

RANGIA COLLEGE
PROGRAM OUTCOME
B.Com Course

Ø. PO1: Equips learners to get theoretical and practical exposure in the commerce sector which includes Accounts, Commerce, Marketing, Management, Economics, Tax ,IT, etc.

Ø. PO2: Enables students with the knowledge, skills, attitude and aptitude to meet the challenges of the modern day business organizations.

Ø. PO3: Students will be able to communicate effectively both in terms of business as well as social interaction and builds the confidence to adapt to linguistic barriers.

Ø. PO4: The program will imbibe entrepreneurship spirit among students and encourage them to participate effectively in social, commercial and civic issues thereby leading to self - reliant nation.

Ø. PO5: This program brings out reflective and critical thinking which makes them inquisitive and builds the forward planning ability to tackle the uncertainty of the business world.

Ø. PO6: Enhances the capability of Team work, Time Management and creates ability to absorb new technologies.

Ø. PO7: Inculcates a deep insight of Finance, Saving and Investment

Ø. PO8: Ability to recognize different value systems and ethics, understand the moral dimensions and accept responsibility.

Ø. PO9: Inculcate the pedagogical aspects of research oriented learning experience so as to develop an inquisitive mindset for innovative learning and research and reskilling in all areas of commerce

RANGIA COLLEGEPROGRAM OUTCOME

BBA Course

*PO1 : An understanding of different business, economic and management functions.

*PO2 : Understanding the global business aspects and changes.

* PO3 : Developing interpersonal, communication and technical skills.

*PO4 : Expanding and developing aptitude for critical and analytical thinking.

*O5: Inculcating entrepreneurial skills.

*PO6 : Creating environmental awareness and developing an understanding of sustainable environment.

*PO7: Sensitising the students with ethical and legal business practices.

*PO8: Making students apply theoretical knowledge for practical application

Department of Physics

Rangia College

Programme: Three years B.Sc (M)

Programme outcome, programme specific outcome and course outcome

Programme Outcome (PO):

Students graduating B.Sc in physics would be able to

Programme outcome

PO1. Content: The natural laws of physics in explaining physical world and the universe and extend the mind to comprehend physics principles and theories.

PO2. Organized knowledge: Develop the mathematical concepts and related interpretation involved in the core courses including mechanics, thermodynamics, classical and quantum mechanics, digital electronics, solid state physics and statistical mechanics. Explore the nature of the physical world from microscopic scale to macroscopic scale.

PO3. Problem solving strategy: Develop the ability to understand the mathematical formulas and it's used in day to day life. Develop analytical skills and utilize them in problems solving and relate them to the theoretical aspects. Ability to draw diagram and graphs. Interpret the graphical representation and used it to correlate with the theoretical aspect.

PO4. Communication: Develop communication skill in representing, presenting a concept in clear and concise manner. Develop a positive outlook and perseverance about the impact of science in global references. Capable of understanding their professional and ethical responsibility to the society.

PO5. Research: Develop the ability to do a an experimental project under the guidance of faculty and prepare the as per norms of research methodology and present the same orally to an audience of peers and faculty.

Programme Specific Outcome (PSO)

PSO1: Develop an appropriate knowledge of the foundations of physics.

PSO2: Develop an ability to correlate physical and theoretical aspects of laws.

PSO3: To develop competency in understanding mathematical expression as well as graphical methods to analyze and solve problems.

PSO4: Ability to perform simple laboratory experiments, collection and analyse the data systematically and finding the result with error calculation.

PSO5: To develop competency for project work and develop an ability to communicate scientific work and findings.

Course outcome (CO):

The three years undergraduate BSc Physics major programme involves fundamental and core courses of physics as mentioned below. All of these courses have different outcomes (as mentioned below separately) which will ultimately enhance the depth of knowledge about physics.

Course title: Mathematical methods

CO1: To learn the fundamental mathematical methods that are frequently used to formulate and analyse the problems involved in core physics courses.

CO2: To learn elegant techniques coordinate transformation, Eigen value problem, methods of solving various second-order differential equations, method of solving partial differential equations using separation of variables, methods of complex integrations, etc.

CO3: Understand basic statistical methods and concepts like probability, random variables, variance, and probability distribution functions.

CO4: To develop the capacity of formulating physical laws in terms of tensors and their simplification using coordinate transformation.

CO5: Able to apply the methods in solving various physical problems.

Course title: Mechanics, Properties of Matter, Waves and oscillations, and Special Theory of Relativity

CO1: To develop the understanding of laws of mechanics and their applications in analysing various physical problems.

CO2: Able to classify and understand various physical properties of matter.

CO3: To understand the role of the wave equation and appreciate the universal nature of wave motion in a range of physical systems.

CO4: Able to understand the nature of waves and oscillations and their analysis via Fourier series.

CO5: To grasp the foundation of special theory of relativity; special relativity theory, the application of Lorentz transformation in describing the relativistic motion.

Course title: Optics

CO1: to understand various optical phenomena such as diffraction, interference, polarization in terms of the wave model.

CO2: Find the location and magnification of images in single- and multiple-lens/mirror systems by calculation and by ray tracing.

CO3: Capable of explaining the working principle behind various optical instruments including human eye.

CO4: Able to learn the various techniques involved in analysing the ray and wave optics together with some parts of modern optics such as construction of laser, holography etc.

Course title: Heat and Thermodynamics

CO1: To learn the fundamental laws of thermodynamics and associated thermodynamic variables

CO2: To explain various thermodynamic processes and their quantitative analysis.

CO3: To learn kinetic theory of gases and the concepts involved in designing heat engines and their uses.

Course title: Electrostatics and Magnetostatics

CO1: Have a deep understanding of the theoretical foundations of electromagnetic phenomena.

CO2: Able to understand the relationship between electric charge, electric field, electric potential, and magnetism.

CO3: Able to explain various phenomena of electrostatics and magnetostatics.

Course title: Electricity and Magnetism

CO1: Learn about the significance of various electrical components and devices and how they operate in an electrical circuit.

Course title: Introduction to Computer and Computer Programming like Scilab, Python etc

CO1: Familiar with the logical development of algorithms and object oriented programming. Course title: Classical Mechanics

CO2: Able to develop an idea how Lagrangian and Hamiltonian formulations can be used effectively as a sophisticated tool to analyse the problems of mechanics.

CO3: Learn how these formulations are applicable in explaining the Kepler's law for planetary motion and other central force problem.

Course title: Atomic Physics

CO1: Able to describe theories explaining the structure of atoms and the origin of observed spectra.

CO2: Able to explain the observed dependence of atomic spectral lines on externally applied electric and magnetic field and, thereby able to identify atomic effects such as Zeeman effects, Stark effects etc.

Course title: Solid state Physics

CO1: Have a basic knowledge of various crystal structure and spatial symmetries.

CO2: Able to account for how crystalline materials are studied using diffraction.

CO3: Able to calculate thermal and electrical properties in the free-electron model.

CO4: Able to differentiate metal, insulator, and semiconductor in terms of energy band.

CO5: Able to understand the superconductivity and different types of superconductors.

CO6: Capable of explaining magnetic properties through classical theories of magnetism.

Course title: Nuclear Physics

CO1: Able to understand the importance of models in describing the properties of nuclei and nuclear

collisions and able to make quantitative estimates of phenomena involving nuclei.

CO2: Able to understand how various types of accelerators work; functioning of nuclear reactors etc.

Course title: Electronics

CO1: Acquire knowledge about the basic design principles of various electronic components and their characteristics.

CO2: Analyse and design various electronic circuits including rectifiers, amplifiers, and oscillators.

CO3: Capable of solving numerical problems related to circuit design.

CO3: Acquire knowledge about the basics of digital electronics and solving problems related to number systems and Boolean algebra K-Map, Counter, Register etc.

Course title: Quantum Mechanics

CO1: Able to realize the difference between macroscopic and microscopic world and the historical

development of quantum mechanics.

CO2: Have a deep understanding about the mathematical foundations of quantum mechanics.

CO3: Learn how to solve Schrodinger equation for simple potentials.

Course title: Statistical Mechanics

CO1: Able to understand the fundamental concepts involved in statistical mechanics including phase space, ensembles, density of states, etc.

CO2: Acquire knowledge about the classification of statistics for classical and quantum particles.

CO3: Capable of applying the statistics to some classic problems of physics including blackbody radiation, electronic specific heat, and Bose-Einstein condensation.

Course title: Introduction to Astrophysics

CO1: Able to understand the formation, evolution, and classification of stars.

CO2: Familiar with various physical quantities and parameters involved in describing celestial objects.

Course title: Laboratory Experiments

CO1: Able to perform various basic experiments in physics.

CO2: Able to perform a statistical and systematic analysis of the observed data.

CO3: To engage students for preparing projects based on syllabus.

CO4: To enhance their theoretical understanding through lab experiments.

CO5: To develop basic lab skill for application of various lab experiments.

RANGIA COLLEGE

DEPARTMENT OF ENGLISH

Program Outcome

The Honours Course exposes the students of English Honours to a wide range of literature across centuries and geographies- Classical Indian, Ancient Greek, British, American as well as Postcolonial Literature. This leads them to acquire a knowledge of the culture and socio-political scenario of the ages. It also acquaints them to the rich human experience embedded in the works of literature and the various creative expressions of the same through the vast and diversified body of works.

Exposure to the literary traditions of the world broadens their horizon and perspectives and gives the students a deeper insight into human behaviour. It also diversifies their experience and helps them to be pluralistic in thought and empathetic in behaviour.

The students learn about the historical context which serves as a background to the text. The diversity of the syllabi gives them a broader vision of the historical background ranging from the classical ages to the contemporary times. It also acquaints them with issues these ages grappled with from ancient times to the present.

The Program also provides a platform for exchange of cultures as students learn about a wide range of cultures and traditions, spanning a long and varied period of time.

- The Program exposes the students to issues and theories on gender and sexuality.
- Interpretation and analysis of the texts helps to sharpen the critical faculties of the students. As such, they will be able to apply critical theories to the reading of the texts.
- Through the Program the students learn to read and recognise the nuances and layers in the text, which aids them to develop analytical skills.
- The creative and imaginative faculties of the students are enriched through the Program as they acquaint themselves with the works of the various cultures. This would benefit them should they turn to creative writing.
- Reading of the texts assists them to improve their skills of self-expression in written as well as oral form and better their communication abilities.
- Seminars & Presentations during the program expose the students to the basics of research and they learn about research methodology and other tools to use in Academic research
- The Program also widens their avenues for choosing various career paths.

Course Outcomes

I Semester

Paper1-Indian Classical Literature

Objective:

To Acquaint the students with the classical texts of the Past of Ancient India

Outcome:

The completion of the Course will lead the students to:

- Understand the Classical texts as they study the translated versions
- Become familiar with our ancient culture and traditions

- Learn lessons embedded in the ancient scriptures through the study of the heroic characters

Paper 2-European Classical Literature

Objective:

To familiarize the students with the rich literary tradition of the Classical Greco-Roman Period

Outcome:

The completion of the Course will lead the students to:

- Get a glimpse of the diverse Greco-Roman cultures spanning across ages and will provide a platform for cultural exchange
- Familiarize the students with the rich cultural discourse of the period
- Acquaint the students with classical theories, which form the basis of the genres in English Literature
- Learn about the influence of the Classical texts on Modern Texts

II Semester

Paper 3 Indian Writing in English

Objective:

- To introduce the learners to Indian Writing in English, ranging from Colonial to Post-colonial India.
- To acquaint them with the rich diversity of India through the literature of the various geographical areas of India, including the Northeast.
- To learn how each author creatively uses his or her chosen literary form

Outcome:

The completion of the course will lead the students to:

- Become familiar with concepts of Identity and Nationalism, issues responsible for the emergence of Indian English Literature
- Become familiar with issues of language, politics and gender
- Understand the place of English Writing in India in the larger field of English Literature
- Examine the literary forms used by the Indian English writers in the Indian historical and cultural context

Paper 4

-British Poetry and Drama: 14th to 17th Centuries

Objective:

-To Familiarize the students with the two major forms in British literature from the 14th to the 17th centuries – poetry and drama

- To acquaint the students with the historical contexts of the ages that gave birth to the Literature of the period

Outcome:**The completion of this Course will lead the students to:**

-Trace the history of English Literature from the 14th Century to the 17th Century

-Learn about the social, religious and political movements of the Period, that shaped the Literature of the time

-Learn about the Renaissance Movement and its impact on the writers of the Elizabethan Age

-Learn about the seminal issues and preoccupations of the writers of the age as embodied in their works

III Semester**Paper 5- History of English Literature and Forms****Objective:**

-To introduce the students to the History of English Literature and the major literary forms, adopting the chronological approach

- Present the development of each genre through the various periods of English Literature

Outcome:**The completion of this Course will lead the students to:**

-Learn about the historical development of each literary form

-Gain understanding about the issues and social, cultural and political changes that led to the emergence of these literary forms

-Learn to interpret and analyse the representative writers in the context of their age

Paper 6- American Literature**Objective:**

- To acquaint the students with the main currents of American literature in its social and cultural contexts

-To familiarise the students with the growth and change in American society and the manner in which the American literary imagination has adapted to the change

Outcome:

The completion of this Course will lead the students to:

- Learn about American Society from its earliest stages to the present
- Become familiar with movements and issues that inspired the literary writers of the age
- Learn about literary movements that influenced the writers of the age
- Be acquainted with the innovative techniques in various literary genres in the age

Paper 7- British Poetry and Drama: 17th and 18th Centuries

Objective:

- To familiarize the students with British literature in the 17th and 18th centuries
- To familiarize the students with the economic, political and social changes in Britain during this period, such as the shifts from the Puritan Age to the Restoration and Neoclassical periods

Outcome:

The completion of this Course will lead the students to:

- Trace the development of the history of English Literature of the period
- Learn about the major movements and issues of the age and their impact on the writers
- Become familiar with the works of the representative writers of the age
- Learn interpretative techniques to analyse the works

Semester IV

Paper 8- British Literature: The 18th Century

Objective:

- To familiarize the students with British literature of the 18th century
- To familiarize the students with the social, religious and political currents of the age

Outcome:

The completion of this Course will lead the students to:

- Understand the spirit of the age, dominated by reason and rationality
- Learn about the major movements of the age and their impact on the writers
- Know about the dominant genres of the time and the historical and social movements that led to their emergence

Paper 9- British Romantic Literature

Objective:

- To appreciate the essence of the Romantic vision
- To become familiar with the literature of the Romantic Age

Outcome:**The completion of this Course will lead the students to:**

- Be acquainted with the defining movements that gave birth to Romantic literature
- Learn about the philosophic movements that propelled the Literature of the time
- Be exposed to a vast and diverse range of Romantic Literature from the poetry of Blake and Wordsworth to Mary Shelley's gothic novel, *Frankenstein*
- Through the readings of the representative writers to learn to appreciate the literature of the age, characterised by emphasis on imagination and emotion

Paper 10: British Literature: The 19th Century**Objective:**

- To expose the students to ground-breaking works of the poets and fiction writers of the century
- To familiarise the students with the historical context and the social and religious debates of the times

Outcome:**The completion of this Course will lead the students to:**

- Know about the debates of the period that gave rise to the major themes of the literature of the age
- Gain knowledge about the emerging scientific and economic theories that shook the age
- Learn to interpret the representative writers of the age in the light of the historical context and the literary movements of the time
- Learn about the development of the literary genre that dominated the period- the novel
- Interpret texts from the perspective of contemporary critical concepts such as gender and sexuality and 'othering'

V Semester**Paper 11: British Literature: The 20th Century**

Objective:

- To introduce the students to the spirit of modernism
- To familiarize the students with the representative writers of the 20th century

Outcome:**The completion of this Course will lead the students to:**

- Learn about the concept and scope of Modernism
 - Study and interpret the representative texts of the age in the historical context
 - Analyse the innovative experimentation of the works of the age in the light the prevalent literary movements of the time
- Familiarize themselves with the diverse literary genres in the course which encompass varied influences and span from the High Modern to the Postmodern period

Paper12:Women'sWriting**Objective:**

- To introduce the works of women writers spanning diverse ages and geographic boundaries
- To expose students to the various themes and styles and the contexts in which they emerge

Outcome:**The completion of this Course will lead the students to:**

- Learn about the beginnings of women's writing
- Read and interpret canonical texts written by women writers across ages
- Be acquainted with concepts of gender and sex, body, identity class, location and voice
 - Learn about gender sensitization
 - Learn about various issues and concerns of women writers across ages and boundaries

DisciplineCentricElective**Paper 1: Popular Literature**

Objective:

- To highlight popular literature as a genre
- To examine the prescribed texts of popular literature from a critical perspective

Outcome:**The completion of this Course will lead the students to:**

- Get exposed to a diverse range of popular texts, which would provide a platform for a cultural exchange
 - Get acquainted to a wide variety of genres in the field of popular literature ranging from crime thrillers to fantasy
 - Be exposed to a rich imaginative world
 - Learn to interpret any work of art critically, even though not considered high literature

Paper3-LiteratureoftheIndianDiaspora**Objective:**

- To examine the diasporic experience
- To be acquainted with ideas of transnationalism, exile, migration, displacement

Outcome:**The completion of this Course will lead the students to:**

- Understand concepts of identity, nationalism and displacement
- Learn how the text reveals the above concepts
- Learn about the cultural and social divides in the worlds inhabited by the characters
- Get acquainted with themes of memory and nostalgia

SemesterVI**Paper 13-Modern European Drama****Objective:**

- To introduce the students to the works of playwrights from different locations in Europe

- To get acquainted with the avantgarde movements

Outcome:

The completion of this Course will lead the students to:

- Be exposed to the seminal texts of European Drama
- Be acquainted with the avantgarde movements which led to the emergence of experimental dramatic devices that influenced and continue to influence theatrical practices all over the globe

Paper 14-Postcolonial Literatures

Objective:

- To expose the students to postcolonial literature across the world
 - To acquaint the students with concepts such as orientalism, othering and the subaltern

Outcome:

The completion of this Course will lead the students to:

- Interpret a text from the Postcolonial perspective
- Analyse concepts of Postcolonial identity
- Study the text from the historical perspective of postcolonial movements as the backdrop of the text
- Learn to recognize the politics of resistance in the text
- Identify the subaltern voices in the text

Discipline-centric Elective

Paper 9- Partition Literature

Objective:

- To acquaint the students about the literature of partition
- To place the literature in a historical context

Outcome:

The completion of this Course will lead the students to:

- Understand concepts such as home and exile, identity and violence
- Interpret the works in the light of the above concepts and in the backdrop of the historical, social and political perspectives
- Awareness of issues of gender in the backdrop of the partition

Paper 12: Writings from North East India

Objective:

- Expose students to the rich literature-oral and written of North-east India
- Examine concepts of Folk and myth in narratives

Outcome:

The completion of this Course will lead the students to:

- Learn about the rich and varied literature of the northeast spanning diverse literary genres
 - Broaden their horizons with knowledge about the diverse culture and traditions of the northeast and their uniqueness
 - Interpret the texts in the light of contemporary critical theories
 - Interpret the texts in the background of the raging movements, politics, militancy and terrorism that have ravaged the region
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DEPARTMENT OF ZOOLOGY

Zoology is a very fascinating subject and its vast range of study about animals makes it very interesting. Zoology is also known as animal science. It is the branch of Biology devoted to the study of animal life. It covers areas ranging from the structure of organisms to the subcellular unit of life. Some zoologists are interested in the biology of particular groups of animals. Others are concerned with the structure and function of animal bodies. Some others analyse the origin and the formation of new animals and the passing of their characteristics from one generation to another.

Many Zoologists have the love and affinity to study the interactions of animals with one another and their environments, as well as the significance of the behaviour of animals.

Zoology is both descriptive and analytical. It can be approached either as a basic science or as an applied science. A basic zoologist is interested in knowledge of animals for its own sake without consideration of the direct application of the information gained. In contrast, workers in applied zoology are interested in information that will directly benefit humans and animals (medicine, for example).

Zoology today is as diverse as the animal kingdom it studies, broadening its range to include such fields as genetics and biochemistry. It is now considered an interdisciplinary field that applies a great variety of techniques to obtain knowledge of the animal kingdom. For instance, the genetic study of DNA from various animals can provide insights into their evolutionary history.

ZOOLOGY IN VARIOUS FIELDS

Scope of Zoology in the field of Health and Disease:

Zoological Knowledge and theories are applicable to maintain health and to control the epidemic diseases, but still there are some dangerous medical problems which need further study. For example, control and cure of cancer and cardio-vascular diseases. Protozoan and helminths are responsible for causing many diseases. In addition, some animals act as vectors. The transference of disease producing parasites or their infective stages are performed

By Anopheles (Malaria), sand-fly (kala-azar), Tse-tse (sleeping sickness), house-fly (typhoid). The control and cure of these diseases are studied by economic zoologists.

The progress of medical technology is intimately connected with the application of drugs on animals. The drug for curing diabetes was discovered with experiments on dogs. Similarly, the drugs for Diphtheria, typhoid and other diseases were found only after tiresome experiments on animals. Without these animals it would have been impossible to discover the medicines for several human diseases.

Scope of Zoology in the Field of agriculture:

Agriculture is a part of applied zoology. Various types of living organisms are closely associated in a particular environment. Similarly, insects pollinate the flowers, bacteria decompose the dead animals and plants present in the soil which is observed by the plants. They are important facts for agricultural science.

Insects destroy agricultural crops, domesticated animals and wood. The amount of harm caused by the insects is beyond our estimate. A variety of rodents eat considerable amount of grains and cereals both in the field and storage areas. These problems have been solved to great extent from the knowledge and application of zoological principles.

Scope of zoology in the field of Industry:

Various products of animals such as coral, pearl, honey, wax, silk, lac, shell of turtle, bones, feather, tusk, leather and fur are of high demand. These products can be increased from our knowledge of production of these items.

One of the most important uses of animals is as food. Almost in every phylum there are a few species which form the food of man like lobsters, crabs, fishes, turtles, frogs, birds and mammals. We use various types of birds (chicken, fowl, duck, etc.) and mammals (goat, sheep etc.) for our diet. The improvement of these animals is one of the major tasks of zoologists.

Application of zoological science in the field of fishers is well known. It is the study of economic zoology for the higher production of food crops and fisheries to meet the challenge of food shortage during recent times.

Zoology Courses:

Zoology comprises of the study of animals and their behaviors. The subject helps people in knowing the animal behaviour, the way they live, their needs, and many more things.

Zoology deals with the environment of the animals, how they adapt to the changing environment and their needs like nutrition, genetics, characteristics, evolution, physiology, reproduction etc. People who specialize in this subject are called Zoologist.

Zoology is a recognized field today and is regarded as the top career choice in India. With the imbalance in the ecosystem today, acute need has been felt to preserve nature and even animals that are on the brink of extinction.

JOB OPPORTUNITIES IN ZOOLOGY

Career After B.Sc. Zoology

§ Higher Education

After completing under graduation in Zoology, a master's degree is one of the obvious choices. You can consider following higher study options after B.Sc. in Zoology:

- Master of Science in Zoology (Honors)
- Master of Philosophy in Zoology
- Master of Philosophy in Life Science
- Master of Science in Zoology
- Master of Science in Applied Zoology
- Doctor of Philosophy in Zoology
- Post Graduate Diploma in Life Science
- Master of Business Administration

One can even go up to Ph.D. level after completing their master's in a particular field.

§ Indian Forest Services (IFS) Entrance Exam

A zoology graduate who is below 30 years of age can even appear for IFS entrance exam. IFS is a civil service exam conducted by Union Public Service Commission (UPSC).

Clearing this exam makes you eligible for the following designations in Union Ministry and State Government:

Union Ministry Designations

- Director General of Forests

- Additional Director General of Forests
- Inspector General of Forests
- Additional Inspector General of Forests
- Deputy Inspector General of Forests
- Director
- Assistant Inspector General of Forests

State Government Designations

- Principal Chief Conservator of Forests
- Additional Chief Conservator of Forests
- Chief Conservator of Forests
- Regional Chief Conservator of Forests
- Conservator of Forests
- Deputy Conservator of Forests
- Divisional Forest Officer
- Probationary Officer

Under this category, it includes all those career prospects that you can choose after completing B.Sc. in Zoology.

They are the options that can be considered directly after your graduation in Zoology.

- **Ecologist**

An Ecologist is a research scientist who studies about the relationship between the organism and its environment. They spend time creating reports, collecting data, and drawing conclusions of their study. They spend most of their time outdoors conducting a survey on different issues.

- **Environmental Consultant**

Those passionate about conserving and improving the environment can consider this option. An environmental consultant works with organizations. S/he offers expert advice and assessment services on various environmental issues.

Field Trial Officer

A field trial officer performs the task of monitoring and observing the effects of scientific experiments on plants and animals. They work in close coordination with the scientists to match their requirements with the trial site or laboratory.

- **Marine Biologist**

A **marine biologist** studies and researches about organisms that habitat in saline water. S/he studies about both marine plants and animals

Natur Conservation Officer

As a nature conservation officer, you would work to conserve, enhance, and manage the local environment. S/he motivate and educate people to protect their environment. Also, S/he frame environment protection laws and policies for their respective region.

Research Scientist (Life Sciences)

Research scientist within Life Sciences is responsible for collecting scientific data, recording observations, correlating data, and preparing detailed reports.

Since Life Sciences cover a number of disciplines, the research scientist can work in any of the following categories:

1. neurosciences
2. pharmacology
3. physiology
4. plant sciences
5. stem cell research
6. bioinformatics
7. biotechnology
8. cancer studies
9. genomics
10. microbiology

Animal Behaviorist

An animal behaviorist is the one who studies animal behavior or Ethology. They observe, learn, and understand an animal's environment and find the cause of their particular behavior.

Wildlife Biologist

A [wildlife biologist](#) or zoologist studies about animals, animal behavior, their habitat, and the impact of humans on the life of animals. While observing the animals closely, traveling, outdoor work and unusual acquaintances with the wildlife are some of the perks of this profession.

Zoo curator

A zoo curator looks over the overall functioning of the zoo. S/he keeps a check on everything from maintaining the list of zoo animals to their health to the staff of the zoo.

Biomedical Scientist

A [Biomedical scientist](#) performs a number of laboratory experiments that help in diagnosing and treating diseases. The experiments are crucial in finding treatments for diseases like AIDS, Cancer, and Diabetes. Along with the appropriate knowledge, s/he must possess strong analytical skills and practical laboratory experience.

Environmental Manager

An [Environmental Manager](#) is also known as sustainability manager. S/he is responsible for managing and observing the environmental performance of private, public, and voluntary organizations.

Toxicologist

A [toxicologist](#) is a person who studies about the impact of toxic chemicals and radiations on environment, humans, and animals. S/he conducts experiments, make reports, and analyze data to study the harmful effect of chemicals on the environment.

Department of Sanskrit
Programme Outcome:

Sanskrit is one of the oldest known languages over thousands of years. The word “Sanskrit” means “refined, decorated or produced in perfect form”. Sanskrit is regarded as the ancient language of Hinduism, where it was used as a means of communication and dialogue by the Hindu celestial Gods. Therefore, it was called “Dev Vani” (the language of gods). Ancient people believed that human speech was the gift of God.(We call Sanskrit a divine language re-produced by great sages-

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□□□□□□□□, Europeanized as Sanskrit, or linguistically the Old Indo-Aryan (=OIA), belongs to the Indic group of the Indo Iranian sub-branch of the Indo-European family of languages. Sanskrit is being cultivated not only in India, but also in almost all parts of the globe as one of the vehicles of the sources of Indo-European culture and history, mythology and religion, language and literature. Sanskrit, the mother of all languages , one of the 23 official languages of India and known as a classical language of Indian subcontinent belongs to the Indic group of language family of Indo-European and descendents (Indo Iranian & Indo Aryan).

It is liturgical language of Hinduism, Buddhism and Jainism. Sanskrit which was once the language of munis and rishis is now attracting the modern world in such a way that experts are of the opinion that Sanskrit is the best language for use with computers. Sanskrit is scientific and systematic language. Sanskrit literature is easily richest literature in the history of mankind.

Sanskrit language is the soul of Indian subcontinent. To know ancient Indian culture , Indian history , Indian economy , Indian polity ,Indian educational system , Indian people’s socio economic condition Sanskrit language is only mean because Vedas, Upanisads, Puranas, Smritis ,Ramayana , Mahabharata etc. are written in Sanskrit where we can get a real picture of Indian subcontinent. The Indian Culture and civilization is based on Sanskrit. Sanskrit is the symbol of our seniority among the nations of globe. Any civilization in course of its progress should care for personality development. The principal purpose of Vedic and Classical Sanskrit Literature was to make man in his society more fined. Stress was laid on the fact that individual life becomes meaning full only when it works in a social structure and contributes to the well being of other individuals. This is the idea of personality development reflected in Sanskrit literature.

Keeping in mind the rich heritage of Sanskrit literature, we decided to popularize it. Our motto is to popularize Sanskrit among the students and common people in general.

SYLLABUS:

Semester I

Paper 1 - SKT-HC-1016

Classical Sanskrit Literature (Poetry)

Unit I	Raghuvamśam: Canto-I (Verse: 1-25)
Unit II	Kumārasambhavam: Canto-V (Verse: 1-30)
Unit III	Kirātārjunīyam - Canto I (1-25 Verses)
Unit IV	Nīśatakam (1-20 Verses, 1st two Paddhatis)
Unit V	Origin and Development of Mahākāvya and Gītikāvya

Course Outcome:

This course aims to get students acquainted with Classical Sanskrit Poetry. It intends to give an understanding of literature, through which students will be able to appreciate the development of Sanskrit Literature. The course also seeks to help students to negotiate texts independently.

Paper 2 - SKT- HC-1026

Critical Survey of Sanskrit Literature

Unit I	Vedic Literature
Unit II	Rāmāyaṇa
Unit III	Mahābhārata
Unit IV	Purāṇas
Unit V	General Introduction to Vyākaraṇa, Darśana and Sāhityaśāstra

Course Outcome:

This course aims to get students acquainted with the journey of Sanskrit literature from Vedic literature to Purāṇa. It also intends to give an outline of different shastric traditions, through which students will be able to know the different genres of Sanskrit Literature and Śāstras.

Semester II

Paper 1- SKT- HC-2016

Classical Sanskrit Literature (Prose)

Unit I	Śukanāsopadeśa (Ed. Prahlad Kumar)
Unit II	Viśrutacaritam Upto 15th Para

Unit III Origin and development of prose, Important prose romances and fables

Course Outcome:

This course aims to acquaint students with Classical Sanskrit Prose literature. Origin and development of prose, Important prose romances and fables Sanskrit are also included here for students to get acquainted with the beginnings of Sanskrit Prose literature. The course also seeks to help students negotiate texts independently.

Paper 2 - SKT- HC-2026

Self Management in the Gītā

Unit I Gītā: Cognitive and emotive apparatus

Unit II Gītā: Controlling the mind

Unit III Gītā: Self management through devotion

Course Outcome:

The objective of this course is to study the philosophy of self-management in the Gītā. The course seeks to help students negotiate the text independently without referring to the traditional commentaries so as to enable them to experience the richness of the text.

Semester III

Paper 1 - SKT- HC-3016

Classical Sanskrit Literature (Drama)

Unit I Svapnavāsavadattam– Bhāsa Act I & VI

Unit II Abhijñānaśākuntalam– Kālidāsa I & IV

Unit III Mudrārākṣasam - Viśākhadatta I, II & III

Unit IV Critical survey of Sanskrit Drama

Course Outcome:

This course aims to acquaint students with three most famous dramas of Sanskrit literature which represent three stages in the growth of Sanskrit drama.

Paper 2 - SKT- HC-3026

Poetics and literary criticism

Unit I Introduction to Sanskrit poetics

Unit II Forms of Kāvya-Literature

Unit III *Śabda-śakti* (Power of Word) and *rasa-sūtra*

Unit IV *Alaṅkāra* (figures of speech) and *chandas* (metre)

Course Outcome: The study of *sāhityaśāstra* (Sanskrit Poetics) embraces all poetic arts and includes concepts like *alaṅkāra*, *rasa*, *rīti*, *vakrokti*, *dhvani*, *aucitya* etc. The entire domain of Sanskrit poetics has flourished with the topics such as definition of poetry and divisions, functions of word and meaning, theory of *rasa* and *alaṅkāra* (figures of speech) and *chandas* (metre), etc. This develops capacity for creative writing and literary appreciation.

Paper 3 - SKT- HC-3036

Indian Social Institutions and Polity

Unit I Indian Social Institutions : Nature and Concepts

Unit II Structure of Society and Value of Life

Unit III Indian Polity : Origin and Development

Unit IV Cardinal Theories and Thinkers of Indian Polity

Course Outcome: Social institutions and Indian Polity have been highlighted in *Dharma-śāstra* literature. The aim of this course is to make the students acquainted with various aspects of social institutions and Indian polity as propounded in the ancient Sanskrit texts such as

Samhitās, *Mahābhārata*, *Purāṇa*, Kautīlya's *Arthaśāstra* and other works known as

Nītiśāstra.

Semester IV

Paper 1 - SKT- HC-4016

Indian Epigraphy, Paleography and Chronology

Unit I Epigraphy 20

Unit II Paleography 10

Unit III Study of selected inscriptions 35

Unit IV Chronology 15

Course Outcome: This course aims to acquaint the students with the epigraphical journey in Sanskrit, the only source which directly reflects the society, politics, geography and economy of the time. The course also seeks to help students to know the different styles of Sanskrit writing.

Paper 2 - SKT- HC-4026

Modern Sanskrit Literature

Unit I Mahākāvya and Charitakāvya

Unit II GadyaKāvya and Rūpaka

Unit III GītiKāvya and Other genres

Unit IV General Survey of Modern Sanskrit

Literature

Course Outcome: The purpose of this course is to expose students to the rich & profound tradition of modern creative writing in Sanskrit, enriched by new genres of writing.

Paper 3 - SKT- HC-4036

Sanskrit and World Literature

Unit I Survey of Sanskrit Literature in the World

Unit II Upaniṣads and Gītā in World Literature

Unit III Sanskrit Fables in World Literature

Unit IV Rāmāyaṇa and Mahābhārata in South East Asian Countries

Unit V Kālidāsa's Literature in World Literature

Unit VI Sanskrit Studies across the World

Course Outcome: This course is aimed to provide information to students about the spread & influence of Sanskrit literature and culture through the ages in various parts of the world in medieval & modern times.

Semester V

Paper 1 - SKT- HC-5016

Vedic Literature

Unit I *Samhitā and Brāhmaṇa*

Unit II Vedic Grammar

Unit III Muṇḍakopaniṣad

Course Outcome: This course on Vedic literature aims to introduce various types of vedic texts. Students will also be able to read one Upaniṣad, namely, Muṇḍaka, where primary Vedānta-view is propounded.

Paper 2 - SKT- HC-5026

Sanskrit Grammar

Unit I General Introduction to Vyakarana,

Sivasutra, Paribhasa

Sandhi

Unit II Natvavidhi & ṣatvavidhi,

Unit III Declension Conjugation

and roots

Unit IV Karaka prakaranam, Samasa

Prakaranam

Course Outcome:

➤To acquaint the students with general Sanskrit Grammar

Semester VI

Paper 1 - SKT- HC-6016

Ontology and Epistemology

Unit I Essentials of Indian Philosophy

Unit II Ontology (Based on Tarkasaṅgraha)

Unit III Epistemology (Based on Tarkasaṅgraha)

Course Outcome: This course aims to get the students acquainted with the cardinal principles of the Nyāya-Vaiśeṣika philosophy through the Tarkasaṅgraha and to enable students to handle philosophical texts in Sanskrit. It also intends to give them an understanding of essential aspects of Indian Philosophy.

Paper 2- SKT- HC-6026

Sanskrit Composition and Communication

Unit I Vibhaktiyartha, Voice and Kṛt

Unit II Translation and Communication

Unit III Essay

Course Outcome: This paper aims at teaching composition and other related informations based on Laghusiddhāntakāumud Vibhaktiyartha Prakaraṇa.

Discipline Specific Elective (DSE)

B.A. (Hons) Sanskrit (Any four)

Semester- V (Any two)

SKT-HE-5016 SKT-HE-5026

Art of Balanced Living

Theatre & Dramaturgy

SKT-HE-5036

Sanskrit Linguistics

SKT-HE- 5046

Project / Dissertation

Semester- VI (Any two)

SKT-HE-6016 SKT-HE-6026

Fundamentals of Ayurveda

Environmental Awareness in Sanskrit

SKT-HE-6036

Kāmarūpa School of Dharmaśāstras

42

Semester V

SKT-HE-5016

Art of Balanced Living

Unit I Self-presentation

Unit II Concentration

Unit III Refinement of Behaviour

Course Outcome: This course aims to get the students acquainted with theories of art of living inherent in Sanskrit literature and apply them to live a better life. It also intends to make students work on human resource management for giving better results.

SKT-HE-5026

Theatre and Dramaturgy

Unit I Theatre: Types and Constructions

Unit II Drama : *vastu* (subject-matter), *netā* (Hero)

and *rasa*

Unit III Tradition and History of Indian Theatre

Course Outcome: Being audio-visual, drama is considered to be the best amongst all forms of arts.. The history of theatre in India is very old, the glimpses of which can be traced in the hymns (*saṁvādasūkta*) of the *Ṛgveda*. The dramaturgy was later developed by the Bharatamuni. The objectives of this curriculum are to identify the beauty of drama and to introduce classical aspects of development of Indian theatre among the students.

SKT-HE-5036

Sanskrit Linguistic

Unit I Bhasasastra

Unit II Indo-European Language Family

Unit III History and Prehistory of Sanskrit

Unit IV Phonetic Changes

Course Outcome: This course aims to get the students acquainted with comparative Philology and

its relation with Sanskrit language.

It will also make the students acquire knowledge about the historical development of Sanskrit from Indo-European family of languages.

SKT-HE-6016

Fundamentals of Ayurveda

Unit I Introduction of Āyurveda

Unit II Carakasamhitā – (Sūtra-sthānam)

Unit III Bhaisajyaratnavali

Course Outcome: Ayurveda is a traditional Indian system of healthcare that has been traced back as early as 5,000 BCE. Through the classroom lectures and discussions, this course will introduce students to the theory of Ayurveda. The theory modules sessions that make up this course offer an introduction to Ayurveda that is well rounded, comprehensive and useful for students in their own day-to-day living. The major objective is to understand the basic principles and concepts of preventative medicine and health maintenance, diet and nutrition, usage of commonly used spices and herbs and outline of Ayurvedic therapeutic procedures in Ayurveda.

SKT-HE-6026

Environmental Awareness in Sanskrit literature
Environmental Issues and Importance of Sanskrit

Unit I Literature

Unit II Environment Awareness in Vedic Literature
Unit III Environment Awareness in Classical Sanskrit
Literature

Course Outcome: The National Culture of every country depends on its environment, climatic conditions and human behavior with natural resources. Sanskrit is the vehicle of civilization and culture of India. Nature oriented eco- friendly thoughts of Sanskrit Literature have been serving the human race from the time immemorial. Religion was probably used in ancient India as a tool to protect nature and natural resources. Therefore, the Sanskrit literature is of great utility to us and to the world environment at large. The aim of this course is to make the students acquainted with the basic concept of Indian Science of Environment and salient features of environmental awareness as reflected in Vedic and Classical Sanskrit literature.

SKT-HE-6036

Kamarupa School of Dharmasastra

Unit I Introduction to Dharmasastras in Assam

Unit II Kamarupa School of Dharmasastra

Unit III Tirthakaumudi of Pitambarasiddhantavagisha

Generic Elective (GE)

(Any Four)

B.A. (Hons) Sanskrit

Semester: III/IV

SKT-HG-1016 SKT-HG-2016

Basic Sanskrit Indian Culture and Social Issues

SKT-HG-3016 SKT-HG-4016

Basic Principles of Indian Medicine Fundamentals of Indian Philosophy

System (Ayurveda)

SKT-HG-1016

Basic Sanskrit

Unit I Grammar and composition Part I

Unit II Grammar and composition Part II

Unit III Literature

Course Outcome: This is an elementary course in Sanskrit language designed for students who wish to learn Sanskrit from the very beginning. Essential Sanskrit grammar will be introduced (without reference to Panini's sutras) through the multiple example method with emphasis on students constructing themselves sentences.

SKT-HG-2016

Indian Culture and Social Issues

Unit I Culture in a multi-cultural society

Unit II Cultural roots of India

Course Outcome: This paper is designed to introduce nuances of Indian culture to students and to show how cultural traditions have evolved. The paper also engages them in debates about certain significant socio-cultural issues.

SKT-HG-3016

Basic Principles of Indian Medicine System (Ayurveda)

Unit I Introduction to Indian Medicine System: 20

Unit II Basic Principles of Ayurveda

Unit III Dietetics, Nutrition and Treatment in Ayurveda

Unit IV Important Medicinal Plants and their based on Ayurveda

Course Outcome: Ayurveda is a traditional Indian system of healthcare that has been traced back to as early as 5,000 BCE. This course will introduce students to the theory of yurveda. The major objective is to understand the basic principles and concepts of preventive medicine and health care, diet and nutrition, usage of commonly used spices and herbs and an outline of yurvedic therapeutic procedures in yurveda.

SKT-HG-4016

Fundamentals of Indian Philosophy

Unit I General Introduction

Unit II Schools of Indian Philosophy

Unit III Problems in Indian Philosophy

Course Outcome: This course aims to get the students acquainted with the basic approach to study Indian philosophy. It also intends to give an elementary understanding of Indian Philosophy and to enable students to handle philosophical texts in Sanskrit easily.

Skill Enhancement Course (SEC)

(Any Two)

Skill Based

B.A. (Hons) Sanskrit

SKT-SE-3014 SKT-SE-4014

Acting & Script Writing

Sanskrit Meters and Music

SKT-SE-3014

Acting and Script Writing

Unit I Acting (Abhinaya)

Unit II Script Writing (Paṭakathālekhana)

Course Outcome: The acting is connected with the practical aspect of the play and depends on actor while script writing is closely related with society and this paper aims at teaching the theoretical aspect of this art. The training of composition and presentation of drama

can further enhance one's natural talent. This paper deals with the rules of presentation of play (acting) and dramatic composition (script writing) and aims at sharpening the dramatic talent of the students

Semester IV

SKT-SE-4014

Sanskrit Metre and Music

Unit I Brief Introduction to Cchandaḥśāstra

Unit II Classification and Elements of Sanskrit Metre

Unit III Analysis of Selected Vedic Metres and their

musical rendering

Unit IV Analysis of Selected Classical Meters and their

musical rendering

Course Outcome: The objectives of this course to learn Sanskrit meter for analysis and lyrical techniques. Students will get the complete information regarding selected Vedic and Classical meters with lyrical techniques.

DEPARTMENT OF POLITICAL SCIENCE

PROGRAMME OUTCOME

After going through this programme, students will be able to make an understanding of government institutions, electoral processes, policies in a variety of countries around the world, philosophical underpinnings of modern politics and government, legal principles by which political disputes are often settled, patterns of political behavior, social and political issues on the basis of comparative and historical knowledge, key theories and concepts, historical developments, organizations, and modern issues.

Students will be enriched with curricular as well as relevant topics of politics which will make them a vibrant citizen of India on one hand and to make a congenial milieu to develop unity and integrity on the other hand.

The Programme is also intended to help students in their preparation for competitive exams.

Equip students inclined to do research with the procedure and discipline of a research activity.

COURSE SPECIFIC OUTCOMES:

POL HC 1016: UNDERSTANDING POLITICAL THEORY

This course will introduce the students to the idea of political theory, its history and approaches, and an assessment of its critical and contemporary trends. It is also designed to reconcile political theory and practice through reflections on the ideas and practices related to democracy.

POL HC 1026: CONSTITUTIONAL GOVERNMENT AND DEMOCRACY IN INDIA

This course will acquaint the students with the constitutional design of state structures and institutions, and their actual working overtime. The Indian Constitution accommodates conflicting impulses (of liberty and justice, territorial decentralization and a strong union, for instance) within itself. The course will trace the embodiment of some of these conflicts in constitutional provisions, and will show how these have played out in political practice. It will further encourage a study of state institutions in their mutual interaction, and in interaction with the larger extra-constitutional environment.

POL HC 2016: POLITICAL THEORY - CONCEPTS AND DEBATES

This course will help the students familiarize with the basic normative concepts of political theory and appreciate how they can be helpful to analyze crucial political issues. This exercise is designed to encourage critical and reflective analysis and interpretation of social practices

through the relevant conceptual toolkit. It will also introduce the students to the important debates in the subject. These debates prompt us to consider that there is no settled way of understanding concepts and that in the light of new insights and challenges, besides newer ways of perceiving and interpreting the world around us, we inaugurate new modes of political debates.

POL HC 2026: POLITICAL PROCESS IN INDIA

This course will map the working of ‘modern’ institutions, premised on the existence of an individuated society, in a context marked by communitarian solidarities, and their mutual transformation thereby. It will make the students understand the major debates in Indian politics along the axes of caste, gender, region and religion. It will also familiarize the students with the changing nature of the Indian state, paying attention to the contradictory dynamics of modern state power.

POL HC 3016: INTRODUCTION TO COMPARATIVE GOVERNMENT AND POLITICS

This is a foundational course in comparative politics. The purpose is to familiarize students with the basic concepts and approaches to the study of comparative politics. More specifically the course will make students classify the different political systems and historical context of modern governments. It will also enable the students to have a comparative analysis of countries related to their political institutions and behavior.

POL HC 3026: PERSPECTIVES ON PUBLIC ADMINISTRATION

The course provides an introduction to the discipline of public administration. This course will enable students to learn the basic concepts related to public administration, its importance as well as various classical and contemporary administrative theories of public administration. Through this course, students will be able to have an understanding of public policy and its formulation. The course will also attempt to provide the students a comprehensive understanding on contemporary administrative developments.

POL HC 3036: PERSPECTIVES ON INTERNATIONAL RELATIONS AND WORLD HISTORY

This paper seeks to equip students with the basic intellectual tools for understanding International Relations. It introduces students to some of the most important theoretical approaches for studying international relations. The course familiarizes the students with the evolution of the international state system and its importance. After having set the parameters of the debate, students are introduced to different theories in International Relations. It provides a fairly comprehensive overview of the major political developments and events starting from the

twentieth century. Students are expected to learn about the key milestones in world history and equip them with the tools to understand and analyze the same from different perspectives. A key objective of the course is to make students aware of the implicit Euro - centricism of International Relations by highlighting certain specific perspectives from the Global South.

ABILITY ENHANCEMENT- (SKILL BASED)

POL SE 3014: PARLIAMENTARY PROCEDURES AND PRACTICES

The course will help the students in understanding the practical approaches to legislative practices and procedures. It will make students understand the procedures and processes related to drafting a Bill and the passage of the Bill. It will enable students to have an understanding of the importance of Parliamentary Committees. It will make students learn about the basic functioning of Parliament.

POL HC 4016: POLITICAL PROCESSES AND INSTITUTIONS IN COMPARATIVE PERSPECTIVE

In this course students will be trained in the application of comparative methods to the study of politics. The course is comparative in both what we study and how we study. In the process the course will make the students understand, comprehend and analyze the complex nature and functioning of the political systems, political institutions and corresponding issues to these both in a country specific case of India and cross-country perspectives. It will demonstrate critical thinking about key issues of the political system of different forms, political process and public policy.

POL HC 4026: PUBLIC POLICY AND ADMINISTRATION IN INDIA

The course seeks to provide an introduction to the interface between public policy and administration in India. The course will help the students to familiarize with and gain knowledge about the processes of public policy making in India and their significance in administering the state. It will also develop the ability to assess the functioning of the government and the administration in ensuring a citizen centric welfare administration in India.

POL HC 4036: GLOBAL POLITICS

This course will enable the students to understand how to approach a wide range of important global political and economic policy problems and participate in public policy debates on the crucial issues facing the world today. It will enhance knowledge of the essential theoretical assumptions underlying globalization's conceptual frameworks and their relationships to policy

interventions. It will provide elementary knowledge of major issues and subject-matters surrounding globalization that decides the international relations- *political, economic and security relations*- among the nations.

ABILITY ENHANCEMENT- (SKILL BASED)

POL SE 4014: PANCHAYATI RAJ IN PRACTICE

This course will acquaint the students with the Panchayati Raj Institutions, their actual working and their importance in empowering people. It will further encourage a study of PRIs in their mutual interaction and their interaction with the people. This paper will help to identify the complex challenges faced by PRIs in India and mechanisms involved to make it more participatory and inclusive in nature.

POL HC 5016: CLASSICAL POLITICAL PHILOSOPHY

This course goes back to Greek antiquity and familiarizes students with the manner in which the political questions were first posed. It will help to interpret ideas underlying traditions in classical political philosophy. Students will be able to analyze the debates and arguments of leading political philosophers belonging to different traditions of the period. Moreover, the course will also enable the students to appraise the relevance of classical political philosophy in understanding contemporary politics.

POL HC 5026: INDIAN POLITICAL THOUGHT-I

This course introduces the specific elements of Indian Political Thought spanning over two millennia. The course as a whole is meant to provide a sense of the broad streams of Indian thought while encouraging a specific knowledge of individual thinkers and texts. Thus it is expected that the course will acquaint the students with themes and issues in political traditions of pre-colonial India. It will also enable the students to compare and contrast positions of different political traditions that were present in pre-colonial India. They will also be able to evaluate the relevance of political thought of pre-colonial India for contemporary politics.

DISCIPLINE SPECIFIC ELECTIVE

POL HE 5016: HUMAN RIGHTS

This course will help the students to describe the basic concepts of human rights. It will also help to comprehend different approaches regarding human rights. The course will familiarize the role

of UNO in the growth and development of human rights. The learners will be able to describe different measures taken for the protection of human rights.

POL HE 5046: SELECT CONSTITUTIONS - I

Through this course students will be able to understand the importance of constitutions. The course introduces the constitutional and political systems of two countries. Students will have a stronger and more informed perspective on approaches to studying the constitutional and political systems of these countries in a comparative manner. This paper is an integral part of public services examinations.

POL HC 6016: MODERN POLITICAL PHILOSOPHY

Philosophy and politics are closely intertwined. We explore this convergence by identifying four main tendencies here. Students will be exposed to the manner in which the questions of politics have been posed in terms that have implications for larger questions of thought and existence. It will enable the learners to interpret ideas underlying traditions in modern political philosophy and to analyze the debates and arguments of leading political philosophers of different philosophical traditions. Students will be able to appraise the relevance of modern political philosophy in understanding contemporary politics.

POL HC 6026: INDIAN POLITICAL THOUGHT-II

Based on the study of individual thinkers, the course introduces a wide span of thinkers and themes that defines the modernity of Indian political thought. The course will enable the students to study general themes that have been produced by thinkers of modern India from varied social and temporal contexts. The students will be able to compare and contrast positions of leading political thinkers in India on issues that are constitutive of modern India. They are also expected to assess the relevance of political thought of modern India in understanding contemporary politics.

DISCIPLINE SPECIFIC ELECTIVE

POL HE 6016: HUMAN RIGHTS IN INDIA

After going through this course, students will be able to describe the origin and development of human rights in India. They will also be able to comprehend different measures adopted by India for the protection and development of human rights. They will also be familiarized with the emerging issues related to human rights.

POL HE 6046: SELECT CONSTITUTIONS– II

The course introduces the constitutional and political systems of two countries. Through this course, students will be able to understand the importance of constitutions. It will help the students in the preparation of civil service examinations as the paper is an integral part of public services examination. Moreover, students will be introduced to the various types of constitutions and the forms of governments from different parts of the world.

DEPARTMENT OF PHILOSOPHY

PROGRAMME OUTCOME AND COURSE OUTCOME(POCO) POCO OF DEPARTMENT OF PHILOSOPHY

PROGRAMME OUTCOME (PO):-

The Department of Philosophy tries to provide its students a wide variety of interesting courses that address moral issues to attain social good and moral values. Philosophy being the most practical course of study, the department tries to impart skills that will be useful not only in any career but also in personal life. The study of Philosophy will enable one to think carefully, critically and with clarity, take a logical approach to address challenging questions and examine hard issues, reason well and evaluate the reasoning of others and discuss sensibly.

Course Description:

The course is designed to introduce the key concepts of Philosophical Awareness (PA) and Philosophical Practice (PC) amongst students with a view to developing the skill of applying philosophical approach in practical contexts. Some of the courses are divided into two parts: (a) Theory, consisting of introduction to PA and various approaches to PA and (b) Practical, consisting of application of the skill to discover problems through practical sessions and writing a dissertation on the investigated problem. Moreover the programme is also designed to assess the students through Internal Assessments (IA) and Home Assignments (HA) in due course of time.

Course Objectives:

The course aims at developing the skills of:

- Philosophical understanding or wisdom (*philos-sophia*=love of wisdom) as an end in itself.
- Addressing dilemmas (e.g. decision making dilemmas), predicaments and life-issues of persons through philosophical examination.
- Exposing and examining underlying assumptions and logical implications.
- Exploring conflict and inconsistencies.

Course Outcomes:-

On completion of the course students are expected to be able to:

- Understand the scope of Philosophical vis-à-vis Psychological Development of the Students.
- Inculcate self-confidence in one's own abilities to reason.
- Understand the opinions of other people.

- Develop flexibility in considering alternatives and opinions.
- Overcome personal problems by adopting different philosophical approaches to philosophical counseling.
- Develop fair-mindedness in appraising reasoning.

Project/Dissertation:-

Practical is conducted in the form of project/dissertation which is to be typed or neatly handwritten (3,000- 5,000 words). The project/dissertation will be based on practical session(s) which is to be conducted by the student (counsellor) with counsel/clients.

Given below is a list of *Problems* out of which any *one* may be chosen for addressing in the project/dissertation. The same has to be carried out under the supervision of a teacher.

Moral issues ,Value disagreements ,Political issues and disagreements ,Time management issues ,Procrastination ,Career issues ,Financial issues ,Adult children of aging parents Problems with family/Domestic problems ,Breakups and divorce ,Sibling rivalry ,Loss of a family member ,Friendship issues ,Peer pressure ,Academic or school-related issues Rejection ,Discrimination ,Religion and race-related issues ,Technology-related issues.

SYLLABUS FOR TDC (Honours)

Semester I

PHI-HC-1016

Indian Philosophy I

Unit I

Development of Indian Philosophy: the Vedas, the Upaniṣads, Bhagavadgītā

Meaning and scope of Indian Philosophy

Schools of Indian Philosophy; the Common Characteristics of Indian Systems

Unit II

Carvaka Materialism: Epistemology (Denial of Inference and Testimony); Metaphysics Four elements; denial of soul; denial of God; Ethics

Jainism: Anekāntavāda; Syadvada; Saptabhaṅgi Naya

Jainism: Navatattva

Unit III

Buddhism: Four Noble Truths; Suffering; Cause of Suffering and Chain of Twelve Links; Cessation of Suffering and *Nirvana*; Way of Cessation of Suffering and *Astangika Marga*

Buddhism: Theory of Dependent Origination

Buddhism: Theory of Impermanence; Theory of No-soul

Unit IV

Abhidharma Schools: Vaibhāṣika (bāhya-pratyakṣa-vāda); Sautrānika (bahyānumeya-vāda)

Madhyamaka: Sunyavāda

Yogacāra: Vijñānavāda

CO₁:- The origin and development of Indian Philosophy lead us to the Vedic civilization. The Vedic period is the earliest period of Indian history for which we have direct textual evidence. The Vedic period is defined by Vedic literature as consisting of the Brahmanas, Aranyakas, Samhitas and Upanisads. After reading these topics a student can learn about the three Heterodox or *Nastika* schools of Indian Philosophy, i.e.- Carvaka Materialism, Jainism, Buddhism

Semester I

PHI-HC-1026

Logic –I

Unit I:

Argument and Argument Form

Truth and Validity

Deduction and Induction

Unit II:

Categorical Propositions; Translating Ordinary Proposition into Standard Form;

Square of Opposition.

Categorical Syllogism; Figures and Moods

Immediate Inference

Unit III:

Venn Diagrammatic Representation of Propositions and Arguments

Idea of Existential Import

Testing Validity by Venn Diagram

Unit IV:

Concept of Set

Operations of Set- Union, Intersection and Difference

Symbolization of Sentences by Set Notations.

CO₂:- Man is a rational animal. The 'rationality' distinguishes man from other kinds of animals. Man's power of thinking emerges from rationality. Logic formulates certain principles of correct thinking. Logic is the science of thought as expressed in language. Logic is also defined as a science of reasoning. So after reading these topics one can learn how to think correctly through Argument, and Ideas related to argument and propositions.

Semester II

PHI-HC-2016

Greek Philosophy

Unit I:

Thales, Anaximander, Anaximenes

Pythagoras

Heraclitus, Democritus and Parmenides

Unit II:

Protagoras

Socrates' method

Socrates' virtue

Unit III: Plato

Knowledge and Opinion

Theory of Forms

Justice

Unit IV: Aristotle

Form and Matter

Causation

Actuality and Potentiality.

CO₃:- Greek philosopher Thales (624BC- 548BC) was regarded as the father of Western Philosophy. Plato (427BC –347BC), has had an immeasurable influence upon Western civilization. A. N. Whitehead once famously said that “the whole of Western philosophy is nothing but a series of footnotes on Plato.” He has made a profound contribution to both the arts and sciences, including psychology. By reading these topics students can learn about the basic History of Western Philosophy.

Semester II

PHI-HC-2026

Logic II

Unit I:

Symbolic Logic and its Characteristics, Uses of Symbols

Relation between Traditional Logic and Symbolic Logic

Modern Classification of Propositions

Unit II:

Logical Connectives and Variables

Symbolization of Sentences

Symbolization of Arguments

Unit III:

Truth Tables for Logical Connectives

Direct Truth-Table for testing validity of arguments

Indirect Truth-Table for testing validity of arguments

Unit IV:

Formal Proof of Validity

Rules of Inference

Rules of Replacement .

CO4:- Symbolic Logic is the modern development of classical deductive logic formulated by Aristotle, the Greek Philosopher and Logician, about two thousand years ago. It has emerged as a result of the use of the large number of symbols in accordance with modern mathematical methods and principles. Symbolic logic has a strong connection with mathematics and that is why it is called mathematical logic. By reading these topics one can learn what symbolic logic is and how it is related to mathematical logic.

Semester II

PHI-HG-2016

Indian Philosophy

Unit I

Development of Indian Philosophy, Meaning and scope of Indian Philosophy

Schools of Indian Philosophy

Common Characteristic of Indian Systems

Unit II

Buddhism: Four Noble Truths

Buddhism: Theory of Impermanence; No-soul theory

Jainism: Syādvāda, Anekāntavāda

Unit III

Sāṃkhya: Puruṣa; Prakṛti

Sāṃkhya: Evolution

Nyāya: Pramānas

Unit IV

Śaṅkara: Brahman

Śaṅkara: Avidyā & Adhyāsa

Rāmānuja: Brahman; Jiva and Prakṛti

CO₅:- By reading these topics students can learn about Indian Philosophy and Development of Indian Philosophy, Meaning and scope of Indian Philosophy, Schools of Indian Philosophy, and Common Characteristics of Indian Systems. One can see here the mix of Orthodox as well as Heterodox schools of Indian Philosophy.

Semester III

PHI-HC-3016

Western Philosophy (Descartes to Hegel)

Unit I: Rationalism

Descartes: Cartesian Method, mind-body dualism

Spinoza: God and Substance

Leibnitz: Theory of monads, pre-established harmony

Unit II: Empiricism

Locke: critique of innate ideas, substance and qualities

Berkeley: *esse est percipi*

Hume: Impression and ideas, concept of self

Unit III: Kant

Possibility of synthetic a priori judgement

Space and time

Categories

Unit IV: Hegel

Dialectic Method

Absolute Idealism

Master-slaves dialectic.

CO₆:- By reading these topics students can learn about Modern Western Philosophy. Descartes was regarded as the father of Modern Western Philosophy. Students can know about some basic concepts of modern western philosophy like- mind-body dualism, God and Substance pre-established harmony substance and qualities, Impression and ideas, concept of self Absolute Idealism etc. All these concepts are related to rationalistic approach towards understanding various categories of our life.

Semester III

PHI-HC-3026

Indian Philosophy II

Unit I

Sāṃkhya: Puruṣa; Prakṛti; Causation

Yoga: Cittavṛtti and its Nirodha; Aṣṭāṅgika Mārga

Unit II

Nyāya: Pramānas

Vaiśeṣika: Padārthas; Atomistic theory of Creation

Unit III

Mīmāṃsā: Pramānas

Mīmāṃsā: Pramānyavāda; Khyātivāda

Unit IV

Śāṅkara: Brahman; Atman; Adhyāsa and Avidyā

Rāmanuja; Brahman; Jiva and Jagat; Apr̥thaksiddhi

Sankardeva's concept of God and Bhakti.

CO7:- By reading the above topics student can understand only the Orthodox schools of Indian Philosophy like- Sāṃkhya, Yoga, Nyāya, Vaiśeṣika, Mimāṃsa, and Advaita Vedanta as well as one of the great Vaishnava Dharma Guru and Guide Philosopher Srimanta Sankardeva.

Semester III

PHI-HC-3036

Ethics

Unit I

Nature, Scope and Utility of study of Ethics

Object of Moral Judgement, Moral Obligation

Postulates of Morality

Unit II

Virtue Ethics: Aristotle

Deontological Ethics: Kant

Utilitarianism: Bentham, Mill

Unit III

Theories of Punishment

Professional Ethics

Environmental Ethics

Unit IV

Law of Karma, Varṇa and Āsrama Dharma, Puruṣārtha

Buddhist Pañcaśīla; Brahmavihāra

Jaina Triratna, Aṇuvrata and Mahāvratā

CO₈:- Ethics or moral philosophy is a branch of philosophy that "involves systematizing, defending, and recommending concepts of right and wrong behavior. Ethics seeks to resolve questions of human morality by defining concepts such as good and evil, right and wrong, virtue and vice, justice and crime. As a field of intellectual inquiry, moral philosophy is related to the fields of moral psychology, descriptive ethics, and value theory. By reading ethics one can have a justified life. One can understand what is right or wrong. Here we can see Western as well as Indian ethics and its impact on students.

Semester IV

PHI-HC-4016 Contemporary Indian Philosophy

Unit I:

Aurobindo Evolution Super mind Synthesis of yoga

Unit II:

Radhakrishnan Religious experience Intellect and intuition Man and his destiny

Unit III:

Gandhi Religion, Truth, Non-violence Satyagraha, Sarvodaya, Swadeshi Critique of industrialisation, trusteeship

Unit IV:

Vivekananda Universal religion Practical Vedanta Philosophy of education.

CO₉:- By reading these topics student can learn about Contemporary Indian Philosopher like- Sri Aurobindo, Sarvepalli Radhakrishnan, Mahatma Gandhi, and Swami Vivekananda and their concepts like- Super mind Synthesis of yoga, Man and his destiny Religion, Truth, Non-violence Satyagraha, Sarvodaya, Swadeshi, Critique of industrialisation, Trusteeship Universal Religion, Practical Vedanta and Philosophy of Education.

Semester IV

PHI-HC-4026 Philosophy of Religion

Unit I

Nature of Philosophy of religion and its distinction from theology Religious experience Religion and Science

Unit II:

Ontological argument Cosmological argument; Teleological argument Moral argument

Unit III

Reason, Faith and Revelation Freedom of Will Immortality of the soul

Unit IV

Religious language and symbolism Anti religious theories- Materialism and logical positivism
Religious Philosophy of Sankaradeva.

CO₁₀ :- Philosophy of Religion is the philosophical understanding of religion from its various perspectives. Religion probably is the most sensitive phenomenon human civilization or culture has ever encountered. Other such phenomena may include language, literature, arts, science etc. Religion comprises a very important aspect of human life. Religion is a system of lived experiences. It is an art of living, through right action, how to live our daily life in harmony, within ourselves and with other persons. By reading the above topics one can understand what religion is? and how it works as a guiding force to mold the society, because religion is regarded as the central force of the society. We cannot deny the existence of religion. Of course it has been modifying in the course of time but still it is there in the society. Regarding this Swami Vivekananda said, "Of all the forces that have worked and are still working to mold the destiny of the human race, none certainly is more potent than that, the manifestation of which we call Religion."

Semester IV

PHI-HC-4036

Political & Social Philosophy

Unit I

Rights and Duties

Justice

Equality & Liberty

Unit II

Anarchism

Socialism Marxism

Unit III

Monarchy Theocracy Democracy

Unit IV

Humanism

Secularism

Multiculturalism.

CO₁₁:- Political and Social Philosophy is one of the interesting subject matter of philosophy which deals with the fundamental concepts of man and society. It also deals with social concepts of human beings like- Rights and Duties, Justice, Equality & Liberty Anarchism, Socialism, Marxism, Monarchy, Theocracy, Democracy, Humanism, Secularism, Multiculturalism. Though all of the above concepts are important topics to be discussed but amongst them humanism should be categorized as the driving force to deal with all of those concepts because, Humanism is a progressive philosophy of life that, without superstition, affirms our ability and responsibility to lead ethical lives of personal fulfillment that aspire to the greater good of humanity. Humanists strive for a world where violence and fear are not the drivers of ideals and actions. In every case and in all its forms, extremism must be condemned.

Semester IV

PHI-HG-4016

Logic

UNIT I: Fundamental Concepts of logic Propositions and Arguments Truth and Validity
Deduction and Induction

UNIT II: Aristotelian Syllogistic Logic Categorical Propositions, Translating Ordinary
Proposition into Standard Form Square of Opposition Categorical Syllogism, Figures and Moods
Immediate Inference

UNIT III: Symbolic Logic: Introduction Symbolic Logic and its Characteristics, Uses of
Symbols Relation between Traditional Logic and Symbolic Logic Modern Classification of
Propositions

UNIT IV: Propositional Logic Logical Connectives: *and, or, not*; Material Conditional, Bi-conditional Symbolization of everyday language Truth-Table method of testing validity of argument, Shorter Truth Table.

CO₁₂:- By reading this syllabus students can learn about the fundamental concepts of logic, Aristotelian Syllogistic Logic, Symbolic Logic and Propositional Logic. It basically deals with Propositions and Arguments, Truth and Validity, Deduction and Induction, Categorical Propositions, Translating Ordinary Proposition into Standard Form, Square of Opposition, Categorical Syllogism, Figures and Moods, Immediate Inference, Symbolic Logic and its Characteristics, Uses of Symbols Relation between Traditional Logic and Symbolic Logic, Modern Classification of Propositions, Logical Connectives: *and, or, not*; Material Conditional, Bi-conditional Symbolization of everyday language, Truth-Table method of testing validity of argument, Shorter Truth Table.

Semester V

PHI-HC-5016

Analytic Philosophy

Unit I: Moore: The Analytic Turn of Philosophy Moore: Refutation of Idealism Moore: Defense of Common Sense

Unit II: Russell: Logical Atomism Russell: General Propositions and Existence Russell: Theory of Description

Unit III:

Wittgenstein: The World as a Totality of Facts Wittgenstein: Picture Theory of Meaning Vienna Circle: Verification Theory and Rejection of Metaphysics

Unit IV: Wittgenstein: Meaning and Use Wittgenstein: Language Game Wittgenstein: Critique of Private Language.

CO₁₃:- Analytic philosophy is characterized by an emphasis on language, known as the linguistic turn, and for its clarity and rigor in arguments, making use of formal logic and mathematics, and, to a lesser degree, the natural science. It also takes things piecemeal, in "an attempt to focus philosophical reflection on smaller problems that lead to answers to bigger questions. By reading this philosophy students can analyze each and every concept in a systematic way related to the categories of understanding with the help of language. Analytic philosophy is also known as Linguistic Philosophy.

Semester V

PHI-HC-5026

Phenomenology and Existentialism

Unit I:

Kierkegaard The three stages of human existence Subjectivity and Truth

Unit II:

Sartre Existence and Essence Freedom and Choice

Unit III:

Heidegger Authentic existence Being-in-the-world and Temporality

Unit IV:

Husserl Theory of essence Intentionality and Bracketing

CO₁₄:- Existentialism is a philosophical trend which gives more emphasis on the individual and its existence. According to existentialism, (a) Existence is always particular and individual. It refers always to my existence, your existence, his existence, her existence. (b) Existentialism is primarily the problem of existence. It is therefore also the investigation of the meaning of *Being*. The basic themes of existentialism are as follows- (i) Existentialism gives more importance on the Individual's Freedom and Choice. (ii) It deals with the meaning and absurdity of human beings. (iii) It gives emphasis on the authenticity and inauthenticity of life. (iv) It also gives more emphasis on personal relations. By reading existentialism students can understand the value of each individual in the society and their responsibility towards society.

Semester V

PHI-HE-5016 Philosophy of Upaniṣads

Unit I

Relation to Vedas

General Social Conditions

Outlines of Upaniṣadic Philosophy

Unit II

Diversity of Theories in Creation

Acosmic Theory of Creation

Cosmic Theory of Creation

Unit III

Brahman, the Absolute

Brahman, the World-Ground

Brahman as Cosmic and Acosmic Ideal

Unit IV Individual Destiny:

Individual Soul

Karma and Samsāra

Liberation.

CO₁₅:- The Vedas are the oldest scriptures of the world. The Vedas are divided into four divisions (i) Rg Veda, (ii) Yujuh Veda, (iii) Atharva Veda and (iv) Sama Veda. The Vedic period is defined by Vedic literature as consisting of the Brahmanas, Aranyakas, Samhitas and Upanisads. Vedic Religion comes to us only through words. There is no visual and iconographic data about this religion. The Religion spanning through 1000 years definitely was not static. The Upanisads are the cream and concluding portion of the Vedas. The Upanishadic texts proclaim that the *Brahman* is the one and only Godhead. In one Upanishad it is called Vishnu; in another it is called Śiva. All the deities mentioned in the Vedas—Mitra, Varuna, Agni, Indra and so on—are different names of the same Truth. So it is said in the Vedas: “*Ekam sath viprā bahudhā vadanti.*” (It is the one truth, which *jnānins* call by different names.)[i] In Upanisads, it emerges that for all the divisions in our religion there is but one scripture—a scripture common to all—and one Godhead which is known by many names. The Vedas are the common scripture and the Godhead common to all is the *Brahman*. By reading these concepts students can learn about the Vedas and its relation to the Upanisads.

Semester V

PHI-HE-5026 Philosophy of Gita

Unit I:

Law of Karma

Concept of Karma, Akarma, Vikarma

Freedom and Choice

Unit II:

Kṣetra-Kṣetrajña, puruṣa-prakṛti

Uttama Puruṣa and Ultimate Reality

Relation of individual self and Ultimate Reality

Unit III:

Conception of Yoga

Karma Yoga, Jñāna Yoga, Bhakti Yoga

Reconciliation of the Yogas

Unit IV:

Svabhāva, Svakarma, Svadharma

Niṣkamakarmayoga; Lokasaṃgraha

Liberation.

CO₁₆:- The Gita teaches about Niskama Karma. The religion of the Gita exposed one of those instances which tried to answer those questions regarding the fundamental problems of life by engaging human beings in some sort of activity. Men feel frustration, suffering due to his own activity, so he has to overcome all those suffering in and through his actions only. The Gita gives emphasis on performing one's actions according to one's own destined identity (svadharma). According to the Gita this is how the ultimate reality could be attained. And the religion of the Gita advocates that the realization of the ultimate reality is the end of suffering. And in search of that ultimate reality man is trying to find out if there is something laying behind these human concerns- a transcendent reality; but it does not mean that it should be god. By emphasizing the law of Nature, Gita advocates that one should perform one's action accordingly as one's nature claims.

Semester V

PHI-HE-5036 *Ísa Upaniṣad* with Saṅkara Bhāṣya (Textual Study)

Unit I:

Mantras 1-4

Unit II:

Mantras 5-9

Unit III:

Mantras 10-14

Unit IV:

Mantras 15-18

CO₁₇:- In this paper we can have a textual study about some selected Indian Classical Scriptures like *Ísa Upaniṣad* and its relation to Saṅkara Bhāṣya. All the students can achieve a bunch of textual knowledge by going through these Classical Scriptures.

Semester VI

PHI-HC-6016 Philosophy of Mind

Unit I

Psychology and Philosophy of mind Cartesian dualism Problems of Cartesian dualism

Unit II

Parallelism

Occasionalism

Epiphenomenalism

Unit III

Behaviourism

Identity theory Functionalism

Unit IV

Problem of Personal identity

Physical Criterion

Memory Criterion.

CO₁₈:- Philosophy of Mind is a branch of Analytic Philosophy. It deals with the human mind and its psychoanalysis. It deals with Behaviourism. It also deals with the Parallelism Problem of Personal identity Physical Criterion Memory Criterion.

Semester VI

PHI-HC-6026 Meta Ethics

Unit I:

Normative Ethics Ethical Concepts and Evaluation- Good and Right Meta Ethics

Unit II:

G. E. Moore: Indefinability of 'Good' G. E. Moore: Naturalistic Fallacy G. E. Moore: Autonomy of Morals

Unit III:

A. J. Ayer: Ethical Terms as Pseudo Concepts C.L. Stevenson: Characteristics of Moral Discourse C.L. Stevenson: Persuasive Definition

Unit IV:

R. M. Hare: Universal Prescriptivism R. M. Hare: Nature of Moral Arguments R. M. Hare: Weakness of the Will.

CO₁₉:- In philosophy meta-ethics is sometimes known as analytic ethics—is the branch of ethics that seeks to understand the nature of ethical properties, and ethical statements, attitudes, and judgments. Another way of saying it is that meta-ethics is reasoning about the presuppositions behind or underneath a normative ethics or theory. Meta-ethics is one of the three branches of

ethics generally recognized by philosophers, the others being ethical theory and applied ethics. By reading the above topics students can understand the above concepts like Good and Right, Naturalistic Fallacy, Prescriptivism and Freedom of Will and its drawbacks.

Semester VI

PHI-HE-6016 Western Philosophy (Textual Study)

Unit I:

Plato: *Republic* (books 2 and 4)

Unit II:

Hegel: The Preface to the *Phenomenology of Spirit*

Unit III:

Wittgenstein: *Philosophical Investigation* (part 1, section 65-91)

Unit IV:

Sartre: *Existentialism and Humanism*.

CO₂₀:- In this syllabus students can go through various textual studies like- Plato: *Republic*, Hegel: The Preface to the *Phenomenology of Spirit*, Wittgenstein: *Philosophical Investigation*, Sartre: *Existentialism and Humanism*.

Semester VI

PHI-HE-6026 Philosophy of Language

Unit I

Language and World

Frege's Sense and Reference

Russell's Definite Description

Unit II

Ideational Theory of Meaning

Referential Theory of Meaning

Use Theory of Meaning

Unit III

Correspondence Theory of Truth

Coherence Theory of Truth

Pragmatic Theory of Truth

Unit IV

Performative and Constative Utterances

Locutionary, Illocutionary and Perlocutionary Acts

Theory of Illocutionary Forces.

CO₂₁:- In this syllabus students can go through Philosophy of Language as a branch of Analytic philosophy and its concepts like truth and language, its significance. It deals with Correspondence Theory of Truth, Coherence Theory of Truth, Pragmatic Theory of Truth.

Semester VI

PHI-HE-6036

Applied Ethics

Unit I:

Nature of Applied Ethics, its scope

Applied Ethics and Human Values

Unit II:

Use and exploitation of nature

Animal killing and animal rights

Unit III:

Computer crime

Ethics and Legal aspects of virtual worlds

Unit IV:

Rights and obligations of health care professionals, Patients and family,

Abortion, Euthanasia: Active and Passive.

CO₂₂:- Applied ethics refers to the practical application of moral considerations. Applied ethics has expanded the study of ethics beyond the realms of academic philosophical discourse. It deals with Human Values Animal killing and animal rights, Cyber Crime and medical Ethical topics like- Abortion, and Euthanasia. By reading these topics students can be competent to face the modern challenges raises in day by day in the society.

DEPARTMENT OF HISTORY

PROGRAMME OUTCOME

On successful completion of the course provided by the Department of History, Rangia College the students will be able to explain and explore and effectively use historical tools in reconstructing the remote past of Indian history. The course will also train the students to analyze the various stages of evolution of human cultures and the belief systems in the proto- history period, the economic and socio-cultural connections, transitions and stratifications during the ruling houses, empires and the politico-administrative nuances of early Indian History. They will also be able to analyse India's interaction with another wave of foreign influence and the changes brought in its wake in the medieval period. The students will be able to relate the circumstances leading to the consolidation of colonial rule over India and their consequences. They will also be able to explain the orientation of the indigenous population and the masses towards resistance to the colonial exploitation. The course will also enable the students to analyse popular uprisings among the tribal, peasant and common people against the British policies. . It will also enable the students to explain the circumstances leading to de-colonization and also the initial period of nation building in India. Moreover They will be able to relate the connections between the various Bronze Age civilizations in the ancient world as well as development of slave and polis societies in ancient Greece. Socio-political, administrative and economic patterns of the medieval world, the major trends and developments in the Western world between the 14th to the 16th century CE would also be covered. The students will be able to evaluate the historical evolution and political developments that occurred in Europe in the period between 1780 to 1939 AD. They will also critically analyse the evolution of social classes, nation states, evolution of capitalism and nationalist sentiment in Europe and historical development of working class movements, socialist upsurge and the economic forces of the two world wars and the other ideological shifts of Europe. In terms of the history of Assam, the course will give a general outline of the history of Assam from the earliest times to contemporary times. Students will be able to identify major stages of developments in the political, social and cultural history of Assam during the early, medieval and modern times. Focus would be made from the 13th century to the occupation of Assam by the English East India Company in the first quarter of the 19th century. Students will be able to describe the period of British rule in Assam after its annexation by the imperialist forces. They will also be able to situate the development of nationalism in Assam and its role in India's freedom struggle. Furthermore, they will be able to assess the aftermath of Partition and other socio-economic developments in post-independence Assam upon completion of this course. They will also be able to identify the main currents of political and socio-economic development in Assam after India's independence and the causes and impact of various struggles and movements in contemporary Assam.

COURSE OUTCOME

HIS-HC-1016: HISTORY OF INDIA- I

Course Outcome: After the completion of this paper, the students will be able to explore and effectively use historical tools in reconstructing the remote past of ancient Indian pre and proto history. The course will also train the students to analyse the various stages of evolution of human cultures and the belief systems in the proto- history period.

HIS-HC-1026 : SOCIAL FORMATIONS AND CULTURAL PATTERNS OF THE ANCIENT WORLD

Course Outcome: after the completion of this paper, the students will be able to explain the processes and stages of the evolution of the variety of cultural pattern throughout antiquarian periods in History. They will be able to relate the connections between the various Bronze Age civilizations in the ancient world as well as development of slave and polis societies in ancient Greece.

HIS-HC-2016: HISTORY OF INDIA- II

Course Outcome: On successful completion of this course the students will be able to explain the economic and socio-cultural connections, transitions and stratifications during the ruling houses, empires and the politico-administrative nuances of early Indian History from 300 BCE to 300 CE.

HIS-HC-2026 : SOCIAL FORMATIONS AND CULTURAL PATTERNS OF THE MEDIEVAL WORLD

Course Outcome: After the completion of this course, the students will be able to analyse and explain the historical socio-political, administrative and economic patterns of the medieval world. They will be able to describe the emergence, growth and decline of various politico-administrative and economic patterns and the resultant changes therein.

HIS-HC-3016: HISTORY OF INDIA III (c. 750 -1206)

Course Outcome: The completion of this paper will enable the students to relate and explain the developments in India in its political and economic fields and its relation to the social and cultural patterns therein in the historical time period between c.700 to 1206. They will also be

able to analyse India's interaction with another wave of foreign influence and the changes brought in its wake in the period.

HIS-HC-3026: RISE OF THE MODERN WEST – I

Course Outcome: On completion of this course, the students will be able to explain the major trends and developments in the Western world between the 14th to the 16th century CE. They will be able to explore and analyze the significant historical shifts and events and the resultant effects on the civilizations of Europe in the period.

HIS-HC-3036: HISTORY OF INDIA IV (c.1206 - 1550)

Course Outcome: After completion of this course students will be able to explain the political and administrative history of the medieval period of India from 1206 to 1550 AD. They will also be able to analyze the sources of history, regional variations, social, cultural and economic set up of the period.

HIS-HC-4016 : RISE OF THE MODERN WEST – II

Course Outcome: After the completion of this course, the student will be able to explain the political and intellectual currents in Europe in the Modern Age. They will also be able to relate the circumstances and causal factors of the intellectual and revolutionary currents of both Europe and America at the beginning of the Modern age.

HIS-HC-4026 : HISTORY OF INDIA V (c. 1550 - 1605)

Course Outcome: At the completion of this course, the students will be able to analyse the circumstances and historical shifts and foundations of a variety of administrative and political setup in India between c.1550-1605. They will also be able to describe the interrelationships between the economy, culture and religious practices of the period.

HIS-HC-4036 : HISTORY OF INDIA VI (c. 1605 - 1750)

Course Outcome: after the completion of this course, the students will be able to explain and reconstruct the linkages of the history of India under the Mughal Rule. As a whole, this course will enable them to relate to the socio-economic and religious orientation of the people of the Medieval period in India.

HIS-HC-5016: History of Modern Europe- I (c. 1780-1939)

Course Outcome: After the completion of this course the students will be able to evaluate the historical evolution and political developments that occurred in Europe in the period between

1780 to 1939. They will also be to critically analyse the evolution of social classes, nation states, evolution of capitalism and nationalist sentiment in Europe. They will also be able to relate to the variety of causes that dragged the world into devastating wars in the intervening period.

HIS-HC-5026 : HISTORY OF INDIA VII (c. 1780 - 1857)

Course Outcome: After the completion of this course, the students will be able to relate the circumstances leading to the consolidation of colonial rule over India and their consequences. They will also be able to explain the orientation of the indigenous population and the masses towards resistance to colonial exploitation. The course will also enable the students to analyse popular uprisings among the tribal, peasant and common people against the British policies.

HIS-HC-6016 : HISTORY OF INDIA VIII (c. 1857 - 1950)

Course Outcome: At the completion of this course, the learners will be able to analyze the course of British colonial exploitation, the social mobilizations during the period between c.1857 to 1950 and also the techniques of Indian resistance to British policies. It will also enable the students to explain the circumstances leading to decolonization and also the initial period of nation building in India.

HIS-HC-6026: HISTORY OF MODERN EUROPE II (c. 1780 -1939)

Couse Outcome: After the completion of this course, the students will be able to analyze the historical developments in Europe between c.1780 to 1939. As the course structure of this paper focuses on the democratic and socialist foundations of modern Europe, the students will be able to situate the historical development of working class movements, socialist upsurge and the economic forces of the two wars and the other ideological shifts of Europe in the period.

HIS –HE-5016: HISTORY OF ASSAM (UPTO c. 1228)

Course Outcome: This paper will give a general outline of the history of Assam from the earliest times to the advent of the Ahoms in the 13th century. Upon completion, students will be acquainted with major stages of developments in the political, social and cultural history of Assam during the early times.

HIS –HE-5026 : HISTORY OF ASSAM (c. 1228 –1826)

Course Outcome: On completion of this paper, students will be able to identify major stages of developments in the political, social and cultural history of Assam during the medieval times. This paper will enable the student to explain the history of Assam from the 13th century to the occupation of Assam by the English East India Company in the first quarter of the 19th century.

HIS –HE-6016 : HISTORY OF ASSAM (c. 1826 – 1947)

Course Outcome: Upon completion of this course, students will be able to describe the period of British rule in Assam after its annexation by the imperialist forces. They will also be able to situate the development of nationalism in Assam and its role in India's freedom struggle. The course would enable the students to analyse the main currents of the political and socio-economic developments in Assam during the colonial period.

HIS –HE-6026 : ASSAM SINCE INDEPENDENCE

Course Outcome: Students will be able to assess the aftermath of Partition and other socio-economic developments in post-independence Assam upon completion of this course. They will also be able to identify the main currents of political and socio-economic development in Assam after India's independence and the causes and impact of various struggles and movements in contemporary Assam.

HIS –SE-3014: Historical Tourism in North East India

Course Outcome:

After completing this course, students will be able to explain Tourism in North East India with special reference to the historical monuments, cultural and ecological elements and places of the north east India country as tourist and heritage sites of the nation. They will be able to relate to the growing vocation of tourism as an industry and the applicability of historical knowledge for its growth.

HIS –SE-4014: Oral Culture and Oral History

Course Outcome:

After this course the students will be able to explain complex interrelationships of structures or events in the context of broader social and cultural framework of societies through 'public memory' and use oral history to preserve oral culture and local history. The students will be able to espouse the relevance to the northeastern region of India with its diverse culture and ethnic communities whose history is largely oral. The students will be able to use 'Public memory' as a tool and a source not only to write public history but also to explore new knowledge in the humanities, social sciences and even in disciplines like architecture, communication studies, gender studies, English, history, philosophy, political science, religion, and sociology.

DEPARTMENT OF GEOGRAPHY

Outcome of study in the Department of Geography

After gaining knowledge based on the subject, the students will be able to realize the importance of geographical knowledge as applied in various developmental activities executed in different areas.

General understanding of map type, map scale and map content helps students on map making for different purposes.

The subject is useful for students in preparing for UGC NET/SLET exams. and other Competitive examination including the civil services.

The subject is useful for students in developing ideas on human-environment issues that geographers usually address in the anthropogenic aspect.

Students will develop a basic understanding on the introductory concepts in different fields like climatology, Geomorphology, Biogeography, in different branches of Human geography and GIS, Remote sensing. The subject will help to provide theoretical insights and perspectives to students if they wish to pursue a research programme in future.

The Field Techniques in Geography are of pedagogical importance as it helps the students of geography to acquire the first hand experience about the geography of a particular area. It also helps the students in learning various techniques of data collection from the field and to understand any pre-defined problem in proper perspective. This also helps students to undertake various type of field work for understanding the development of the society

OUTCOME OF SYLLABUS

This course introduces the students to basic forms of prose and poetry. They will learn their diverse varieties and styles. They will develop the ability to evaluate and appreciate various genres and styles of prose and poetry.

The course intends to train the students on the basic skills of translation by keeping Arabic as source language and English as target language. This course is designed to develop students' skills in listening, reading, speaking Arabic and to develop their literary genres such as Novel, Drama, short-story etc.

The graded lessons in this course will give the students full understanding and ability to use the language in various social surroundings. They will be able to achieve linguistic competence by using the given terms and expressions in their writing and speaking effectively and efficiently that can provide them job opportunities in different fields like tourism, translator, interpreter etc.

This course is designed to develop reading and understanding skills of the students. It will expose them to different kinds of Arabic texts in different formats (written, print and electronic including audio-visual). Besides fine-tuning comprehension skills, the course aims to make the students summarize given texts in their own words and expressions. Exposure to audio-visuals will improve their swift listening and expression power. It is largely exercise based with active involvement of the students through assignments with minimal lectures. Each module would involve hectic classroom and takehome assignments.

Through graded lessons in this course, students will be able to develop an understanding of how to use the language in various simple and plain situations such as dialogues and discourses in home and school surroundings. They will be able to understand the stylistic features of literary texts and will be able to develop and enhance their literary sensibilities and their creative thinking in Arabic.

Benefits of B.Com. Programme

The Bachelor of Commerce (B.Com.) Program is a three-year degree program offered by Gauhati University with a view to impart in-depth knowledge and broad understanding of the syllabi designed and prepared by the University. The curriculum of B.Com degree provides a carefully selected subject combination of Financial Accounting, Financial Management, Management Principles and Application, Business Organisation and Management, Entrepreneurship, Human Resource Management, Business Mathematics and Statistics, Business Law, Banking, Marketing Management, Business Communication, Company Law, Income Tax Law and Practice, Corporate Accounting, Cost and Management Accounting, Indirect Tax, Auditing, Micro Economics, Macro Economics etc. Students can opt for either B.Com (Honours) or B.Com. (Regular) program, subject to fulfillment of certain eligibility criteria.

One has a plethora of professional and advanced career options if one is not confined to accounts and finance careers, such as law, hotel management, marketing, and administration, and so on.

Career options for commerce students are vast and a student will always have interesting profiles to work at if he plays to his strengths. While many B.Com graduates choose the much tried and tested path of CA, CS, MBA and other related fields of study, one has ample opportunity to choose an out-of-the-box career option.

Benefits of B.Com Degree

1. Vast Career Choice

There are so many courses available for B. Com. students such as M. Com., MBA, CA (Chartered Accountant), CS (Company Secretary) and many of the diploma courses, etc. After completion of Bachelor in Commerce, an individual has the option to pursue higher studies as M-Com (Masters of Commerce) or MBA (Masters in Business Administration), both being postgraduate program focusing in Commerce, Accounting, Economics, and Management related subjects. This Bachelor program may also prepare students for CA (Chartered Accountant), CS (Company Secretary) and ICWA (Cost and Work Accountant) as an advance career option in these fields.

2. Vast Job Opportunities

B.Com. graduates, after completion of course, can choose to work in job profile options available to them depending on their caliber and interest areas such as Accountant, Auditor, Tax Consultant, Company Secretary, Business Analyst, Finance Officer, Sales Analyst, Junior Analyst, Tax Accountant, Economist, Business Development Trainee and so on to explore.

3. Vast Job Areas

A B.Com. Graduate acquires knowledge on Entrepreneurship as a career option and develops creative thinking and behaviour. After becoming an entrepreneur, he can create job opportunities to solve the unemployment problems to a great extent.

After completing B.Com., the students have a vast choice in different fields where they can explore their inner talent.

4. Greater Career Advancement

Earning a graduate degree (B-Com.) is evidence of persistence, determination, intellectual ability, and the ability to handle challenging environments all of which are sought-after qualities for individuals filling manager and director positions.

An employee who has demonstrated success in a long-term situation that requires stamina, discipline, leadership, and the ability to work well with others is going to be in line for growth opportunities within his or her organisation.

COURSE OUTCOME

B. COM. COURSE

RANGIA COLLEGE

SEMESTER I

BCM-AE-1014: BUSINESS COMMUNICATION

Objective: To equip students of the B.Com (Hons.) course effectively to acquire skills in reading, writing, comprehension and communication, as also to use electronic media for business communication.

COM-HC-1016: FINANCIAL ACCOUNTING

Objectives: The objective of this paper is to help students to acquire conceptual knowledge of the Financial Accounting and to impart skills for recording various kinds of business transactions.

COM-HC-1026: BUSINESS LAWS

Objective: The objective of the course is to impart basic knowledge of the important business legislation along with relevant case law.

COM-GE-1016: MICRO ECONOMICS

Objective: The objective of the course is to acquaint the students with the concepts of microeconomics dealing with consumer behavior. The course also makes the student understand the supply side of the market through the production and cost behavior of firms.

SEMESTER II

COM-HC-2016: CORPORATE ACCOUNTING

Objectives: To help the students to acquire the conceptual knowledge of the corporate accounting and to learn the techniques of preparing the financial statements.

COM-HC-2026: CORPORATE LAWS

Objective: The objective of the course is to impart basic knowledge of the provisions of the Companies Act 2013 and the Depositories Act, 1996. Case studies involving issues in corporate laws are required to be discussed.

COM-GE-2016: MACRO ECONOMICS

Objectives: The course aims at providing the student with knowledge of basic concepts of the macro economics. The modern tools of macro-economic analysis are discussed and the policy framework is elaborated, including the open economy.

COM-GE-2026: INSURANCE & RISK MANAGEMENT

Objective: To develop an understanding among students about identifying analyzing and managing various types of risk. Besides, the students will be in a position to understand principles of insurance and its usefulness in business along with its regulatory framework.

SEMESTER III

COM-HC-3016: COMPUTER APPLICATIONS IN BUSINESS

Objectives: To provide computer skills and knowledge for commerce students and to enhance the student understands of usefulness of information technology tools for business operations.

Com-HC-3026: INCOME TAX LAW AND PRACTICE

Objective: To provide basic knowledge and equip students with application of principles and provisions of Income-tax Act, 1961 and the relevant Rules.

COM-HC-3036: MANAGEMENT PRINCIPLES AND APPLICATION

Objective: The objective of the course is to provide the student with an understanding of basic management concepts, principles and practices.

COM-GE-3046(A): BUSINESS STATISTICS

Objective: The objective of this course is to familiarize students with the basic statistical tools used for managerial decision-making.

COM-SEC-HC-3054 (A): ENTREPRENEURSHIP

Objective: The purpose of the paper is to orient the learner toward entrepreneurship as a career option and creative thinking and behavior.

SEMESTER IV

COM-HC-4016: COST ACCOUNTING

Objective: To acquaint the students with basic concepts used in cost accounting, various methods involved in cost ascertainment and cost accounting book keeping systems.

COM-HC-4026: BUSINESS MATHEMATICS

Objective : The objective of this course is to familiarize the students with the basic Financial mathematics tools, with an emphasis on applications to business and economic situations.

COM-HC-4036: HUMAN RESOURCE MANAGEMENT

Objective: The objective of the course is to acquaint students with the techniques and principles to manage human resource of an organisation.

COM-GE-4046 (B): MICRO FINANCE

Objective: The course aims to make the students understand the basic concepts of micro-finance and its importance, institution structure, management of micro-finance institutions and microfinance in Indian context.

COM-SEC-HC-4054(A): E-COMMERCE

Objectives: To enable the student to become familiar with the mechanism for conducting business transactions through electronic means.

SEMESTER V

COM-HC-5016: PRINCIPLES OF MARKETING

Objective: The objective of this course is to provide basic knowledge of concepts, principles, tools and techniques of marketing.

COM-HC-5026: FUNDAMENTALS OF FINANCIAL MANAGEMENT

Objective: To familiarize the students with the principles and practices of financial management.

COM-DSE-HC-5036(A): MANAGEMENT ACCOUNTING

Objective: To impart the students, knowledge about the use of financial, cost and other data for the purpose of managerial plans, control and decision-making.

COM-DSE-HC-5036 (D): BANKING

Objective: To impart the students, knowledge about the different types of banks, banker customer relationship, employment of bank fund, negotiable instruments, Banking Regulation Act etc.

COM-DSE-HC-5036(F): Indian Financial System

Objective: To provide students the basic knowledge of Indian Financial System and its components, institutions and their functions.

SEMESTER VI

COM-HC-6016: AUDITING AND CORPORATE GOVERNANCE

Objective: To provide knowledge of auditing principles, procedures and techniques in accordance with current legal requirements and professional standards and to give an overview of the principles of Corporate Governance and Corporate Social Responsibility.

COM-HC-6026: INDIRECT TAX LAWS

Objective: To provide basic knowledge and equip students with application of principles and provisions of Service Tax, VAT, Central Excise, and Customs Laws.

COM-DSE-HC-6036(C): ADVANCED CORPORATE ACCOUNTING

Objectives: The course aims to help the learners to acquire advanced knowledge of corporate accounting and to learn the techniques of preparing accounts and statements under various corporate situations.

COM-DSE-HC-6036(D): INTERNATIONAL BUSINESS

Objective: The objective of the course is to familiarize the students with the concepts, importance and dynamics of international business and India's involvement with global business. The course also seeks to provide theoretical foundations of international business to the extent these are relevant to the global business operations and developments.

COM-DSE-HC-6036(E): INDUSTRIAL RELATIONS AND LABOUR LAWS

Objective: To enable the students to learn the concepts of industrial relations including trade unions, collective bargaining, discipline and various labour enactments.

Department of Chemistry
Rangia College

Programme Outcome:

The Undergraduate programme in Chemistry viz Honours and Generic aims to impart knowledge on different topics in chemistry such organic, inorganic, physical, spectroscopy, analytical chemistry of the level expected from a graduate in chemistry. The programme offers detailed understanding and knowledge about various physical and chemical phenomena which form the basis of the underlying principle of different industrial and household applications. Further, the course also provides understanding about bio-chemical processes, mechanism of light matter interaction which is vital for various optoelectronic devices, solar cells etc. Laboratory courses are also designed in such a way that students can pursue research activities. The course also covers both principle and its applications of various analytical techniques which can be used to detect different metal ions and analytes of environmental importance present in soil and aquatic systems. Furthermore, this programme also includes various courses on skill development such as chemistry of cosmetics and perfume having industrial and entrepreneurial importance. In addition, this course will help students in the preparation of various competitive examinations such as JAM, NET, GATE, UPSC of national level followed by various state level competitive examinations. Students can also engage themselves in various government and private organizations after completion of the programme.

Semester I:

Course Objectives: Inorganic Chemistry I (CHE-HC-1016)

This course aims at giving students theoretical understanding about the basic constituents of matter – atoms, ions and molecules in terms of their electronic structure and reactivity. Structure and bonding in/of these are to be dealt with basic quantum chemistry treatment. Reactivity of chemical species based on their electron transfer affinity is introduced. Further, periodic classification of elements in the periodic table and changes in properties along the periods and groups to be studied in detail. Accompanying laboratory course is designed for students to have hands-on experience of basic quantitative analytical techniques related to volumetric titrations.

Learning Outcome: On successful completion, students would have a clear understanding of the concepts related to atomic and molecular structure, chemical bonding, periodic properties and redox behavior of chemical species. Students will also have hands-on experience of standard solution preparation in different concentration units and learn volumetric estimation through acid-base and redox reactions.

Course objective: Physical Chemistry I (CHE-HC-1026)

This course contains states of matter- gaseous, liquid and solid states along with ionic equilibria. A small unit of molecular and crystal symmetry is also there in the course.

Learning outcome: In gaseous state units the students will learn the kinetic theory of gases, ideal gas and real gases. In the liquid state unit, the students are expected to learn the qualitative treatment of the structure of liquid along with the physical properties of liquid, viz, vapour pressure, surface tension and viscosity. In the molecular and crystal symmetry unit they will be introduced to the elementary idea of symmetry which will be useful to understand solid state chemistry and group theory in some higher courses. In the solid state unit the students will learn the basic solid state chemistry application of x-ray crystallography for the determination of some very simple crystal structures. The students will also learn another important topic “ionic equilibria” in this course.

Semester II:

Course Objectives: Organic Chemistry I (CHE-HC-2016)

This course is inducted to apprise students with introduction to organic compounds, electron displacement, type of reagents and reaction intermediates. The chemistry of aliphatic and aromatic hydrocarbons, conformational analysis of cycloalkanes and basic stereochemical phenomena are included. Students are expected to learn different classes, explain, describe and analyze different classes of organic compounds, their reactivities and mechanisms along with stereo chemical considerations.

Learning Outcome:

Students will be able to identify different classes of organic compounds, describe their reactivity and explain/analyze their chemical and stereo chemical aspects.

Course Objective: PHYSICAL CHEMISTRY II (CHE-HC-2026)

In this course the chemical thermodynamics, chemical equilibrium, solutions and colligative properties will be taught to the students. Another unit of this course is systems of variable compositions.

Learning Outcome: In this course the students are expected to learn laws of thermodynamics, thermochemistry, thermodynamic functions, relations between thermodynamic properties, Gibbs Helmholtz equation, Maxwell relations etc. Moreover the students are expected to learn partial molar quantities, chemical equilibrium, solutions and colligative properties. After completion of this course, the students will be able to understand the chemical systems from thermodynamic point of view.

Semester III

Course Objective: Inorganic Chemistry III (CHE-HC-3016)

This course starts with the basic principles of metallurgy so as to acquaint the students with the application of the redox chemistry they have learnt in the earlier course on inorganic chemistry.

Concepts of protonic and non-protonic acids and bases are introduced for students to appreciate different types of chemical reactions. Periodic behavior of s and p block elements related to their electronic structure and their reactivity is included to acquaint students with the principles governing their reactivity. This course further intends to apprise students about the variety of compounds of the main group elements including oxides, hydrides, nitrides, interhalogens, noble gases and inorganic polymers. As part of the accompanying lab course, experiments involving iodo- and iodi-metric titrations are included for the students to explore other varieties of redox titration. Preparation of simple inorganic compounds is introduced to give hands-on experience of inorganic synthesis.

Learning Outcome: On successful completion of this course students would be able to apply theoretical principles of redox chemistry in the understanding of metallurgical processes. Students will be able to identify the variety of s and p block compounds and comprehend their preparation, structure, bonding, properties and uses. Experiments in this course will boost their quantitative estimation skills and introduce the students to preparative methods in inorganic chemistry

Course Objectives: Organic Chemistry II (CHE-HC-3026)

This course is intended to apprise students about different classes of organic compounds, including halogenated hydrocarbons, alcohols, phenols, epoxides, carbonyl compounds and carboxylic and sulfonic acids. Students are expected to learn and differentiate between various organic functional groups; explain, analyze and design transformations between different functional groups.

Learning Outcome: Students will be able to describe and classify organic compounds in terms of their functional groups and reactivity.

Course Objective: Physical Chemistry III (CHE-HC-3036)

The aim of this course is to teach students four important topics of physical chemistry- phase equilibria, chemical kinetics, surface chemistry and catalysis. Phase equilibria and chemical kinetics will be discussed in detail but surface chemistry and catalysis will be introduced to the students.

Learning Outcome: The students are expected to learn phase rule and its application in some specific systems. They will also learn rate laws of chemical transformation, experimental methods of rate law determination, steady state approximation etc. in the chemical kinetics unit. After attending this course the students will be able to understand different types of surface adsorption processes and basics of catalysis including enzyme catalysis, acid base catalysis and particle size effect on catalysis.

Semester IV

Course Objective: Inorganic Chemistry III (CHE-HC-4016)

This course introduces students to coordination chemistry. Various aspects like nomenclature, structure, bonding, variety and reactivity of the coordination compounds are included for the students to appreciate. Bioinorganic chemistry is included in this course to acquaint students on the useful and harmful aspects of metals in biological systems. Through the accompanying lab course, experiments related to gravimetric analysis, synthesis of coordination compounds and separation of metal ions using chromatography is included. This will broaden the experimental skills of the students where students will learn about various aspects of experiment design depending upon the requirements like synthesis, estimation or separation.

Learning Outcome: On successful completion, students will be able name coordination compounds according to IUPAC, explain bonding in this class of compounds, understand their various properties in terms of CFSE and predict reactivity. Students will be able to appreciate the general trends in the properties of transition elements in the periodic table and identify differences among the rows. Through the experiments students not only will be able to prepare, estimate or separate metal complexes/compounds but also will be able to design experiments independently which they should be able to apply if and when required.

Course Objectives: Organic Chemistry III (CHE-HC-4026)

The course intrudes students to different classes of N-based compounds, including alkaloids and terpenoids and their potential application. Students are expected to learn about different classes of N-based compounds; their structures, synthesis and reactivity.

Learning Outcome: Students shall demonstrate the ability to identify and classify different types of N-based derivatives, alkaloids and heterocyclic compounds/explain their structure mechanism and reactivity/critically examine their synthesis and reactions mechanism.

Course Objective: Physical Chemistry IV (CHE-HC-4036)

The aim of this course is to introduce students to primarily two areas of physical chemistry- electrochemistry and electrical and magnetic properties of atoms and molecules. It contains three units- conductance, electrochemistry and electrical & magnetic properties of atoms and molecules.

Learning Outcome: In this course the students will learn theories of conductance and electrochemistry. Students will also understand some very important topics such as solubility and solubility products, ionic products of water, conductometric titrations etc. The students are also expected to understand the various parts of electrochemical cells along with Faraday's Laws of electrolysis. The students will also gain a basic theoretical idea of electrical & magnetic properties of atoms and molecules.

Semester V

Course Objectives: Organic Chemistry IV (CHE-HC-5016)

This course introduces students to nucleic acids, amino acids and pharmaceutical compounds. Students will be familiarized with the importance of nucleic acids, amino acids and develop basic understanding of enzymes, bioenergetics and pharmaceutical compounds.

Learning Outcome:

Students will be able to explain/describe the important features of nucleic acids, amino acids and enzymes and develop their ability to examine their properties and applications.

Course Objective: Physical Chemistry V (CHE-HC-5026)

The aim of this course is to introduce the students to three important areas- quantum chemistry, molecular spectroscopy and photochemistry. In the quantum chemistry unit the students will be taught the postulates of quantum mechanics and the application of quantum mechanical ideas in some simple systems such as particle in a box, rigid rotor, simple harmonic oscillator etc. In the spectroscopy unit, rotational, vibrational, Raman, electronic, spin resonance, and electronic spectroscopy will be introduced.

Learning Outcome: After completion of this course the students are expected to understand the application of quantum mechanics in some simple chemical systems such as hydrogen atom or hydrogen like ions. The students will also learn chemical bonding in some simple molecular systems. They will be able to understand the basics of various kinds of spectroscopic techniques and photochemistry.

Semester VI

Course Objective: Inorganic Chemistry IV (CHE-HC-6016)

The unit on reaction mechanism is included for the students to get acquainted with the kinetic and thermodynamic factors governing the reaction path and stability of inorganic compounds. Organometallic compounds are introduced so as to apprise students about the importance of metal carbon bonds to form complexes and their application as catalysts. Students are expected to learn factors leading to stability of organometallic compounds, their synthesis, reactivity and uses. Qualitative inorganic analysis is included to give students an idea and hands on experience of application of inorganic chemistry. Students should learn how differential reactivity under different conditions of pH can be used to identify a variety of ions in a complex mixture. Experiments related to synthesis and characterization of coordination compounds are included to supplement their theoretical knowledge.

Learning Outcome: By studying this course the students will be expected to learn about how ligand substitution and redox reactions take place in coordination complexes. Students will also learn about organometallic compounds, comprehend their bonding, stability, reactivity and uses. They will be familiar with the variety of catalysts based on transition metals and their application in industry. On successful completion, students in general will be able to appreciate the use of concepts like solubility product, common ion effect, pH etc. in analysis of ions and how a clever

design of reactions, it is possible to identify the components in a mixture. With the experiments related to coordination compound synthesis, calculation of 10Dq, controlling factors etc. will make the students appreciate the concepts of theory in experiments.

Course Objectives: Organic Chemistry V (CHE-HC-6026)

This is a basic course in organic spectroscopy and provides introduction to carbohydrate chemistry, dyes and polymers. Students are expected to learn about the different spectroscopic techniques and their applications in organic chemistry. Students shall be apprised with carbohydrate chemistry, dyes and polymers and their structure, reactivity and chemical properties.

Learning Outcome: Students will be able to explain/describe basic principles of different spectroscopic techniques and their importance in chemical/organic analysis. Students shall be able to classify/identify/critically examine carbohydrates, polymers and dye materials.

Course Objective: Analytical Methods in Chemistry (CHE-HE-5026)

This is an elective course designed to complement the needs of students who wish to learn more about the qualitative/quantitative characterization and separation techniques. The content of this course aims to cover some of the widely used instrumental techniques for characterization of samples. Experiments included aim at giving students hands on experience using different instrumental techniques and chemical analysis.

Learning outcome: On successful completion students will have theoretical understanding about choice of various analytical techniques used for qualitative and quantitative characterization of samples. At the same time through the experiments students will gain hands-on experience of the discussed techniques. This will enable students to make judicious decisions while analyzing different samples.

Course objective: Polymer Chemistry (CHE-HE-5056)

This is an introductory level course in polymer chemistry. The aim of the course is to introduce the theory and applications of polymer chemistry to the students. Some industrially important polymers and conducting polymers, a promising class of polymeric materials for next generation devices will also be introduced in this course.

Learning outcome: After completion of this course the students will learn the definition and classifications of polymers, kinetics of polymerization, molecular weight of polymers, glass transition temperature, and polymer solutions etc. They also learn the brief introduction of preparation, structure and properties of some industrially important and technologically promising polymers.

Course Objective: Green Chemistry (CHE-HE-6016)

The learners will be taught about the emerging discipline of green chemistry particularly to differentiate as to how the principles of green chemistry may be applied to organic synthesis. Learning Outcome: Apart from introducing learners to the principles of green chemistry, this course will make them conversant with applications of green chemistry to organic synthesis. Students will be prepared for taking up entry level jobs in the chemical industry. They also will have the option of studying further in the area.

Course Objectives: Inorganic Materials of Industrial Importance (CHE-HE-6036)

To learn the synthetic process, properties and the utility of the industrially important inorganic materials (such as silicates, ceramics, cements, fertilizers, paints, batteries, alloys and explosives). To provide an opportunity to learn some of the industrial processes such as surface coating and catalysis relevant to industry where heterogeneous catalysis dominates. Experiments are aimed at helping learners acquire hands-on experience in qualitative and quantitative analysis of the inorganic materials which are basically manufactured in chemical industries. To learn some industrial techniques such as surface coating etc.

Learning Outcome: This course will establish the basic foundation of industrial inorganic chemistry among the students. This will be helpful for pursuing further studies of industrial chemistry in future. Experiments will help the Students to gather the experience of qualitative and quantitative chemical analysis. Students will be capable of doing analysis of the inorganic materials which are used in our daily life. They will have insight into the industrial processes. Silicate Industries.

**Department of Education
Rangia College**

Programme Outcome:

The programme helps to develop a holistic and multidimensional understanding of the topics. It attempts to approach new areas of learning, develop competencies in the students thereby opening various avenues for self-discovery, academic understanding and employment. The programme will also help the students to get acquainted with different areas of teaching and teaching strategies and methods. The students will be able to learn about civic duties and responsibilities through the programme. They become socially, morally, spiritually, culturally and democratically sound individuals. The programme will also develop skills for solving day to day problems of life.

Course Specific Outcome:

EDU-HC-1016 PRINCIPLES OF EDUCATION

The course will acquaint the students with the sound principles of education, the important concepts of education, curriculum, democracy, discipline and freedom. It will help to develop knowledge about different aims of education, various types of curriculum, correlation of studies and forms of discipline. It will familiarise the students with democratic idea of modern education.

EDU-HC-1026 PSYCHOLOGICAL FOUNDATIONS OF EDUCATION

The course will make the students understand the relationship between education and psychology, the need of educational psychology in teaching learning process, the nature and theories of learning and role of motivation in learning, the concept of memory, forgetting, attention and interest. Apart from this course will also help to understand intelligence, its theories, measurement, and concept of emotional intelligence. and acquainted with different types of personality and the adjustment mechanism.

EDU-HC-2016 PHILOSOPHICAL AND SOCIOLOGICAL FOUNDATION OF EDUCATION:

The course will acquaint the students to the concept of philosophy and its relationship with education. The course will also help to understand the educational implications of different Indian schools of philosophy, and the educational implications of different western schools of philosophy. It helps to know the concept of sociology and its relationship with education. The course will provide the understanding about the concept of educational sociology, social groups and socialisation.

EDU-HC-2026 DEVELOPMENT OF EDUCATION IN INDIA-I

The course will provide the concept of the ancient Indian education system. The course highlights the education system in Ancient India, particularly Vedic Education Examine, Medieval India, British Period.

EDU-HG-2016 PSYCHOLOGY OF ADOLESCENTS

The course will enable the students to understand the period of adolescence, to understand the significance of the adolescence period in human life, to know about various problems associated with this stage, to understand the development aspects of adolescence, importance of adolescence period and problems associated with this stage.

EDU-HC-3016 DEVELOPMENT OF EDUCATION IN INDIA-II

The course will help the students to understand the educational situation during the time of Independence, the recommendations and educational importance of different Education Commission and Committees in post Independent India. The course will accustom with the recent Educational Development in India.

EDU-HC-3026 EDUCATIONAL TECHNOLOGY AND TEACHING METHODS

The course will make the students understand the objective of educational technology in the teaching learning process, the strategies of effective teaching as a profession and the various methods and devices of teaching . The course will acquaint the students with innovations in the field of education through technology and levels, effectiveness of teaching and classroom management.

EDU-HC-3036 VALUE AND PEACE EDUCATION

The course will help the students to understand the concept and meaning of value and peace and its importance in human life, the meaning and importance of peace education and its relevance at national and international level. Through the course students will become aware about the role of educational institutions in building a value based society. And the students will also be able to identify the different issues/ challenges in imparting peace education, identify the strategies and skills in promoting peace education at institutional level.

EDU-HC-4016 GREAT EDUCATIONAL THINKERS

The course will enable the students to learn the Philosophy of life of different Educational Thinkers and their works, views of thinkers in educational context and about the relevance of some of their thoughts in the present day context.

EDU-HC-4026 EDUCATIONAL STATISTICS AND PRACTICAL

The course will develop the basic concept of Statistics among students, the ability to represent educational data through graphs and make them acquainted with different statistical procedures used in Education. It then familiarize the students about the Normal Probability Curve and its applications in Education.

EDU-HC-4036 EMERGING ISSUES IN EDUCATION

The course exposes the students with major emerging issues national, state, and local and acquaint them with the various issues in education that are emerging in the recent years in the higher education system. The course will also address the various problems and challenges of education in India at all levels.

EDU-HC-5016 MEASUREMENT AND EVALUATION IN EDUCATION & PRACTICAL

The course will enable the students to understand the concept of measurement and evaluation in education and acquaint them with the general procedure of test construction and characteristics of a good test. The course also helps in developing an understanding of different types of educational tests and their uses mainly personality test, and aptitude tests.

EDU-HC-5026 GUIDANCE AND COUNSELLING

The course will help the students to understand the concept, need and importance of Guidance and Counselling and enable the students to know the different types and approaches to Guidance and Counselling, to understand the challenges faced by the teacher as guidance worker. The course will acquaint the students with the organization of guidance service and school guidance clinic.

EDU-DSE-5016 CONTINUING EDUCATION

The course acquaint the students with the concept, objectives, scope and significance of continuing education in the context of the present scenario, different aspects and agencies of continuing education, different methods and techniques as well as issues of continuing education. The course helps in understanding the meaning of open education and realise the importance of open school and open universities in continuing education, the development of adult education in India, kinds of adult education and different problems of adult education.

EDU-DSE-5046 TEACHER EDUCATION IN INDIA

The course will explain the Concept, Scope, Aims & Objectives and Significance of teacher education and acquaint the students with the development of Teacher Education in India, the different organising bodies of teacher education in India and their functions in preparation of teachers for different levels of education, the innovative trends and recent issues in teacher education, and be able to critically analyse the status of teacher education in India. The students will also understand and conceive the qualities, responsibilities and professional ethics of teachers.

EDU-HC-6016 EDUCATION AND DEVELOPMENT

After completion of this course the learner will be able to understand the relation between education and development, educational development in the post globalization era, role of education in community development and the course will analyses the education for human resource development and economic and political awareness through education

EDU-HC-6026 PROJECT:

After completion of this course the learner will be able to explain the process of conducting a Project and how to prepare a Project Report.

EDU-DSC-6016 MENTAL HEALTH AND HYGIENE

Through this course the learner will be able to acquaint with the fundamentals and development of mental health and the characteristics of a mentally healthy person. The students will understand the concept and importance of mental hygiene and its relationship with mental health. The course will provide knowledge about the principles, factors promoting mental health and the role of home, school, and society in maintaining proper mental health. The students will learn the meaning and problem of adjustment and also the different adjustment mechanisms. They will familiarise with the concept and issues of positive psychology, mental health of women, role of WHO and stress management.

EDU-DSC-6036 EDUCATIONAL MANAGEMENT

The course helps in developing an understanding of the basic concept of educational management. It will enable the students to know about the various resources in education, the concept and importance of educational planning, the financial resources and financial management in education.

Department of Economics Rangia College

Programme Outcome

The programme helps individuals make decisions under uncertain situations about current and future conditions which is a more realistic situation in our day to day life.

Students could quantify the risk involved in different real life situations and know how decisions could be made that will maximize their satisfaction.

Students analyze the financial system including its various components like markets, assets and institutions.

To get an insight into the real meaning of development, and how elements of economics and political economy influence the allocation of resources and can facilitate, or under certain situations, hamper the reduction of poverty, inequality and unemployment in a given society.

To interpret the various development strategies and theories to assess the different development paths followed by different societies of the world. This can assist them in answering certain basic questions as to why some countries grow at a fast rate, while others lag behind; what are the conditions that can promote growth, and what are the conditions that can hinder growth, among others.

To analyze the concept and evolution of the Global Economy, and the key issues involved in the process.

To enable students to analyse the Economics of Agricultural Production .

The Programme is also intended to help students in their preparation for competitive exams.

Equip students inclined to do research with the procedure and discipline of a research activity.

Course Specific Outcomes

ECO-HC-1016: MICROECONOMICS

This course is designed to expose the students to the basic principles of microeconomic theory. The emphasis will be on thinking like an economist and the course will illustrate how microeconomic concepts can be applied to analyze real-life situations.

ECO-HC-1026: MATHEMATICAL METHODS IN ECONOMICS–I

The specific objective of the course is to transmit the body of basic mathematics that enables the study of economic theory at the undergraduate level, specifically the courses on microeconomic theory, macroeconomic theory, statistics and econometrics set out in this syllabus. In this course, particular economic models are not the ends, but the means for illustrating the method of

applying mathematical techniques to economic theory in general. The level of sophistication at which the material is to be taught is indicated by the contents of the prescribed textbook.

ECO-HC-2016: INTRODUCTORY MACROECONOMICS

This course aims to introduce the students to the basic concepts of Macroeconomics. Macroeconomics deals with the aggregate economy. This course discusses the preliminary concepts associated with the determination and measurement of aggregate macroeconomic variable like savings, investment, GDP, money, inflation, and the balance of payments.

ECO-HC-2026: MATHEMATICAL METHODS IN ECONOMICS - II

The objective of this sequence is to transmit the body of basic mathematics that enables the study of economic theory at the undergraduate level, specifically the courses on microeconomic theory, macroeconomic theory, statistics and econometrics set out in this Syllabus. In this course, particular economic models are not the ends, but the means for illustrating the method of applying mathematical techniques to economic theory in general. The level of sophistication at which the material is to be taught is indicated by the contents of the prescribed textbook.

ECO-HC-3016: INTERMEDIATE MICROECONOMICS - I

The course is designed to provide a sound training in microeconomic theory to formally analyze the behaviour of individual agents. Since students are already familiar with the quantitative techniques in the previous semesters, mathematical tools are used to facilitate understanding of the basic concepts. This course looks at the behaviour of the consumer and the producer and also covers the behaviour of a competitive firm.

ECO-HC-3026: INTERMEDIATE MACROECONOMICS - I

This course introduces the students to formal modeling of a macro-economy in terms of analytical tools. It discusses various alternative theories of output and employment determination in a closed economy in the short run as well as medium run, and the role of policy in this context. It also introduces the students to various theoretical issues related to an open economy.

ECO-HC-3036: STATISTICAL METHODS FOR ECONOMICS

This is a course on statistical methods for economics. It begins with some basic concepts and terminology that are fundamental to statistical analysis and inference. It then develops the notion of probability, followed by probability distributions of discrete and continuous random variables and of joint distributions. This is followed by a discussion on sampling techniques used to collect survey data. The course introduces the notion of sampling distributions that act as a bridge between probability theory and statistical inference. The semester concludes with some topics in statistical inference that include point and interval estimation.

ECO-HC-4016: INTERMEDIATE MICROECONOMICS - II

This course is a sequel to Intermediate Microeconomics I. The emphasis will be on giving conceptual clarity to the student coupled with the use of mathematical tools and reasoning. It covers general equilibrium and welfare, imperfect markets and topics under information economics.

ECO-HC-4026: INTERMEDIATE MACROECONOMICS - II

This course is a sequel to Intermediate Macroeconomics I. In this course, the students are introduced to the long run dynamic issues like growth and technical progress. It also provides the micro-foundations to the various aggregative concepts used in the previous course.

ECO-HC-4036: INTRODUCTORY ECONOMETRICS

This course provides a comprehensive introduction to basic econometric concepts and techniques. It covers statistical concepts of hypothesis testing, estimation and diagnostic testing of simple and multiple regression models. The course also covers the consequences of and tests for misspecification of regression models.

ECO-HC-5016: INDIAN ECONOMY-I

Using appropriate analytical frameworks, this course reviews major trends in economic indicators and policy debates in India in the post-Independence period, with particular emphasis on paradigm shifts and turning points. Given the rapid changes taking place in India, the reading list will have to be updated annually.

ECO-HC-5026: DEVELOPMENT ECONOMICS-I

This is the first part of a two-part course on economic development. The course begins with a discussion of alternative conceptions of development and their justification. It then proceeds to aggregate models of growth and cross-national comparisons of the growth experience that can help evaluate these models. The axiomatic basis for inequality measurement is used to develop measures of inequality and connections between growth and inequality are explored. The course ends by linking political institutions to growth and inequality by discussing the role of the state in economic development and the informational and incentive problems that affect state governance.

ECO-HC-6016: INDIAN ECONOMY-II

This course examines sector-specific policies and their impact in shaping trends in key economic indicators in India. It highlights major policy debates and evaluates the Indian empirical evidence. Given the rapid changes taking place in the country, the reading list will have to be updated annually.

ECO-HC-6026: DEVELOPMENT ECONOMICS-II

This is the second module of the economic development sequence. It begins with basic demographic concepts and their evolution during the process of development. The structure of markets and contracts is linked to the particular problems of enforcement experienced in poor countries. The governance of communities and organizations is studied and this is then linked to questions of sustainable growth. The course ends with reflections on the role of globalization and increased international dependence on the process of development.

ECO-HE-5016: ECONOMICS OF HEALTH AND EDUCATION

The importance of education and health in improving well-being is reflected in their inclusion among the Millennium Development Goals adopted by the United Nations member states, which include among other goals, achieving universal primary education, reducing child mortality, improving maternal health and combating diseases. This course provides a microeconomic

framework to analyze, among other things, individual choice in the demand for health and education, government intervention and aspects of inequity and discrimination in both sectors. It also gives an overview of health and education in India.

ECO-HE-5026: MONEY AND FINANCIAL MARKETS

This course exposes students to the theory and functioning of the monetary and financial sectors of the economy. It highlights the organization, structure and role of financial markets and institutions. It also discusses interest rates, monetary management and instruments of monetary control. Financial and banking sector reforms and monetary policy with special reference to India are also covered.

ECO-HE-5036: PUBLIC FINANCE

This course is a non-technical overview of government finances with special reference to India. The course does not require any prior knowledge of economics. It will look into the efficiency and equity aspects of taxation of the centre, states and the local governments and the issues of fiscal federalism and decentralisation in India. The course will be useful for students aiming towards careers in the government sector, policy analysis, business and journalism.

Programme Outcome and Course Outcome Rangia College

BOTANY

PROGRAMME OUTCOME

The syllabus of Botany is designed for the students to understand the diversity of Cryptogams and Phenerogams with special reference to the North Eastern Region, to understand the interactions of biotic and abiotic factors of different ecosystems, from microscopic level to macro level. the syllabus also provides the basic concepts on applied fields such as Biotechnology, Plant physiology and biochemistry, Bioinformatics and Microbiology. The practical papers are designed to train the students on the basic skills related to the above mentioned topics, to perform procedures as per laboratory standards. The course also trains the students on the application of plant resources on agriculture, healthcare , industries and other environmental issues.

This course will help in the preparation of students to appear for various competitive exams on national level and state level (NET, SLET, GATE).

The course will also help students to acquire jobs in various government and private organizations.

COURSE OUTCOME

BOT-HC-1016: Phycology and Microbiology

This course will provide detailed insight into the world of microorganisms which include Bacteria, Viruses and the lower forms of Algae. The course includes classification of microorganisms and their life cycles. In this course students will learn the life cycle of Bacteriophages, lytic cycle and lysogenic cycle. They will also gain practical knowledge on microscopy.

BOT-HC-1026: Biomolecules and Cell Biology

This course is designed to provide knowledge on the structure, classification and physicochemical properties of biomolecules and enzymes. In this course students will learn the cell structure and its components. They will also gain practical knowledge on properties of cell and cell membrane, DNA staining techniques and microscopy of cells. The course will provide knowledge on qualitative test of biomolecules.

BOT-HC-2016: Mycology and Plant Pathology

The objective of this course is to provide detailed knowledge on the kingdom Fungi, its classification, life cycle and reproduction. The course will also provide knowledge on diseases of plants caused by Bacteria, Fungi, Viruses and Mycoplasma. The students will also have an insight on biotechnological applications of fungi. From the viewpoint of practical knowledge and skills, they will learn the structural analysis of fungi and their reproductive cycles. The course also has a section which will provide knowledge on symbiotic associations such as Lichens and Mycorrhiza.

BOT-HC-2026: Archegoniate

This paper deals with the study of Bryophytes, Pteridophytes and Gymnosperms; their classification, life cycle and economic importance. Students will also learn morphology and reproductive organs of Archegoniate.

Programme Outcome and Course Outcome

Assamese

Programme Outcome and Course Outcome

এটা জাতিৰ ভাষা, সাহিত্যৰ অধ্যয়নে জাতিটোৰ সামগ্ৰিক উন্নয়ণ সাধন কৰে; ভাষা, সাহিত্যৰ বিকাশ হয়। অসমীয়া ভাষাটোৰ অধ্যয়নৰ লগত জাতিটোৰ আত্মা নিহীত হৈ আছে। ভাষাটোৰ লগতে সাহিত্যৰ অধ্যয়নেও ভাষাটোৰ কিদৰে চৰ্চা হৈছে, বিকাশ লাভ কৰিছে সেইটো গম পোৱা যায়। ছাত্ৰ-ছাত্ৰীসকলৰ বাবে নিজৰ ভাষা-সাহিত্যৰ অধ্যয়ন অতি প্ৰয়োজনীয়।

অসমীয়া বিভাগত অধ্যয়ন কৰা ছাত্ৰ-ছাত্ৰীসকলে এই ভাষা অধ্যয়ন কৰোঁতে অসমীয়া সাহিত্যৰ যুগ বিভাজন সম্পৰ্কত পণ্ডিতসকলৰ মতামত, উমৈহতীয়া সাহিত্যৰ ধাৰণা আৰু ইয়াৰ গুৰুত্বপূৰ্ণ নিদৰ্শন, প্ৰাক্‌শঙ্কৰী আৰু শঙ্কৰীযুগৰ প্ৰধান সাহিত্যিকসকলৰ ৰচনাৰ বৈশিষ্ট সম্পৰ্কে জানিব পাৰে। তদুপৰি ছাত্ৰ-ছাত্ৰীসকলে ইয়াৰ লগতে উত্তৰ শঙ্কৰী যুগ, প্ৰাক্‌ অৰুণোদই, অৰুণোদই যুগৰ পটভূমিৰ জ্ঞান লভাৰ লগতে সেই সেই সময়ছোৱাৰ গুৰুত্বপূৰ্ণ সাহিত্যিকৰ ৰচনাৰ সৈতে পৰিচিত হোৱাৰ সুযোগ লাভ কৰে। অসমীয়া বিভাগত অধ্যয়নৰত ছাত্ৰ-ছাত্ৰীয়ে ভাষাবিজ্ঞানৰ আধাৰত ভাষা বিশ্লেষণৰ বিভিন্ন শাখা, স্তৰ আৰু ধৰণৰ লগতে ভাষা অধ্যয়নৰ ইতিহাসৰ সৈতে পৰিচিত হয়। প্ৰাচ্য আৰু পাশ্চাত্য সাহিত্যতত্ত্বৰ কেতবোৰ চৰ্চিত দিশো নতুনকৈ চাবলৈ ছাত্ৰ-ছাত্ৰীসকলে সুবিধা পায়। সমালোচনামূলক তথা সৃজনীমূলক কিছুসংখ্যক লেখাও এই পাঠ্যক্রমত সন্নিবিষ্ট কৰা হৈছে যাতে সাহিত্যৰ ৰসাস্বাদনৰ বাট ছাত্ৰ-ছাত্ৰীসকলৰ বাবে মুকলি হয়। অসমৰ বাৰেবহণীয়া সংস্কৃতিৰ লোকাচাৰ, ধৰ্মীয় পৰম্পৰা, উৎসৱ-পাৰ্বন, পৰিবেশ্য কলা, স্থাপত্য-ভাস্কৰ্য-চিত্ৰকলাৰ জ্ঞান লভাৰ লগতে বৃহত্তৰ অসমীয়া জাতি গঠন প্ৰক্ৰিয়াৰ আভাস ছাত্ৰ-ছাত্ৰীসকলে অসমীয়া বিভাগত অধ্যয়নৰ জৰিয়তে পাব পাৰে। সংস্কৃত, প্ৰাকৃত, বাংলা, ওড়িয়া আদি আৰ্যভাষাৰ সৈতে অসমীয়া ভাষাৰ সম্পৰ্ক; অসমীয়া ভাষাত টাই-আহোম, বড়ো, ৰাভা, খাচী আদি আৰ্যভিন্ন ভাষাৰ প্ৰভাৱ আৰু উপাদানৰ বিষয়েও ছাত্ৰ-ছাত্ৰীসকলে সম্যক জ্ঞান লাভ কৰিব পাৰে এই বিভাগত অধ্যয়নৰ যোগেদি। ছাত্ৰ-ছাত্ৰীৰ মনত অসমীয়া গদ্য সাহিত্য সম্পৰ্কে স্পষ্ট ধাৰণা গঢ়ি তুলিবৰ বাবে শঙ্কৰদেৱৰ নাটৰ গদ্যৰ পৰা বুৰঞ্জীৰ গদ্যলৈ অধ্যয়ন কৰিব পৰাৰ সুবিধাও দিয়া হৈছে। তদুপৰি উচ্চ ব্যাকৰণৰ ৰীতি অনুযায়ী অসমীয়া ভাষাৰ বৈয়াকৰণিক বিশ্লেষণৰ বিষয়েও ছাত্ৰ-ছাত্ৰীসকলে এই ভাষাত অধ্যয়নৰ যোগেদি জানিব পাৰিব। আধুনিক অসমীয়া সাহিত্যৰ স্বৰূপ সম্পৰ্কে জানিব বিচাৰিলে অসমীয়া চুটিগল্প আৰু উপন্যাসৰ অধ্যয়নৰ সুবিধাও এই পাঠ্যত দিয়া হৈছে। অতি কম পৰিসৰৰ ভিতৰতে অসমীয়া লিপিৰ ইতিহাসৰ আভাস পোৱাৰ লগতে অসমৰ শিলালিপি, তাম্ৰলিপি সম্পৰ্কে অধ্যয়নৰ সুযোগো ছাত্ৰ-ছাত্ৰীসকলে এই বিভাগত লাভ কৰে। সামগ্ৰিক ভাৱে অসমীয়া ভাষা, সাহিত্যৰ আতি-গুৰি মাৰি অধ্যয়ন কৰিব পৰা এক সুন্দৰ পাঠ্যক্রম এই বিভাগৰ যোগেদি ছাত্ৰ-ছাত্ৰীসকললৈ আগবঢ়োৱা হৈছে আৰু ইয়াৰ জৰিয়তে ছাত্ৰ-ছাত্ৰীসকলে নিজকে প্ৰতিষ্ঠা কৰাৰ লগতে অসমীয়া ভাষা তথা সাহিত্যৰ উন্নতি সাধন কৰাৰ এক মহৎ প্ৰচেষ্টাৰ অংশীদাৰ হ'ব পাৰে।

Department of Computer Science

Post Graduate Diploma in Computer Application

Programme Outcomes:

(Technical Outcomes)

PS1: Demonstrate understanding of the principles and working of the hardware and software aspects of the computer system

(Professional Outcomes)

PS2: Ethics:-Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice

Course Outcomes:

ICT Hardware

On successful completion of this subject the students should have Knowledge on Digital circuits, Microprocessor architecture, and Interfacing of various components.

Programming in C

On successful completion of this subject the students have the programming ability in C Language

Overview of Operating System (DOS, Windows, UNIX / Linux and Shell Programming)

Enable the student to get sufficient knowledge on various system resources and also shell programming with basic commands in Linux

Introduction to Office Automation

Enable the student to get sufficient knowledge in word processing, spreadsheet, presentation tools with basics of DTP software.

Database Management System

To inculcate knowledge on RDBMS concepts and commands with MySQL

Data Structure through C language

To design and implementation of various basic and advanced data structures. To introduce various techniques for representation of the data in the real world. and to develop application using data structures.

Internet and Web Technology

To inculcate knowledge in web technological concepts and functioning internet

GUI Application Programming

Basic idea of GUI based applications, Graphics Controls, Database Connectivity

Project

The aim of the Project work is to acquire practical knowledge on the implementation of the programming concepts studied.

Department of Computer Science

Bachelor of Computer Application (BCA)

Programme Outcomes:

(Technical Outcomes)

PS1: Demonstrate understanding of the principles and working of the hardware and software aspects of the computer system

PS2: use professional engineering practices, strategies and tactics for the development, operation and maintenance.

PS3: provide effective and efficient real time solutions using acquired knowledge in various domain.

(Professional Outcomes)

PS4: Ethics:-Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice

PS5: Individual and team work :function effectively as an individual, and as a member or leader

Course Outcomes:

Computer Fundamental & ICT Hardware	On successful completion of this subject the students should have Knowledge on Digital circuits, Microprocessor architecture, and Interfacing of various components.
Communicative English	Enable the student to get sufficient knowledge on communication.
Introduction to C Programming	On successful completion of this subject the students have the programming ability in C Language
Mathematics	On successful completion of this subject the students have the knowledge in determinants and matrices, complex numbers limits and derivatives calculus ets
Data Structure and Algorithm	To design and implementation of various basic and advanced data structures. To introduce various techniques for representation of the data in the real world. and to develop application using data structures.
Computer Based Accounting and Financial Management	On successful completion of this course, the student should be well versed in the concept of Business Finance and the Application of Finance to Business
Digital Logic Fundamentals	On successful completion of this subject the students should have Knowledge on Digital circuits, Microprocessor architecture, and Interfacing of various components.
Environmental Studies	Enable the student to get sufficient knowledge on environmental aspects.
Software Engineering	To introduce software project management and to describe its distinctive characteristics and to

Computer Organization and Architecture	discuss project planning and the planning process and show how graphical schedule representations are used by project management and the risk management process On successful completion of this subject the students have the knowledge in logic gates, memory sub system and i/o subsystem etc
Database Management System.	To inculcate knowledge on RDBMS concepts and Programming with MySql
Object Oriented Programming in C++	To inculcate knowledge on Object-oriented programming concepts using C++.
Laboratory - C++ programming and DBMS Operating System	Enable the student to get sufficient knowledge on various system resources
Web Technology	To inculcate knowledge in web technological concepts and functioning internet
Java Programming	To inculcate knowledge on Java Programming concepts
System Administration using Linux	On successful completion of this subject the students have the knowledge to explore the linux operating system
Computer Networks	To inculcate knowledge on Networking concepts and technologies like wireless, broadband and Bluetooth.
Open Source Software	On successful completion of this subject the students have the programming ability in open source software like LaTeX, scilab, and python Languages
Project Work	The aim of the Project work is to acquire practical knowledge on the implementation of the programming concepts studied.
Computer Oriented Numerical Methods and Statistical techniques	On successful completion of this subject the students have the knowledge in representations of numbers, solution of non linear equations, solutions of simultaneous equations etc
Data Mining & Warehousing	On Successful Completion of this subject the students should have knowledge on Data mining Concepts
Mobile Applications	On successful completion of this subject the students have the programming ability in Android

Department of Arabic
Rangia College, Rangia

OUTLINE OF SYLLABUS

On the basis of UGC's guidelines the courses are classified as Core courses, Elective courses or Ability Enhancement Courses.

Core Course.

A Core course is a course that has to be compulsorily studied. A student in an undergraduate degree programme with Honors will have to take up 14 core courses, each of 6 credits. In a Regular undergraduate degree programme a student will need to take up 12 core courses, each again of 6 credits.

Elective Course:

An Elective course is to be chosen by the student from a pool of such courses on offer and will essentially be of three types:

Discipline Specific Elective Course: An Elective Course which is offered by the main discipline. The discipline offering a Discipline Specific Elective course may also offer discipline related elective courses that are interdisciplinary in nature. A student enrolled in an undergraduate degree program with Honours will have to earn 24 course credits from Discipline Specific Elective courses. For a student enrolled in a non-Honours undergraduate degree program in Arts, the course credit requirement from Discipline Specific Elective courses will be 24 credits

Generic Elective Course: A Generic Elective Course is offered by an unrelated discipline and has the objective of broadening the academic experience of a student. A student enrolled in an undergraduate degree program with Honours can acquire 24 course credits from Generic Elective Courses. A Core Course offered in a discipline may be allowed as an Elective to a student from another discipline. This course will be treated under the category of Generic Elective Courses. Generic Elective Courses are not available to students in a non-Honours undergraduate science degree program while other non-Honours undergraduate programmes require enrollees to take up two such courses.

Dissertation/Project: Engaging students in a Project/ Dissertation work, which requires knowledge application and problem solving, is considered to be important in the learning process. All students enrolled in an undergraduate degree program (Honours and non-Honours) will have the option of choosing to undertake Project/Dissertation work for 6 credits in lieu of a 6 credit Discipline Specific Elective course in the fifth semester only.

Ability Enhancement Courses: Ability Enhancement Courses which are to be taken up by students in an undergraduate degree program will be of two types:

Ability Enhancement Compulsory Courses: These 4 credit courses are mandatory for every student enrolled in an undergraduate degree program. A student will have to take up 4 credit course in Environmental Science and a second 4 credit course in English Communication/ MIL Communication.

Skill Enhancement Courses: Skill Enhancement Courses will be value-based or skill based and there will be a pool of courses on offer. A student enrolled in an undergraduate degree program with Honours will have to take up a minimum of two SEC courses of 4 credits each as part of the program requirement. For students enrolled in non-Honours undergraduate degree programs the credit requirement from Skill Enhancement Courses will be 16 credits. It is desirable that the university will prepare Skill Enhancement Courses for various disciplines from the list of SEC provided by the UGC template. However colleges are free to develop their own SECs independently which must have prior approval of the Academic Council.

For the purpose of computation of work-load the following mechanism is to be adopted:

1 Credit = 1 Theory period of one hour duration

1 Credit = 1 Tutorial period of one hour duration