HISTORY OF MODERN INDIA	6	2. The students will know the main features of the History of Modern India (1707 A.D. to 1857 A.D.), political, economic and social history of the given period.
SEMESTER-VII	HIS HG 801	HISTORY OF FREEDOM MOVEMENT IN INDIA	6	1. Understand the various stages of India's rich history of the various strands of anti-colonial national movement for freedom against the British rule.
	HIS HG 802	HISTORY OF MODERN EUROPE (1789-1945 CE)	6	1. Understand the historical developments in modern Europe since the time of French Revolution to the outbreak of the Second World War.

				2. The course will enable students to situate & analyse the historical developments of the First and Second World War.
SEMESTER-VIII	HIS HG 802	WOMEN IN INDIAN HISTORY	6	1. Understand the Feminist Movement, the key concepts in Women's studies as well as sources for reconstructions of Women's History. 2. Know the status of Women in Indian Society during the Vedic and Medieval period. 3. Understand the Reform Movement as well as the role of women in India's Freedom Struggle will be dealt with.
	HIS HG 802	MAKING CONTEMPORARY INDIA	6	1. Students will be able to comprehend wide ranging topics of compelling contemporary interest in the context of India from the 1950s to the 2000s

COURSE OUTCOME OF B.A IN MANIPURI

ORIENTAL COLLEGE (AUTONOMOUS) IMPHAL, TAKYEL, MANIPUR

SEMESTER I			
Course Code	**Course name**	**Credit**	**Course Outcome**
MSL-HC-501	POETRY & PROSE		1. To enable and understand Modern Manipuri Poetry • To enable and understand old Manipuri Poetry 2. To enable the students to critically analyse about different types of proses 3. To introduce to the students the seminal works of Khwairakpam Chaoba and Dr. IR. Babu.
MSL-HC 502	Grammar & Composition		1. To impart an in-depth knowledge about the origin, characteristics, development and structure of Manipuri (a language among 22 of the 8th Scheduled Language under Indian Constitution). 2. To introduce to the students important writing skills viz. Precise, Essay, Amplification, Application and Letter Writing. 3. To equip the students to use the Manipuri language correctly and avoid common errors in the day-to-day conversation and writing.
MSL-SE-501 –	Transliteration		1. To introduce to the students about the theory of transliteration 2. To make the students understand about loan words, those words coming from other language to Meitei script known
MAN-AE-1	Poetry, Prose, Grammar & Composition		1. To enable to understand about the Manipuri Poetry/ from the period of Renaissance up to 1980's period. 2. To enable to give critical assessment to Manipuri essay, Novel, Drama and Short story etc. To enable to give critical assessment of Manipuri essay, Novel, Drama and Short story etc. 3. To enable to do critical analysis and appreciations of the pre and post 2nd World War Manipuri Literature and its changes.
SECOND SEMESTER			
MSL-HC -503	Drama		1. To enable the students to understand the changes of Manipuri society by studying Manipuri Dramatic Literature. 2. To enable the students to appreciate Manipuri drama as a distinct and popular genre

MSL-HC 504	Novel and Short Story		1. To understand and the trends of Manipuri Novel, its growth and development etc. To understand the trends of Manipuri short story and its growth and development etc. 2. Critical analysis and assessment of Manipuri fiction.
MSL-SE-502	Food processing / Fashion Designing		1. To enable to understand about - Food processing, the way of making food items to be used at any time and place also needs a process of preservation 2. To enable to understand about Manipuri Traditional Food Processing Process & Preservation
Third semester			
MSL-HC -601	History of Manipuri Literature		1. To enable to understand about the development of Manipuri Literature from early period to Modern Period. 2. To enable to appreciate Old Manipur Literature and Medieval Manipuri Literature (18th - 19th Century)
MSL-HC -602	Old Manipuri literature		1. To enable the students to understand the Old and Medieval Manipuri Literature 2. To enable to understand the students Manipuri Culture and society effected in the Old and Medieval Manipuri Literature.
MSL-HC -603	Feature of Early Manipuri Culture (Before 18th Century)		3. To enable the students to comprehend Manipuri civilization and well- verse the ancient Manipuri culture 4. To enable the students to gain an in-depth knowledge about Lai Haraoba, and Games and Sports of Manipur such as Sagol Kangjei, Kang, Hiyang
MSL-HG -601	Introduction to Manipuri Literature		1. To enable the students to understand the growth & development of Manipuri Language, History of Meitei Script. 2. To enable the students to understand and learn about Manipuri Literature according to the important phases viz. Old, Medieval, Modern.
FOURTH SEMESTER			
MSL-HC-604	Literature in Translation		1. Students to understand the poetry, short story, drama and novel of the mainstream Indian literature. 2. To enable the students to make a critical assessment about the Shakespearian tragedy of the Western literature.

MSL-HC-605	Introduction to linguistics		1. To enable to understand the general concept of Language analysis is in need for a learner of language subject. 2. To impart to the students the basic knowledge of general linguistics and its application to the specific language he/ she has to learn.
MSL-HC-606	Travelogue		1. To understand about the growth and development of travel literature 2. To appreciate and analyse the short prose narrative style of travel writing about Manipur, Darjeeling etc. 3. To enable to understand about the full length travel account of Bangladesh, Japan, Europe and countries and American nations like Mexico and Cuba etc.
MSL-HG-602	Medieval Manipuri literature		1. To enable the students to understand the theme, language, style and diction and the different style of expression of Manipuri Literature in the medieval periods. 2. To impart a proper understanding of the aesthetic aspects of Medieval Manipuri Literature.
FIFTH SEMESTER			
MSL-HC-701	Biographical Literature.		1. To enable the students to understand and appreciate about those persons who were dedicated their lives in the field of art and culture through short biographies. 2. To enable the students to understand and appreciate about the renaissance period of the then Manipuri society and literature 3. To the students to understand and introduce about the contributions of N. Kunjamohon. 4. To the students to understand about the condition of the Manipuri society during the 2nd World War.
MSL-HC-702	Mahakavya and Khanda Kavya		1. To acquaint the students about the Manipuri epic Khamba Thoibi Sheireng through which they can learn about the growth and development of this epic hundreds of years ago from the culture of Moirang. 2. To introduce to the students, the oral tradition, culture, history of Moirang vis a vis Manipur.

			3. To highlight the importance of folklore in understanding Manipur culture to a great extent. In addition, the Indian point of view in regard to Khanda Kavya will also be demonstrated by the course
MSL-HE-701	Khwairakpam Chaoba Life And Works		1. To enable to understand the whole life and literary works of Khwairakpam Chaoba 2. To enable to do critical analysis of Kh. Chaoba's Poetry, Prose and Novel etc
MSL-HE-701	Manipuri Folk Literature		1. To introduce to the students, the various aspects of Manipuri folklore, such as myth, legend, folktale, ballad, folk song, proverb, riddle etc. 2. To acquaint the students the use of folk elements in mainstream Manipuri Literature
MSL-HE-701 ()	Social and Culture Background of Medeival Period		1. To introduce to the students about the social and culture background of medieval period in Manipur 2. To enable the students to understand about the medieval Manipuri literature.
MSL-HG-701	Old Manipuri Literature		1. To make the students inculcate a proper understanding of the theme, language, style and diction and the different style of expression of Manipuri Literature in the Old periods 2. To help the students to understand and learn the different aesthetic aspects of Old Manipuri Literature.
SIXTH SEMESTER			
MSL-HC-703	History of Manipuri Culture (From 18th to 20th Century Onward	**1.**	2. To introduce to the students the history of Manipuri culture (from 18th to 20th century onward 3. To help the students to analyzed and appreciate the nuances of Manipuri Culture from the 18th - 20th centuries.
MSL-HC-704	Folkloristics and Manipuri Folklore		1. To enable the Students to understand basic methods of international Folklore studies and theories. 2. To make them aware of the scientific methods of folklore studies and interpretations.

			3. To introduce to the students suitable examples from the storehouse of Manipur Folklore 4. To address other important aspects of Manipuri folklore, such as myth, legend, folktale, ballad, folksong, proverb, riddle etc.
MSL-HE-702	Lamabam Kamal Life and Works		1. To enable the students to understand the whole life and literary works of Lamabam Kamal Singh 2. To enable the students to critically analyse the works of L. Kamal's Poetry, Novel, Drama and Short story etc.
MSL-HE-702	General Characteristics and Devleopment on Manipuri Language		1. To enable the students to understand the characteristics of Manipuri Language, Development of Manipur Language. 2. To impart the students the skills of evaluation and writing of Manipuri Scripts
MSL-HE-702	Wari macha		1. To introduce to the students the genre of short story writing and its position in literature 2. To enable the students to understands the trends of Manipuri short story and its growth and development
MSL-HG-702 .	Modern Manipuri Literature		1. To enable to understand the Manipuri Literature along with the social status of pre 2nd World War Manipur. 2. To enable to understand the Manipuri Literature along with the socials status of the after 2nd World War Manipur. 3. To enable to do critical analysis and appreciations of the pre and post 2nd World War Manipur Literature and its changes
7TH SEMESTER			
MSL-HC-801	Indian Literary Criticism		1. To introduce to the students the world of Indian Literary Criticism and Indian Philosophy of aesthetics. 2. To enable the learners to become an active audience and readers with an in-depth knowledge of Kavya shastra.
MSL-HC-802 .	Western Literary Criticism		1. To enable the students the importance of critical analysis of literary text through the application of western poetics. 2. To impart to the students the historical development of literary criticism from the time of Aristotle of the 20th century.

			3. To enable the students to appreciate literary works and texts including poems as a part of academic endeavour of the students of art and literature
MSL-HE-801	Hijam Anganghal Live and works		1. To enable to understand the whole life and literary works of Hijam Anganghal. 2. To enable to critical appreciation of H. Anganghal's Mahakavya, Eassy, Novel, Drama and Poetry etc.
MSL-HE-801	History of Literary Culture		1. To enable the students to gain the knowledge and overall understanding of early period of Manipuri literature. 2. To make the students appreciate the evolution of Manipuri Literature and literary culture over the years.
MSL-HE-801	Genres of Literature		1. To enable the students to gain an in-depth knowledge & skills required of writing Poetry, Prose, Essay, Novel, Short story. 2. To enable the students to gain an in-depth knowledge Drama, Autobiography and Travelogue.
MSL-HG-801 7TH SEMESTER	Manipuri Folk Literature		1. To introduce to the students the world of Manipuri Folk Literature 2. To enhance the knowledge and overall understanding of Manipuri oral narrative oral poetry as well as other aspects of Manipuri folklore.
8TH SEMESTER			
MSL-HC-803	Research Methodology		1. To introduce to the students, the true nature of honest and sincere research. 2. To enable the students to understand the whole research process ranging from data collection to Field work techniques, Library method, Footnote & referencing, Plagiarism in research and consequences of plagiarism.
MSL-HC-804	Folklore Research & Field Method)		1. To impart the knowledge of Folklore and research in Folklore. 2. To make the students understand about Folklore Research along with the essential knowledge in the Research work
MSL-HE-802	(Dissertation)		1. The students will write a dissertation of about 100 pages under the supervision of a department teacher

COURSE OUTCOMES OF BSc MATHEMATICS

Semester-I

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
MAT HC 501	Calculus	6	1. To sketch curves in a plane in the different co – ordinate systems of reference. 2. To understand the Calculus of Vector valued functions. 3. To apply Calculus to develop basic principles of planetary motions. 4. To develop basic mathematical problems in any software.
MAT HC 502	Algebra , Complex Trigonometry & Logic	6	1. To learn various methods of obtaining roots of real and complex polynomials and will understand relations between the roots and coefficients of these polynomial equations. 2. To employ De Moiré's theorem and its applications. 3. To apply Euclid's algorithm and backwards substitution to find greatest common divisor. 4. To recognize consistent and inconsistent systems of linear equations by using rank.
MAT SE 501	LaTeX	4	1. Typeset mathematical formulas, use nested list, tabular & array environments. 2. Create or import graphics. 3. Use beamer to create presentation.
MAT SE 501	Computational Mathematics Laboratory	4	1. Develop, manage power point presentations while preparing for presentations in seminars withadditional skills such as inserting pictures, objects, multimedia etc. 2. Work out with excel files with skill of preparing charts to represent the information found in daily lifesituations. 3. Use Mathematica software to plot the graph of various functions.

Semester-II

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
MAT HC 503	Real Analysis	6	Will understand many properties of the real line, recognize bounded convergent, divergent, Cauchy and monotonic sequences, applications of the ratio, root, alternating series and limit comparison test for convergence and absolute convergence of an infinite series of real numbers.
MAT HC 504	Differential Equations	6	1. Formulate Differential Equations for various Mathematical models. 2. Solve first order non-linear differential equation and linear differential equations of higher order using various techniques. 3. Apply these techniques to solve and analyze various mathematical models
MAT SE 502	Python Programming	4	1. Develop, document, and debug modular python programs to solve computational problems. 2. Select a suitable programming construct and data structure for a situation. 3. Use built-in strings, lists, sets, tuples and dictionary in applications. 4. Define classes and use them in applications. 5. Use files for I/O operations.
MAT SE 502	Computer Algebra Systems and Related Software	4	1. Use CAS as a calculator, for plotting functions, animations and various applications of matrices. 2. Understand the use of the software R for entry, summary calculation, pictorial representation of dataand exploring relationship between data. 3. Analyze, test, and interpret technical arguments on the basis of geometry.

Semester-III

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
MAT HC 601	Theory of Real Functions	6	1. A rigorous approach of the concept of limit of a function. 2. About continuity and uniform continuity of functions defined on intervals. 3. The geometrical properties of continuous functions on closed and bounded intervals. 4. The applications of mean value theorem and Taylor's theorem.
MAT HC 602	Computer Science & Programming	6	1. Ability to write basic mathematical problems in C, MALAB, Python etc. 2. find importance of mathematical software for Lab Experiment
MAT HC 603	Multivariate Calculus	6	1. The conceptual variations when advancing in calculus from one variable to multivariable discussions. 2. Inter-relationship amongst the line integral, double and triple integral formulations. 3. Applications of multi variable calculus tools in physics, economics, optimization, and understandingthe architecture of curves and surfaces in plane and space etc.

Semester-IV

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
MAT HC 604	Partial Differential Equations	6	1. formulate, classify and transform partial differential equations into canonical form 2. Solve linear and non-linear partial differential equations using various methods: and applythese methods in solving some physical problems.
MAT HC 605	Riemann Integration	6	1. Some of the families and properties of Riemann integrable functions, and the applications of thefundamental theorems of integration. 2. Beta and Gamma functions and their properties. 3. The valid situations for the inter-changeability of differentiability and integrability within finite sum, and approximation of transcendental functions in terms of power series.
MAT HC 606	Numerical Analysis	6	1. Some numerical methods to find the zeroes of nonlinear functions of a single variable and solution of asystem of linear equations, up to a certain given level of precision. 2. Interpolation techniques to compute the values for a tabulated function at points not in the table. 3. Applications of numerical differentiation and integration to convert differential equations into differenceequations for numerical solutions.

Semester-V

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
MAT HC 701	Metric Space	6	Students will understand the idea of distance between two elements in a set and to extend the concepts namely, open sets, closed sets, convergence of sequences, compact sets, continuity of functions etc. from real line to a metric space and extend several theorems and concepts about the real numbers and real valued functions, such as convergence and continuity, to the more general setting of these spaces.
MAT HC 702	Mechanics (Dynamics & Statics)	6	1. To analyse the problems involving tension in a string 2. to illustrate laws of motion, kinemetics of motion and their interrelationship 3. To explain the concepts of motion of particles
MAT HE 701	Information Security	6	This course will enable the students to keep confidential and protect the Messages exchanged over worldwide through computer networks
MAT HE 701	Spherical Trigonometry and Astronomy	6	1. Determine declination of a star in the distance between two neighboring stars 2. Understand different kinds of time 3. Understand planetary motion
MAT HE 701	Advanced Computational Mathematics Laboratory	6	1. Understand 2-D & 3- D graphics 2. Understand colour map & colour functions 3. Solve problems of different equations and numerical Integration

Semester-VI

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
MAT HC 703	Complex Analysis	6	Students should be able to understand the significance of differentiability and continuity of functions of complex variables leading to the understanding of Cauchy-Riemann equations, evaluation of the contour integral, to find critical and fixed points of different transformation.
MAT HC 704	Group, Ring Theory and Linear Algebra	6	1. Apply Lagrange's theorem, Fermat's & Wilson's theorem to some exercise. 2. explore the groups of permutations and the alternating groups 3. Prove Cayley's theorem & its generalization. 4. Express vector spaces in different dimensions
MAT HE 702	*Graph Theory*	6	1. To apply different types of Graph as a mathematical model for many real life Situation such as communication network, signal flow. 2. To develop Euler's subordinate relationship solve Map-colouring problems
MAT HE 702	Linear Programming and its applications	6	Students will understand the concept of LPP, TP and will be able to Solve real life problems using optimization techniques.
MAT HE 702	HETEROCYCLIC CHEMISRTY	6	1. Learn the synthetic approaches and reactivities of oxiranes, aziridines, episulphides. oxaziranes, diaziridines, diazirines oxitanes, azatidanes and thietanes. 2. Learn the synthesis of Peniciline and cephalosporine. 3. Understand the chemistry of Benzofuran, indoles and benzothiazoles.
MAT HE 702	BIOCHEMISTRY	6	1. Understand the classification of Biomolecules. 2. Learn the importance of carbohydrates, proteins, lipids, enzymes and structures of RNA and DNA.

Semester-VII

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
MAT HC 801	Laplace Transform & Vector Analysis	6	1. State and prove Heaviside's shifting theorem 2. Apply Laplace Transformation in solving PDE 3. Solve the related problems of Gauss's, Green's and Stoke's theorems
MAT HC 802	Advanced Real Analysis	6	1. A rigorous understanding of the families and properties of Rieman integral functions 2. Concept of multiple integral, line and surface integrals and connection among all integrals (Green's and Stoke's theorem)
MAT HE 801	Geometry (Two and Three Dimension)	6	1. Understand basic knowledge about pair of straight lines, properties of conic sections in the Cartesian and polar co-ordinates, to trace parabola, ellipse, hyperbola in a plane using its mathematical properties. 2. Understand about lines in 3D, projections, basic knowledge about different types of conicoids such as spheres, cone, cylinder, ellipsoid, hyperboloid and paraboloid
MAT HE 801	Special Theory of Relativity	6	The course will help students to expressed physical laws in mathematical terms. It will help to study related problems of Einstein's time distillation, the relativistic force of law and equivalence of mass and energy.
MAT HE 801	Cryptography	6	Students should be able to find importance of cryptography. They will have knowledge how to keep the information used by the common people secure, should be able to protect confidential messages exchanged over worldwide through computer network against manipulation.

Semester-VIII

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
MAT HC 803	Probability Theory	6	1. To solve problems of probability generating functions, problems of weak and strong convergence of random variables, problems of probability under normal curve, problems of application of central limit theorem.
MAT HC 804	Mathematical Modelling	6	On completion of this course, students should be able to design mathematical models for Traffic flow on a highway, model of planetary motion, population dynamics and genetics through difference equation, through linear, Non-linear programming, through calculus of variation.
MAT HE 802	*Rigid Dynamics& Tensor*	6	1. analyse the problems of the motion of rigid bodies and simultaneously solve them 2. get a hold of motion of compound pendulum 3. study and learn the cause effect related to the relations between other papers of mathematics 4. the applications in observing and relating real situations.
MAT HE 802	Higher Mechanics	6	1. Of Hamiltonian approach over Lagrangian approach. 2. Conditions for a transformation to be canonical
MAT – HE – 802	Fluid Mechanics	6	1. Understand pressure equations and can solve Bernoulli's equations and its applications 2. Learn about kinematic and dynamic similarities, potential functions, flows, flows fluids.

GENERIC COURSES IN MATHEMATICS

	COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
SEM III	MAT HG 601	QUANTITATIVE APTITUDE	6	1. Gain sufficient ideas of mental and arithmetic abilities. 2. Handle mental/quantitative aptitude test questions with great ease. 3. Acquire the skill of solving problems of daily life quickly.
SEM IV	MAT HG 602	BASIC TOOLS OF MATHEMATICS	6	1. The basic concepts of Vectors Analysis. 2. Some topics of Algebra and Differential Calculus. 3. Application of partial differentiation in daily life problems. 4. Properties and methods of Integration, solving of definite and indefinite integrals. 5. Basic ideas of probability such as probability distribution, expectations, Binomial Distribution,Poisson distribution, etc.
SEM V	MAT HG 701	Sets, Determinants and Logic	6	On completion of this course, students should be able to construct truth tables of different statements. These are of great use in concluding some statements from some given statements.
SEM VI	MAT HG 702	Analytical Geometry of Two & Three Dimensions	6	Understand the basic knowledge about transformation of rectangular axes, pair of straight lines, elementary properties of conic sections in the Cartesian and polar co-ordinates systems.
SEM VII	MAT HG 801	Elements of Probability	6	The course will help to understand concept of probability like different types of distribution and applications, Bernoulli's number, Moment generating functions
SEM VIII	MAT HG 802	Mechanics	6	1. Illustrate laws of motion, kinematics of motion and to learn the cause-effect related to these 2. Explain the concepts of motion of particles; get a hold of S.H.M. of compounding two S.H.M. of simple pendulum.

COURSE OUTCOMES OF BSc PHYSICS

Semester-I

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
PHY HC 501	MATHEMATICAL PHYSICS-I	6	1. Students will learn how to draw and interpret graphs of various functions. 2. Solve first and second order differential equations and apply these to physics problems. 3. Understand the concept of gradient of scalar field and divergence and curl of vector fields. 4. Perform line, surface and volume integration and apply Green's, Stokes' and Gauss's Theorems to compute these integrals. 5. Apply curvilinear coordinates to problems with spherical and cylindrical symmetries. 6. Understand elementary probability theory and the properties of discrete and continuous distribution functions. 7. In the laboratory course, the students will be able to design, code and test simple programs in C++ in the process of solving various problems.
PHY HC 502	MECHANICS	6	1. Understand laws of motion and their application to various dynamical situations. 2. Learn the concept of inertial reference frames and Galilean transformations. Also, the concept of conservation of energy, momentum, angular momentum and apply them to basic problems. 3. Understand translational and rotational dynamics of a system of particles. 4. Apply Kepler'slawsto describe the motion of planets and satellite in circular orbit. 5. Understand concept of Geosynchronous orbits 6. Explain the phenomenon of simple harmonic motion. 7. Understand special theory of relativity - special relativistic effects and their effects on the mass and energy of a moving object. 8. In the laboratory course, the student shall perform experiments related to mechanics: compound pendulum, rotational dynamics (Flywheel), elastic properties (Young Modulus and Modulus of Rigidity), fluid dynamics, estimation of random errors in the observations etc.
PHY SE 501	PHYSICS WORKSHOP SKILLS	4	1. Learn measuring devices like Vernier callipers, Screw gauge, travelling microscope and Sextant for measuring various length scales. 2. Acquire skills in the usage of multimeters, soldering iron, oscilloscopes, power supplies and relays. 3. Develop mechanical skill such as casting, foundry, machining, forming and welding and will become familiar with common machine tools like lathe, shaper, drilling, milling, surface machines and Cutting tools. 4. Getting acquaintance with prime movers: Mechanism, gear system, wheel, Fixing of gears with motor axle. Lever mechanism. Lifting of heavy weight using lever. braking systems, pulleys.

PHY SE 501	COMPUTATIONAL PHYSICS	4	1. Use computers for solving problems in Physics. 2. Students will be able to prepare algorithms and flowcharts for solving a problem. 3. Use Linux commands on terminal. 4. Use of unformatted editor to write sources codes. 5. Learn "Scientific Word Processing", in particular, using LaTeX for preparing articles, papers etc. which include mathematical equations, picture and tables. 6. Learn the basic commands of Gnuplot.
PHY SE 501	ELECTRICAL CIRCUITS AND NETWORK SKILLS	4	1. Understand basic principles of electricity including ideas about voltage, current and resistance. 2. Develop the capacity to analyze and evaluate schematics of power efficient electrical circuits while demonstrating insight into tracking of interconnections within elements while identifying current flow and voltage drop. 3. Gain knowledge about generators, transformers and electric motors. The knowledge would include interfacing aspects and consumer defined control of speed and power. 4. Acquire capacity to work theoretically and practically with solid-state devices. Delve into practical aspects related to electrical wiring like various types of conductors and cables, wiring-Star and delta connections, voltage drop and losses. 5. Able to measure current, voltage, power in DC and AC circuits, acquire proficiency in fabrication of regulated power supply. 6. Develop capacity to identify and suggest types and sizes of solid and stranded cables, conduit lengths, cable trays, splices, crimps, terminal blocks and solder.
PHY SE 501	BASIC INSTRUMENTATION SKILLS	4	1. The student will have the necessary working knowledge on accuracy, precision, resolution, range and errors/uncertainty in measurements. 2. Course learning begins with the basic understanding of the measurement and errors in measurement. It then familiarizes about each and every specification of a multimeter, multimeters, multivibrators, rectifiers, amplifiers, oscillators and high voltage probes and their significance with hands on mode. 3. Learn the specifications of CRO and their significance. Complete explanation of CRT. 4. Students will learn the use of CRO for the measurement of voltage (DC and AC), frequency and time period. Covers the Digital Storage Oscilloscope and its principle of working. 5. Learn principles of voltage measurement. Students should be able to understand the advantages of electronic voltmeter over conventional multimeter in terms of sensitivity etc. Types of AC millivoltmeter should be covered. 6. Understand the specifications of Signal and pulse Generators: low frequency signal generator and pulse generator. Students should be familiarized with testing and specifications. 7. Learn about the working principles and specifications of basic LCR bridge. 8. Hands on ability to use analog and digital instruments like digital multimeter and frequency counter.

Semester-II

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
PHY HC 503	ELECTRICITY AND MAGNETISM	6	1. Demonstrate the application of Coulomb's law for the electric field, and also apply it to systems of point charges as well as line, surface, and volume distributions of charges. 2. Demonstrate an understanding of the relation between electric field and potential, exploit the potential to solve a variety of problems, and relate it to the potential energy of a charge distribution. 2. Apply Gauss's law of electrostatics to solve a variety of problems. 3. Calculate the magnetic forces that act on moving charges and the magnetic fields due to currents (Biot- Savart and Ampere laws) 4. Understand the concepts of induction and self-induction, to solve problems using Faraday's and Lenz's laws. 5. Understand the basics of electrical circuits and analyze circuits using Network Theorems. 6. In the laboratory course the student will get an opportunity to verify network theorems and study different circuits such as RC circuit, LCR circuit. Also, different methods to measure low and high resistance, capacitance, self-inductance, mutual inductance, strength of a magnetic field and its variation in space will be learnt.
PHY HC 504	WAVES AND OPTICS	6	1. Understand Simple harmonic oscillation and superposition principle. 2. Understand different types of waves and their velocities: Plane, Spherical, Transverse, Longitudinal. 3. Understand Concept of normal modes in transverse and longitudinal waves: their frequencies and configurations. 4. Understand Interference as superposition of waves from coherent sources derived from same parent source. 5. Demonstrate basic concepts of Diffraction: Superposition of wavelets diffracted from aperture, understand Fraunhoffer and Fresnel Diffraction. 6. In the laboratory course, student will gain hands-on experience of using various optical instruments
PHY SE 502	RENEWABLE ENERGY AND ENERGY HARVESTING	4	1. Knowledge of various sources of energy for harvesting. 2. Understand the need of energy conversion and the various methods of energy Storage. 3. Understanding of various renewable energy systems, and its components. 4. Knowledge about renewable energy technologies, different storage technologies, distribution grid, smart grid including sensors, regulation and their control. 5. Design the model for sending the wind energy or solar energy plant.

			6. The students will gain hand on experience of: (i) different kinds of alternative energy sources, (ii) conversion of vibration into voltage using piezoelectric materials, (iii) conversion of thermal energy into voltage using thermoelectric modules.
PHY SE 502	TECHNICAL DRAWING	4	1. Understanding the concept of a sectional view – visualizing a space after being cut by a plane. How The student will be able to draw and learn proper techniques for drawing an aligned section. 2. Understanding the use of spatial visualization by constructing an orthographic multi view drawing. 3. Drawing simple curves like ellipse, cycloid and spiral, Orthographic projections of points, lines and of solids like cylinders, cones, prisms and pyramids etc. 4. Using Computer Aided Design (CAD) software and AutoCAD techniques.
PHY SE 502	RADIATION SAFETY	4	1. Awareness and understanding the hazards of radiation and the safety measures to guard against these hazards. 2. Learn the basic aspects of the atomic and nuclear Physics, specially the radiations that originate from the atom and the nucleus. 3. Have a comprehensive knowledge about the nature of interaction of matter with radiations like gamma, beta, alpha rays, neutrons etc. and radiation shielding by appropriate materials. 4. Knowing about the units of radiations and their safety limits, the devises to detect and measure radiation. 5. Learn radiation safety management, biological effects of ionizing radiation, operational limits and basics of radiation hazards evaluation and control, radiation protection standards, 'International Commission on Radiological Protection' (ICRP) its principles, justification, optimization, limitation, introduction of safety and risk management of radiation, nuclear waste and disposal management, brief idea about Accelerator driven Sub Critical System'(ADS) for waste management. 6. Learn about the devices which apply radiations in medical sciences, such as MRI, PET. 7. Understanding and performing experiments like Study the background radiation levels using Radiation detectors, Determination of gamma ray linear and mass absorption coefficient of a given material for radiation shielding application
PHY SE 502	APPLIED OPTICS	4	1. Understand basic lasing mechanism qualitatively, types of lasers, characteristics of laser light and its application in developing LED, Holography. 2. Gain concepts of Fourier optics and Fourier transform spectroscopy. 3. Understand basic principle and theory of Holography. 4. Grasp the idea of total internal reflection and learn the characteristics of optical fibers.

Semester-III

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
PHY HC 601	MATHEMATICAL PHYSICS-II	6	1. Students will be able to represent a periodic function by a sum of harmonics using Fourier series and their applications in physical problems such as vibrating strings etc. 2. They will be able to obtain power series solution of differential equation of second order with variable coefficient using Frobenius method. 3. Understand properties and applications of special functions like Legendre polynomials, Bessel functions and their differential equations and apply these to various physical problems such as in quantum mechanics. 4. Learn about gamma and beta functions and their applications. 5. Students will be able to solve linear partial differential equations of second order with separation of variable method. 6. In the laboratory course, the students will learn the basics of the Scilab software/Python interpreter and apply appropriate numerical method to solve selected physics problems.
PHY HC 602	THERMAL PHYSICS	6	1. Students will be able to comprehend the basic concepts of thermodynamics, the first and the second law of thermodynamics. 2. Understand the concept of entropy and the associated theorems, the thermodynamic potentials and their physical interpretations. 3. Know about reversible and Irreversible processes. 4. Learn about Maxwell's relations and use them for solving many problems in Thermodynamics. 5. Understand the concept and behavior of ideal and real gases. 6. Learn the basic aspects of kinetic theory of gases, Maxwell-Boltzmann distribution law, equitation of energies, mean free path of molecular collisions, viscosity, thermal conductivity, diffusion and Brownian motion. 7. In the laboratory course, the students are expected learn some basic experiments in thermal Physics.
PHY HC 603	DIGITAL SYSTEMS AND APPLICATIONS	6	1. Learn the basics of active and passive components. Then builds the concept of Integrated Chips (IC). 2. Learn differentiating the Analog and Digital circuits, the concepts of number systems like Binary, BCD, Octal and hexadecimal are developed to elaborate and focus on the digital systems. 2. Understand Sequential Circuits: Basic memory elements Flips-Flops, shift registers and 4-bits counters leading to the concept of RAM, ROM and memory organization. 3. Understand Timer circuits using IC 555 providing clock pulses to sequential circuits and develop multivibrators.

			4. Introduces to basic architecture of processing in an Intel 8085 microprocessor and to Assembly Language. 5. Understand the working of CRO and its usage in measurements of voltage, current, frequency and phase measurement. 6. In the laboratory students will learn to construct both combinational and sequential circuits by employing NAND as building blocks.

Semester-IV

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
PHY HC 604	MATHEMATICAL PHYSICS III	6	1. Students will be able to determine continuity, differentiability and analyticity of a complex function, find the derivative of a function and understand the properties of elementary complex functions. 2. Work with multi-valued functions (logarithmic, complex power, inverse trigonometric function) and determine branches of these functions. 3. Evaluate a contour integral using parametrization, fundamental theorem of calculus and Cauchy'sintegralformula. 4. Students will be able to find the Taylor series of a function and determine its radius of convergence. 5. They will be able to determine the Laurent series expansion of a function in different regions, find the residues and use the residue theory to evaluate a contour integral and real integral. 6. Understand the properties of Fourier and Laplace transforms and use these to solve boundary value problems. 7. In the laboratory course, the students will learn the basics of the Scilab software/Python interpreter
PHY HC 605	ELEMENTS OF MODERN PHYSICS	6	1. Understand the main aspects of the inadequacies of classical mechanics as well as understanding of the historical development of quantum mechanics. 2. Formulation of Schrodinger equation and the idea of probability interpretation associated with wave-functions. 3. Understand the spontaneous and stimulated emission of radiation, optical pumping and population inversion. Three level and four level lasers. Ruby laser and He-Ne laser in details. Basic lasing 4. Learn the properties of nuclei like density, size, binding energy, nuclear forces and structure of atomic nucleus, liquid drop model and nuclear shell model and mass formula. 5. Learn decay rates and lifetime of radioactive decays like alpha, beta, gamma decay. Neutrino, its properties and its role in theory of beta decay. 6. Understand Fission and fusion: Nuclear processes to produce nuclear energy in nuclear reactor and stellar energy in stars.

			7. In the laboratory course, the students will learn how to measure Planck's constant, verify photoelectric effect, determine e/m of electron, Ionization potential of atoms, study emission and absorption line spectra.
PHY HC 606	ANALOG SYSTEMS AND APPLICATIONS	6	1. Understand the characteristics and working of pn junction. 2. Students will learn two terminal devices: Rectifier diodes, Zener diode, photodiode etc. 3. Understand working of NPN and PNP transistors: Characteristics of different configurations, biasing, stabilization and their applications. 4. Learn CE and two stage RC coupled transistor amplifier using h-parameter model of the transistor. 5. Understand designing of different types of oscillators and their stabilities. 6. Learn Ideal and practical op-amps: Characteristics and applications. 7. In the laboratory course, the students will learn characteristics of various diodes and BJT

Semester-V

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
PHY HC 701	QUANTUM MECHANICS &APPLICATIONS	6	1. Understand methods to solve time-dependent and time-independent Schrodinger equation. 2. Understand Quantum mechanics of simple harmonic oscillator. 3. Learn non-relativistic hydrogen atom: spectrum and eigen functions. 4. Understand angular momentum: Orbital angular momentum and spin angular momentum. 5. Learn Bosons and fermions - symmetric and anti-symmetric wave functions. 6. In the laboratory course, the students will learn computational programming in the computer lab.
PHY HC 702	SOLID STATE PHYSICS	6	1. Understand the concept of lattice, crystals and symmetry operations. 2. Understand the elementary lattice dynamics and its influence on the properties of materials. 3. Describe the main features of the physics of electrons in solids: origin of energy bands, and their influence electronic behavior. 4. Explain the origin of dia-, para-, and ferro-magnetic properties of solids.

			5. Explain the origin of the dielectric properties exhibited by solids and the concept of polarizability. 6. Understand the basics of phase transitions and the preliminary concept and experiments related to superconductivity in solid. 7. In the laboratory students will learn how to measure the magnetic susceptibility, dielectric constant, trace hysteresis loop.
PHY HE 701	PHYSICS OF EARTH	6	1. Have an overview of structure of the earth as well as various dynamical processes occurring on it. 2. Develop an understanding of evolution of the earth. 3. Understand physical principles of elasticity and elastic wave propagation to understand modern global seismology as a probe of the Earth's internal structure. 4. Understand the origin of magnetic field, Geodynamics of e a r t h q u a k e s and the description of seismic sources; a simple but fundamental theory of thermal convection; the distinctive rheological behaviour of the upper mantle and its top. 5. Understand various roles played by water cycle, carbon cycle, nitrogen cycles in maintaining steady state of earth leading to better understanding of the contemporary dilemmas (climate change, bio diversity loss, population growth, etc.) disturbing the Earth 6. In the tutorial section, through literature survey on the various aspects of health of Earth, project work / seminar presentation, the students will be able to appreciate need to 'save'Earth.
PHY HE 701	ADVANCED MATHEMATICAL PHYSICS- I	6	1. Understand algebraic structures in n-dimension and basic properties of the linear vector spaces. 2. Represent Linear Transformations as matrices and understand basic properties of matrices. 3. Apply vector spaces and matrices in the quantum world. 4. Learn basic properties of Cartesian and general tensors with physical examples such as moment of inertia tensor, energy momentum tensor, stress tensor, strain tensor etc. 5. Learn how to express the mathematical equations for the Laws of Physics in their covariant forms. 6. In the laboratory course, the students are expected to solve the problems using the Scilab/C++/Python computer language
PHY HE 701	EMBEDDED SYSTEMS - INTRODUCTION TO MICROCONTROLLER	6	1. Know the major components that constitute an embedded system. 2. Understand what is a microcontroller, microcomputer embedded system. 3. Describe the architecture of a 8051 microcontroller. 4. Write simple programs for 8051 microcontroller in C language.

			5. Understand key concepts of 8051 microcontroller systems like I/O operations, interrupts, programming of timers and counters. 6. Interface 8051 microcontroller with peripherals. 7. Understand and explain concepts and architecture of embedded systems 8. Implement small programs to solve well-defined problems on an embedded platform. 9. Develop familiarity with tools used to develop an embedded environment. 10. Learn to use the Arduino Uno (an open source microcontroller board) in simple applications. 11. In the laboratory, students will program 8051 microcontroller and Arduino to perform various experiments.

Semester-VI

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
PHY HC 703	ELECTROMAGNETIC THEORY	6	1. Understand Maxwell's equations to deduce wave equation, electromagnetic field energy, momentum and angular momentum density. 2. Understand electromagnetic wave propagation in unbounded media: Vacuum, dielectric medium, conducting medium, plasma. 3. Understand electromagnetic wave propagation in bounded media: reflection and 64 transmission coefficients at plane interface in bounded media. 4. Understand polarization of Electromagnetic Waves: Linear, Circular and Elliptical Polarization. Production as well as detection of waves in laboratory. 5. Learn the features of planar optical wave guide. 6. Understand the fundamentals of propagation of electromagnetic waves through optical fibres. 7. In the laboratory course, the students will learn the use of Polarimeter, Babinet Compensator, Ultrasonic grating, simple dipole antenna. Also, to study phenomena of interference, refraction, diffraction and polarization.
PHY HC 704	STATISTICAL MECHANICS	6	1. Understand the concepts of microstate, macrostate, phase space, thermodynamic probability and partition function. 2. Understand the use of Thermodynamic probability and Partition function forcalculation of thermodynamic variables for physical system (Ideal gas, finite level system). Difference between the classical and quantum statistics. 3. Understand the properties and Laws associated with thermal radiation. 4. Learn the application of Fermi- Dirac distribution to model problems such as electrons in solids and white dwarf stars. 5. Learn the application of Bose-Einstein distribution to model problems such as blackbody radiation and Helium gas. 6. In the laboratory course, with the exposure in computer programming and computational techniques, the student will be in a position to perform numerical simulations for solving the problems based on Statistical Mechanics.
PHY HE 702	MEDICAL PHYSICS	6	1. Learn the applications of Physics to clinical medicine. 2. Gain a broad and fundamental understanding of Physics while developing particular expertise in medical applications. 3. Learn about the human body, its anatomy, physiology and BioPhysics, exploring its performance as a physical machine. 4. Learn diagnostic and therapeutic applications like the ECG, Radiation Physics, X-ray technology, ultrasound and magnetic resonance imaging. 5. Gain knowledge with reference to working of various diagnostic tools, medical imaging techniques

			6. Understand interaction of ionizing radiation with matter - its effects on living organisms and its uses as a therapeutic technique and also radiation safety practices. 7. Gain functional knowledge regarding need for radiological protection and the sources of an approximate level of radiation exposure for treatment purposes. 8. In the laboratory course, the student will be exposed to the workings of various medical devices and getting familiarized with various detectors used in medical imaging, medical diagnostics.
PHY HE 702	BIOLOGICAL PHYSICS	6	1. Know basic facts about biological systems, including single cells, multicellular organisms and ecosystems from a quantitative perspective. 2. Gain familiarity with various biological processes at different length and time scales, including molecular processes, organism level processes and evolution. 3. Be able to apply the principles of physics from areas such as mechanics, electricity and magnetism, thermodynamics, statistical mechanics, and dynamical systems to understand certain living processes. 4. Gain a systems level perspective on organisms and appreciate how networks of interactions of many components give rise to complex behavior. 5. Perform mathematical and computational modelling of certain aspects of living systems.
PHY HE 702	PHYSICS OF DEVICES AND INSTRUMENTS	6	1. Understand the basic knowledge of semiconductor device physics and electronic circuits along with the practical technological considerations and applications. 2. Understand the operation of devices such as UJT, JFET, MOS, various bias circuits of MOSFET, Charge coupled Devices and Tunnel Diode. 3. Learn to analyze MOSFET circuits and develop an understanding of MOSFET I-V characteristics and the allowed frequency limits. 4. Learn the IC fabrication technology involving the process of diffusion, implantation, oxidation and etching with an emphasis on photolithography and electron-lithography. 5. Apply concepts for the regulation of power supply by developing an understanding of various kinds of RC filters classified on the basis of allowed range of frequencies. 6. Learn basic principles of phase locked loop (PLL) and understand its operation.

Semester-VII

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
PHY HC 801	CLASSICAL MECHANICS	6	1. Students will be equipped for advanced and specialized courses. 2. The student will learn to deal with particle mechanics at an advanced level and the foundations of the classical theory of fields
PHY HC 802	QUANTUM MECHANICS	6	1. Students will learn the mathematical formalism of Hilbertspace, Hermitian operators, eigen values, eigen states and unitary operators, which form the fundamental basis of quantum theory. 2. Understand the application to simple harmonic oscillators, hydrogen-like atoms and angular momentum operators , eigen values and eigen states. 3. The topic of density matrices that plays significant roles in quantum information theory and statistical mechanics will also help the students considerably.
PHY HE 801	NUCLEAR AND PARTICLE PHYSICS	6	1. Understand the basic properties of nuclei as well as knowledge of experimental determination of the same, the concept of binding energy, its various dependent parameters, N-Z curves and their significance 2. Appreciate the formulations and contrasts between different nuclear models such as Liquid drop model, Fermi gas model and Shell Model and evidences in support. 3. Knowledge of radioactivity and decay laws. A detailed analysis, comparison and energy kinematics of alpha, beta and gamma decays. 4. Familiarization with different types of nuclear reactions, Q- values, compound and direct reactions. 5. Know about energy losses due to ionizing radiations, energy losses of electrons, gamma ray interactions through matter and neutron interaction with matter. Through the section on accelerators students will acquire knowledge about Accelerator facilities in India along with a comparative study of a range of detectors and accelerators which are building blocks of modern-day science. 6. It will acquaint students with the nature and magnitude of different forces, particle interactions, families of sub- atomic particles with the different conservation laws, concept of quark model. 7. The acquired knowledge can be applied in the areas of nuclear medicine, medicalphysics, archaeology, geology and other interdisciplinary fields of Physics and Chemistry. It will enhance the special skills required for these fields.
PHY HE 801	ADVANCED MATHEMATICAL PHYSICS-II	6	1. Understand variational principle and its applications: Geodesics in two andthree dimensions, Euler Lagrange Equation and simple problems in one and two dimensions. 2. Acquire basic concept of Hamiltonian, Hamilton's principle and Hamiltonian equation of motion, Poisson and Lagrange brackets. 3. Learn elementary group theory: definition and properties of groups, subgroups, Homomorphism, isomorphism, normal and conjugate groups, representation of groups,

			Reducible and Irreducible groups. Learn the theory of probability: Random variables and probability distributions, Expectation values and variance.
PHY HE 801	ASTRONOMY AND ASTROPHYSICS	6	1. Understand different types of telescopes, diurnal and yearly motion of astronomical objects, and astronomical coordinate systems and their transformations. 2. Understand brightness scale for stars, types of stars, their structure and evolution on HR diagram. 3. Learn components of Solar System and its evolution 4. Learn the large-scale structure of the Universe and its history 5. Understand the distribution of chemical compounds in the interstellar medium and astrophysical conditions necessary for the emergence and existence of life.

Semester-VIII

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
PHY HC 803	ELECTRODYNAMICS	6	1. A student having taken this course is expected to have a fair degree of familiarity with tensors and tensorial formulation of relativity and electrodynamics. 2. They will to be able to solve problems of motion of charged particles in various field formations as well as find the radiation patterns from different time varying charge and current densities.
PHY HC 804	ELECTRONICS	6	1. After completion of this course students will be able to understand the design and functional performance of electronic circuits using various semiconductor devices. 2. Understand the functional properties and characteristics of semiconductor devices in analog & digital circuits using analog and digital signals.
PHY HE 802	NANO MATERIALS AND APPLICATIONS	6	1. Understand the difference between nanomaterials and bulk materials and their properties. 2. Explain the role of confinement on the density of state function and so on the various properties exhibited by nanomaterials compared to bulk materials. 3. Explain various methods for the synthesis/growth of nanomaterials including top down and bottom up approaches. 4. Analyze the data obtained from the various characterization techniques. 5. Explain the concept of Quasi-particles such as excitons and how they influence the optical properties. 6. Explain the Integer Quantum Hall Effect and the concept of Landau Levels, and edge states in conductance quantization. 7. Explain the conductance quantization in 1D structure and its difference from the 2DEG system. 8. Explain various applications of nano particles, quantum dots, nano wires etc 9. Explain why nanomaterials exhibit properties which are sometimes very opposite, like magnetic, to their bulk counterparts. 10. In the Lab course students will be able to synthesize nanoparticles by different chemical routes and characterize them in the laboratory using the different techniques, learnt in the theory.
PHY HE 802	COMMUNICATION ELECTRONICS	6	1. Understand of fundamentals of electronic communication system and electromagnetic communication spectrum with an idea of frequency allocation for radio communication system in India. 2. Gain an insight on the use of different modulation and demodulation techniques used in analog communication. 3. Learn the generation and detection of a signal through pulse and digital modulation techniques and multiplexing.

			4. Gain an in-depth understanding of different concepts used in a satellite communication system. 5. Study the concept of Mobile radio propagation, cellular system design and understand mobile technologies like GSM and CDMA. 6. Understand evolution of mobile communication generations 2G, 3G, and 4G with their characteristics and limitations. 7. In the laboratory course, students gain hands on experience in building modulation and demodulation circuits; Transmitters and Receivers for AM and FM.
PHY HE 802	ATOMIC AND MOLECULAR PHYSICS	6	1. Students will learn the details of atomic and diatomic molecular (diatomic) structures in terms of quantum mechanical treatment elaborately beyond the basic models. 2. Learn the descriptions of fine structure of atoms and rotational, vibrational and electronic energies of molecules manifesting in their respective spectroscopies. The details of these spectroscopies would serve as the fundamentals for various concerned experimental results. 3. Understand the basic principles of light coherence as laser with their types and variants will also be covered exposing the students to the important modern spectroscopic tool

GENERIC COURSES IN PHYSICS

	COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
SEMESTER-III	PHY HG 601	MECHANICS	6	1. Understand the role of vectors and coordinate systems in Physics. 2. Learn to solve Ordinary Differential Equations: First order, Second order Differential Equations with constant coefficients. 3. Understand laws of motion and their application to various dynamical situations. 4. Learn the concept of inertial reference frames and Galilean transformations. Also, the concept of conservation of energy, momentum, angular momentum and apply them to basic problems. 5. Understand translational and rotational dynamics of a system of particles. 6. Apply Kepler's laws to describe the motion of planets and satellite in circular orbit. 7. Understand concept of Geosynchronous orbits 8. Explain the phenomenon of simple harmonic motion. 9. Understand special theory of relativity - special relativistic effects and their effects on the mass and energy of a moving object. 10. In the laboratory course, the student will be able to perform experiments related to mechanics: Compound pendulum, rotational dynamics (Flywheel), elastic properties (Young Modulus and Modulus of Rigidity), fluid dynamics, estimation of random errors in the observations etc.
SEMESTER-IV	PHY HG 602	ELECTRICITY AND MAGNETISM	6	1. Gain the concepts of vector analysis. 2. Apply Gauss's law of electrostatics to solve a variety of problems. 3. Articulate knowledge of electric current, resistance and capacitance in terms of electric field and electric potential. 4. Calculate the magnetic forces that act on moving charges and the magnetic fields due to currents (Biot- Savart and Ampere laws). 5. Gain brief idea of dia, para and ferro-magnetic materials. 6. Understand the concepts of induction and self-induction to solve problems using Faraday's and Lenz's laws. 7. Understand Maxwell's equations. 8. In the laboratory course the student will get an opportunity to verify network theorems and study different circuits such as RC circuit, LCR circuit. Also, different methods to measure low and high resistance, capacitance etc.
SEMESTER-V	PHY HG 701	SOLID STATE PHYSICS	6	1. Understand the concept of lattice, crystals and symmetry operations. 2. Understand the elementary lattice dynamics and its influence on the properties of materials.

				3. Describe the main features of the physics of electrons in solids: origin of energy bands, and their influence electronic behavior. 4. Learn the origin of dia-, para-, and ferro-magnetic properties of solids. 5. Learn the origin of the dielectric properties exhibited by solids and the concept of polarizability. 6. Learn the properties of superconductivity in solid. 7. In the laboratory students will learn how to measure the magnetic susceptibility, dielectric constant, trace hysteresis loop.
SEMESTER-VI	PHY HG 702	WAVES AND OPTICS	6	1. Understand Simple harmonic oscillation and superposition principle. 2. Understand different types of waves and their velocities: Plane, Spherical, Transverse, Longitudinal. 3. Understand Concept of normal modes in transverse and longitudinal waves: their frequencies and configurations. 4. Understand Interference as superposition of waves from coherent sources derived from same parent source. 5. Demonstrate basic concepts of Diffraction: Superposition of wavelets diffracted from aperture, understand Fraunhoffer and Fresnel Diffraction. 6. In the laboratory course, student will gain hands-on experience of using various optical instruments and making finer measurements of wavelength of light using Newton Rings experiment, Fresnel Biprism etc. Resolving power of optical equipment, motion of coupled oscillators, Lissajous figures and behaviour of transverse, longitudinal waves will be learnt.
SEMESTER-VII	PHY HG 801	ELEMENTS OF MODERN PHYSICS	6	1. Understand main aspects of the inadequacies of classical mechanics as well as understanding of the historical development of quantum mechanics. 2. Formulation of Schrodinger equation and the idea of probability interpretation associated with wave-functions. 3. Learn the spontaneous and stimulated emission of radiation, optical pumping and population inversion. Three level and four level lasers. Ruby laser and He-Ne laser in details. Basic lasing. 4. Learn the properties of nuclei like density, size, binding energy, nuclear forces and structure of atomic nucleus, liquid drop model and nuclear shell model and mass formula. 5. Understand decay rates and lifetime of radioactive decays like alpha, beta, gamma decay. Neutrino, its properties and its role in theory of beta decay. 6. Understand Fission and fusion: Nuclear processes to produce nuclear energy in nuclear reactor and stellar energy in stars. 7. In the laboratory course, the students will get opportunity to measure Planck's constant, verify photoelectric effect, determine e/m of electron, Ionization potential of atoms, study emission and absorption line spectra. They will also find wavelength of Laser sources by single and Double slit

				experiment, wavelength and angular spread of He-Ne Laser using plane diffraction grating
SEMESTER-VIII	PHY HG 802	NUCLEAR AND PARTICLE PHYSICS	6	1. Understand the basic properties of nuclei as well as knowledge of experimental determination of the same, the concept of binding energy, its various dependent parameters, N-Z curves and their significance 2. Understand the formulations and contrasts between different nuclear models such as Liquid drop model, Fermi gas model and Shell Model and evidences in support. 3. Knowledge of radioactivity and decay laws. A detailed analysis, comparison and energy kinematics of alpha, beta and gamma decays. 4. Familiarization with different types of nuclear reactions, Q- values, compound and direct reactions. 5. Understand energy losses due to ionizing radiations, energy losses of electrons, gamma ray interactions through matter and neutron interaction with matter. Through the section on accelerators students will acquire knowledge about Accelerator facilitiesin India along with a comparative study of a range of detectors and accelerators which are building blocks of modern day science. 6. It will acquaint students with the nature and magnitude of different forces, particle interactions, families of sub- atomic particles with the different conservation laws, concept of quark model. 7. The acquired knowledge can be applied in the areas of nuclear medicine, medical physics, archaeology, geology and other interdisciplinary fields of Physics and Chemistry. It will enhance the special skills required for these fields.

COURSE OUTCOMES OF BA POLITICAL SCIENCE

Semester-I

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
PSC HC 501	UNDERSTANDING POLITICAL THEORY	6	1. Explain different traditions and approaches to politics and build their own understanding of politics. 2. Understand the significance of theorizing and of applying theory into practice. 3. Answer why the state occupies a central place in the discourses on politics. 4. Gain insights on the evolution of democracy and understand its different theoretical and practical perspectives.
PSC HC 502	CONSTITUTIONAL GOVERNMENT AND DEMOCRACY IN INDIA	6	1. Familiarized with the debates around the origin, and evolution of the Indian constitution. 2. Become aware of the manner in which government functions through its various organs. 3. Understand the division of power between various organs of the government at different levels.
PSC SE 501	PARLIAMENTARY PROCEDURES AND PRACTICES	4	1. Understand the structure and nature of legislation in India at different levels 2. Demonstrate knowledge of the legislative procedures in India including how a Bill finally becomes an Act 3. Acquire knowledge about the different Motions and Hours in the legislature and the functioning of various committees.
PSC SE 501	PEACE AND CONFLICT RESOLUTION	4	1. The paper will equip students with an in-depth understanding of theoretical and actual observations on both domestic and international sources of conflict and war, conflict resolution and conflict transformation. 2. The students will enhance their analytical ability by learning about different models employed in conflict resolution. 3. The course will develop analytical outlook in conflict resolution on equitable, cooperative and non-violent techniques of conflict resolution and transformation. 4. Further deliberations on peace movements across the world and especially in war torn regions will help students develop independent perspective on conflict resolution. 5. The study of issues like migration, information flow and normative concepts will augment students, understanding and knowledge.

PSC SE 501	PUBLIC OPINION AND SURVEY RESEARCH	4	1. Understand the importance of public opinion in a democracy and the role of survey research in comprehending the working of a democratic political system 2. Learn about the methods used for conducting surveys and interpreting survey data 3. Acquire basic skill sets related to understanding public opinion formation and conducting research through the use of sample date, framing a questionnaire, etc. 4. Acquire basic skill sets related to measurement of public opinion such as data analysis using statistical methods.

Semester-II

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
PSC HC 503	POLITICAL THEORY: CONCEPTS AND DEBATES	6	1. Understand the dimensions of shared living (sociare) through these political values and concepts. 2. Appreciate how these values and concepts enrich the discourses of political life, sharpening their analytical skills in the process.
PSC HC 504	POLITICAL PROCESS IN INDIA	6	1. Gain insights into the interconnections between social and economic relations and the political process in India. 2. Understand the challenges arising due to caste, class, gender and religious diversities and also analyse the changing nature of the Indian state in the light of these diversities. 3. Make sense of the specificities of the political processes in India in the light of changes of the state practices, electoral system, representational forms and electoral behaviour.
PSC SE 502	PARLIAMENTARY PROCEDURES AND PRACTICES	4	1. Understand the structure and nature of legislation in India at different levels 2. Demonstrate knowledge of the legislative procedures in India including how a Bill finally becomes an Act 3. Acquire knowledge about the different Motions and Hours in the legislature and the functioning of various committees.
PSC SE 502	PEACE AND CONFLICT RESOLUTION	4	1. The paper will equip students with an in-depth understanding of theoretical and actual observations on both domestic and international sources of conflict and war, conflict resolution and conflict transformation. 2. The students will enhance their analytical ability by learning about different models employed in conflict resolution. 3. The course will develop analytical outlook in conflict resolution on equitable, cooperative and non-violent techniques of conflict resolution and transformation. 4. Further deliberations on peace movements across the world and especially in war torn regions will help students develop independent perspective on conflict resolution. 5. The study of issues like migration, information flow and normative concepts will augment students, understanding and knowledge.
PSC SE 502	PUBLIC OPINION AND SURVEY RESEARCH	4	1. Understand the importance of public opinion in a democracy and the role of survey research in comprehending the working of a democratic political system

			2. Learn about the methods used for conducting surveys and interpreting survey data 3. Acquire basic skill sets related to understanding public opinion formation and conducting research through the use of sample date, framing a questionnaire, etc. 4. Acquire basic skill sets related to measurement of public opinion such as data analysis using statistical methods.

Semester-III

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
PSC HC 601	INTRODUCTION TO COMPARATIVE GOVERNMENT AND POLITICS	6	1. Understand the legacy of the discipline. 2. Learn different political systems from different continents across the world. 3. Learn to delineate ways to understand how state relates to the economy and how culture shapes the political discourse in a particular context. 4. Enhance the ability of students to use analytical frame of gender, race, ethnicity and their intersectionality in comparative perspective. 5. Develop reflective thinking and ability to ask relevant questions pertinent to the discipline and will also develop aptitude for research.
PSC HC 602	PERSPECTIVES ON PUBLIC ADMINISTRATION	6	1. The student will be able to understand an overview of the discipline and how it is different from private administration. 2. The student will be introduced to the evolution of the discipline, its changing contours through a study of the different theories, ranging from the classical, neo-classical and contemporary theories. 3. The students will be better equipped to analyse processes of leadership and conflict management that have become increasingly significant in contemporary administration. 4. The student learns about major contemporary approaches in public administration. e. The student is specially made sensitive to the feminist perspective in Public administration.
PSC HC 603	PERSPECTIVES ON INTERNATIONAL RELATIONS AND WORLD HISTORY	6	1. The students will have a comprehensive understanding of both historical processes and contemporary practices in International Relations. 2. Major theoretical perspectives will broaden the critical insight and inculcate among students the significance and rigor of the study of international relations. 3. The paper will go beyond eurocentrism in international relations and reflect on the Global South perspectives. d. It will evolve analytical skills to further explore both theoretical and actual key milestones in international relations.

Semester-IV

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
PSC HC 604	POLITICAL PROCESSES AND INSTITUTIONS IN A COMPARATIVE PERSPECTIVE	6	1. The paper will equip students with an in-depth understanding of different political systems and regime types. 2. Students would be able to contrast unitary and federal, democratic and authoritarian systems. 3. Develop analytical skills to reflect institutional structures and their functioning such as party systems, electoral systems. 4. It will provide insight into the process of evolution of nation state in the context of West and post-colonial societies. 5. Students will develop insights into the process of democratization in post-colonial, postauthoritarian and post-communist societies.
PSC HC 605	PUBLIC POLICY AND ADMINISTRATION IN INDIA	6	1. The student is introduced to theoretical perspectives on public policy, a major subdiscipline of public administration. 2. The student will become familiar with details of public policy adopted in India. 3. Students will recognize the significance of local governance – both rural and urban. 4. The students will become familiar with a range of budgetary procedures and practices, as part of the budget cycle in India. 5. The student is exposed to mechanisms of grievance redressal and a range of specific social welfare policies.
PSC HC 606	INDIA'S FOREIGN POLICY	6	1. Understand evolution of India's foreign policy 2. Learn India's relations with major powers including USA, Russia and China 3. Understand India's regional strategies and its position in a multipolar world.

Semester-V

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
PSC HC 701	CLASSICAL POLITICAL PHILOSOPHY	6	1. Understand how to read and decode the classics and use them to solve contemporary sociopolitical problems. 2. Connect with historically written texts and can interpret it in familiar way (the way Philosophers think). 3. Clearly present their own arguments and thoughts about contemporary issues and develop ideas to solve them through logical validation
PSC HC 702	INDIAN POLITICAL THOUGHT - I	6	1. Student will be able to demonstrate knowledge and understanding of basic concepts of ancient and medieval Indian political thought that are prevalent traditions of thought in India. 2. Develop a comparative understanding of Indian and western political thought. 3. This course will also help students to identify and describe the key characteristics of Indian political thought and develop a strong understanding of selected historiographical debates.
PSC HE 701	HUMAN RIGHTS IN A COMPARATIVE PERSPECTIVE	6	1. The course will equip students with an understanding of debates on human rights through a comparative study of human rights concerns in different countries. 2. Familiarize students with the historical evolution of human rights and the theoretical frameworks and core themes that inform the debates on human rights. 3. The course will enhance the students' understanding of state response to issues and human rights questions pertaining to structural violence, such as torture, terrorism, insecurity of minority communities, caste, race, gender-based violence and rights of adivasis from the human rights perspective.
PSC HE 701	CITIZENSHIP IN A GLOBALIZING WORLD	6	1. Develop a broad historical, normative and empirical understanding of the idea of citizenship. 2. Understand different trajectories of the development/evolution of the concept of citizenship. 3. Understand/assess some of the major ethical challenges that citizenship faces in the wake of globalization and the rapidly proliferating idea about the need of accommodating diversity in multicultural political settings.

PSC HE 701	PUBLIC POLICY IN INDIA	6	1. The student is introduced to the range of ideologies that influence the policy-making process. 2. The student learns how to relate public policies to politics. 3. The student learns how to relate public policies to the political economy. 4. The student is able to have a grasp of the role of social movements and interest groups in the making of public policy.
PSC HE 701	UNDERSTANDING GLOBAL POLITICS	6	1. The students will have conceptual clarity on meaning, nature and significance of state system and sovereignty. 2. The students will also learn about the evolution of financial networks and major actors of global economy and the global perspectives on identity and culture. 3. The paper will enhance students' understanding of contemporary global issues of inequality and violence including war and terrorism. 4. The paper will develop analytical skills of the students to reflect on the phenomenon of global civil society and environment concerns.
PSC HE 701	UNDERSTANDING SOUTH ASIA	6	1. Develop a historical and geopolitical understanding of South Asia as a region 2. Explain the different regime types in the region with its evolving constitutional practices 3. Comprehend identity politics of the region and the socio-economic issues confronting it 4. Have an in-depth understanding of the common prospects, regional issues and challenges

Semester-VI

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
PSC HC 703	MODERN POLITICAL PHILOSOPHY	6	1. Understand the idea of modernity and establish a connection between societal changes posed through modernity and its prescribed political suggestions. 2. Identify various tendencies in political philosophical discourse and manage to answer various fundamental questions through problem-solving aptitude.
PSC HC 704	INDIAN POLITICAL THOUGHT - II	6	1. The course is aimed to equip students with critical understanding about modern Indian thought. The thematic exploration of ideas is meant to locate the topical debates on important subjects on a historical trajectory and reflect over the diverse possibilities exhibited in the writings of the respective thinkers. 2. The students will be able to think about issues and debates in contemporary India from multiple vantage points including its historical significance in the Indian tradition. 3. Help students develop toleration and respect for diverse opinion and at the same time, to admire and appreciate the plurality within the modern Indian intellectual tradition.
PSC HE 702	HUMAN RIGHTS IN A COMPARATIVE PERSPECTIVE	6	1. The course will equip students with an understanding of debates on human rights through a comparative study of human rights concerns in different countries. 2. Familiarize students with the historical evolution of human rights and the theoretical frameworks and core themes that inform the debates on human rights. 3. The course will enhance the students' understanding of state response to issues and human rights questions pertaining to structural violence, such as torture, terrorism, insecurity of minority communities, caste, race, gender-based violence and rights of adivasis from the human rights perspective.
PSC HE 702	CITIZENSHIP IN A GLOBALIZING WORLD	6	1. Develop a broad historical, normative and empirical understanding of the idea of citizenship. 2. Understand different trajectories of the development/evolution of the concept of citizenship. 3. Understand/assess some of the major ethical challenges that citizenship faces in the wake of globalization and the rapidly

			proliferating idea about the need of accommodating diversity in multicultural political settings.
PSC HE 702	PUBLIC POLICY IN INDIA	6	1. The student is introduced to the range of ideologies that influence the policy-making process. 2. The student learns how to relate public policies to politics. 3. The student learns how to relate public policies to the political economy. 4. The student is able to have a grasp of the role of social movements and interest groups in the making of public policy.
PSC HE 702	UNDERSTANDING GLOBAL POLITICS	6	1. The students will have conceptual clarity on meaning, nature and significance of state system and sovereignty. 2. The students will also learn about the evolution of financial networks and major actors of global economy and the global perspectives on identity and culture. 3. The paper will enhance students' understanding of contemporary global issues of inequality and violence including war and terrorism. 4. The paper will develop analytical skills of the students to reflect on the phenomenon of global civil society and environment concerns.
PSC HE 702	UNDERSTANDING SOUTH ASIA	6	1. Develop a historical and geopolitical understanding of South Asia as a region 2. Explain the different regime types in the region with its evolving constitutional practices 3. Comprehend identity politics of the region and the socio-economic issues confronting it 4. Have an in-depth understanding of the common prospects, regional issues and challenges

Semester-VII

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
PSC HC 801	GOVERNMENT AND POLITICS OF NORTH EAST INDIA	6	1. Understand the diverse ethnic, social, political and economic background of India's North East 2. Understand British colonial administration and relations with the princely states of North East and Assam 3. Learn provisions of the Sixth Schedule and states formation in the region 4. Understand party politics in North East India, relations with the Union Government as well as some important social movements in the region.
PSC HC 802	RESEARCH METHODOLOGY	6	1. The student will be able to use different quantitative and qualitative tools and techniques in their research. 2. They will learn different tools and techniques of data collection and analysis. 3. The student will be able to design their research proposal. 4. The students will be equipped with an understanding of ethics in research. 5. They will learn the ways of accessing data from different sources.
PSC HE 801	HUMAN RIGHTS IN A COMPARATIVE PERSPECTIVE	6	1. The course will equip students with an understanding of debates on human rights through a comparative study of human rights concerns in different countries. 2. Familiarize students with the historical evolution of human rights and the theoretical frameworks and core themes that inform the debates on human rights. 3. The course will enhance the students' understanding of state response to issues and human rights questions pertaining to structural violence, such as torture, terrorism, insecurity of minority communities, caste, race, gender-based violence and rights of adivasis from the human rights perspective.
PSC HE 801	CITIZENSHIP IN A GLOBALIZING WORLD	6	1. Develop a broad historical, normative and empirical understanding of the idea of citizenship. 2. Understand different trajectories of the development/evolution of the concept of citizenship. 3. Understand/assess some of the major ethical challenges that citizenship faces in the wake of globalization and the rapidly

			proliferating idea about the need of accommodating diversity in multicultural political settings.
PSC HE 801	PUBLIC POLICY IN INDIA	6	1. The student is introduced to the range of ideologies that influence the policy-making process. 2. The student learns how to relate public policies to politics. 3. The student learns how to relate public policies to the political economy. 4. The student is able to have a grasp of the role of social movements and interest groups in the making of public policy.
PSC HE 801	UNDERSTANDING GLOBAL POLITICS	6	1. The students will have conceptual clarity on meaning, nature and significance of state system and sovereignty. 2. The students will also learn about the evolution of financial networks and major actors of global economy and the global perspectives on identity and culture. 3. The paper will enhance students' understanding of contemporary global issues of inequality and violence including war and terrorism. 4. The paper will develop analytical skills of the students to reflect on the phenomenon of global civil society and environment concerns.
PSC HE 801	UNDERSTANDING SOUTH ASIA	6	1. Develop a historical and geopolitical understanding of South Asia as a region 2. Explain the different regime types in the region with its evolving constitutional practices 3. Comprehend identity politics of the region and the socio-economic issues confronting it 4. Have an in-depth understanding of the common prospects, regional issues and challenges

Semester-VIII

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
PSC HC 803	GANDHIAN STUDIES	6	1. Understand the background of Gandhian philosophy and values which shaped his ideas of Satyagraha and Ahimsa 2. Assess Gandhi's political views on state, democracy and socialism and explain the Gandhian perspective on economy, science and modern technology 3. Comprehend the global and national relevance of Gandhi in contemporary times
PSC HC 804	STATE POLITICS IN MANIPUR	6	1. The course will help students to understand the impact of British colonial rule and the growth of political consciousness in Manipur till its merger into the Indian Union. 2. Help students comprehend the evolution of politics in Manipur including the role of the state legislature and other institutions of self-governance. 3. Students will also be able to explain the emerging trends of electoral politics, numerous movements in the state and the response of the Indian State.
PSC HE 802	DISSERTATION PAPER	6	1. Learn about how to do fieldwork. 2. Learn about use of various techniques of data collection. 3. Learn about writing a dissertation, selecting chapter headings and subheadings, writing references, footnotes, endnotes, etc.

GENERIC COURSES IN POLITICAL SCIENCE

Semester-III (any one)

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
PSC HG 601	NATIONALISM IN INDIA	6	1. Gain an understanding of the different theoretical perspectives on the emergence and development of nationalism in India 2. Demonstrate knowledge of the historical trajectory of the development of the nationalist movement in India, with specific focus on its different phases 3. Understand the contribution of various social movements in the anti-colonial struggle 4. Demonstrate awareness of the history of partition and the moment of independence that followed.
PSC HG 601	INDIAN GOVERNMENT AND POLITICS	6	1. The students will be able to explain the core philosophy and ideals of the Indian Constitution. 2. Students will know about the fundamental rights and how these rights are different from the directive principles of the state policy. 3. Students will be able to explain the structures, powers, and functions of three organs of government and their mutual relationship and engagements. 4. They will be able to explain the emerging trends in Indian Federalism and party system in India. 5. Students will be able to explain the constitutional structures of government that work at the grassroots level in India.
PSC HG 601	CONTEMPORARY POLITICAL ECONOMY	6	1. The students will learn about diverse approaches to international political economy. 2. The study of role of international organization in transforming the world economy will equip the students to understand the process of evolution of capitalism. 3. Insights into issues and contentions of development and perspectives on globalization will augment students' ability to assess its impact on culture, environment, military security dimensions and traditional knowledge systems. 4. The paper will enable students to comprehend contemporary dilemmas in the sociopolitical, gender and ethnic domains.

PSC HG 601	GOVERNANCE: ISSUES AND CHALLENGES	6	1. The students are acquainted with the changing nature of governance in the era of globalization. 2. The students are introduced to the most contemporary ideas of sustainable development and green governance. 3. The students become familiar with a rigorous introduction to the best practices in India on good governance.
PSC HG 601	GANDHI AND THE CONTEMPORARY WORLD	6	1. This course will help students to understand Gandhian philosophy in a critical and analytical manner. 2. It will also help in describing the impact of Gandhian thought on Indian and global politics. 3. It will help in identifying and explaining selected approaches and methods that historians have used to study the history of anti-colonial Indian politics.
PSC HG 601	FEMINISM: THEORY AND PRACTICE	6	1. Understand the concept of patriarchy and different approaches of feminism 2. Understand different trajectories of history of feminism as it developed in western, socialist and Indian contexts. 3. Make sense of how patriarchy functions within the family.
PSC HG 601	POLITICS OF GLOBALIZATION	6	1. The students will learn about the nature, significance and contemporary debates around globalization. 2. The study of various approaches and concepts of globalization and the role of international economic organizations will augment students' knowledge on international political economy. 3. The course will provide an insight into the alternative understanding of globalization and various critical aspects related to it. 4.The paper will equip students with a comprehensive knowledge of the impact of globalization on developing countries in the context of contemporary international issues like civil society, social movements and human migration.
PSC HG 601	UNITED NATIONS AND GLOBAL CONFLICTS	6	1. The students will learn about the evolution of United Nations as an international organization, its principles and institutional structure. 2. The course will develop an in depth understanding of United Nations role in peace keeping and peace building since the Second World War. 3. Students will learn about major global conflicts and United Nations role in conflict management. 4. The paper will evolve analytical skills of the students on United Nations role in creating an equitable social economic world order.

			5. The course will assess United Nations contributions and shortcomings in maintaining

Semester-IV (any one)

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
PSC HG 602	NATIONALISM IN INDIA	6	1. Gain an understanding of the different theoretical perspectives on the emergence and development of nationalism in India 2. Demonstrate knowledge of the historical trajectory of the development of the nationalist movement in India, with specific focus on its different phases 3. Understand the contribution of various social movements in the anti-colonial struggle 4. Demonstrate awareness of the history of partition and the moment of independence that followed.
PSC HG 602	INDIAN GOVERNMENT AND POLITICS	6	1. The students will be able to explain the core philosophy and ideals of the Indian Constitution. 2. Students will know about the fundamental rights and how these rights are different from the directive principles of the state policy. 3. Students will be able to explain the structures, powers, and functions of three organs of government and their mutual relationship and engagements. 4. They will be able to explain the emerging trends in Indian Federalism and party system in India. 5. Students will be able to explain the constitutional structures of government that work at the grassroots level in India.
PSC HG 602	CONTEMPORARY POLITICAL ECONOMY	6	1. The students will learn about diverse approaches to international political economy. 2. The study of role of international organization in transforming the world economy will equip the students to understand the process of evolution of capitalism. 3. Insights into issues and contentions of development and perspectives on globalization will augment students' ability to assess its impact on culture, environment, military security dimensions and traditional knowledge systems.

			4. The paper will enable students to comprehend contemporary dilemmas in the sociopolitical, gender and ethnic domains.
PSC HG 602	GOVERNANCE: ISSUES AND CHALLENGES	6	1. The students are acquainted with the changing nature of governance in the era of globalization. 2. The students are introduced to the most contemporary ideas of sustainable development and green governance. 3. The students become familiar with a rigorous introduction to the best practices in India on good governance.
PSC HG 602	GANDHI AND THE CONTEMPORARY WORLD	6	1. This course will help students to understand Gandhian philosophy in a critical and analytical manner. 2. It will also help in describing the impact of Gandhian thought on Indian and global politics. 3. It will help in identifying and explaining selected approaches and methods that historians have used to study the history of anti-colonial Indian politics.
PSC HG 602	FEMINISM: THEORY AND PRACTICE	6	1. Understand the concept of patriarchy and different approaches of feminism 2. Understand different trajectories of history of feminism as it developed in western, socialist and Indian contexts. 3. Make sense of how patriarchy functions within the family.
PSC HG 602	POLITICS OF GLOBALIZATION	6	1. The students will learn about the nature, significance and contemporary debates around globalization. 2. The study of various approaches and concepts of globalization and the role of international economic organizations will augment students' knowledge on international political economy. 3. The course will provide an insight into the alternative understanding of globalization and various critical aspects related to it. 4.The paper will equip students with a comprehensive knowledge of the impact of globalization on developing countries in the context of contemporary international issues like civil society, social movements and human migration.
PSC HG 602	UNITED NATIONS AND GLOBAL CONFLICTS	6	1. The students will learn about the evolution of United Nations as an international organization, its principles and institutional structure. 2. The course will develop an in depth understanding of United Nations role in peace keeping and peace building since the Second World War. 3. Students will learn about major global conflicts and United Nations role in conflict management.

			4. The paper will evolve analytical skills of the students on United Nations role in creating an equitable social economic world order. 5. The course will assess United Nations contributions and shortcomings in maintaining

Semester-V (any one)

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
PSC HG 701	NATIONALISM IN INDIA	6	1. Gain an understanding of the different theoretical perspectives on the emergence and development of nationalism in India 2. Demonstrate knowledge of the historical trajectory of the development of the nationalist movement in India, with specific focus on its different phases 3. Understand the contribution of various social movements in the anti-colonial struggle 4. Demonstrate awareness of the history of partition and the moment of independence that followed.
PSC HG 701	INDIAN GOVERNMENT AND POLITICS	6	1. The students will be able to explain the core philosophy and ideals of the Indian Constitution. 2. Students will know about the fundamental rights and how these rights are different from the directive principles of the state policy. 3. Students will be able to explain the structures, powers, and functions of three organs of government and their mutual relationship and engagements. 4. They will be able to explain the emerging trends in Indian Federalism and party system in India. 5. Students will be able to explain the constitutional structures of government that work at the grassroots level in India.
PSC HG 701	CONTEMPORARY POLITICAL ECONOMY	6	1. The students will learn about diverse approaches to international political economy. 2. The study of role of international organization in transforming the world economy will equip the students to understand the process of evolution of capitalism. 3. Insights into issues and contentions of development and perspectives on globalization will augment students' ability to assess its impact on

			culture, environment, military security dimensions and traditional knowledge systems. 4. The paper will enable students to comprehend contemporary dilemmas in the sociopolitical, gender and ethnic domains.
PSC HG 701	GOVERNANCE: ISSUES AND CHALLENGES	6	1. The students are acquainted with the changing nature of governance in the era of globalization. 2. The students are introduced to the most contemporary ideas of sustainable development and green governance. 3. The students become familiar with a rigorous introduction to the best practices in India on good governance.
PSC HG 701	GANDHI AND THE CONTEMPORARY WORLD	6	1. This course will help students to understand Gandhian philosophy in a critical and analytical manner. 2. It will also help in describing the impact of Gandhian thought on Indian and global politics. 3. It will help in identifying and explaining selected approaches and methods that historians have used to study the history of anti-colonial Indian politics.
PSC HG 701	FEMINISM: THEORY AND PRACTICE	6	1. Understand the concept of patriarchy and different approaches of feminism 2. Understand different trajectories of history of feminism as it developed in western, socialist and Indian contexts. 3. Make sense of how patriarchy functions within the family.
PSC HG 701	POLITICS OF GLOBALIZATION	6	1. The students will learn about the nature, significance and contemporary debates around globalization. 2. The study of various approaches and concepts of globalization and the role of international economic organizations will augment students' knowledge on international political economy. 3. The course will provide an insight into the alternative understanding of globalization and various critical aspects related to it. 4.The paper will equip students with a comprehensive knowledge of the impact of globalization on developing countries in the context of contemporary international issues like civil society, social movements and human migration.
PSC HG 701	UNITED NATIONS AND GLOBAL CONFLICTS	6	1. The students will learn about the evolution of United Nations as an international organization, its principles and institutional structure. 2. The course will develop an in depth understanding of United Nations role in peace keeping and peace building since the Second World War.

			3. Students will learn about major global conflicts and United Nations role in conflict management. 4. The paper will evolve analytical skills of the students on United Nations role in creating an equitable social economic world order. 5. The course will assess United Nations contributions and shortcomings in maintaining

Semester-VI (any one)

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
PSC HG 702	NATIONALISM IN INDIA	6	1. Gain an understanding of the different theoretical perspectives on the emergence and development of nationalism in India 2. Demonstrate knowledge of the historical trajectory of the development of the nationalist movement in India, with specific focus on its different phases 3. Understand the contribution of various social movements in the anti-colonial struggle 4. Demonstrate awareness of the history of partition and the moment of independence that followed.
PSC HG 702	INDIAN GOVERNMENT AND POLITICS	6	1. The students will be able to explain the core philosophy and ideals of the Indian Constitution. 2. Students will know about the fundamental rights and how these rights are different from the directive principles of the state policy. 3. Students will be able to explain the structures, powers, and functions of three organs of government and their mutual relationship and engagements. 4. They will be able to explain the emerging trends in Indian Federalism and party system in India. 5. Students will be able to explain the constitutional structures of government that work at the grassroots level in India.
PSC HG 702	CONTEMPORARY POLITICAL ECONOMY	6	1. The students will learn about diverse approaches to international political economy. 2. The study of role of international organization in transforming the world economy will equip the students to understand the process of evolution of capitalism. 3. Insights into issues and contentions of development and perspectives on globalization will augment students' ability to assess its impact on

			culture, environment, military security dimensions and traditional knowledge systems. 4. The paper will enable students to comprehend contemporary dilemmas in the sociopolitical, gender and ethnic domains.
PSC HG 702	GOVERNANCE: ISSUES AND CHALLENGES	6	1. The students are acquainted with the changing nature of governance in the era of globalization. 2. The students are introduced to the most contemporary ideas of sustainable development and green governance. 3. The students become familiar with a rigorous introduction to the best practices in India on good governance.
PSC HG 702	GANDHI AND THE CONTEMPORARY WORLD	6	1. This course will help students to understand Gandhian philosophy in a critical and analytical manner. 2. It will also help in describing the impact of Gandhian thought on Indian and global politics. 3. It will help in identifying and explaining selected approaches and methods that historians have used to study the history of anti-colonial Indian politics.
PSC HG 702	FEMINISM: THEORY AND PRACTICE	6	1. Understand the concept of patriarchy and different approaches of feminism 2. Understand different trajectories of history of feminism as it developed in western, socialist and Indian contexts. 3. Make sense of how patriarchy functions within the family.
PSC HG 702	POLITICS OF GLOBALIZATION	6	1. The students will learn about the nature, significance and contemporary debates around globalization. 2. The study of various approaches and concepts of globalization and the role of international economic organizations will augment students' knowledge on international political economy. 3. The course will provide an insight into the alternative understanding of globalization and various critical aspects related to it. 4.The paper will equip students with a comprehensive knowledge of the impact of globalization on developing countries in the context of contemporary international issues like civil society, social movements and human migration.
PSC HG 702	UNITED NATIONS AND GLOBAL CONFLICTS	6	1. The students will learn about the evolution of United Nations as an international organization, its principles and institutional structure. 2. The course will develop an in depth understanding of United Nations role in peace keeping and peace building since the Second World War.

			3. Students will learn about major global conflicts and United Nations role in conflict management. 4. The paper will evolve analytical skills of the students on United Nations role in creating an equitable social economic world order. 5. The course will assess United Nations contributions and shortcomings in maintaining

Semester-VII (any one)

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
PSC HG 801	NATIONALISM IN INDIA	6	1. Gain an understanding of the different theoretical perspectives on the emergence and development of nationalism in India 2. Demonstrate knowledge of the historical trajectory of the development of the nationalist movement in India, with specific focus on its different phases 3. Understand the contribution of various social movements in the anti-colonial struggle 4. Demonstrate awareness of the history of partition and the moment of independence that followed.
PSC HG 801	INDIAN GOVERNMENT AND POLITICS	6	1. The students will be able to explain the core philosophy and ideals of the Indian Constitution. 2. Students will know about the fundamental rights and how these rights are different from the directive principles of the state policy. 3. Students will be able to explain the structures, powers, and functions of three organs of government and their mutual relationship and engagements. 4. They will be able to explain the emerging trends in Indian Federalism and party system in India. 5. Students will be able to explain the constitutional structures of government that work at the grassroots level in India.
PSC HG 801	CONTEMPORARY POLITICAL ECONOMY	6	1. The students will learn about diverse approaches to international political economy. 2. The study of role of international organization in transforming the world economy will equip the students to understand the process of evolution of capitalism.

			3. Insights into issues and contentions of development and perspectives on globalization will augment students' ability to assess its impact on culture, environment, military security dimensions and traditional knowledge systems. 4. The paper will enable students to comprehend contemporary dilemmas in the sociopolitical, gender and ethnic domains.
PSC HG 801	GOVERNANCE: ISSUES AND CHALLENGES	6	1. The students are acquainted with the changing nature of governance in the era of globalization. 2. The students are introduced to the most contemporary ideas of sustainable development and green governance. 3. The students become familiar with a rigorous introduction to the best practices in India on good governance.
PSC HG 801	GANDHI AND THE CONTEMPORARY WORLD	6	1. This course will help students to understand Gandhian philosophy in a critical and analytical manner. 2. It will also help in describing the impact of Gandhian thought on Indian and global politics. 3. It will help in identifying and explaining selected approaches and methods that historians have used to study the history of anti-colonial Indian politics.
PSC HG 801	FEMINISM: THEORY AND PRACTICE	6	1. Understand the concept of patriarchy and different approaches of feminism 2. Understand different trajectories of history of feminism as it developed in western, socialist and Indian contexts. 3. Make sense of how patriarchy functions within the family.
PSC HG 801	POLITICS OF GLOBALIZATION	6	1. The students will learn about the nature, significance and contemporary debates around globalization. 2. The study of various approaches and concepts of globalization and the role of international economic organizations will augment students' knowledge on international political economy. 3. The course will provide an insight into the alternative understanding of globalization and various critical aspects related to it. 4.The paper will equip students with a comprehensive knowledge of the impact of globalization on developing countries in the context of contemporary international issues like civil society, social movements and human migration.
PSC HG 801	UNITED NATIONS AND GLOBAL CONFLICTS	6	1. The students will learn about the evolution of United Nations as an international organization, its principles and institutional structure.

			2. The course will develop an in depth understanding of United Nations role in peace keeping and peace building since the Second World War. 3. Students will learn about major global conflicts and United Nations role in conflict management. 4. The paper will evolve analytical skills of the students on United Nations role in creating an equitable social economic world order. 5. The course will assess United Nations contributions and shortcomings in maintaining

Semester-VIII (any one)

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
PSC HG 802	NATIONALISM IN INDIA	6	1. Gain an understanding of the different theoretical perspectives on the emergence and development of nationalism in India 2. Demonstrate knowledge of the historical trajectory of the development of the nationalist movement in India, with specific focus on its different phases 3. Understand the contribution of various social movements in the anti-colonial struggle 4. Demonstrate awareness of the history of partition and the moment of independence that followed.
PSC HG 802	INDIAN GOVERNMENT AND POLITICS	6	1. The students will be able to explain the core philosophy and ideals of the Indian Constitution. 2. Students will know about the fundamental rights and how these rights are different from the directive principles of the state policy. 3. Students will be able to explain the structures, powers, and functions of three organs of government and their mutual relationship and engagements. 4. They will be able to explain the emerging trends in Indian Federalism and party system in India. 5. Students will be able to explain the constitutional structures of government that work at the grassroots level in India.
PSC HG 802	CONTEMPORARY POLITICAL ECONOMY	6	1. The students will learn about diverse approaches to international political economy.

			2. The study of role of international organization in transforming the world economy will equip the students to understand the process of evolution of capitalism. 3. Insights into issues and contentions of development and perspectives on globalization will augment students' ability to assess its impact on culture, environment, military security dimensions and traditional knowledge systems. 4. The paper will enable students to comprehend contemporary dilemmas in the sociopolitical, gender and ethnic domains.
PSC HG 802	GOVERNANCE: ISSUES AND CHALLENGES	6	1. The students are acquainted with the changing nature of governance in the era of globalization. 2. The students are introduced to the most contemporary ideas of sustainable development and green governance. 3. The students become familiar with a rigorous introduction to the best practices in India on good governance.
PSC HG 802	GANDHI AND THE CONTEMPORARY WORLD	6	1. This course will help students to understand Gandhian philosophy in a critical and analytical manner. 2. It will also help in describing the impact of Gandhian thought on Indian and global politics. 3. It will help in identifying and explaining selected approaches and methods that historians have used to study the history of anti-colonial Indian politics.
PSC HG 802	FEMINISM: THEORY AND PRACTICE	6	1. Understand the concept of patriarchy and different approaches of feminism 2. Understand different trajectories of history of feminism as it developed in western, socialist and Indian contexts. 3. Make sense of how patriarchy functions within the family.
PSC HG 802	POLITICS OF GLOBALIZATION	6	1. The students will learn about the nature, significance and contemporary debates around globalization. 2. The study of various approaches and concepts of globalization and the role of international economic organizations will augment students' knowledge on international political economy. 3. The course will provide an insight into the alternative understanding of globalization and various critical aspects related to it. 4.The paper will equip students with a comprehensive knowledge of the impact of globalization on developing countries in the context of contemporary international issues like civil society, social movements and human migration.

PSC HG 802	UNITED NATIONS AND GLOBAL CONFLICTS	6	1. The students will learn about the evolution of United Nations as an international organization, its principles and institutional structure. 2. The course will develop an in depth understanding of United Nations role in peace keeping and peace building since the Second World War. 3. Students will learn about major global conflicts and United Nations role in conflict management. 4. The paper will evolve analytical skills of the students on United Nations role in creating an equitable social economic world order. 5. The course will assess United Nations contributions and shortcomings in maintaining

COURSE OUTCOMES OF BSc CHEMISTRY

Semester-I

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
ZOO-HC 501	Non-chordates 1: Protista to Pseudocoelomates	6	1. On completion of the course the student should be able to know the general organization of Non-chordates as a group and know the taxonomy and characteristic features of the various Non-chordate phyla. 2. The student should also understand the architecture and functions of a cell and its organelles
ZOO-HC 502	Principles of Ecology	6	1. Students understand anticipate, analyse and evaluate natural resource issues and act on a lifestyle that conserves nature. 2. The students understand and appreciate the diversity of ecosystems and applies beyond the syllabi to understand the local lifestyle and problems of the community. 3. The students will be able to link the intricacies of food chains, food webs and link it with human life for its betterment and for non-exploitation of the biotic and abiotic components.
ZOO-SE 501	Apiculture	4	1. After completing this programme, students will be able to Understand bee biology and behaviour, types of bees and Life cycle. 2. Have an idea of beekeeping systems and beekeeping equipments, installation of hives tools. 3. Bees plays an important in pollination of many flowering plants. 4. Honey produced by apiculture which is a delicious and highly nutritious food.
ZOO SE 501	Aquarium Fish keeping	4	1. The students should be able to know the biology of aquarium fishes, their nutritional requirements and care. 2. Can identify the equipment and requirements for setting up an aquarium. 3. Maintaining good water quality is the single most important thing that an aquarium owner can do to ensure the health of their fish. 4. Fishes are known to attract financial benefits and wealth.

Semester-II

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
ZOO-HC 503	NON-CHORDATES II: COELOMATES	6	1. The student will be able to understand classify and identify the diversity of animals with the importance of classification. 2. The student knows his role in nature as a protector, preserver and promoter of life which he has achieved by learning, observing and understanding life.
ZOO-HC 504	CELL BIOLOGY	6	1. The students will understand the importance of cell as a structural and functional unit of life. 2. The students understand and compare between the prokaryotic and eukaryotic system and extrapolates the life to the aspect of development. 3. The dynamism of bio membranes indicates the dynamism of life. Its working mechanism and precision are responsible for our performance in life. 4. The cellular mechanisms and its functioning depends on endo-membranes and structures. They are best studied with microscopy.
ZOO SE 502	SERICULTURE	4	1. After completion of the course the students will be able to understand: Morphology of silkworm and its anatomical features like silk gland and secretion of silk. 2. Scientific way of silkworm rearing technology of young and late age silkworm for raising assured cocoon crops. 3. Must have an idea of characteristics of microbial organisms that causes diseases to silkworm. Control and prevention of pests and diseases.
ZOO SE 502	MEDICAL DIAGNOSTICS	4	1. The student will be able to state the significance of nutrition and obesity in health promotion and disease prevention. 2. The student will be able to prescribe an exercise program for a sedentary patient. 3. The student will be able to recommend timely vaccinations based on age, medical conditions, lifestyle, and environment.

Semester-III

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
ZOO-HC 601	DIVERSITY OF CHORDATA	6	1. On completion of the course the student should be able to identify and classify the Chordates, unique characters of protochordates and other vertebrates. 2. Also to understand the diversity and ecological role of different groups of chordates. 3. Student should be able to recognize life functions of chordates. 4. Understand the physiological and anatomical peculiarities through type study and also the ecological role of different groups of chordates.
ZOO HC 602	ANIMAL PHYSIOLOGY: CONTROLLING AND COORDINATING	6	1. On completion of the course the student should be able to know mechanism of body functions and the basic knowledge of chemistry of biomolecules. 2. Students can enlist various sensory receptors in human body and describe the structure and functioning of the sense organs–eye, ear, nose, tongue and skin. 3. Students can identify properties of hormones and mention their nature and manner of functioning. 4. Know the effects of over functioning (hyperactivity) and hypoactivity (under functioning) of pituitary and thyroid.
ZOO HC 603	FUNDAMENTALS OF BIOCHEMISTRY	6	1. Understand the principles of various fields of chemistry and biology (organic chemistry, analytical chemistry, biochemistry, genetics, metabolism, and molecular biology). 2. Apply modern instrumentation theory and practice to biochemical problems. 3. On completion of the course the student should be able to know mechanism of body functions and the basic knowledge of chemistry of biomolecule.

Semester-IV

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
ZOO-HC 604	COMPARATIVE ANATOMY OF VERTEBRATES	6	1. The students should be able to understand the characteristics of vertebrates and what makes both chordates and vertebrates unique among animals. 2. They can also understand of the evolutionary history of vertebrates and the evolutionary relationships among different groups of vertebrates. 3. It also assists in classifying the organisms based on similar characteristics of their anatomical structures. 4. Homologies of the forelimb among vertebrates give the evidence for evolution.
ZOO-HC 605	ANIMAL PHYSIOLOGY: LIFE SUSTAINING SYSTEMS	6	1. On completion of the course, students should be able to know mechanism of body functions and the basic knowledge of chemistry of biomolecules. 2. This course provides the study of life sustaining in mammals, principally human. 3. It investigates the biological processes that occur for animal life to exist. These processes can be studied at various levels of organization from membranes through to organelles, cells, organs, organ systems, and to the whole animal.
ZOO-HC 606	BIOCHEMISTRY OF METABOLIC PROCESSES	6	1. The student should be able to understand intricacies of Biochemistry and Its role in metabolic processes. 2. Students are able to understand the physiology at cellular and system levels. 3. Students are able to describe the role and functions of different biomolecules. 4. Biochemical studies have yielded such benefits as treatments for many metabolic diseases, antibiotics to combat bacteria and methods to boost industrial and agricultural productivity. 5. Students are able to understand how mammalian body get nutrition from different biomolecule

Semester-V

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
ZOO-HC 701:	MOLECULAR BIOLOGY	6	1. The student should be able to appreciate and know the genes and molecular biology in terms of evolution of the major groups of organisms. 2. Get well versed in recombinant DNA technology which holds application in biomedical & genomic science,
ZOO-HC 702:	PRINCIPLES OF GENETICS	6	1. Comprehensive, detailed understanding of the chemical basis of heredity. 2. Comprehensive and detailed understanding of genetic methodology and how quantification of heritable traits in families and populations provides insight into cellular and molecular mechanisms. .
ZOO-HE 701	FISH AND FISHERIES	6	1. The student should be able to understand structure, function and behaviour of fishes as well as physiology of fishes. 2. Have the idea of fisheries with laws and regulations in improving human welfare. 3. The student should be able to understand a knowledge about aquaculture.
ZOO-HE 701	BIOLOGY OF INSECTA	6	1. It gives a solid foundation in insect biology, including general entomology, basic systematics, morphology, physiology, and biodiversity. 2. Understand evolution and biodiversity generation through macro- and micro-evolutionary processes, including how these processes have formed and diversified insects. 3. Gain appreciation of insects in society and human affairs and as model systems in insect biology and insect vectors.
ZOO-HE 701	MICROBIOLOGY	6	1. After successfully completing this course, the students will be able to develop understanding on the microbiology diversity, processes and applications in the environment. 2. Analyse the contribution of microbiology area of science in water treatment, solid waste management, bioremediation and phytoremediation. 3. Apply the skills for environmental protection

Semester-VI

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
ZOO-HC 703	DEVELOPMENTAL BIOLOGY	6	1. It aims to understand how a single cell becomes an organized grouping of cells that is then programmed at specific times to become specialized for certain tasks. 2. It helps to understand the molecular, genetic, cellular, and integrative aspects of building an organism. Knowledge of normal developmental processes can aid in the understanding of developmental abnormalities and other conditions such as cancer. 3. Concept of in vitro fertilization.
ZOO-HC 704	EVOLUTIONARY BIOLOGY	6	1. Evolutionary biology provides the key to understanding the principles governing the origin and extinction of species. 2. It provides causal explanations, based on history and on processes of genetic change and adaptation, for the full sweep of biological phenomena ranging from the molecular to the ecological.
ZOO-HE 702	PARASITOLOGY	6	1. Upon successful completion, students will have the knowledge and skills to identify, describe and contrast unicellular parasites and parasitic worms. Describe specific human and non-human parasitic diseases. 2. Evaluate the complexity of the parasite/host relationship (parasite evasion mechanisms vs host defensive mechanisms)
ZOO-HE 702	REPRODUCTIVE BIOLOGY	6	1. Knowledge of the physiology of human reproduction will give better understanding among young students and will lead to correct attitudes and responsible reproductive health behaviour. 2. Reproductive health imparted the ability to produce offspring having better survival rates. It also helps in maintaining the population size and avoiding unwanted pregnancies.
ZOO-HE 702	BIOTECHNIQUES	6	1. After successfully completing this course, the students will be able to understand the purpose of the technique, its proper use and possible modifications/ improvement.

			2. Learn the theoretical basis of technique, its principle of working and its correct application. 3. Learn the maintenance laboratory equipments / tools, safety hazards and precautions. 4. Understand the technique of cell and tissue culture. Learn the preparation of solution of given percentage and molarity. 5. Understand the process of preparation of buffer. Learn the techniques of separation of amino acids, proteins and nucleic acids. .

Semester-VII

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
ZOO-HC 801	ANIMAL BIOTECHNOLOGY	6	1. To understand principles of animal culture, media preparation . 2. To get insight in applications or recombinant DNA technology,Gene manipulation, production of therapeutic proteins. 3. To understand Genetically Modified Organisms.
ZOO-HC 802	IMMUNOLOGY	6	1. Illustrate various mechanisms that regulate immune responses likeallergy, hypersensitivity, autoimmunity and maintain tolerance. 2. Understand basic techniques for identifying antigenantibody interactions.
ZOO-HE 801	ENDOCRINOLOGY	6	1. On completion of the course, the students will know the internal methods on integrating the functions of different internal systems to maintain homeostasis through hormonal regulation. 2. Understand neurohormones and neurosecretions. Learn about hypothalamo and hypapophysial axis. 3. Understand about different endocrine glands and their disorders.
ZOO-HE 801	WILD LIFE CONSERVATION AND MANAGEMENT	6	1. On completion of the course the student should be able to know the current status and conservation strategies for wildlife conservation and management. 2. Develop the ability to work collaboratively on team-based projects. 3. Gain an appreciation for the modern scope of scientific inquiry in the field of wildlife conservation management.
ZOO-HE 801	Research Methodology	6	1. Understand the concept of research and different types of research in the context of biology. 2. Have basic knowledge on qualitative research techniques and also acquainted with practical knowledge of research work. Develop laboratory experiment related skills. 3. Develop competence on data collection, data analysis, hypothesis testing procedures and process of scientific documentation. Evaluate the different methods of scientific writing and reporting.

Semester-VIII

COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
ZOO-HC 803	ANIMAL BEHAVIOUR AND CHRONOBIOLOGY	6	1. On completion of the course the student should be able to understand stereotyped and social behaviors of animals and know about the biological rhythms governing the behaviour of animals. 2. Understand and be able to objectively evaluate the role of behaviour in the protection and conservation of animals in the wild.
ZOO-HC 804	BIOSTATISTICS AND BIOINFORMATICS	6	1. After successfully completing this course, the students will be able to know the theory behind fundamental bioinformatics analysis methods. 2. Know basic statistical methods and probability distributions relevant for molecular biology data. 3. Know the applications and limitations of different bioinformatics and statistical methods. 4. Acquire knowledge of various databases of proteins, nucleic acids. Primary, secondary and composite databases.
ZOO-HE 802	Dissertation	6	Develop Research ideas, Research skills and writing Dissertation

GENERIC COURSES IN ZOOLOGY

	COURSE CODE	COURSE NAME	ASSIGNED CREDITS	COURSE OUTCOME
SEM III	**ZOO-HG 601**	**ANIMAL DIVERSITY**	6	1. The student will be able to understand classify and identify the diversity of animals. 2. The student understands the importance of classification of animals and classifies them effectively using the six levels of classification. 3. The student knows his role in nature as a protector, preserver and promoter of life which he has achieved by learning, observing and understanding life.
SEM IV	**ZOO-HG 602**	**HUMAN PHYSIOLOGY**	6	1. At the end of the course students should have an enhanced knowledge and appreciation of mammalian physiology. 2. Understand the functions of important physiological systems including the cardio-respiratory, renal, reproductive and metabolic systems. 3. Understand how these separate systems interact to yield integrated physiological responses to challenges such as exercise, fasting and ascent to high altitude & how they can sometimes fail.
SEM V	**ZOO-HG 701**	**ENVIRONMENT AND PUBLIC HEALTH**	6	1. After the completion of the course, students will be able to understand environmental pollution, global warming, climate change and its effects. 2. Students will be able to understand interrelationships between a multitude of factors that can impact on a public health problem, including scientific, medical, environmental factors. 3. Have understanding different types of diseases. .
SEM VI	**ZOO-HG 702**	**INSECT VECTORS AND DISEASES**	6	1. Students can understand about the insects and vectors after the completion of the course. 2. Students able to know that Vectors are living organisms that can transmit infectious pathogens between humans, or from animals to humans. Many of these vectors are bloodsucking insects, which ingest disease-producing microorganisms during a blood meal from an infected host (human or animal) and later transmit it into a new host, after the pathogen has replicated.

				3. Often, once a vector becomes infectious, they are capable of transmitting the pathogen for the rest of their life during each subsequent bite/blood meal.
SEM VII	**ZOO-HG 801**	**AQUATIC BIOLOGY**	6	1. Understand and apply relevant scientific principles in the area of aquatic biology. 2. Appreciate the multidisciplinary nature of the study of aquatic biology and engage positively with people and ideas beyond their own discipline. 3. Explore some of the unique environmental problems dealing with aquatic environments. 4. Develop employable skills in freshwater biological water quality analysis.
SEM VIII	**ZOO-HG 802**	**ANIMAL CELL BIOTECHNOLOGY**	6	1. Be able to describe the structure of animal genes and genomes and also to describe basic principles and techniques in genetic manipulation and genetic engineering. 2. Be able the technique for animal cell culture and organ culture as well as cell lines. 3. Be able to describe techniques and problems both technical and ethical in animal cloning. **4.** Be able to describe different applications in Health.