



**BAGNAN COLLEGE**  
**Bagnan, Howrah**

**Programme Outcome (PO), Programme Specific Outcome (PSO), Course Outcome (CO) for 2019-2020 (under CBCS curriculum)**

**DEPARTMENT OF BENGALI**

**Program Outcomes (PO) of Bengali Honours and General**

**Core Courses**

- The sincere student achieves a strong foothold on the language discipline of Bengali and its rich literature that has evolved over time and through the ages. History of the Bengali Language from its origin to twentieth century with special emphasis helps to understand the stages of evolution and literature of that phase simultaneously.
- Study of Linguistics will help students the Bengali language-including sounds, words, sentences and meaning. Students will understand Bengali language in an historical context and they will learn how Bengali language changed over time and how it varies from situation to situation and place to place. Study of Linguistics will also help in making the foundation of language stronger and will improve the practical and intellectual skills.
- Fiction and novel, structural pattern and craft: Deep research into a broader cultural praxis, myth of telling a story and how it is narrated from the other's point of view, new experiments in plot, character and methodology.
- A comprehensive and detailed analysis of the history of social or cultural, political or the primitive mythological deep - rooted systems helps students to acquire a true understanding of evolution of the Bengali culture through various perspectives.
- Insights into the Post-war transformations of the different art forms, structural denominations of past legacy and history of social, political and cultural dilemma weaving around colonial India
- A Comprehensive introspection of various genres and structural analysis.
- Study of the twentieth century classics with respect to structuralism, semiotics, grammatology and narrative ideas, epistemological features and feminist approaches. Socio- political impact of 19th and 20th century prose, colonial influence, religious and social identities; Significant aspects of national uprising, class struggle, new methodological inputs and transient traditions: a detailed and structured metamorphosis.
- Advanced techniques in the craft of fiction, short story and experiments in the 20th century novel, historical novel, epic novel and stream of consciousness novel.

- A detailed knowledge of the twentieth century poetry, trends and intentions from Rabindranath to the later modern poets
- Analytical observations of Drama, symbolist tendencies, the changing means of communication in satire, wit and contemporary individual voices of protest, theme and history of new experiments
- Extended knowledge background with respect to the growth and development of IPA and experimental methods for upcoming new genres.
- Protests and revolt against Fascism and Capitalism, protests and strike against landlords or rich industrialists by farmers and labourers contributed to a new phase of literary documentation.
- The Fort William College and the Vernacular Literature Society: their contribution to growth of Bengali prose, essays, translations of mythology and old religious texts of Sanskrit.

### **Skill Enhancement Courses (SEC)**

SECs in the undergraduate program help the students excel in professional fields

- through knowledge acquired about the growth of the Printing press and development of a global platform for Bengali speaking people; the growth of new genres and publications; development of mass culture and activism through public theatre; the profound impact of social identity and mass protests as published in various journals, periodicals and weekly magazines; news data of theatre and staged dramas.
- through use of functional Bengali Translation, composition of interviews, reports and newspaper articles.
- by learning drama and recitation
- by learning proper pronunciation of words, knowledge of prosody, writing scripts for documentaries and films.
- by learning Translation, composition of interviews, reports and newspaper articles.
- by learning how to format a research paper, methodology for constructive research
- by learning to develop proper database for transformation of a story to a film, professional inputs and concepts.
- Skills for working in a publishing media and other publishing houses.

### **Discipline Specific Courses (DSE)**

- Fiction and novel, structural pattern and craft: Deep research into a broader cultural praxis, myth of telling a story and how it is narrated from the other's point of view, new experiments in plot, character and methodology.

- A comprehensive and detailed analysis of the history of social or cultural, political or the primitive mythological deep - rooted systems helps students to acquire a true understanding of evolution of the Bengali culture through various perspectives.
- Deep understanding about Bengal Partition and post - partition crisis in Bengali Literature: Novel, Short Story, Poetry
- Literature of Bangladesh would enrich the students' understanding of the contemporary trends in poems and novels and new cultural initiatives. Knowledge and understanding literature from a different perspective.
- Will develop the backdrop of folk tales and structural analysis of oral discourse and the literature for children and adolescents: form and stylistics which qualify new tendencies of society and culture.
- Study of different forms of linguistic and semantic manifestations ensure a deep reading of science fiction, mystery novels and popular literature which helps to achieve a critical understanding of the growth of individual protest and literary activism.
- The course is built suitably to help students acquire a solid basis of comparative understanding of concepts of classical authors and thinkers.

### **Program Specific Outcomes of Bengali Honours and General**

Specific outcomes of this course are identified by what students learn and apply. The Course imparts a deep and profound understanding about Bengali Language and Literature through the stages of evolution and transformation, in different perspectives, their valuable contribution to society, the influences they have drawn from historical experiences and their evolution into an Indian and International language in its modern and more functional form. The prospects of the undergraduate program in Bengali Honours is spelled out as follows –

- Higher studies in University of Calcutta or other reputed Universities.
- Studies in the field of Advertising, Media, Journalism, Print Media and Publishing Houses and opportunities for employment in these areas.
- Suitable job orientation as junior research associate, in college libraries and universities.
- Eligibility through School Service Commission Examinations and other sources as teaching faculty in schools at the Primary, Secondary and Higher Secondary levels.
- Scope of social, community and rural engagement through involvement with government institutions and NGOs.

## COURSE OUTCOMES (COs)

### BENGALI (Honours and General)

Study of Bengali literature and its criticism develops and improves the power of synthetic thinking as it combines both emotion and intellect. No ideal educational institution can run without recognizing literature. Ideals, values and ideologies are abstract concepts to be practiced in daily life of our society. Literature gives concrete shapes to these values and ideas

### SEMESTER 1

#### A. Core Course

**BNGA CC 1: [বাংলা সাহিত্যের ইতিহাস (১৮০০ খ্রি পর্যন্ত)] History of Bengali Literature (Upto 1800AD) (6 credits per week)**

**CO1:** Describe and critically appraise the historical development of Bengali literature. Charyapada - the oldest extant Bengali text and Sri Krishna Kirtan - the only available instance of early medieval Bengali writing – are taken as principal texts in order to study the historical development of Bengali literature.

**CO2:** Compare and appraise critically the works of Bidyapati-Chandidas and GyandasGobindadas. biographer of Sri Chaitanya - Brindabandas, Krishnadas Kabiraj

**CO3:** Recognize the folk connotations of Mangal debata; Manasa-Dharma-Chandi-Annadamangal. Develop a thorough understanding of the poetry of humanity produced in the Arakan court under the influence of Sufi philosophy, especially the works of Shah Muhammad Sagir, Daulat Kazi, and Syed Alaul

**BNGA CC2: [বর্ণনামূলক ভাষাবিজ্ঞান ও বাংলা ভাষা] Descriptive Linguistics and Bengali Language (6 credits per week)**

As an Honours student of literature, it is very important to have an idea about Bengali Linguistics and lexicography. This course is designed to meet this goal.

**CO1:** Develop an understanding of the basics of descriptive and structural linguistics and critically appraise the same with respect to historical / comparative linguistics in order to study phonetics, semantics, and morphology.

**CO2:** Recognize the pronunciation of swar and byanjan with respect to the place of pronunciation and nature of the sound. Develop a clear understanding of vowels and [swanim]. **CO3:** Demonstrate an understanding of the evolution of words, the meaning of words, and Bengali vocabulary. Discuss the influence of Bengal's geographic landmass and people on the development of Bengali dialects.

#### B : Generic Elective

**BNGG GE 1: [বাংলা সাহিত্যের ইতিহাস – আধুনিক যুগ] History of Bengali Literature ( Modern Age) (6 credits per week)**

➤ **CO 1:** The purpose of this course is to acquaint the students with the course of evolution of different genres of Bengali literature in the period after 1800 AD.

### **C: Ability Enhancement Compulsory Course**

#### **AECC 1: [আবশ্যিক বাংলা] MIL Bengali (2 credits)**

➤ This course is offered to students of all disciplines. This course is about Essays, Tagore's poems, short stories and terminology.

## **SEMESTER 2**

### **A. Core Course**

#### **BNGA CC 3: [বাংলা সাহিত্যের ইতিহাস – উনিশ শতক] History of Bengali Literature (Nineteenth Century) (6 credits per week)**

The purpose of this is to acquaint the students with the transmission of modernity in our thought life and literature by coming in contact with the colonial modernity.

**CO1:** Develop a thorough understanding of the poetry of Madhusudan Dutt and Girindramohini Dasi, the theatre of Dinabandhu Mitra, and the short stories of Rabindranath Tagore as example of the modern evolution of the genres.

**CO2:** Demonstrate and recall an understanding of the evolution and significance of newspapers and periodicals such as Sangbad Prabhakar, Tattwabodhini Patrika, Banga Darshan, and so on.

**CO3:** Recognize the contribution of Rammohan Ray, Vidyasagar, Akshay Dutta, Bankimchandra Chatterjee, Mir Mosharraf Hussein, and Vivekananda in the development of the rational, socially conscious aspect of Bengali prose and essays.

#### **BNGA CC 4: [বাংলা সাহিত্য – প্রবেশক পাঠ] Bengali Literature – Introductory Text (6 credits per week)**

After acquiring basic knowledge about the history of Bengali language and literature, students will have the opportunity to enjoy it here. The aim is to make the reading of literature as enjoyable as possible.

**CO1:** Undertake a thorough reading of representative poets of Bengali literature, from Luipāda's Charyapada to the poetry of Joy Goswami, and recognize the diversity of Bengali poetry ranging from 'Sab loke koy Lalon ki jaat' to 'Babar-er prarthana'.

**CO2:** Juxtapose diverse texts such as Bankimchandra Chatterjee's Kapalakundala and Samaresh Basu's Adaab.

**CO3:** Recognize the significance of texts such as Dinabandhu Mitra's Neel Darpan, the first play in Bengali reflecting harsh socioeconomic realities, and Sofia Khatun's Unobingsho Shatabdir Naribiplab.

#### **B: Generic Elective GE2: [ঐতিহাসিক ভাষাবিজ্ঞান, ছন্দ ও অলঙ্কার] Historical Linguistics , Rhythm and Rhetoric (6 credits per week)**

➤ **CO 1:** Students will be given an idea about the origin and development of Bengali language. Students will take short lessons in rhyme and rhetoric as one of the elements of poetry construction and also take lessons from this course.

### **SEMESTER – 3**

#### **A. Core Course**

#### **BNGA CC 5: [বাংলা সাহিত্যের ইতিহাস – বিশ শতক] History of Bengali Literature (Twentieth Century) (6 credits per week)**

Through this course, students will learn about the nature and nature of twentieth century Bengali literature.

**CO1:** Develop a sense of the directions in Bengali literature in the 20th Century.

**CO2:** Engage with the works of dramatists like Utpal Dutt and Badal Sarkar, prose writers like Somen Chanda and Ashapura Debi.

**CO3:** Familiarize themselves with the tradition of Bengali periodicals from Bharati to Kritibash.

#### **BNGA CC 6: [ঐতিহাসিক ভাষাবিজ্ঞান] Historical Linguistics (6 credits per week)**

To give students an idea of the linguistic features of that stage with the help of literary patterns at every stage of emergence and development of Bengali language from ancient Indian Aryan language to modern Indian Aryan language.

**CO1:** Demonstrate a grasp over the evolution of Bengali from the ancient to the modern period.

**CO2:** Recognize the linguistic characteristics of each period through a study of the texts of the time.

#### **BNGA CC 7: [কথাসাহিত্য] Kathasahitya (6 credits per week)**

In the third semester, students will take this course in addition to acquiring knowledge about modern history and linguistics of Bengali literature. Through this course, the students will try to get acquainted with the complexities of modern times, the conflict of busyness and complexity, the position of women in Bengali family life, thoughts about environment and various tendencies of human struggle.

**CO1:** Grasp the complexities of modernity, and the conflict between the individual and the society.

**CO2:** Learn about the place of women in the Bengali household and the environment of the same.

**CO3:** Learn the struggles of Indigenous communities to throw off the yoke of oppression through the study of Mahasweta Devi's Aranyer Adhikar.

**Skill Enhancement Course SEC-A-2: [ব্যবহারিক বাংলা – ১] Practical Bengali-1 (2 credits)**

This course will give you some basic insights on how to pursue a career in drama, cinema or recitation as a career in later life.

**CO1:** Understand the relationship between cinema/theatre and literature.

**CO2:** Learn to write theatrical adaptations and film scripts that will help enter the world of theatre, cinema and television.

**B. Generic Elective GE 3: [ বাংলা কাব্য কবিতা ও নাটক] Bengali Poetry and Drama (6 credits per week)**

**CO 1:** Students will taste literature in this course after taking lessons on rhyme rhetoric of Bengali language and literature. The evolutionary trend of Bengali poetry will also become clear to them.

**SEMESTER – 4**

**A. Core Course**

**BNGA CC 8: [প্রাগধুনিক সাহিত্য] Pre-Modern Literature (6 credits per week)**

The aim of this course of pre-modern literature is to enable the students to understand the trajectory of evolution of Bengali society, religion and culture besides enjoying literature.

**CO1:** Recognize the evolution and development of Bengali society and socioreligious practice

**CO2:** Grasp social realities of the middle period in Bengali history through the study of the Shakta padavalis and the Chandimangal Kabya.

**BNGA CC 9: [ছন্দ, অলঙ্কার ও কাব্যতত্ত্ব] Rhythm Rhetoric Poetry (6 credits per week)**

Students of literature need to have a theoretical knowledge of rhyme rhyme poetry. This course will deepen students' poetry lessons.

**CO1:** Learn the basics of rhyme, rhetoric and poetics.

**CO2:** Grasp the basics of Indian aesthetics, the concepts of dhvani and Rasa.

**CO3:** Grasp the basics of Western aesthetics through a study of Plato, Aristotle, and the concept of mimesis.

**BNGA CC 10: [প্রবন্ধ ও বিবিধ রচনা] Essays and Miscellaneous Writings (6 credits per week)**

The spread of philosophy or thought in Bengali essays dates back to the middle of the nineteenth century. Society, state, education, science, language, literature, religion, philosophy - Bengali thinkers have expressed their thoughts on various subjects through essays. A unique form of worldview has also been expressed in Rabindranath's

Chhinnapatra. Through this course students will be able to become rich in various subjects related to society and literature.

**CO1:** Develop a broader sense of religion, politics, caste and so on through a reading of a wide range of essays.

**CO2:** Grasp the concept of plurality and tolerance.

**B. Skill Enhancement Course SEC-B-2: [ ব্যবহারিক বাংলা ২] Practical Bengali-2 (2 credits)**

Here, hand-in-hand ideas will be given about the artistic techniques of how the literary form that the reader is reading has become toiri. The course also seeks to impart practical knowledge of IPA and Roman script

**CO1:** Grasp the appropriate use of Bengali spelling.

**CO2:** Develop a functional grasp of IPA and Roman scripts.

**C. Generic Elective GE 4: [বাংলা কথাসাহিত্য ও প্রবন্ধ] Bengali Fiction and Essays (6 credits per week)**

**CO 1:** In this course Bengali fiction and essay literature will be given.

**D. LCC 2 [বাংলা ভাষাবিজ্ঞান ও সাহিত্যের রূপভেদ ও কাব্য] (6 credits per week)**

By the end of this paper, students will be able to:

**CO1:** Develop a preliminary sense of Bengali linguistics.

**CO2:** Grasp the different forms in literature.

## SEMESTER - 5

### A. Core Course

**BNGA CC 11: [সাহিত্যের রূপ ও রীতি] Forms and Genres of Literature (6 credits per week)**

This course will give you an idea about the variety and structure of literature. In addition to learning about the various forms and forms of literature, students will also be able to gain an idea about the evolution of literature.

**CO1:** Grasp the different literary forms and their structure.

**CO2:** Conduct comparative studies between novels and short stories.

**CO3:** Develop a sense of the modern psychological novel, the political novel and the regional novel.



## **BNGA CC 12: [ নাটক ও নাট্যমঞ্চ] Drama and Drama Stage (6 credits per week)**

The development of Drama stage and Drama is interdependent and complementary. The course has been conducted for the purpose of considering the development of Drama stage as well as reading Drama Literature as a mirror of social reality.

**CO1:** Develop an understanding of theatre as a mirror to the society.

**CO2:** Learn the history of theatre.

**CO3:** Grasp the history of theatre and censorship, and the thought behind people's theatre or gana natya

### **B. Discipline Specific Electives**

#### **BNGA DSE A-1: [বাংলার সমাজ ও সংস্কৃতির ইতিহাস] SOCIAL AND CULTURAL HISTORY OF BENGAL**

A comprehensive and detailed analysis of the history of social or cultural, political or the primitive mythological deep - rooted systems helps students to acquire a true understanding of evolution of the culture through various perspectives

A comprehensive and detailed analysis of the history of social or cultural, political or the primitive mythological deep - rooted systems helps students to acquire a true understanding of evolution of the Bengali culture through various perspectives.

#### **C. BNGG DSE A 2 [বাংলা গোয়েন্দা সাহিত্য, কল্পবিজ্ঞান আশ্রয়ী রচনা এবং অলৌকিক কাহিনি] Bengali detective literature, science fiction and miracle stories (6 credits per week)**

**CO1:** Adolescents become accustomed to reading and tasting literature through detective stories, science fiction stories, or ghost stories.

**CO2:** Students will learn to study their familiar field in the academic curriculum here.

#### **D. BNGG SEC A 2 [ ব্যবহারিক বাংলা ] BYABOHARIK BANGLA**

Here, hand-in-hand ideas will be given about the artistic techniques of how the literary form that the reader is reading has become toiri. The course also seeks to impart practical knowledge of IPA and Roman script

**CO1:** Grasp the appropriate use of Bengali spelling.

**CO2:** Develop a functional grasp of IPA and Roman scripts.

## **SEMESTER – 6**

### **A. Core Course**

#### **BNGA CC 13: [আধুনিক বাংলা কাব্য কবিতা ] Modern Bengali Poetry (6 credits per week)**

Through this course, the students will be able to understand the different episodes of the new era that came in our poetry by coming in contact with the colonial modernity.

**BNG A CC 14: [संस्कृत, इंग्लेजि ७ प्रतिवेशी (हिन्दी) साहित्येर इतिहास] Sanskrit, English and Neighboring (Hindi) History of Literature (6 credits per week)**

**CO1:** After getting an overview of Bengali literature, the student will get an initial introduction to the history of Sanskrit, English and neighboring (Hindi) literature

**CO2:** and in that light his assessment of Bengali literature will become more transparent.

#### **B. Discipline Specific Electives**

**BNGA DSE A-3: [বাংলা গোয়েন্দা সাহিত্য, কল্পবিজ্ঞান আশ্রয়ী রচনা এবং অলৌকিক কাহিনি] Bengali detective literature, science fiction and miracle stories (6 credits per week)**

**CO1:** Adolescents become accustomed to reading and tasting literature through detective stories, science fiction stories, or ghost stories.

**CO2:** Students will learn to study their familiar field in the academic curriculum here.

**BNGA DSE B-4: [লোকসংস্কৃতি ७ লোকসাহিত্য ] Folk Culture and Folk Literature (6 credits per week)**

This course imparts a good knowledge of folklore, folk culture and a general overview of contemporary folk culture and history that would help students secure a broader horizon of depth and understanding to qualify for various competitive exams in Law, multimedia, Civil Service and other disciplines.

**CO.1** Will develop the backdrop of folk tales and structural analysis of oral discourse and the literature for children and adolescents:

**CO. 2** form and stylistics which qualify new tendencies of society and culture.

#### **C. BNGG DSE B-2 [লোকসংস্কৃতি ७ লোকসাহিত্য ] Folk Culture and Folk Literature (6 credits per week)**

This course imparts a good knowledge of folklore, folk culture and a general overview of contemporary folk culture and history that would help students secure a broader horizon of depth and understanding to qualify for various competitive exams in Law, multimedia, Civil Service and other disciplines.

**CO.1** Will develop the backdrop of folk tales and structural analysis of oral discourse and the literature for children and adolescents:

**CO. 2** form and stylistics which qualify new tendencies of society and culture.

#### **D. BNGG SEC B 2 [ ব্যবহারিক বাংলা ] BYABOHARIK BANGLA (2 credits per week)**

Here, hand-in-hand ideas will be given about the artistic techniques of how the literary form that the reader is reading has become toiri. The course also seeks to impart practical knowledge of IPA and Roman script

**CO1:** Grasp the appropriate use of Bengali spelling.

**CO2:** Develop a functional grasp of IPA and Roman scripts.



## **DEPARTMENT OF PHILOSOPHY**

### **Course Outcome of the General Course in Philosophy**

**CO1. Indian Epistemology and Metaphysics:** Enablement of the students to understand the range, basic concepts, feature, significance and theories of A. Cārvāka Epistemology: B. Nyāya Epistemology: C. Vaiśeṣika Metaphysics: D. Advaita Metaphysics.

**CO2. Western Epistemology and Metaphysics:** To be understand and learn to the students of the Concepts,

A. Different senses of 'Know'. Conditions of Propositional Knowledge, Origin of Concepts. Concept Rationalism-Views of Descartes and Leibniz, Concept Empiricism –Views of Locke, Berkeley and Hume. B. Theories of the origin of Knowledge: Rationalism, Empiricism, Kant's Critical Theory. C. Realism: Naive Realism, Locke's Representative, Realism, Subjective Idealism (Berkeley). D. Causality: Entailment Theory, Regularity Theory. E. Mind- Body Problem: Interactionism, Parallelism and the Identity Theory.

**CO3. Western Logic:** Empowerment of the students to logical thinking and critically understanding of the Introductory topics: Sentence, proposition, argument, truth and validity. B. Aristotelian classification of categorical propositions, distribution of terms. Existential Import, Boolean interpretation of categorical propositions. Immediate inference. Immediate inference based on the square of opposition, conversion, obversion and contraposition. C. Categorical syllogism: Figure, mood, rules for validity, Venn Diagram method of testing validity, fallacies. D. Symbolic Logic: Use of symbols, Truth-functions: Negation, Conjunction, disjunction, implication, equivalence. E. Tautology, Contradiction, Contingent statement forms. Construction of truth-table, using truth-tables for testing the validity of arguments and statement forms. F. Mill's methods of experimental inquiry.

**CO4. Philosophy of Mind:** Understanding to be enablement to students of Psychology: A. Sensation: What is sensation? Attributes of sensation. Perception: What is perception? Relation between sensation and perception, Gestalt theory of perception, illusion and hallucination. B. Consciousness: Conscious, Subconscious, Unconscious, Evidence for the existence of the Unconscious, Freud's theory of dream. C. Memory: Factors of memory, Laws of association, Forgetfulness.

Learning: The trialand Error theory, Pavlov's Conditioned Responsetheory, Gestalt theory. D. Intelligence: Measurement of Intelligence, I.Q, Testof Intelligence, Binnet-Simon test

### **Course Outcome (CO) of the General Course Discipline Specific Elective in Philosophy**

**CO1.Ethics: Indian and Western:** Enablement of the students to understand morally theoretical as well as practical of the Four Purusarthās – dharma, artha, kāma and mokṣa and their interrelation. Karma (Sakāma & Niṣkāma), Cārvāka Ethics. B. Buddhist Ethics: The Four Noble Truths and the Eight-Fold Path. C. Moral and Non-Moral Actions, Object of Moral

Judgement.D. Teleological Ethics: Utilitarianism (Bentham and Mill) Deontological Ethics: Kant's Moral Theory. E. Theories of Punishment

**OR**

**Social and Political Philosophy:** To be understand and learn to the students the Nature and Scope of Social Philosophy and Political Philosophy A. Relation between Social Philosophy and Political Philosophy B. Primary Concepts: Society, Community, Association, Institution, Family.C. Social Class and Caste: Principles of Class and Caste; Marxist conception of class; Class Attitudes and Class consciousness D. Social Codes and Sanctions; Custom and Law; Culture and Civilisation. E. Social Changes: Marx and Gandhi. F. Political Ideals: Democracy: Its Different Forms. Socialism: Utopian and Scientific Socialism

**CO2. Applied Ethics and Philosophy of Religion.** Enablement of the students to understand the Nature and scope of Applied Ethics and Philosophy of Religion A. Concepts of Applied Ethics.B. Killing: Suicide, Euthanasia.C. Famine, Affluence and Morality. D. Environmental Ethics: Value Beyond Sentient Beings, Reverence for life, Deep Ecology. E. Nature & Concerns of Philosophy of Religion. Argument for the existence of God: Cosmological argument, Ontological argument and Teleological argument. F. Problem of Evil and Suffering.G. Grounds for disbelief in God: Sociological theory of Durkheim,Freudian Theory, Cārvāka View.

**OR**

**Contemporary Indian Thought:** Empowerment of the students to logical thinking and critically understanding of i)Swami Vivekananda: Nature of Man, Nature of Religion, Ideal of universal religion, Practical Vedānta ii) M.K. Gandhi : Nature of man, non-violence, satyāgraha, theory of trusteeship iii)B.R. Ambedkar: Critique of social evils, Dalit movement.

### **Course Outcome of the General Course Skill Enhancement Elective course in Philosophy**

**CO1.**

**Logical Reasoning and Application:** Empowerment of the students to logical thinking and critically understanding of The main objective of logical reasoning, application, relevance, functioning, validating ,causality and identifying .

**OR**

**Business Ethics:** Enablement of the students to understand morally theoretical as well as practical Application of Nature and Scope of Business Ethics.

**CO2. a) Man and Environment** To be understand and learn to the students the Nature and Scope of Man and Nature and attitude toward nature.

**OR**

**Value Education:** Understanding to be enablement to students of Meaning, Characteristics, significance and objectives of Value Education.

### **Course Outcome of the Honours Course in Philosophy**

Students of this course will:

**CO1.** Indian Philosophy basically: Enablement of the students to understand the range, basic concepts,feature, significance and theories of Carvaca, Bouddhism, Jaina , Nyaya, and Baiseshika and their importance.

**CO2.** History of Western Philosophy: To understand the students the basic concepts, feature, significance and theories, criticism of Pre Socratic Philosophy: (Thales, Heraclitus, Parmenides, Empedocles, Anaxagoras, Democritus, Protagoras). Plato, Aristotle, St. Thomas Aquinas, Descartes, Spinoza, Leibniz.

**CO3.** Outlines of Indian Philosophy: Enablement of the students to understand the range, basic concepts, feature, significance and theories of Sankhya, Yoga, Mimamsa and Vedanta and their importance.

**CO4.** History of Western Philosophy: Enablement of the students to understand and thinking the basic concepts, feature, significance and theories, criticism of Locke, Berkely, Hume and Kant.

**CO5.** Philosophy of Mind: Understanding to be enablement to students of Psychology: Definition, Nature and Scope. Methods of Psychology, Methods, variables, Controls in experiment, Limitations of experimental method.

**CO6.** Social and Political Philosophy: To be understand and learn to the students the Nature and Scope of Social Philosophy and Political Philosophy, Relation between Social and Political Philosophy. Primary concepts: Social Class and Caste, Theories regarding the relation between individual and society, Secularism—its nature, Secularism in India. Social Change Political Ideals, Socialism:

**CO7.** Philosophy of Religion: Enablement of the students to understand the Nature and scope of Philosophy of Religion, The Philosophical teachings of the Holy Quran, Some basic tenets of Christianity, Religious Pluralism, Inter-religious dialogue and Possibility of Universal Religion, Arguments for the existence of God, Grounds for Disbelief in God, The Peculiarity of Religious Language.

**CO8.** Western Logic: Empowerment of the students to logical thinking and critically understanding of Logic and Arguments, Deductive and Inductive Arguments, Argument, forms and arguments, Statement forms and statement, Truth and Validity, Categorical propositions and classes, Immediate inferences: Conversion, Obversion and Contraposition, Traditional square of opposition and Immediate Inferences based thereon, Existential Import, symbolism and Diagrams for categorical propositions, Categorical Syllogism: Standard Form categorical Syllogism; The Formal nature of Syllogistic Argument, Rules and Fallacies, General Rules, To test Syllogistic Arguments for validity (by applying general rules for syllogism); To solve problems and prove theorems concerning syllogism. Boolean Interpretation of categorical propositions; syllogism; Venn Diagram Technique for Testing Syllogisms, Hypothetical and Disjunctive Syllogisms, Enthymeme, The Dilemma. Induction: Causal Connections: Induction by Simple Enumeration; Mill's Method of Experimental Inquiry; Science and Hypothesis, Investigation; Crucial Experiments and Ad Hoc Hypotheses. Probability.

**CO9.** Western Logic: Empowerment of the students to logical thinking and critically understanding of a) Symbolic Logic: b) Tautologous, Contradictory and Contingent Statement-Forms; the Paradoxes of Material Implication; The Three Laws of Thought. c) Determining the logical character of statement form and statements by i) The Method of Truth-table. ii) The Method of Resolution [dot notation excluded, d) Testing Argument Form and Argument for validity by i) The Method of Truth-table. ii) The Method of Resolution (Fell swoop & Full Sweep).

e) The Method of Deduction: Formal Proof of Validity: Difference between Implicational Rules and the Rules of Replacement; Construction of Formal Proof of Validity by using nineteen rules; Proof of invalidity by assignment of truth-values. f) Quantification Theory: g) Quantification Rules and Proving Validity; Proving Invalidity for arguments involving quantifiers.

**CO10. Epistemology and Metaphysics (Western):** To be understand and learn to the students of the Concepts, Truth, Sources of Knowledge, Some Principal uses of the verb “To know”, Conditions of Propositional, Knowledge, Strong and weak senses of “know” Analytic truth and logical possibility, The apriorism, The Problem of Induction, Cause and Causal Principles, Realism, Idealism, Phenomenalism, Substance and Universal.

**CO11. Nyāya Logic and Epistemology:** To be understand, learn and critically thinking to the students of the Definition of buddhi or jñāna (cognition), its two kinds; Definition of smṛiti; Two kinds of smṛiti (memory); Definition of anubhava, its division into veridical (yathārtha) and non-veridical (ayathārtha); Three kinds of non-veridical anubhava; Definitions clarified in Tarkasaṁgraha Dīpikā b) Four-fold division of pramā and pramāṇa. Definition of “Kāraṇa” (special causal condition) and “kāraṇa” (general causal condition). The concept of anyathāsiddhi (irrelevance) and its varieties. The definition of kārya (effect). Kinds of cause: samavāyī, a-samavāyī and nimitta kāraṇa (definitions and analysis). c) Definition of pratyakṣa and its two-fold division: nirvikalpaka and savikalpaka jñāna. Evidence for the actuality of nirvikalpaka. d) Sannikarṣa and its six varieties. Problem of transmission of sound; The claim of “anupalabdhi” as a distinctive pramāṇa examined.

**CO12. Ethics (Indian):** Enablement of the students to understand the a) Introduction: Concerns and Presuppositions, Concept of Sthitaprañjña, Karmayoga: (Gīta) Puruṣārthas and their inter-relations. b) Meaning of Dharma, Concept of Ṛṇa and Ṛta. Classification of Dharma: sādharmaṇadharmā and Asādharmaṇa dharmā, Varnāśrama dharmā. c) Vidhi and Niṣedha. d) Buddhist Ethics: Pañcaśīla, Brahmavihārabhāvanā (Bauddha) Anuvrata, Mahāvratā, Ahimsā. e) Jaina Ethics: anubratā, mahabratā. f) Mīmāṃsā Ethics: nitya naimittika karma and kāmya karma, the imperative in kāmya karmas and in kāmya karmas involving himsā.

**CO13. Nyaya Logic and Epistemology** a) Empowerment of the students to logical thinking and critically understanding of Definiton of anumāna, anumiti and parāmarśa. Analysis of pakṣatā. Definition of vyāpti; Vyāptigraha. b) Definition of pakṣadharmatā—svārthānumiti and parārthānumiti; Analysis of pañcāvayavi Nyāya. Necessity of parāmarśa. Three kinds of linga. Definiton of pakṣa, Sa-pakṣa and vipakṣa with illustrations. Marks of sat hetu. c) Hetvābhāsa- two types of definition. Five kinds of hetvābhāsa: Upādhi and its four kinds (definition and illustration) (5) “Bādhitā” (definition and illustration). d) “Upamāna pramāṇa” : Definition and analysis. “Śabda pramāṇa” : Definition and analysis. “Śakti” (the direct signifying power), the padapadārtha- sambandha considered as Īśvara-saṁketa, Controversy between the Mīmāṃsakas and the Naiyāyikas regarding the nature of Śakti as universal or particular. e) “Śaktigraha” (ascertainment of the meaning-relation), lakṣaṇa, varieties of lakṣaṇa, f) The question of lakṣanā-bīja tātparya, g) “Arthāpatti” as a distinctive pramāṇa: Controversy between the Mīmāṃsakas and the Naiyāyikas. h) The theory of prāmānya: the issue between svataḥ-prāmānyavāda and parataḥ-prāmānyavāda regarding utpatti and jñāpti; The Prābhākara theory of akhyāti.

**CO14. Ethics (Western):** Enablement of the students to understand morally theoretical as well as practical of A. Nature and Scope of Ethics, Classification of Ethics: a) Prescriptive, b) Meta

Ethics, c)Applied Ethics. B. Moral and Non-moral actions, Object of Moral Judgement—Motive and Intention C. Moral Theories: Plato and Aristotle D. Standards of Morality: Hedonism—Ethical, Psychological. Utilitarianism: Act-utilitarianism, Rule-utilitarianism. Deontological Theories: Act-Deontological Theories, Rule-Deontological Theories—Kant's Theory E. Theories of Punishment.

**Course Outcome of the Honours SKILL ENHANCEMENT COURSE in Philosophy**

**CO1. Logical Reasoning and application: Indian and Western:** Empowerment of the students to logical thinking and critically understanding of the main objective of logical reasoning, application, relevance, functioning, validating, causality and identifying.

**OR**

**Man and Environment:** To be understand and learn to the students the Nature and Scope of Man and Nature and attitude toward nature.

**CO2. Emerging trends of thought:** Enablement of the students to understand morally theoretical as well as practical application of Nature and Scope of Business. Ethics Environmental philosophy, Feminist Philosophy, Peace studies and Recent trends in ethics.

**OR**

**Environmental Philosophy:** To be understand, learn and critically thinking to the students of the Environmental Philosophy.

**Course Outcome of the Honours Course Discipline Specific Elective in Philosophy**

**CO1. Optional papers.**

**CO2.Optional papers.**





## **DEPARTMENT OF ENGLISH**

### **Department of English Programme Outcome**

After the completion of the course the students are exposed to literature which prompts them to engage in reading develop and understanding of new cultures, trends, periods etc. The mental and intellectual growths of the students are enhanced.

- They are able to process information, discuss patterns, identify problems and provide solutions. • One of the key outcomes of this course is that the students have the capability to express their ideas clearly and respond appropriately to the communication of others in speech the writing.
- The course enables the students to use their study of literature to initiate, cultural, ethical and global awareness.
- The students learn to read, analyze and interpret works of literature to acquaint them with the forms, structures and the aesthetics of style and techniques of literary works.
- The course helps the students to get into any professional career like journalism and media, publishing research and teaching

### **Course Outcome/Programme Specific Outcome**

#### **CC1 (SEMESTER I, HISTORY OF ENGLISH LITERATURE AND PHILOLOGY- 6 CREDITS)**

**Course Objectives:** The syllabus for Core Course 1 (CC1) under the Choice Based Credit System (CBCS) is structured to provide students with a comprehensive idea about the development of English literature and language over the ages. It traces the trajectory of the growth of English literature from the period of its inception, dating back to the seventh century, to the present era. The course is also designed to help students develop an understanding of the structural development of the English language and to inform them about the various external linguistic influences that have contributed to the making of the language as we now know it to be.

#### **Programme Specific Outcomes:**

The CC1 module consists of two groups— the first one (Group A) deals with the History of English Literature, while the second one (Group B) focuses on Philology.

The completion of the course is supposed to benefit the students in the following ways:

- The course offers extensive insight into the history of English literature, while laying special emphasis on various literary movements, genres and writers that are held to be the representatives of their times.
- It helps the students to evaluate the way socio-cultural and historical phenomena influence the literary production of a particular period.
- By familiarizing students with the socio-cultural ambience and the discursive frameworks of various ages, the course helps the students to develop a nuanced appreciation of the literary stalwarts of those times.
- The students are also offered an in-depth understanding on the growth of the English language under the influence of various other languages including Latin and French, besides being mentored in the structural nitty-gritties of the language.

### **CC2 (SEMESTER I, EUROPEAN CLASSICAL LITERATURE- 6 CREDITS)**

**Course Objectives:** The syllabus for Core Course 2 (CC 2) of the Choice Based Credit System is designed to familiarize students with Greek and Latin texts which are integral for developing a consummate understanding of English literature. The course is woven around selected texts that help students to appreciate the way these classical authors have influenced their English literary successors.

**Programme Specific Outcomes:** The completion of the course is supposed to benefit the students in the following ways:

- It offers a comprehensive understanding of social and intellectual climate of ancient Greek and Roman society.
- It will enable students to trace the way classical generic conventions have been taken up and worked upon by English writers later.
- The perusal of texts like Homer's *The Iliad* and Ovid's *Metamorphosis* will familiarize students with classical mythology. This will, in turn, help them to decipher the classical allusions that are often found to feature in works of various English writers.

### **CC1/GE1 (Semester I, Poetry and Short Story: 6 Credits)**

**Course Objectives:** The syllabus containing mainly lyric poems and short stories are for the beginners to have a taste of the various veins of literary thought, form, and epoch.

### **Programme Specific Outcomes**

- Introducing students to the seminal practitioners of English Literature and laying the foundation for contextualizing specific texts against definite historical backdrops.
- Analyzing the art of storytelling and the various structural elements of a short story with special reference to James Joyce's *Araby*, Conrad's *Lagoon*.
- Understanding the Romantic Movement and its implications in the works of second-generation Romantic poets-Keats and Shelley while thoroughly examining university prescribed texts like *Ode To Autumn*, *To a Skylark*.
- Investigating the efficacy of specific literary terms like caesura, blank verse to understand the significance of metrical patterns and the art of versification. 5. Instituting comparisons with various literary Movements to help deconstruct texts with greater clarity, as in the case of *Araby*.

### **AECC1 – COMMUNICATIVE ENGLISH: 2 CREDITS (SEMESTER 1)**

**Course Objectives:** The purpose of this course is to introduce students to the theory, fundamentals and tools of communication and to develop in them vital communication skills which should be integral to personal, social and professional interactions.

**Programme Specific Outcomes:** The completion of the course is supposed to benefit the students in the following ways:

- This course aims at addressing the importance of communication skills through an interactive mode of teaching-learning process and by focusing on various dimensions of communication skills.
- It'll also help the students to learn the language of communication, such as personal communication, social interactions and communication in professional situations such as interviews, group discussions and office environments, important reading skills as well as writing skills such as report writing, note-making etc.
- It'll also enable the students to commit fewer errors while organizing, structuring and writing sentences as the course focusses on improving the grammatical skills of the students.

### **CC3 (SEMESTER II, INDIAN WRITING IN ENGLISH: 6 CREDITS)**

**Course Objectives:** The objective of the course is to familiarize the students with the emergence and growth of Indian Writing in English in the context of colonial experience.

The course will discuss issues concerning Indian Writing in English such as the representation of culture, identity, history, constructions of nation, (post)national and gender politics, cross-cultural transformations. The student will be appreciating Nation-Nationalism; Counter Discourse; Subalternity; Identity Movements.

**Programme Specific Outcomes:** After the completion of this course, the participants would gain insight into 'Indianness' through representative works. Students will be able to:

- 1. appreciate the historical trajectory of various genres of Indian Writing in English from colonial times to till the present
- 2. analyze Indian literary texts written in English in terms of colonialism, postcolonialism, regionalism, and nationalism
- 3. Understand the role of English as a medium for political awakening and the use of English in India for creative writing
- 4. analyze how the sociological, historical, cultural and political context impacted the texts selected for study
- 5. analyse the strength and constraints of Indian English as a literary medium.
- 6. evaluate critically the contributions of major Indian English poets and dramatists
- 7. develop a literary sensibility and display an emotional response to the literary texts and cultivate a sense of appreciation for them
- 8. apply the ideas encapsulated in Indian Aesthetics to literary texts

#### **CC4 (SEMESTER II, BRITISH POETRY AND DRAMA (14TH – 17TH CENTURY): 6 CREDITS**

**Course objectives:** The growth of English language and literature over the centuries from a totally different state- more in the condition of a dialect in the earliest periods- to what it is in the present century should form the background knowledge of every student of English literature. The quaint systems and structures of the medieval English developed rather quickly during the 16th and 17th centuries. The objective of this course is to introduce the music and quaintness of the English sounds and vocabulary of the earliest period in English literary history to the students to enable them to have a historical perspective of the developments over the centuries. The course also introduces the great masters of the early period such as Chaucer, Spenser, Shakespeare, Marlowe and Donne.

**Programme Specific Outcomes:** After the completion of this course, students will be able to:

- Comprehend the significance of Elizabethan literature and the writers belonged and its impact on literary works produced world over.
- Evaluate the significance of the socio-political and historical events which shaped the perspective of the Elizabethan Age
- Explain how socio-historical factors have influenced individual texts and how individual texts are representative of their age
- Identify and explain the formal and literary features of each genre and text, and how they contribute to the complexity of values and emotions represented in the texts
- Develop a clear understanding of Renaissance Humanism that provides the basis for the texts suggested
- Analyze the various elements of poetry, such as diction, tone, form, genre, imagery, figures of speech, symbolism, theme, etc.
- To know several Shakespearean sonnets, understand the sonnet form, analyze particular Shakespearean sonnets, and appreciate Shakespeare's contribution to the form.
- gain insight into the age of Shakespeare and the uniqueness of Shakespearean creative output with regard to both his sonnets and plays
- To have a nuanced understanding of the dramatic literature of the Elizabethan period, about the classical and romantic strains embedded in the plays
- To apply a knowledge of the social, political, and intellectual context of Elizabethan England to an understanding of Shakespeare's and Marlowe's works
- To understand the great ideas conveyed in Shakespeare's dramas and appreciate the rhetorical and poetic art through which those ideas are conveyed.

### **CC2/GE2 (Essay, Drama and Novel, Semester II: 6 Credits)**

**Course objectives:** The choice of essay, drama and novel in the course provides a varied range of literary genre as well as works of authors from different ages like Shakespeare, Charles Lamb and even George Orwell. This introduces the students into an overview of the growth of English literature and its various genres.

#### **Programme Specific Outcomes-**

- Understand the genre of essays in Romantic period and how Charles lamb has cultivated this genre in Romantic period and the philosophy of that era through a detailed study of Dream Children: A Reverie.

- Dissecting the genre of essay and that changes in a symbolic overtly political postcolonial context in George Orwell's 'Shooting an Elephant'.
- Discussing how the symbolic act of 'shooting the elephant' reflects on the 'the real nature of imperialism—the real motives for which despotic governments act', how the essay broadens the focus to tyranny in general and not just imperialism. A cross-referential study of Orwell's Animal Farm and 1984 for a better understanding of the prescribed text.
- Analysing the significance of fate, destiny and coincidence in Thomas Hardy's craft of storytelling.
- Examining the larger framework and socio-political scenario of Victorian England in The Mayor of Casterbridge and Thomas Hardy's portrayal of the main protagonist and his treatment of women in the novel.

**CC5 (SEMESTER 3, CODE – ENG-A-CC-3-5-TH/TU) AMERICAN LITERATURE: 6 CREDITS**

**Course Objectives:** This course will examine the roots of American literature by focusing multiple genres—poetry, drama, stories, and novel. It explores literature that reveals and emerges from multiple perspectives such as race, gender, ethnicity, socioeconomic class and historical period. Various concepts like Antebellum and Postbellum America, Puritanism, Transcendentalism, the American Romantics and American Frontier will be introduced to the students. They will have an awareness of the social, historical, literary and cultural elements of the changes in American literature by identifying and describing distinct literary characteristics of American literature and analyze literary works of eminent American writers. This course offers introduction to American Dream, Race, Ethnicity, Multiculturalism and Realism. The students will inculcate a rhetorical approach to the literary study of American texts and also the conceptions, generalizations, myths and beliefs about American cultural history.

**Programme Specific Outcomes:** After successful completion of this course in semester III, students will be able to:

- Understand the depth and diversity of American literature, keeping in mind the history and culture of the United States of America from the colonial period to the present.
- Understand the social-cultural-ecological-political, historical, religious and philosophical contexts of the American spirit in literature including the idea of

democracy, Millennial Narratives, the Myth of Success, the American Adam, the Myth of the Old South, the Wild West, Melting pot, Multiculturalism, etc.

- Evaluate the thoughts, beliefs, customs, struggles, and visions of African American writers
- Understand the American style of writing and ideologies like Transcendentalism, corruption, pride, power and obsession along with spiritualism and Christian values.
- Critically analyze American literary texts in the light of several movements in literature and understand the changing faces of texts with developments in culture. Students can compare/contrast literary works through an analysis of genre, theme, character, and other literary devices
- Understand the changing notions of class, gender, ethnicity in a postcolonial, diasporic and neocolonial world order.

### **CC6 (SEMESTER 3, CODE – ENG-A-CC-3-6-TH/TU) POPULAR LITERATURE: 6 CREDITS**

**Course Objective:** The syllabus for Core Course 6 (CC 6) of the Choice Based Credit System is designed to familiarize students with the notions of Popular Culture. They'll get to know about the practices, beliefs, and objects that are dominant or prevalent in a society at a given point in time and how they are interspersed with literature of that time or age. The course revolves around certain selected texts that shall aim at providing the students with a comprehensive understanding of the term 'Popular Culture' and how it influences an individual's outlook towards certain topics. **Programme Specific Outcomes:** The completion of the course is supposed to benefit the students in the following ways:

- It will encourage students to analyse the complexities of popular culture and its social and cultural function.
- It will enable students to perceive how gender, sexuality, race, ethnicity, class and other socially codified markers of identity are represented in popular culture.
- It will also help the students to explore the many competing theories, methods, concepts and frameworks that surround, explain and situate popular culture, examine popular culture examples and discuss critical issues such as ethics, politics and histories.

### **CC7 (SEMESTER III, BRITISH POETRY AND DRAMA, 17th-18th CENTURY: 6 CREDITS)**

**Course Objectives:** The syllabus for the Core Course 7 (CC7) is designed to introduce the students to the literary trends of English literature during the seventeenth and eighteenth centuries. The module prescribes texts by eminent authors like John Milton, Alexander Pope, John Webster and Aphra Behn, who have contributed significantly in shaping the literary output of the era.

**Programme Specific Outcomes:** The completion of the course would enable the students to:

- Develop a thorough understanding of the various eras in the history of English literature including the Renaissance, Restoration and Neoclassical periods through the perusal of representative works of the time.
- Investigate the way the volatile socio-political scenario influenced the literary production of the era.
- Gain insights into the genre of Comedy of Manners through an appreciation of Aphra Behn, the one of the most prolific female figures of Restoration theatre.
- Decode the stylistic aspects of epic poetry and mock-heroic poetry which is quintessential for comprehending the works of Milton and Pope included in the module.

### **CC3/GE3 (SEMESTER 3, CODE – ENG-G-CC-3-3-TH/TU) - 6 CREDITS (5 CREDITS THEORY AND 1 CREDIT TUTORIAL)**

#### **WOMEN'S WRITING AND WOMEN'S EMPOWERMENT**

**COURSE OBJECTIVES:** This paper on Women's Writing and Women's Empowerment introduces students to a body of literature that has emerged with growing feminist awareness of women's lives and their representation. It invites students to examine how women's texts pay attention to the historical and political conditions of their times, to the status and condition of women and to the ways in which they embody a politics of resistance. It expects students to look at the way a woman writer participates in the questions of selfhood, at women's relations with men and with other women, and at the implications of women speaking, writing, and empowering themselves by finding their own voices and interrogating women's work and roles in society. **Programme Specific Outcomes:** After successful completion of this course in semester III, students will be able to:

- Learn how and on what grounds women's writing can be considered as a separate genre. They can examine and appreciate the role played by sociocultural-economic contexts



in defining women. It will enlighten them about the issues and concerns of the women writers of the developed and developing countries. They can understand and appreciate the representation of female experience in literature.

- Analyze the Literary texts through the perspective of gender to achieve particular literary, rhetorical and aesthetic effects. The students will have an awareness of class, race and gender as social constructs and how they influence women's lives. They will be equipped with analytical, critical and creative skills to interrogate the biases in the construction of gender and patriarchal norms.
- To explore the writing style of women, the students come to know some of the developments, themes, and narrative strategies of women's writing. Students can analyse literary texts through the perspectives of gender, knowing the central points of a selection of feminist theory, and can use it as a context for reading literary texts.
- Understand various perspectives in Women's Writing which represents women's voices and histories, breaking the silence of patriarchal oppression and the students will come to know how these significant Others of the human population and their writings contributed to our understanding of womanhood and authorship.

**LCC (L1)-1 (SEMESTER III, CODE – ENG-G-LCC-1-3-1-TH/TU) - 6 CREDITS (5 CREDITS THEORY AND 1 CREDIT TUTORIAL)**

**Course Objective:** This course is designed to help the students to enhance language and communication skills. The primary objective of the course is to familiarize the students with the varieties of language – formal and informal, correct and incorrect, and also help them understand the difference between American English and British English among other things.

**Programme Specific Outcomes:** The completion of the course is supposed to benefit the students in the following ways:

- It aims to help the students attain communicative competence so that they can use language accurately and appropriately
- It'll help them to understand the basic features of communication and aim at improving language skills.
- This course will also allow the students to gain useful letter/report writing tools, tips and techniques to effectively apply the skills to their everyday workplace correspondence.

- It will also demonstrate the particulars of writing effective emails, whilst improving punctuation and grammar. Also making sure that the style, content and message is concise, correct and appropriate.

### **SEC-A2 (SEMESTER III, BUSINESS COMMUNICATION: 2 CREDITS)**

**Course Objectives:** This paper is a skill enhancement course under the new CBCS system that helps students grow tools for acquiring language and literary skills. The primary objective of this paper is to help students write letters, reports and notices which would enable them to navigate through business communication smoothly in professional field. In any organized job sector- governmental or corporate, one is expected to already know how to write formal curriculum vitae, formal letters, reports and minutes of any meeting held. This course is directed towards that professional training.

**Programme Specific Outcomes:** After completion of this course in semester three, students would be able to:

- Understand the significance of business communication in any organized job sector or even how to write any formal letter to bank, post office or editor of a newspaper for our daily existence.
- Comprehend how business communication is only relevant for a working professional but for anyone interacting with any governmental services necessary for our quotidian lives.
- Write their curriculum vitae for applying to any jobs or even the letters of acceptance or rejection afterwards.
- Navigate through e-correspondence. In today's time and age, it is absolutely mandatory to know how one should write any emails and the professional etiquettes of writing one.

### **CC8 (SEMESTER IV, CODE – ENG-A-CC-4-8-TH/TU) 18TH CENTURY BRITISH LITERATURE: 6 CREDITS**

**Course Objective:** The objective of this course is to provide the students with an in-depth assessment of the social and the intellectual background of 18th century British Literature. The course will explore themes of social upheaval, reversals of personal status, political satire, geographical exploration and the comparison between the supposed natural state of man and the supposed civilized state of man in 18th Century Britain.

**Programme Specific Outcomes:** This course will help the students in the following way:

- This course will enable the students to identify and describe distinct literary characteristics of the 18th century British literature driven by reason, intellect, correctness and satirical spirit.
- It will help them to develop an understanding of 18th-century British literature within its cultural and historical context.
- It will also allow the students to evaluate how novel as a genre blossomed in England in the first half of the 18th century - to analyze the various social and economic causes of the novel's popularity and thus its influence in the depiction of individual character, society, culture, and politics.
- It will also provide a deeper insight into the sophistication of theatrical thinking during this period, with complex subplots and characters intended as ironic parodies of common stereotypes.

#### **CC9 (Semester IV, BRITISH ROMANTIC LITERATURE: 6 CREDITS)**

**Course Objectives:** The syllabus for Core Course 9 (CC9) under the Choice Based Credit System is designed to familiarize the students with the Romantic Age, an important period of literary development in the history of English literature. The course is woven around selected texts by contemporary literary stalwarts in order to introduce the students to the various literary trends and genres of the time.

**Programme Specific Outcomes:** The completion of the course in semester four would enable the students to:

- Gain insights into the unique traits of the literary movement of “Romanticism” through the representative works of eminent writers like William Wordsworth, John Keats, Charles Lamb and Mary Shelley.
- Examine the way literary devices like symbolism, allegory and metaphor were employed by contemporary writers in order to articulate their artistic vision.
- Understand the way concepts like idealism, individualism and pantheism percolated into the literary output of the Romantic era.
- Investigate the efficacy of important Romantic concepts like “imagination” and “fancy” through the perusal of iconic texts like Samuel Taylor Coleridge's *Biographia Literaria*, which features among the list of recommended readings for the course.

- Appreciate the genre of essay as it was cultivated in the Romantic period by eminent essayists like Charles Lamb, who incorporated within it the intricacies of dream-narrative and autobiographical elements.

**CC10 (SEMESTER 4, CODE – ENG-A-CC-4-10-TH/TU) 19th CENTURY BRITISH LITERATURE: 6 CREDITS**

**Course Objectives:** The nineteenth century witnessed extraordinary social and cultural change in Britain, from the rise of industrial capitalism to the emancipation of women, from the decline of Christian belief to the growth of Empire, from urbanization to the emergence of mass literacy. This course will introduce students to some significant texts and literary movements of the period, in the wider context of social transformation and emerging literary practices. Issues to be considered will include the establishment of the novel as the dominant literary genre, the ways in which social values are encoded and contested in literary texts, and the relationship of traditional and experimental practices in poetic forms. Students will here encounter the poetry that is characteristic of the Victorian period – forms like the dramatic monologue, the love poem, pre-Raphaelite experiments and the beginnings of modern poetic experiments by Hopkins. They will also find examples of the great Victorian fiction that closely followed the social concerns of the period and experimented with narrative voice and perspective. The course aims to develop students' analytic and critical skills through an engagement with a range of issues and methodologies in literary studies.

**Programme Specific Outcomes:** After successful completion of this course in semester IV, students will be able to:

- Identify and analyze the socio-economic-political contexts that influence the literature of the period. Students will be acquainted with the historical and political awareness of literary texts as reflected in the transition from nature to culture across various genres.
- Appreciate female voices of the Victorian period and understand the female writer's role / position in society, the tension between the private domestic sentiments and the larger public concerns, the contemporary responses and modern critical re-assessments.
- Familiar with the pattern of development and change in the themes and literary techniques used by the Victorian novelists and poets. Students will be acquainted with various prose and poetic styles.
- To understand the existing conflict between faith and doubt in Victorian society.

- Have an analytical knowledge of some of the key aspects of Victorian literature and culture. They will come to know how to use primary and secondary sources to explore relevant historical and cultural contexts, and how to use those contexts for their readings of literary texts.
- Analyze, discuss and write critically about the use of supernatural and gothic tropes and their significance in a range of Victorian texts. Students will be enlightened with a range of Victorian literature in relation to a range of contexts including Victorian anxieties about modernity, madness, sexual transgression and disease.

### **SEC-B2 (Semester IV, Academic Writing and Composition: 2 Credits)**

**Course Objectives:** This paper is a skill enhancement course under the new CBCS system that helps students to learn how to write academic papers. Unlike any other formal piece of writing, academic writing is based on a thorough, impersonal and objective research on a given topic. It enables students to hone critical thinking skills and research aptitude. It is also equally significant for students what plagiarism means in academic field and what regulations or norms one must follow for conducting ethical research. This particular course is extremely relevant for students who want to pursue higher studies where they have to actively write term papers and learning how to do citation and bibliography would give them an advantage.

**Programme Specific Outcomes:** After the completion of this course, students will be able to:

- Understand what entails in an academic piece of writing and how it is different from any other formal or creative piece of writing.
- Comprehend how to conduct an ethical research work, put citation, references and prepare bibliography at the end of an academic paper.
- Besides teaching academic writing, this course also teaches students to summarize or paraphrase academic works which is essential for preparing notes and answers.
- Write critical appreciation of already existing research works and to conduct literature review.

### **CC4/GE4 (SEMESTER IV, ACADEMIC WRITING: 6 CREDITS)**

**Course Objectives:** The course is aimed at the enhancement of creative faculties of students by honing their skills of interpretative analysis and critical thinking. The paper helps the students to learn the techniques of writing essays, paraphrases and academic articles. It also involves introducing the students to various styles of citation that are integral for writing

academic papers. The overall agenda of the course lies in developing the research aptitude of the students.

**Programme Specific Outcomes:** The completion of the course would help the students to:

- Engage in critical thinking within a structured framework.
- Acquire the skills of academic writing which would equip the students to tackle with ease the term papers and dissertations during the course of their academic career.
- Develop a thorough understanding about the ethics of conducting academic research.
- Maintain the etiquettes of academic writing by providing proper citations and refraining from unethical academic practices like plagiarism.

**LCC2- 1 (Alternative English, Semester IV, Language, Society and Personality: 6**

**Credits) Course Objectives:** This course is part of the ‘Alternative English’ section under the new CBCS system. The primary objective of this course is to familiarize students with the literary works of various authors, social reformers and historians. This course brings together a mélange of works by Shashi Tharoor, Ismat Chughtai and Ramachandra Guha to look at the project of nation building and various social reformers and litterateurs who have had significant influence over Indian culture. This course also introduces a few academic essays on Gandhi, Tagore and Ishwar Chandra Vidyasagar to dissect the how their works in various sectors have eventually contributed to the building of modern India.

**Programme Specific Outcomes:** After the completion of this course students will be able to:

- Comprehend how different personalities such as Gandhi, Tagore and Ishwar Chandra Vidyasagar have helped to shape a modern and secular India.
- Study literary works of different authors who are not necessarily fiction writers, but rather social reformers and historians. It would solidify their understanding of English non-fiction pieces and the current conflicted sociopolitical scenario of modern India on which these pieces are based on.
- Understand how literature is not just imaginary stories but rather a reflection of the realism of human existence which is also primarily shaped by the political and historical backdrop of any nation.

**SECB2– CREATIVE WRITING (SEMESTER 4/6, CODE – ENG-G-SEC-B-4/6-1-TH)**

**– 2 CREDITS**

**Course Objective:** Students will become aware of the various aspects of creative writing, writing short stories and the nuances of publication. The course aims to develop students' analytic and critical skills through an engagement with a range of issues dealing with the broad topics of different genres and technical aspects of the use of language. It will also help the students the basic nuances of creative writing and preparing texts for publication.

**Programme Specific Outcomes:** After completion of this course in semester five, students would be able to:

- Understand the significance of creative writing
- Comprehend and identify various processes of publication.

### **CC11: Semester V Women's Writings (6 Credits)**

**Course Objectives:** This paper will help students to have a comprehensive idea about the development of women's writing in different genres like poetry, fiction and non-fiction. This course will introduce students to some significant texts written by women. The course aims to develop students' analytic and critical skills through an engagement with a range of issues dealing with the broad topic of women's writing in literature.

**Program Specific Outcomes:** After successful completion of this course in semester V, students will be able to:

- Identify and analyze the socio-economic-political contexts that influence the literature written by women. Students will be acquainted with the historical and political awareness of literary texts as reflected in the transition from nature to culture across various genres.
- Appreciate the female writer's role / position in society, the tension between the private domestic sentiments and the larger public concerns, the contemporary responses and modern critical re-assessments.
- Students will be acquainted with various prose and poetic styles.
- Have an analytical knowledge of some of the key aspects of women's writing in English. They will come to know how to use primary and secondary sources to explore relevant historical and cultural contexts, and how to use those contexts for their readings of literary texts.

### **CC12: Semester V Early 20<sup>th</sup> Century British Literature (6 Credits)**

**Course Objectives:** This paper will help students to have a comprehensive idea about the development of British literature in the 20<sup>th</sup> century in different genres like poetry, fiction and

drama. This course will introduce students to some significant texts of the period. The course aims to develop students' analytic and critical skills through an engagement with a range of issues dealing with the broad topic of literature that thrived in the period.

**Programme Specific Outcomes:** After successful completion of this course in semester V, students will be able to:

- Identify and analyze the socio-economic-political contexts that influence the literature of the period. Students will be acquainted with the historical and political awareness of literary texts as reflected in the literature of the period.
- Appreciate the writer's role / position in society, the tension between the private domestic sentiments and the larger public concerns, the contemporary responses and modern critical re-assessments.
- Students will be acquainted with various prose and poetic styles.
- Have an analytical knowledge of some of the key aspects of the writings of the period.
- They will come to know how to use primary and secondary sources to explore relevant historical and cultural contexts, and how to use those contexts for their readings of literary texts.
- Become aware of the literary trends of the period.

### **DSE A1: Semester V Modern Indian Writings in English Translation (6 Credits)**

**Course Objectives:** This paper will help students to have a comprehensive idea about the development of Modern Indian Writings in English Translation in different genres like poetry, fiction and drama and Short Stories. This course will introduce students to some significant texts of translation. The course aims to develop students' analytic and critical skills through an engagement with a range of issues dealing with the broad topic of translation literature.

**Programme Specific Outcomes:** After successful completion of this course in semester V, students will be able to:

- Identify and analyze the socio-economic-political contexts that influence the translation literature. Students will be acquainted with the historical and political awareness of literary texts as reflected in translation literature.
- Appreciate the writer's role / position in society, the tension between the private domestic sentiments and the larger public concerns, the contemporary responses and modern critical re-assessments.
- Students will be acquainted with various genres of translation literature.



- Have an analytical knowledge of some of the key aspects of translation writings.
- They will come to know how to use primary and secondary sources to explore relevant historical and cultural contexts, and how to use those contexts for their readings of literary texts.
- Become aware of the various theories associated with translation literature.

### **DSE B1: Semester V Literary Types, Rhetoric and Prosody (6 Credits)**

**Course Objectives:** This paper will help students to have a comprehensive idea about the various literary types like tragedy, comedy, and short stories. It will also help them to understand the nuances of rhetoric and prosody. The course aims to develop students' analytic and critical skills through an engagement with a range of issues dealing with the broad topics of different genres and technical aspects of the use of language.

**Programme Specific Outcomes:** After successful completion of this course in semester V, students will be able to:

- Identify and analyze the socio-economic-political contexts that influence the different genres of literature. Students will be acquainted with the historical and political awareness of literary texts.
- Appreciate the nuances associated with broad topics like tragedy, comedy and short stories.
- Students will be acquainted with various technical aspects of writing.
- Have an analytical knowledge of some of the key aspects of rhetoric and prosody.
- Appreciate the production and reception of literary genres across the ages.

### **DSE A1: British Literature (6 Credits)**

**Course Objectives:** This paper will help students to have a comprehensive idea about the development of British literature in different genres like poetry, fiction and drama. This course will introduce students to some significant texts of British Literature. The course aims to develop students' analytic and critical skills through an engagement with a range of issues dealing with the broad topic of literature that thrived in British literature.

**Programme Specific Outcomes:** After successful completion of this course in semester V, students will be able to:

- Identify and analyze the socio-economic-political contexts that influence literature.

- Appreciate the writer's role / position in society, the tension between the private domestic sentiments and the larger public concerns, the contemporary responses and modern critical re-assessments.
- Students will be acquainted with various prose and poetic styles.
- They will come to know how to use primary and secondary sources to explore relevant historical and cultural contexts, and how to use those contexts for their readings of literary texts.

### **SEC-A2 (SEMESTER V, BUSINESS COMMUNICATION: 2 CREDITS)**

**Course Objectives:** This paper is a skill enhancement course under the new CBCS system that helps students grow tools for acquiring language and literary skills. The primary objective of this paper is to help students write letters, reports and notices which would enable them to navigate through business communication smoothly in professional field. In any organized job sector- governmental or corporate, one is expected to already know how to write formal curriculum vitae, formal letters, reports and minutes of any meeting held. This course is directed towards that professional training.

**Programme Specific Outcomes:** After completion of this course in semester five, students would be able to:

- Understand the significance of business communication in any organized job sector or even how to write any formal letter to bank, post office or editor of a newspaper for our daily existence.
- Comprehend how business communication is only relevant for a working professional but for anyone interacting with any governmental services necessary for our quotidian lives.
- Write their curriculum vitae for applying to any jobs or even the letters of acceptance or rejection afterwards.
- Navigate through e-correspondence. In today's time and age, it is absolutely mandatory to know how one should write any emails and the professional etiquettes of writing one.

### **LCC (L1)-2 (SEMESTER V, Language Imagination and Creativity) - 6 CREDITS**

**Course Objective:** Students will become aware of the various aspects of creative writing, writing advertisement and figures of speech. The course aims to develop students' analytic and critical skills through an engagement with a range of issues dealing with the broad topics of

different genres and technical aspects of the use of language. It will also help the students the basic nuances of creative writing.

**Programme Specific Outcomes:** After completion of this course in semester five, students would be able to:

- Understand the significance of creative writing
- Comprehend and identify various figures of speech.
- Learn the nuances of advertisement writing.
- Learn to write travelogues.

### **CC13: Semester VI Modern European Drama (6 Credits)**

**Course Objectives:** This paper will help students to have a comprehensive idea about the development of Modern European drama. This course will introduce students to some significant texts of the period. The course aims to develop students' analytic and critical skills through an engagement with a range of issues dealing with the broad topic of literature that thrived Modern European Drama.

**Programme Specific Outcomes:** After successful completion of this course in semester VI, students will be able to:

- Identify and analyze the socio-economic-political contexts that influence Modern European drama. Students will be acquainted with the historical and political awareness of literary texts as reflected in the European drama.
- Appreciate the writer's role / position in society. the contemporary responses and modern critical re-assessments.
- Students will be acquainted with theoretical developments.
- Have an analytical knowledge of some of the key aspects of drama.
- They will come to know how to use primary and secondary sources to explore relevant historical and cultural contexts, and how to use those contexts for their readings of literary texts.

### **CC14: Semester VI Postcolonial Literatures (6 Credits)**

**Course Objectives:** This paper will help students to have a comprehensive idea about postcolonial literatures. This course will introduce students to some significant texts of postcolonial literature. The course aims to develop students' analytic and critical skills through

an engagement with a range of issues dealing with the broad topic of literature that can be found in postcolonial literatures.

**Programme Specific Outcomes:** After successful completion of this course in semester VI, students will be able to:

- Identify and analyze the socio-economic-political contexts that influence postcolonial literatures. Students will be acquainted with the historical and political awareness of literary texts as reflected in the postcolonial literatures.
- Appreciate the writer's role / position in society. the contemporary responses and modern critical re-assessments.
- Students will be acquainted with theoretical developments in postcolonial literatures.
- Have an analytical knowledge of some of the key aspects of postcolonial literatures.
- Understand the different ways in which colonialism affected literary representation.
- Assess the manner in which the empire writes back to challenge stereotypes perpetuated through colonial texts.
- Understand the complex domain of using literature as a domain of resistance.

### **DSE A3: Semester VI Partition Literature (6 Credits)**

**Course Objectives:** This paper will help students to have a comprehensive idea about Partition literature in different genres like poetry, fiction and short stories. This course will introduce students to some significant texts of Partition Literature. The course aims to develop students' analytic and critical skills through an engagement with a range of issues dealing with the broad topics of Partition literature.

**Programme Specific Outcomes:** After successful completion of this course in semester VI, students will be able to:

- Identify and analyze the socio-economic-political contexts that influence partition literature.
- Appreciate the writer's role / position in society.
- Students will be acquainted with various prose and poetic styles.
- They will come to know how to use primary and secondary sources to explore relevant historical and cultural contexts, and how to use those contexts for their readings of partition literature.
- Understand the socio-political crisis brought about by partition.
- Become more aware of the human suffering induced by partition.

- Become more responsive to the political ambit of such literature.

### **DSE B3: Semester VI Autobiography (6 Credits)**

**Course Objectives:** This paper will help students to have a comprehensive idea about autobiography. This course will introduce students to some significant autobiographical texts. The course aims to develop students' analytic and critical skills through an engagement with a range of issues dealing with autobiographical writings.

**Programme Specific Outcomes:** After successful completion of this course in semester VI, students will be able to:

- Identify and analyze the socio-economic-political contexts that influence the writing of autobiography.
- Appreciate the writer's role / position in society.
- Students will be acquainted with the tools of autobiographical writings.
- They will come to know how to use primary and secondary sources to explore relevant historical and cultural contexts, and how to use those contexts for their readings of autobiography.

### **DSE B1: Semester VI Partition Literature (6 Credits)**

**Course Objectives:** This paper will help students to have a comprehensive idea about Partition literature in different genres like poetry, fiction and short stories. This course will introduce students to some significant texts of Partition Literature. The course aims to develop students' analytic and critical skills through an engagement with a range of issues dealing with the broad topics of Partition literature.

**Programme Specific Outcomes:** After successful completion of this course in semester VI, students will be able to:

- Identify and analyze the socio-economic-political contexts that influence partition literature.
- Appreciate the writer's role / position in society.
- Students will be acquainted with various prose and poetic styles.
- They will come to know how to use primary and secondary sources to explore relevant historical and cultural contexts, and how to use those contexts for their readings of partition literature.
- Understand the socio-political crisis brought about by partition.

- Become more aware of the human suffering induced by partition.
- Become more responsive to the political ambit of such literature.

**LCC2- 2 (Alternative English, Semester VI, Language, Creativity and Analysis: 6 Credits) Course Objectives:** This course is part of the ‘Alternative English’ section under the new CBCS system. The primary objective of this course is to familiarize students with the literary works of various Indian authors in the domain of prose and poetry. This course brings together various texts to make the students aware of the rich heritage of Indian writing in English.

**Programme Specific Outcomes:** After the completion of this course students will be able to:

- Comprehend how different writers contributed to the development of Indian Writing in English.
- Study literary works of different authors.
- Understand how literature shapes and is themselves shaped by the surrounding society.

**SECB2– CREATIVE WRITING (SEMESTER 4/6, CODE – ENG-G-SEC-B-4/6-1-TH)  
– 2 CREDITS**

**Course Objective:** Students will become aware of the various aspects of creative writing, writing short stories and the nuances of publication. The course aims to develop students' analytic and critical skills through an engagement with a range of issues dealing with the broad topics of different genres and technical aspects of the use of language. It will also help the students the basic nuances of creative writing and preparing texts for publication.

**Programme Specific Outcome:** After completion of this course in semester five, students would be able to:

- Understand the significance of creative writing
- Comprehend and identify various processes of publication.



## **DEPARTMENT OF POLITICAL SCIENCE**

### **Honours Course:**

#### **Program Outcome (PO):**

The core courses syllabus of Political Science has touched upon fourteen different papers that would provide students to understand the various aspects. The program is organized around the combined perspectives and elaborates analysis on Political Science, International Relations, constitutional government and politics in India, comparative governments, Indian political thoughts, western political thoughts, public administration, sociology, global politics, gender politics, human rights, social research and legal literacy. However, the subject will provide comprehensive knowledge on theories, concepts, and research methods in humanities and social sciences. It also helps to assess how global, national and regional developments affect society. The Political Science degree course well furnishes the students with a unique multidisciplinary approach in social sciences and helps them to prepare for further academic study and career building process in the public and private sectors. Nevertheless, the course also developed their intellectual ability to undertake inter-disciplinary research.

#### **Course Outcome (CO) and Program Specific Outcome (PSO)**

##### **Semester-I**

##### **CC-I: Understanding Political Theory: Concepts (6 credits)**

##### **Course Objectives:**

The syllabus for Core Course1 (CC1) under the Choice Based Credit System (CBCS) is structured to provide students with basic and conceptual ideas of politics as an academic discipline underpinning the significance of political theory. Another important objective of this course is to provide deeper understanding of political concepts starting from state, nation, and sovereignty to power and authority and their linkages along with widely used political ideas and concepts like law, liberty, equality, rights and justice, its interrelationships relating to democracy and citizenship. And having ideas about these concepts is quite essential as a disciplined citizenry of a civilized society.

**Program Specific Outcome:**

The CC-1 paper consists of two modules- the Module-1 underlines the conceptualization of politics and the Module-II focuses mainly on the basic concepts. However, the wide ranges of topics covered in two Modules would help students in many ways:

1. The course provides students ample understanding on political theory as an academic discipline.
2. Students will be able to know the basic political concepts and understand its wider implications in their day-to-day life.
3. To enable the students the ability to evaluate theories in the light of empirical evidence or normative propositions.
4. It helps students to analyze and distinguish different sets of governments and provide them ideas about the best and ideal forms of government better suited in Indian Society.

**CC-2: Understanding Political Theory: Approaches and Debates. (6 credits)**

**Course Objectives:** - Here the Syllabus for Core Course-2 (CC-2) is design to provide understanding about Political Theory, and different important approaches relating to the subject and debates pertaining to certain political ideas and concepts. The main objective of this course is to provide knowledge about theory-building process starting from ideal, normative approaches, Marxist approach to modern scientific behavioral approaches that signifies individual as a unity and study about the society as a whole. Moreover, the most significant approaches in this course are liberalism, modern democratic state welfarism, and approaches allude to Post-colonialism and Feminism and Marxian approaches of Mao, Lenin and Gramsci that carries immense importance for students.

**Program Specific Outcome:** The CC-2 consists of two Modules- the first one gives importance on approaches relating to political theory and the Module-II focus mainly on Marxian approaches giving importance on Gramsci debates on hegemony and civil society.

In fact, the completions of course will benefits students in the following ways:

1. Students will develop competency in the discipline and be confident to apply diverse theories, concepts, policy approaches, and principles to address local, national, international challenges.



2. It will enable students to analyze different approaches relating to theories and various theoretical interpretations given by liberal theorists, Marxist as well as modern theorists.

3. Students can easily identify difference between democratic liberal types of governments, and Marxian form of government and also able to acquire ample knowledge about feminism and post-colonial studies.

## **Semester-II**

### **CC-3. Constitutional Government in India. (6 credits)**

**Course Objectives:** The Syllabus for course CC-3 is designed to give students complete ideas on Indian Constitution starting from its evolution and role of Constituent assembly in making of the Constitution, the Preamble and Fundamental rights, Duties that has been ensured for citizens, also the paper contains Federalism and functions of Union government, Parliament, role of Lok Sabha and Rajya Sabha, and State governments. The most striking part of this course is the role and functions of Indian Judiciary particularly the Supreme Court and High Court and knowledge about this is very useful for students.

**Program Specific Outcome:** The CC-3 paper consists of two Modules; the first module contains the evolution of the Indian Constitution, Federalism, center-states relations, and functions and role of President and Prime Minister of India. And the second Module focuses on Parliament, state governments, role of Governor and Chief Minister and underlying the importance and role of Indian Judiciary.

By reading the course students will be benefited in following ways-

1. Students will enhance their knowledge in regard to the role and essence of the Constitution and they will be well versed with the historical evolution of the world largest Constitution.
2. Students will be well equipped with the Fundamental Rights, Preamble, Directive Principles and their rights and duties as the citizen of India.
3. Students will develop their insight on the structure and functioning of a federal system, the structure and working of the Union and State Executive and the Union and State Legislature.
4. Students will realize the significance and the need for the independent judicial system along with the required support provided by the various commissions in the systematic functioning of the democratic system.

5. Students will overall develop their knowledge and critical understanding towards the functioning of the Constitutional Government in India which in turn will guide them for the further career advancement.

#### **CC-4 Politics in India: Structures and Processes.** (6 credits)

**Course Objectives:** - The Syllabus for course CC-4 is designed to give students actual ideas in terms of the operation of the systematic political structure and process whereby focusing on the different political parties and their ideologies while giving special focus on the coalition politics and party system in West Bengal with major highlights on the electoral process in India. It also focuses on different roles played by religion, language, caste, class, business group, peasants, tribe, regionalism, new social movement including human rights movement in Indian Politics.

**Program Specific Outcome:** The CC-4 paper consists of two Modules, the Module-1 consists of topics related to party system, electoral process and the role of various interest groups. While, Module 2 consists of the role played by various element such as region, religion, caste, tribe, movements, etc that has effectively been trending in Indian Political system.

By reading the course students will be benefited in following ways-

1. Students will inculcate vivid idea about the functioning of party system, electoral process, working of various interest groups, roles played by different elements and movements having greater impact in Indian Politics.
2. Student will understand the need of a Party System and will learn more about the role played by the Election Commission of India.
3. Student will learn the significance of various social movements and the role played by various elements in the society.
4. Student will enhance their thinking towards the continuously changing and upgrading political process in India.

### **Semester-III**

#### **CC-5. Indian Political Thought.** (6 credits).

**Course Objectives:** The Syllabus for course CC-5 is designed to give students the clear ideas on the Indian Political Thought starting from Ancient to Medieval to the Modern Indian Political Thought. This paper focuses from the ideas of ancient Philosophers like Kautilya to

the medieval overview of Barani and Abul Fazal further taking us towards the modern philosopher like Rammohan Roy, Gandhi etc.

**Program Specific Outcome:** The CC-4 paper consists of two Modules, the Module-1 consists of the essence of the Ancient and Medieval Indian Political Thought. While, Module-2 consists of the Modern Indian Thought with greater focus on nationalist philosophers and their contribution in the Indian freedom struggle and reformation of the society.

By reading the course students will be benefited in following ways-

1. Students will develop insight on the glorious contribution from the Ancient, Medieval and Modern Indian Political Philosopher.
2. Students will develop the feeling of nationalism knowing the contributions of great philosophers.
3. Students will be able to understand the various aspects of nationalism, Satayagraha and Swarajya which were the core ideas of freedom struggle.

**CC-6. Comparative Government and Politics.** (6 credits).

**Course Objectives:** The Syllabus for course CC-6 is framed to familiarized students about the existing comparative governments and political set ups in the leading countries of the world. The course comprises comparative political systems in between liberal and socialist political systems and institutions like Constitutional practices of major countries like USA, UK, France, Switzerland, Russia, China and Bangladesh, and the prevalent Parliaments, executives, cabinet systems, and rights of the citizens and the role of judiciaries.

**Program Specific Outcome:** Likewise the CC-6 paper consists of two modules, the Module-1 covers comparative political systems and underlines the comparative natures of liberal and socialist political systems and their limitations, separation of powers along with judicial reviews. The Module-2, deals with the Constitutional practices, judiciaries and party systems in the US, UK, France, Switzerland, Russia, China.

However, students will be benefited by the following ways:

1. The course will give students deeper understanding about comparative political systems.
2. Students will be able to gain basic ideas on different constitutional practices prevalent in leading countries of the world.

3. Students will learn the rights of citizens and relevancies of judicial practices in major countries of the world.

**CC-7. Perspectives on International Relations.** (6credits).

**Course Objectives:** The Syllabus of CC-7 is designed to provide wider perspectives on the theories and emergent issues on international relations and further focus on the evolution of the subject as an academic discipline. It also provides vast information in regard to the making, phases and ongoing process of Indian Foreign policy with special highlight on Indo-US and Indo-China relationship.

**Program Specific Outcome:** The paper CC-7 is also divided into two modules. The Module-1 deals with the underlining notion of International Relations as a growing academic discipline which points out different theories and emerging international issues. While Module-2 gave major focus to the Indian foreign policy and India's relationship with major powers like China and US.

By learning through this paper students will gain following knowledge-

1. The students will inculcate the knowledge on the general idea of International Relations from theory to the recent issues.
2. To familiarize the students regarding different theories and the relevant debates in the discipline of International Politics.
3. It will enable students to get firsthand knowledge about India's Foreign Policy and its relationship with major world powers.
4. The student will be able to critically analyze India's status, foreign policy and outlook in the international platform.

**Skill Enhancement Courses:**

**3-A (1). Democratic Awareness through Legal Literacy.** (2 credits)

**Course Objectives:** The skill enhancement course (SEC) paper is framed to provide the undergraduate students basic ideas on subjects beyond political science and which is somehow related to the subject that carries immense importance and very useful and essential for their day-to-day life. As a citizen of the country, it is essential to know about the criminal procedure code, Indian Penal Code, FIR, Bail, arrest warrant, crimes, and laws relating to crimes, consumer rights, harassments, dowry death, torture and violence against women.

**Program Specific Outcome:** This course also consists of two modules, giving basic ideas of criminal jurisdictions, crime, bail, arrest, criminal procedure codes and different offences under Indian penal code. It also underlines the importance of consumer rights, rights to information and provisions relating to human rights.

The completion of course is supposed to help students in the following ways:

1. It offers a comprehensive understanding regarding arrest, bail, search and arrest warrant.
2. The students will be able to understand how laws are important for day-to-day life.
3. The students will understand the laws relating to consumer protections, and laws relating to protection of human rights.
4. It offers increased awareness towards gender violence particularly harassment and violence against women.

#### **Semester-IV**

##### **CC-8. Indian Political Thought II.** (6 credits)

**Course Objectives:** The Syllabus of CC-8 is design as additional knowledge to the previous idea of the Indian Political thought wherein the major highlight of this paper is on the contribution of eminent proponents such as M.N. Roy, Ram Manohar, Jayprakash Narayan, Jyotiba Phule, Ambedkar, Jinnah, and Savarkar.

**Program Specific Outcome:** The paper CC-8 is divided into two module. Module-1 provides the valuable idea of eminent Indian Philosophers on Humanism, Socialism, Colonialism and Nationalism. Module-2 on the other hand focuses on the idea of Nation by Savarkar and Jinnah, Social equality and justice by Ambedkar and Ramabai, Socialism and Democracy by Nehru, Socialism and Facism by Subash Chandra Bose.

This paper will help students develop following learning outcome-

1. They will gain enormous knowledge on Indian philosophers and their contribution in framing and shaping of India as a nation-state.
2. To enable the students to understand different ideological dimensions of modern political thoughts.
3. Students will develop the feeling of nationalism through their knowledge of contribution from the great philosophers.

### **CC-9. Global Politics since 1945 (6 credits)**

**Course Objectives:** The syllabus of CC-9 outlines the global politics since 1945 with the advent of Cold War giving way to the emergence of Third World thereby focusing on the major role played by NAM further incorporating the trending notion of Globalization and other global financial and regional organizations whereby totally covering the globe by including Pan-Africanism and the question of West Asia and Palestine. It also includes UNO and its role in peace keeping, human rights and development while dealing with India and its relationship with the neighboring countries.

**Program Specific Outcome:** Similar to all other papers CC-9 also is divided into two modules. Where Module -1 points out global world scenario since 1945 covering from the advent of the Cold War to the end to the post-Cold War world by adding to it the notion of Third World, and ideas of Pan-Africanism, West Asia and Palestine, Regional and financial organization. While Module-2 contains of India and her neighbor with major focus on UN and its unforgettable role in peace keeping and development.

This paper contains following benefits for the students-

1. Students will enhance understanding on various global issues and events along with which they will learn the significance of the term peace, human rights, Sustainable development, etc.
2. Students will gain enormous knowledge on the structure, functioning and role played by international, regional and financial organizations.
3. Student will also expand their insight on India and her neighborhood policies.

### **CC-10. Western Political Thought and Theory I.(6 credits)**

**Course Objectives:** The syllabus of CC-10 outlines the western political thoughts and theory and its evolution from ancient Greek period to medieval, and modern thoughts with special focus on religious reformation, European renaissance and freedom as well as ideas on democracy.

**Program Specific Outcome:** - After completion of the course, students will be able to:

1. Evaluate different philosophical dimensions of various schools of thoughts.
2. To familiarize the students regarding different original works of philosophers.

**Skill Enhancement Courses:**

**4.B(1).Legislative Practices and Procedures.( 2 credits)**

**Course Objectives:** The (SEC) skill enhancement course paper is design to provide the students knowledge about powers and privileges of members of parliament, powers and functions of members of state legislative assembly, role of standing committees, bills, role of law, policies, programs and legislation.

**Program Specific Outcome:** The main objectives of this course that has been contain in two modules would benefit students in following ways:

1. The students will analyze the power and privileges of members of parliament.
2. The students will familiarize themselves how bills become a law, role of different committees, policies, programmes and legislations of union and state governments.

### **Semester-V**

#### **CC-11. Western Political Thought and Theory II. (6 credits)**

**Course Objectives:** The syllabus of CC-10 outlines the western political thoughts and theory of 19<sup>th</sup> century further focusing on Bentham's principles of utility, J.S.Mill's views on liberty, Hegel's concept of civil society. This course also emphasizes on the principles of socialism, Marxism, and overviews on anarchism.

**Program Specific Outcome:** After completion of the course, students will be able to:

1. Evaluate the evolving theories and concepts in the modern western Political Thought.
2. Develop a clear understanding of views of J.S. Mill on liberty, Hegel views on civil society and also develops critical thinking on socialism and anarchism.

#### **CC-12. Political Sociology.(6 credits)**

**Course Objectives:-** The main objectives of this course is to provide deeper understanding of political sociology, its various concepts, nature and types of political participation, development and communication structures. The course also enhanced awareness of students about social stratification, caste, class debates and issues of gender politics.

**Program Specific Outcome:** This paper contains following benefits for the students:

1. Develop a sensitized approach towards social problems faced by Indian society and also helps students to carefully address the same.
2. Provide enhanced understanding of current challenges and issues of Indian society.

3. To understand the students regarding the different social forces that shapes the dynamics of Indian society.

**Discipline-Specific Elective Category:**

**5-A (1). Gender and Politics.** (6 credits).

**Course Objectives:** The main objectives of this (DSE) course is to provide in depth understanding on the subject of gender and politics which is very essential for students to know about feminism, patriarchy and gender related violence, sex-gender debates, history of women's movements and issues relating to women harassments and crimes.

**Program Specific Outcome:** After completion of the course, students will be able to:

1. Analyze various gender related discriminations and abuses against the women.
2. Familiarize the students about public-private debates, and sensitizes students about sex-gender consciousness.
3. To enable the students understand gender discriminations faced by women in a patriarchal society like India, also provides ideas of women's movement in India.
3. To enable the students to study the issues such as caste, gender

**5-B (1). Indian Foreign Policy in a Globalizing World.** (6 credits)

**Course Objectives:** The syllabus of this DSE paper outlines Indian foreign policy in a globalizing world. It underpins Indian foreign policy from post-colonial state to the present status as a global power, and highlights India-US, India-Russia and India-China engagements, India's negotiating style and strategies in recent issues of trade, environment and security and signifies India's role in the contemporary world as well.

**Program Specific Outcome:** Thus, this paper entails following benefits for students:

1. To enable the students regarding the institutions and process relates to the formulation of India's Foreign Policy.
2. To enable the students to understand the different dimensions of India's International engagements.
3. To familiarize the changing nature of power relations.

**Semester-VI**



### **CC-13. Public Administration: Concepts and Perspectives.**(6 credits)

**Course Objectives:** This paper CC-13 imparts in general understanding of the concept of Public Administration with the highlights on its evolution, challenges, structures and concepts of administration in the era of globalization. It also emphasis on the models and administrative functioning in the public policy formulation.

**Program Specific Outcome:** - This paper contains following benefits for the students:

1. It will help students to understand the contemporary issues of decentralization, governance and transparency in the country.
2. The students will be able to understand different challenges, structure, and concepts of administration in the era of globalization.
3. The students will be familiarizes with the idea of public policy and its importance in governance system.

### **CC-14. Administration and Public Policy in India.**(6 credits).

**Course Objectives:-**This paper CC-14 is designed to provide the students with the complete understanding of the evolution, structure and functioning of administrative system in India. This paper imparts an overall understanding of Indian Public Policy giving vivid insight of the governance at different level along with its focus on its processes and institutions related to it.

**Program Specific Outcome:** After completion of the course, students will be able to:

1. To create awareness about the basic pillars of Public Administration like Organization, Personnel Administration, and Financial Administration.
2. To impart knowledge about Planning and its machinery.

**Discipline-Specific Elective Category:**

### **6-A (4). Understanding Global Politics.**(6 credits)

**Course Objectives:** The Syllabus of the DSE paper is design to imparts wider understanding of global politics, evolution of the state system and what makes the world so different, and factors responsible for driving the world apart. Nevertheless, this paper emphasizes on WTO, economic globalization, global inequality, causes of war, violence and terrorism, also underlines the factors that can bring the world together.

**Program Specific Outcome:** After completion of the course, students will be able to:

1. To enable the students to know what makes the world order.
2. To help students to understand what drives the world apart and causes of global inequalities, violence, conflict, war and terrorism.
3. To impart knowledge about the new global order with special emphasize on India.

**6-B (4). Human Rights in a Comparative Perspective. (6 credits)**

**Course Objectives:** The Syllabus of the DSE course covers human rights in a comparative perspective with outlines of three generations rights, and its institutionalization, universal declaration of human rights. It also gives brief accounts of constitution of South Africa and India, surveillance of citizens in China and India, caste and races in South Africa and India.

**Program Specific Outcome:**

The course is intended to high light the concept of Human Rights, its evolution and importance in our society.

1. To make an understanding about various rights, including political, civil, social, economic and cultural rights.
2. To familiarize the Human rights condition in India including constitutional provisions.
3. To equip with the students the skills to evaluate the Human Rights enforcement.

**General Course (PLSG)**

**Semester-I**

**Course Objectives:** - The syllabus for CC1 is structured to provide students with basic and conceptual significance of the political theory. It provides for greater understanding of political theory and its notions at different stages of its evolvement and development. It enlightens the learners with different approaches like Normative, Behavioral, Post- Behavioral, Marxist, Feminist, Fascist while educating them with the idea of State, Sovereignty, Law, Rights, Equality, Liberty, etc.

**Program Specific Outcome:** The CC-1 consists of two Modules- the Module-1 gives importance on approaches and concepts relating to political theory and the Module-II focus

mainly radical notion such as Marxian approaches, Fascism, Political parties and Interest groups.

In fact, the completions of course will benefits students in the following ways:

1. Students will be well acquainting with the theories, principles, approaches and concepts of political theory.
2. Students will develop competency in the discipline and be confident to apply diverse theories, concepts, policy approaches, and principles to address local, national, international challenges.
3. It will enable students to analyze different approaches relating to theories and various theoretical interpretations given by liberal theorists, Marxist as well as modern theorists.

## **Semester-II**

### **CC-II .Comparative Governments and Politics. (6 credits)**

**Course Objectives:** The Syllabus for course CC-2/GE-2 is framed to familiarized students about the existing comparative governments and political set ups in the leading countries of the world. The course comprises comparative political systems in between liberal and socialist political systems and institutions like Constitutional practices of major countries like USA, UK, France, Switzerland, Russia, China and Bangladesh, and the prevalent Parliaments, executives, cabinet systems, and rights of the citizens and the role of judiciaries.

**Program Specific Outcome:** This paper (CC-2/GE-2) consists of two modules; the Module-1 covers comparative political systems in general and highlights on the structure and functioning of political system in the USA and UK. While the Module-2, deals with the Constitutional features of France, Switzerland and Bangladesh with major focus on PRC.

However, students will be benefited by the following ways:

1. The course will give students deeper understanding about comparative political systems.
2. Students will be able to gain basic ideas on different constitutional practices prevalent in leading countries of the world.

## **Semester-III**

### **CC-III. Government and Politics in India. (6 credits)**

**Course Objectives:** The Syllabus for course CC-3/GE-3 gives complete ideas on Indian Constitution from the Preamble, Directive Principles of State Policy to the Fundamental rights and Duties of the Indian citizens. It Provides knowledge on the outlook of a federation with advance understanding of the structural and functioning of the legislature, Executive and Judiciary underlining the essential role played by Election Commission, party system and social movement in shaping the Indian Democracy.

**Program Specific Outcome:** The CC-3/GE-3 consists of two Modules; the first module visions on imparting holistic understanding of Constitution, Federation, Union legislature, Executive and Judiciary. While the second module focuses on State legislature and Executive, Local Government, Election Commission, Party System, Regionalism and Social Movement.

By reading the course students will be benefited in following ways-

1. Students will enhance their knowledge in regard to the role and essence of the Constitution and they will be well versed with the historical evolution of the world largest Constitution.
2. Students will be well equipped with the Fundamental Rights, Preamble, Directive Principles and their rights and duties as the citizen of India.
3. Students will develop their insight on the structure and functioning of a federal system, the structure and working of the Union and State Executive and the Union and State Legislature.
4. Students will realize the significance and the need for the independent judicial system along with the required support provided by the various commissions in the systematic functioning of the democratic system.
5. Students will overall develop their knowledge and critical understanding towards the functioning of the Constitutional Government in India which in turn will guide them for the further career advancement.

### **Skill Enhancement Course:**

#### **A(1). Legal Literacy. (2 credits)**

**Course Objectives:** – This SEC paper is well designed to impart vivid knowledge in regard to different laws, rules and regulation in India whereby student will gain exposure to the Legal

Criminal Jurisdiction with process related to such matters, including the ideas on Indian Penal Code and Personal laws will be pointed out and further it will ignite the greater outlook on Consumers Rights, Human Rights and Anti-Terror laws.

**Program Specific Outcome:** similar to the papers this SEC also is divided into two parts. The Module-1 deals with general notion of Legal issues of Crime and the procedure followed through it along with the concept of Indian Penal Code and Personal laws. Whereas the Module -2 of this very paper gives detail idea on Consumers Rights, Human Rights and Anti-Terror laws.

This SEC paper will help the student advance in following ways-

1. The students will be able to inculcate the understanding related to Criminal Issues, Personal Issues, and Social Issues along with the laws and procedures related in handling such matters.
2. The students will incorporate the essence of respecting and following the rules and regulations as prescribed by the Indian Constitution.
3. The students will be well equipped to voice against any kind of violation of their rights as they will be well versed with laws and rights to protect themselves and the society.

#### **Semester-IV**

##### **CC-IV.International Relations.( 6credits)**

**Course Objectives:** - This paper CC4/GE-4 renders the learners with a complete knowledge on evolution of International Relations as an academic discipline with the highlights on different approaches and theories. This paper also contributes and aids in enhancing major understanding of the historical events and issues in International Relations since the outbreak of the Second World War leading to Cold War and its arena with the rise and growth of new powers in world politics ending it with the Indian role in world politics as a propagator of NAM and India's foreign policy.

**Program Specific Outcome:** This paper consists of two modules. The Module-1 basically deals with evolution of International Relations as a field of study supported by approaches and theories by giving more heed to events like Second World War and Cold War. The Module -2 gives clear picture of global politics and changing world equations post Cold War with the rise of new powers in world politics by specifying India's emerging role in world arena with her strong stand over her foreign policy.

By reading the course students will be benefited in following ways-

1. The students will inculcate knowledge of different theories and the relevant debates in the discipline of International Politics.
2. It will enable students to get firsthand knowledge about India's Foreign Policy and its relationship with major world powers.
3. The student will be able to critically analyze India's status, foreign policy and outlook in the international platform.

### **Skill Enhancement Course:**

#### **B-(1). Elementary Dimension of Research. (2 credits).**

**Course Objectives:** This Skill Enhancement Course is framed in a way to boost up the systematic research based knowledge among students. This paper gives them the understanding of research as a concept along with its aims, values, problems, methods, various tools and techniques required in order to successfully complete the research work.

**Program Specific Outcome:** This paper is divided into two parts. The Module-1 deals with the general concept of research its ethics and the method of writing report. While module-2 focuses on sources, tools, techniques and statistical method of formulating research.

The student will be benefitted in following ways-

1. They will inculcate a greater outlook on research field with its various elements entitled for its future application and uses.
2. They will enhance their idea on good and systematic research work for further academic and social needs.
3. They will be able to understand the importance of research in developing new and old concepts.

### **Semester-V**

#### **Discipline-Specific Elective Category:**

##### **B-(1). Indian foreign Policy.(6 credits)**

**Course Objectives:** This DSE paper is design in order to increase the knowledge among students regarding the idea of Foreign policy its determinants and theories related to it with special focus on Indian Foreign Policy its evolution, principles and relationship with its neighbors.

**Program Specific Outcome:** This DSE paper is also divided into two modules. The Module 1 seeks to impart knowledge on the idea of foreign policy and different theories related to it. While the module 2 deals with Indian Foreign Policy in general its evolution, principles and its relationship with its neighboring states.

The student will gain following benefits from this paper -

1. They will develop a complete idea on framing and functioning of foreign Policies.
2. They will get a clear sight on India's take on foreign policy.
3. They will be able to analysis and understand India's position among its neighbours.

### **Skill Enhancement Course:**

#### **5.A(2).Understanding the Legal Systems.(2 credits)**

**Course Objectives:** –This SEC paper is designed to increase the knowledge of the student in regard to the role played by judicial system in India with the focus on different laws and Acts granted for the protection of the citizens and their rights.

**Program Specific Outcome:-** This paper is also divided into two parts. The module one enhances the understanding of role played by the Supreme Court, High Courts of India and regal procedures of PIL, and Administrative tribunals. While the module-2 focuses on the understanding of sub-ordinate courts, family courts, and Lok Adalats, and laws relating representation of people Act and anti-defection laws.

The student will gain following benefits-

1. They will be able to know about the writ jurisdictions in protection of their rights in the Supreme court and High courts
2. The students will be acquired increased awareness about public interest litigations
3. The students will understand the legal structures of India like administrative tribunals, structured of family courts, Lok Adalats and Mahila Courts as well.

## **Semester-VI**

### **Discipline-Specific Elective Category:**

#### **B-(2).Human rights: Theory and Indian contest.(2 credits)**

**Course Objectives:** This DSE paper enhances the understanding of basic rights of an individual as a human. This paper helps them understand the importance of Human Rights and different Institutions supporting the efficient application of Human rights across the globe. It also provides information in regard to the structure and functioning of Human Rights in India.

**Program Specific Outcome:** This paper is also divided into two parts. The module 1 contains in general the idea about the Human Rights and its evolution and its significance. The Module -2 consists of the Human Rights in India with the focus on all important institutions and rights framed in order to protect each and every individual.

The student will gain following benefits -

1. They will understand the importance of Human Rights and the role played by different institutions to protect it.
2. They will be well equipped with the Knowledge of their rights as an individual which will always guide them to protect the society and themselves.

### **Skill Enhancement Course:**

#### **B-(1). Basic Research Method.(2 credits)**

**Course Objectives:** This SEC paper is design to enhance their Knowledge in the field of research by dealing with all the methods and areas of application of research method.

**Program Specific Outcome:** This SEC paper also consists of 2 parts. The module -1 imparts basic understanding in areas like case study, survey group and focus group. The module -2 provides with greater knowledge in experimental research, analysis and participants observation.

The student will gain following benefits

1. They will understand research methodology required in conducting field study and data collection
2. They will be able to analyze the situation and elements much better with the help of research



3. The course will enable students to apply quantitative techniques in the various fields including researches and professional fields.



## **DEPARTMENT OF HISTORY**

### **Honours Course**

Our college is committed to its students learning and success. Educational process and outcomes are aimed at transformational learning that support students all round and holistic development. At the college level concern teachers go through the syllabus and frames some outcomes/ objectives and communicate to the students.

### **Programme Outcomes**

- PO 1. Student will be able to learn a basic narrative of historical events in different regions.
- PO 2. Student can distinguish primary and secondary sources.
- PO 3. Understand and evaluate historical ideas, arguments, and points of view.
- PO 4. Evaluate competing interpretations and multiple narratives of the past.
- PO 5. Student will be able to assess primary historical evidence.
- PO 6. Student will be able to compile a bibliography.
- PO 7. Student can present clear and compelling arguments, based on critical analysis of diverse historical sources.
- PO 8. To develop a research question and complete a well-supported piece of historical writing.

## **Course Outcomes**

### **SEMESTER-1**

#### **(HONOURS)**

#### **Paper 1: History of India (From the Earliest times to C 300 BCE)**

CO1. Student will be well acquainted with the Historical Sources and understand the importance of these sources in Historical Research.

CO2. Identify how different historians have contributed to the narratives that comprise Indian history.

CO3. Concept of Early in India History.

CO4. Students will acquire knowledge regarding the primitive life and cultural status of the people of ancient India.

CO5. Identify and describe the emergence of the earliest civilizations in Asia: the Harappan.

#### **Paper 2: Social Formations and Cultural Patterns of the Ancient World other than India.**

CO1. Identify and define the world's earliest civilizations, including the Neolithic Revolution, and describe how it shaped the development of these early civilizations.

CO2. Identify, describe, and compare/contrast the first advanced civilizations in the world—Mesopotamia and Egypt.

CO3. Students also learn how the human society had transformed from nomadic to civilized society in ancient history of the world.

CO4. Identify and describe the different periods that characterized ancient Greece—Archaic Greece (or the Greek Dark Ages), classical Greece, and the Hellenistic era.

CO5. The intellectual, cultural, and literary touchstones of the ancient Greek and Roman world.

CO6. The primary political, social, and military events and developments in the ancient Greek and Roman world.

**(GENERAL)**

**PAPER -1History of India from the Earliest Times upto300 CE**

- CO1. Student will Learn about various types of source material used by ancient historians and identify changing traditions of history writing.
- CO2. Students will acquire knowledge regarding the primitive life and cultural status of the people of ancient India.
- CO3.Students will learn Concept and Downfall of Indus Valley Civilization and Vedic Civilization, The idea of Sixteenth Mahajanapada, Concept of Buddhism and Jainism,
- CO4. Aspect of Cultural, Social and Political in Northern India, central India, and the Deccan.

**SEMESTER-2**

**HONOURS**

**Paper 3: History of India (c 300 BCE to c.750 CE).**

- CO1. Students will Know about the origin of the Indian empire.
- CO2. They will learn about the craft Production, trade and trade routes; coinage, currency, urbanizations of ancient India.
- CO3.Students will know agrarian economy land grants, changing production relations; graded land rights and peasantry.
- CO4.They will understand about the Consolidation of the Brahmanical tradition, Theistic cults, and the beginnings of Tantricism.
- CO5. Aspect of Cultural, Social and Political in Northern India, central India, and the Deccan.

**Paper 4: Social Formations and Cultural Patterns of the Medieval World other than India.**

- CO1.Students will acquire knowledge, how the crises of the Roman Empire had made and transitioned to Principate.
- CO2. Students will learn about the religion, culture, Position of Women, literature and philosophy, town's formation, art and architecture of the Medieval Europe.
- CO3. They will acquire knowledge about the socio-economic and political condition of the feudal organization and crisis of feudalism in Europe.
- CO4.They will learn about the concept and Definition of the Carolingian renaissance 12th century renaissance in medieval Europe.

CO5.Students will acquire knowledge about the Abrahamic Religion and its Origins, Diversity, and Composition.

### **GENERAL**

#### **History of India from C.300 to 1206.**

CO1.The students will learn how to rise and Growth of the Guptas empire in ancient India and to raise regional Kingdoms in different parts of India after downfall of the Empire.

CO2. They can acquire knowledge towards the society, economy and culture in early medieval India.

CO3. They can gather knowledge towards the Arabs conquest of Northern part of India.

CO4, Students will learn about establishment of Sultanate of Delhi.

### **SEMESTER-3**

#### **HONOURS**

#### **Paper 5: History of India (c.750 – 1206)**

CO1. Student will get know about various sources and historiography of Early-Medieval and Medieval Indian History.

CO2.They can achieve knowledge how to develop Indian feudalism and evolution of the political structures of early-medieval north and south India.

CO3. Student will know about the Political Changes in the Early-Medieval and Medieval History and develop their historical perspective.

CO4. Student will know socio economic life, religious and cultural development Regional languages and literature, Islamic intellectual traditions in Early-Medieval and Medieval Indian History.

CO5.Concept of Buddhism and Jainism

CO6. They can learn how the conquering of Islam had initiated in India.

#### **Paper 6: Rise of the Modern West –I**

CO1.Students will learn about the Transition Debate on transition from feudalism to capitalism: problems and theories.

CO2.Students will know about the Concept, Definition of the Renaissance. Humanism, Reformation, The Revival of Classical learning,

CO3. They will acquire knowledge about Economic developments- Shift of economic balance from the Mediterranean to the Atlantic, Commercial, Price and Agricultural Revolution.

CO4.Student will understand how to rise The Idea of Modern State.

### **Paper 7: History of India (c.1206 – 1526)**

- CO1. Identify how different historians have contributed to the narratives that comprise Medieval Indian history.
- CO2. Student will know about recent approaches of Medieval Indian History by Modern Historians.
- CO3. Student will understand the Political History and Administration of the sultanate.
- CO4. Student will know and explain the characteristics of Medieval Indian History. Especially trade, commerce, urbanization, art & architecture and religious policy of the sultanate.
- CO5. They will learn towards the emergence of provincial dynasties: Bahamanis, Vijayanagar, Gujarat, Malwa, Jaunpur and Bengal.
- CO6. They gathered knowledge about Sufism and Bhakti movements in medieval India.

### **SEC -A 1: SEM-3 Archives and museums.**

- CO1. Develop interests in the study of history and activities relating to history.
- CO2. Collect ancient arts, old coins and other historical materials;
- CO3. Participate in historical drama and historical occasions;
- CO4. Visit places of historical interests, archaeological sites, museums and archives;
- CO5. Read historical documents, maps, charts etc.
- CO6. Play active roles in activities of the historical organizations and associations.
- CO6. Write articles on historical topics

### **GENERAL**

#### **History of India from C. 1206 to 1707**

- CO1. Students will learn about the foundation Expansion & consolidation of the Sultanate of Delhi.
- CO2. They can learn about the activities of Delhi Sultanate i.e Nobility & Iqta system, Military, administrative & economic reforms under the Khiljis & the Tughlaqs.
- CO3. They will learn towards the emergence of provincial kingdoms: Mewar, Bengal, Vijaynagara & Bahamanis.
- CO4. Identify the condition of India under the Mughal Empire.
- CO5. They can acquire knowledge towards the polity, economy, Religion, and Society during Mughal rule in India.
- CO6. They acquire knowledge about Mansab & Jagirs system and Religious Movements.

### **SEC -A 1: Historical Tourism: Theory &Practice.**

- CO1. Understand background of our religion, customs institutions, administration and so on.
- CO2. Understand the present existing social, political, religious and economic conditions of the people.
- CO3. Analyze relationship between the past and the present is lively presented in the history.
- CO4. Understand how societies have constructed and experienced history across time, place, and person.
- CO5. Equip himself / herself with theoretical knowledge of heritage and tourism.
- CO6. Enhance his/her ability to discern the nature of the cultural heritage of the nation.
- CO7. Education tour to the National Archives and National Museum is an integral part of the history students.

### **SEMESTER-4**

#### **HONOURS**

#### **Paper 8: Rise of the Modern West – II**

- CO1. Students will learn about the rise of modern science, Origins of Enlightenment.
- CO2. students will learn about the European crisis of economic, social and political dimensions as well as the English Revolution in 17th century.
- CO3. They can acquire knowledge towards the European politics in the 18th century like parliamentary monarchy, patterns of Absolutism in Europe.

#### **Paper 9: History of India (c.1526-1605)**

- CO1. Student will know about recent approaches of Medieval Indian History by Modern Historians.
- CO2. They will learn how the foundation, expansion and consolidation of the Mughal Empire in Medieval Indian.
- CO3. Student will understand the Political and religious ideas under Akbar of Mughal Empire.
- CO4. Student will know and explain the characteristics of Administration in Medieval Indian History. Especially trade, commerce, Land rights and revenue system; Zamindars and Peasants; rural tensions of Mughal Empire.

### **Paper 10 History of India (c.1605 – 1750s)**

CO1. Student will know about recent approaches of Medieval Indian History by Modern Historians.

CO2. Student will understand the Political History and Administration of Mughal Empire

CO3. Student will know and explain the characteristics of Administration in Medieval Indian History. Especially trade, commerce, urbanization, art & architecture and religious policy of Mughal Empire.

CO4. They also learn about the nature of the state, nobility and under the Ulemas during Mughal rule in medieval India.

CO5. Student will understand Patterns of Regional Politics Rajput & the Marathas.

### **SEC-B 2: Art Appreciation: An Introduction to Indian Art.**

CO1. Be familiar with the major developments in sculpture, painting and architecture during the early period of Indian history

CO2. Understand the nomenclature- stylistic, dynastic and regional that is used to denote certain time periods and art production related to these.

CO3. Able to trace the intertwined nature of art, religion and society in the period.

CO4. Able to analyze art on basis of its materiality.

CO5. Recognize the patterns of patronage and related developments.

### **GENERAL**

#### **History of India from 1707 to 1950**

CO1. Understand about the Socio-religious reform movements in 19th century.

CO2. Colonial intervention in economy, society and polity.

CO3. They can gather knowledge about how Emergence of Independent States & establishment of Colonial power.

CO4. Students will learn about Nationalism with focus on Gandhian nationalism, the development of nonviolent mass action, and the Indian movement for independence.

CO5. They will acquire knowledge about the freedom struggle and partition of India and aftermath.

### **SEC -B 1: Museums & Archives in India**

CO1. Develop interests in the study of history and activities relating to history.

CO2. They Collect ancient arts, old coins and other historical materials.



- CO3. Participate in historical drama and historical occasions.
- CO4. Visit places of historical interests, archaeological sites, museums and archives.
- CO5. Read historical documents, maps, charts etc.
- CO6. Play active roles in activities of the historical organizations and associations.
- CO7. Write articles on historical topics.

## **SEMESTER-5**

### **HONOURS**

#### **Paper 11: History of Modern Europe (c.1780-1939)**

- CO1. Students will learn about The French Revolution and its European repercussions, Napoleonic consolidation – reform and empire.
- CO2. They will learn about how Capitalist Industrialization had occurred and its affected on socio economic transformation of Europe.
- CO3. Student will know growth of imperialism, militarism, power blocks and alliances before First World War 1914 to 1918 and the causes and effects of the Word War I.
- CO4. Student will know the post war economic crises, great depression and recovery, rise of totalitarianism in form of Nazism, fascism, militarism and Stalinism, world war II, cultural and intellectual developments in Europe.
- CO5. They will gather knowledge regarding Varieties of Nationalism and the Remaking of States in the 19th and 20th centuries.
- CO6. They will know about the politics of super power, Imperialism among the European countries.

#### **Paper 12: History of India (c.1750s– 1857)**

- CO1. Trace the British colonial expansion in the political contexts of eighteenth-century India and the gradual consolidation of the colonial state power in the nineteenth century.
- CO2. Identify the key historiographical debates around the colonial economic policies, including the land revenue collection, commercialization of agricultural production, trade policies and deindustrialization.
- CO3. Delineate and explain the ideological, institutional, and political formations of the anticolonial nationalist movement.

#### **Paper 1 DSE-A-1: History of Bengal (c.1757-1905)**

- CO1. Students will learn about Political & Administrative history under the Nawabs and the British.

CO2. They will gather knowledge towards the changing scenarios of the social-cultural and economic life up to 19th Century.

CO3. They acquire knowledge about the Missionaries activities, advent of printing and influence on the contemporary society this led to raise renaissance in Bengal.

CO4. Protest movements and insurgencies against the Raj & Partition of Bengal 1905.

#### **Paper 5 DSE-B-1: History of Modern East Asia – I China (c.1840 – 1949)**

CO1. students acquire knowledge about the political developments and the important events related to it in the 19th and early 20th centuries in China.

CO2. Student will know about the transformation of China into an informal colony, and Popular Movements, The Revolution of 1911.

CO3. They can gather knowledge about The Emergence of Nationalism and Communism in China (1921 – 1937).

CO4. The Communist Movement (1938-1949 and the rise of Mao Tse Tung.

### **GENERAL**

#### **SEC –A 2: Indian History & Culture**

CO1. Understand key concepts from economic, political, and social analysis as they pertain to the design and evaluation of environmental policies and institutions.

CO2. Analyze the -Issues of settlements & Social differentiations.

CO3. They will conscious about the violence against the women and government preventive laws for their save and the contribution of women towards the society through political, social and religious fields.

CO4. Students to understand the different facets of heritage and their significance.

CO5. They will gather knowledge towards the popular culture through audio-visual expressions like, Folk Art, Music, folk songs Theatre, and Jatras by performance and Participations in real life.

#### **DSE –A -1: National Liberation Movements in 20th century World**

CO1. Students will learn about the concept and definition of Nationalism and the Nature of Imperialism and colonialism.

CO2. They will acquire knowledge about the National Movements in Nigeria, Kenya, Congo, Angola & South Africa.

CO3. They will be aware how the Chinese were united towards the foreign colonial powers and defeated them and ultimately gain to freedom and Revolution of Indonesian 1945-1949.

CO4. They will acquire knowledge about the National Movement in India.

## **DSE- A -2: Some Aspects of European History: C.1780-1945**

CO1. Students will learn about The French Revolution and its European repercussions, Napoleonic– Era and aftermath.

CO2. Student will know growth of imperialism, militarism, power blocks and alliances before First World War 1914 to 1918 and the causes and effects of the Word War I & II

CO3. Social and economic Changes of European History: C.1780-1945

## **SEMESTER-6**

### **HONOURS**

#### **Paper 13: History of India (c. 1857 – 1964)**

CO1. Student will understand the nature, policies and administration of British Rule in India.

CO2. Student will be able to explain the causes and development of Nationalism.

CO3. Student will know about the Indian National Movement and role of National Congress, especially under the leadership of Mahatma Gandhi in the national movement.

CO4. Student will understand the history of partition and the historical events of the independence of India.

CO5. Discuss the colonial context of the emergence of communal politics in India and the subsequent partition of India.

CO6. The course paper dills with the history of post-independence India where in emphasize will be laid on making students built an argument to perspective about the history of post-colonial theories and historical development.

#### **Paper 14: History of World Politics: (1945-1994)**

CO1. Student will know about the Decolonization process and Emergence of Cold War.

CO2. Students will Learn Examine the historical significance of The USSR & The USA Relation in World Politics.

CO3. Student will understand the history of fall of Soviet Russia and Consequences.

CO4. Think critically about the political crisis of The Korean, Cuban & West Asian & Rise of a Unipolar World system, Globalization.

CO5. They will learn Emergence of the People’s Republic of China and Changing World political Scenarios.

CO6. Think critically about the Protest Politics: Civil Rights, Anti-Apartheid, & Second Wave Feminist Movement.

### **Paper 2 DSE-A-3: History of Bengal (c.1905-1947)**

CO1. Delineate and explain the ideological, institutional, and political formations of the anticolonial nationalist movement.

CO2. They can acquire knowledge how to rise of Gandhian nationalism in Indian politics and his activities towards the freedom like, Khilafat and Non-cooperation movement, The Swarajya party, Civil Disobedience Movement, Quit India Movement

CO3. Discuss the colonial context of the emergence of communal politics in India and the subsequent partition of India.

CO4. Student will know about the Indian National Movement and role of Subhash Chandra Bose and the Congress.

CO5. Discuss the colonial context of the emergence of Left-wing movements.

CO6. They will learn about the local rebellion and movements like the Peasant, Labour, Caste and Women's Movements in Bengal 1920-1946.

CO7. Student will understand the history of partition and the historical events of the independence of India, Birth of West Bengal and East Pakistan.

### **Paper 6 DSE-B-3: History of Modern East Asia – II Japan (c.1868 – 1945)**

CO1. Students will learn about the Transition from feudalism to capitalism in Japan.

CO2. They will acquire knowledge about Social, cultural and educational reforms, Meiji Constitution.

CO3. Student will know about the growth of Japanese Imperialism.

CO4. They will gather knowledge about the emergence of Japan as military state of East Asia on the eve of the World War-II this had influenced to the World War-II.

## **GENERAL**

### **SEC-B 2: Orality and Oral Culture in India**

CO1. Students will learn about concept and definition of Orality and Oral Culture in India.

CO2. They will conscious how to search historical documents from oral history which spread in the human society.

CO3. They will gather methodological knowledge of research in history

CO4. They will acquire knowledge towards the documentation of any research work.

### **DSE- B-1: Patterns of Capitalism in Europe: C.16TH Century to early 20th Century**

CO1. Students will learn about concept and Patterns of Capitalism in Europe.

CO2. They will acquire knowledge about industrial Revolution in England, Industrial Capitalism in France and Growth of Industries in Germany.

CO3. They will gather knowledge how the Industrialization had occurred and it's affected on socio economic & political transformation of Europe.

**DSE-B-2: Some aspects of Society & Economy of Modern Europe: 15Tth – 18th  
Century**

CO1. They will acquire knowledge about the feudal organization and crisis of feudalism in Europe.

CO2. Students will know about the Concept, Definition of the Renaissance. Humanism and Reformation

CO3. They will acquire knowledge about Economic developments- Shift of economic balance from the Mediterranean to the Atlantic.

CO4. Students will learn about the Transition Debate on transition from feudalism to capitalism, Industrial Revolution in England.

**Programme Specific Outcomes**

**PSO1.** Expand your knowledge and understanding about the past, and reflect on the diversity of past human experience.

**PSO2.**How the ancient world has influenced, and continues to influence, later cultures.

**PSO3.**Analyze relationship between the past and the present.

**PSO4.** To develop practical skills helpful in the study and activities to the historical events.

**PSO5.** Understanding backgrounds of religion and administration.

**PSO6.** Understanding existing social, political, religious and economic conditions of the people.

**PSO7.**To develop interest in the study of history and activities related to history.



## DEPARTMENT OF SANSKRIT

**PO, PSO & CO for B.A. (Sanskrit Honours) Course**

**(Under CBCS)**

### **PROGRAM OUTCOMES (PO)**

**[PO.1]** The Programme has enabled UG level students of Sanskrit to be introduced with Indian age-old heritage, accumulating in the last forty centuries, exercising inexpressible impact on the life and culture of the Indian with the explicit aim of inspiring as well as uplifting qualitatively each and everyone, directly or otherwise concerned with.

**[PO.2]** These papers are designed to introduce students with Vedic concept of god partially. It also introduces students with Pratyaksha, a Pramana of the Indian Nyaya-Vaisheshika Philosophy.

**[PO.3]** This course has enhanced the inquisitiveness of the students for knowing the historical background of the classical Sanskrit literature. It is designed also for making the students familiar to the various sections of Siddhantakaumudi, a commentarial write-up on Panini's Ashtadhyayi. Moreover, fundamental topics of Sanskrit grammar at large are also aimed to be taught. Various part of Sanskrit grammar has also been introduced which is supposed to enrich the grammatical base of the students.

**[PO.4]** The course also incorporates the famous Drama of Bhasa Svapnavasavadattam and Kalidasa's Abhijanashakuntalam with the view to giving knowledge of ancient Indian dramatic System. It is introducing the readers with those immortal creations of the concerned literature.

**[PO.5]** The course is intended for making the students acquainted with the two highly adored Mahakavyas namely, the Ramayana and the Mahabharata.

**[PO.6]** The outcome of this course is to introduce the students with the keynote essentials of the rhetorical work Sahityadarpana of Viswanatha Kaviraja and Kavyaprakasha of Mammata.

**[PO.7]** The course is intended for imparting knowledge as to philosophical speculation expected to increase the level of students' outlook on Sanskrit linguistics.

**[PO.8]** The course aims at helping the students to be introduced to the Rigvedic, the Atharvanic and the Brahmanical texts which may be inspire-giving for the students to be in pursuit of knowledge of excellence.

**[PO.9]** Through this course the students to peep into a specific area of the History of philosophical systems. It is meant also for helping students in knowing Indian

philosophical systems in common perspective. It also helps learning Indian logic to same extent.

**[PO.10]** The course is designed to introduce students with the masterly piece of Sanskrit prose romance, the Kadambari, composed by Banabhatta and one should gets opportunity to compare the style of Bana with the newly added prose Romance, the Shivarajavijayam, written by Amvikadatta Vyasa, prolific modern writer of Sanskrit language of the British era, known as Abhinava Bana. The course is designed to acquaint the students with Kiratarjuniyam and Kumarasambhavam; of the verses with highly ethical value. It also aims to introduce with the inscriptional works and related studies to the Palaeography, antiquity and art of writing, history of decipherment of Ancient Indian Scripts, Dharmashastra, Arthashastra and to understand ancient Indian historical, Political and legal tradition.

**[PO.11]** The course aims at imparting knowledge on Upanisadic knowledge revealed through the Brihadaranyakopanisad. Moreover through the Vedic study, students acquire knowledge on history of Vedic literature, Vedic words and Vedic grammar.

**[PO.12]** The course intends to impart knowledge of Astika and Nastika Philosophy with special reference to the Tarkasamgraha of Annambhatta.

**[PO. 13]** The course also designed to introduce students to the Modern Sanskrit Literature including Mahakavyas and Caritakavyas namely Shivarajavijayam, Atha Kim, Daridradurdaivam and Rukminiharanam by Ambikadatta Vyasa, Siddheshwar Chattopadhyay and Haridasa Siddhantavagisha.

**[PO. 14]** The course intended to impart knowledge on Sanskrit World Literature to introduce students to the worldwide acceptance and relevance of Sanskritic Knowledge, Vedic studies, philosophical, Socio-cultural studies of Ramayana and Mahabharata throughout the Asia and world. This course includes Sanskrit studies in West and East, acceptance of Sanskrit Fables in world literature, the study of Language and Art, centres of Sanskritic studies through out the world, study on Kalidasa and his writings in the West, English and German translation of his works and influence of Kalidasa on western literature and theatre.

**[PO. 15]** This course also helps students to discover their past as well as the power self realisation. This programme includes a vast study on Self management of Gita through the knowledge on inner and outer world. It should help a human being to overcome inner conflict of mind and confusions to survive in the adverse situations and unfavourable days in the long journey of life. It helps to realise the Supreme power and characteristics of Self and Salvation.

**[PO. 16]** This programme intends to familiar a beginner to the various theoretical Sanskritic knowledge as well as the practical knowledge to build up the power of writing in Sanskrit. The Skill Enhancement Course or SEC gives the scope to build and exercise one's writing skill translating from English or Bengali language, writing paragraph, Essay, letter etc. in Sanskrit which should help them to be fittest in the further studies, Researches in the Academia.

## PROGRAM SPECIFIC OUTCOMES (PSO)

**[PSO.1]** Students are expected to have advanced knowledge about Sanskrit verse, language, literature, history and application of Sanskrit language. A student pursuing this course has command over Devanagari script which provides them Palaeographical knowledge to read out the script of modern languages like Hindi and Marathi.

Sanskrit is the pathway which connects the dimmed past of ancient India to the present India of 2020. In fact, historically, Indian society and culture are unique; and Indian social realities could be grasped through Sanskrit texts. The academic programme, enables the students not only to acquire the professional skills but also develop a deep understanding of rich heritage and dynamic prevalent scenario of India through various texts in different disciplines of ancient Pedagogy, composed in Sanskrit.

**[PSO.2]** They should learn about pedagogical aspects of Sanskrit teaching.

**[PSO.3]** They should connect Sanskrit to ancient Indian history, geography, Science, Indian Philosophy, Socio-political and Regio-cultural tradition.

**[PSO.4]** They are taught different technical aspects, terms and different types of theory related to Sanskritic Studies and they are expect to practice Sanskrit language as a part of daily life. This course will help them to speak and write in Sanskrit.

**[PSO.5]** They should have Scientific knowledge about ancient Indian technical literature and science which open the rich past tradition of Sanskritic knowledge and rational thinking.

**[PSO.6]** Exploring new ideas and thoughts which have lead to the formation of the current and past society and applying the knowledge for understanding the complex relationship shared by the human beings over the ages.

**[PSO.7]** It is Demonstrating thinking skills, analysing, synthesizing, evaluating factual and conceptual historical information from multiple sources, differentiating between fact and fiction also.

**[PSO.8]** Practice of textual analysis of Sanskrit and Vedic Sanskrit texts endows them to develop a critical perspective to assess existing research through careful reading, analysis and discussion.

**[PSO.9]** Sanskritic knowledge helps the student to gain ability to apply relevant theoretical perspectives in Sanskrit Philosophical and literary works to contemporary topics and also to develop a scientific approach towards analysis of modern texts.

**[PSO.10]** Students will be able to identify topics and formulate questions for productive inquiry. They will demonstrate the skills needed to participate in conversation that builds knowledge collaboratively.

**[PSO.11]** Sanskrit is recognized as ‘mother of all languages’ throughout the greater portion of the world. Even students aiming for a bright career, Sanskrit can provide it. You should able to secure a faculty post in some highly ranked Universities. If someone



does not know Sanskrit, she/he is not able to understand our past. They cannot get the clear perspective of Vedas, Gita, Upanisads, Ramayana, Mahabharata, Arthashastra and many other books, which are still regarded as the finest piece by a large portion of indigenous and Western scholars.

**[PSO.12]** Learners should get the path towards spiritual uplift and mental peace. Sanskrit literature can enlightens a student with moral and ethical values. They need to keep it mind that this language has a perfect grammar and nicely built structure.

**[PSO.13]** Newly adopted Syllabus with a number of insertion and changes aims to introduce a young mind with the Past knowledge and tries to prepare a rational mind to accept or reject some ideas. In the Choice based Credit System, a student gets scope to acquire knowledge impartially from the core of the ancient thought to the wisdom knowing the structure of social institutions and philosophical impact on society, the system and tools of reconstructing the History from Epigraphic source to the Puranas, from the so called orthodox Scriptures to the so called modern enlightenment.

### **COURSE OUTCOME (CO)**

#### **[CO.1]: CC 1:**

Textual and literary analysis from selected Slokas of Mahākāvya composed by kālidāsa namely Raghuvamsha and Kumarasambhava, textual analysis of selected Slokas from a well known Mahākāvya from post-kālidāsa era (i.e. Kirātārjunīya and Nitisataka) as well as the study of origin and development of Mahakavya and Gitikavya aiming the introductory knowledge of Sanskrit poems with special references to the appropriateness of title, story line, content and grammatical Analysis, characteristics and translation. Beside the textual Analysis, the study of the development of Mahakavya and Gitikavya imparts the basic knowledge on the works of great poets, their life and remarkable works.

#### **[CO.2]: CC 2:**

This is designed to impart knowledge and introduce oneself throughout the Vedic literature from Samhita to Upanisads and Vedangas with special references to the subject matter, religion, philosophy and social life. Beside the Vedic wisdom a critical survey on the Ramayana, the Mahabharata and the major Puranas with special references to the date of creation and compilation, socio-cultural importance, development and great influences are also included here. An introduction to the major schools of Sanskrit Grammar, Philosophy and Poetics with special references to may helps a student to be familiar to the Ancient Indian Practice, cognition and dedication.

**[CO.3]: CC 3:**

Textual analysis of Sanskrit prose literature and different composing styles (i.e. shukonasopadesha from Kādambarī and Rajavahanacarita from Daśakumāracarita) and related studies to the origin and development of Ancient Indian prose romance and fables.

**[CO.4]: CC 4:**

Self Management in the light of teachings in Gita imparting the process of self realisation controlling mind and sense organs, food habits, cognition, complete surrender and devotion through the meditation to the Supreme almighty and control over emotive apparatus and mind overcoming various psychological conflict and mental confusion. This course includes Selected Slokas From various chapters of Gita aiming the modern relevance, explanation, eternity and universal approach of Gita throughout the ages.

**[CO.5]: CC 5:**

Here textual and literary analysis of drama from pre-kālidāsa era (i.e. Svapnavāsavadatta) aims to introduce a pupil to the Ancient Indian tradition and socie. Textual and literary criticism of Kālidāsa's Abhijñānaśakuntala (act 1-4 and 5-7). Beside the texts, a critical survey of Sanskrit Drama including the origin, development and nature of the same with basic references of notable works of eminent Sanskrit poets like Bhasa, Kalidasa, Bhavabhuti, Bhatranarayana and so on.

**[CO.6]: CC 6:**

1.This Core Course aims to introduce pupils to the origin, development and various aspects of Sanskrit Poetics with special references to the definition, major objectives, causes and various forms of Poetry. Basic concept of the power of words, the Shabdashakti and different theories related to Rasa and Rasasutra of Bharata help to be acquainted to the basic concept of Sanskrit Poetics.

2. Definitions of selected Sanskrit figures of speech and meters (Alankars and Chhandas) with basic Concept, nature, various classifications with different examples.

**[CO.7]: CC 7:**

1. Basic concepts of Indian Social Institutions with Sociological definitions and trends of Social changes with an overview through the Ancient Indian Scriptures and Literatures from Vedic to Inscriptional Memories.

2. Impact of Dharmashastras on Society and different kind of Dharmashastras from the perspective of building Social Ethics.

3. Structure of Society with special reference to four-fold division of Varna, Castes, marriages depicted in Mahabharata and so on.

4. Position of women in the Ancient Indian Society and Social Values of life with special references to Social relevance of Sanskaras and four goals of life.
5. Basic concepts of initial stages of Ancient Polity from Vedic to Buddhist period with an overview of Vedic terminologies related to polity, coronation of King, Kingdom and concept of welfare States.
6. Selected study from Kautiliya Arthashastra, Ancient State Politics as well as relevance of Gandhian thoughts with special references to Satyagraha Philosophy.
7. Cardinal theories of and important thinkers of Indian Polity.

**[CO.8]: CC 8:**

1. An analytical study of Selected Indian Epigraphical Texts written in Sanskrit Language with it's History and contribution of scholars in this field.
2. Study of Ancient Indian Paleography through Art and antiquity of writing, decipherment of Scripts, writing materials used and so on.
3. Study of Ancient Indian chronology, chronograms and different Eras used in Inscriptions.

**[CO. 9]: CC 9:**

1. Study of Modern Indian Sanskrit Literatures with brief survey of Modern Sanskrit Literature in Bengal mentioning name and Literary works of modern Scholars in this field.
2. Study of selected portions from modern and Ancient texts from Gadya and Rupaka Kavya like Sivarajavijayam, Atha Kim, Daridradurdaivam and Rukminiharanam.

**CO. 10]: CC 10:**

1. A brief introduction to Sanskrit World studies based on Sanskrit studies in the western Countries as well as India and other Eastern Countries mentioning the name and contributions of noted Scholars in Sanskrit Studies.
2. Study on world-wide different translations of well known fables in Sanskrit, works of Kalidasa and a brief study of Art and Language are included to impart knowledge on the great Socio-cultural impact of one of the Ancient Language in India as well as Abroad. Beside that, Study of the impact of Sanskrit Literature in the West and Sanskrit Study centres across the world tries to demonstrate the acceptance and Opportunities of Sanskrit Studies.
3. A cultural study of the impact of Ramayana and Mahabharata in South-East Asian Literature, Art, Dance, Music, folk Culture and so on.

**CO. 11]: SEC-B-2:**

This course aims to enhance writing skill in Sanskrit Language as well as spoken and computational Sanskrit through translation, comprehension, paragraph, Essay and Letter writing.

**CO. 12]: CC 11:**

1. This course aims to introduce pupils through selected Vedic Texts from Rig Veda like Agnisukta (1.1.1), Aksasukta (10.34), Hiranyagarbhasukta (10.121) and Vaksukta (10.125) which help students to be acquainted to Vedic philosophy and wisdom.
2. This course also aims to introduce Yajurvedic and Atharvanic and Upanisadic philosophy and thoughts about power, creation, nature and world through selected hymns of Rudradhyaya, Bhumisukta, Manumatsyakatha and so on.
3. This course aims to introduce pupils to Vedic Declensions, Subjunctive Mood, Gerunds, Accents and Padapatha.

**CO. 13]: DSE 1:**

This course is designed to impart knowledge on Indian Philosophical systems through important texts through Tarkabhasha, Saptapadarthi and Vivekacudamani.

**CO. 14]: CC 12:**

1. This course is designed to develop Paninian grammatical concepts through intensive study of Karaka and Samasa and different terminologies related to understand Paninian grammatical system.
2. General introduction to philology helps to develop concept of production and classification of sounds and language through phonetic laws, difference of Vedic and classical Language, Ablaut, phonetic tendencies and semantics.

**CO. 15]: DSE 2:**

This course aims to impart and develop knowledge of Sanskrit poetics based on the selected study of Sahitya darpana chapter 1, 2 and 3.

**CO. 16]: CC 13:**

1. This course aims to impart knowledge of Indian ontology and Epistemology. This study helps pupils to be acquainted to the meaning, purpose, classification and philosophical schools of Indian philosophy.
2. Study of different philosophical concepts related to creation, existence etc. like Realism, Idealism, Dualism, Pluralism, Naturalism, doctrine of Pre-existence of effect, real transformation, illusory transformation and so on.
3. Study of ontology and Epistemology tries to impart knowledge of padartha, Dravya, Visheshya, Abhava, Buddhi etc based on Tarkasamgraha. All are tend to introduce a student to the Indian philosophical concepts of

knowledge, wisdom, cause, effect, existence, absence, realisation, different kind of evidence in the perspective of philosophical thought etc.

**CO. 17]: DSE 3:**

This course is designed to impart knowledge of selected Sections of Paninian Grammar book namely Siddhantakaumudi. Here Stripratyaya, Tinnanta Prakarana and Ajanta Pumlina theories help to develop to understand the logical approach of Classical Sanskrit Language through various types of Sutras, their justification with ample examples.

**CO. 18]: CC 14:**

1. This Course, namely Sanskrit Composition and Communication, is designed with different features to build up a good communication skill in Sanskrit. That starts through the study of selective sections of Paninian Grammar consists of voice change, uses of various prefix and suffix associated to create words from Sanskrit roots and so on.
2. Beside the previous one, practice of translation to Sanskrit and vernacular or English using compounds, suffixes is prescribed to enrich, to nourish the communicative skill in Sanskrit Language as well as the writing skill through Essays based on traditional subjects and Modern issues to inculcate to develop the sense of Ethics, Aesthetics, Mythology, History, Indian wisdom, entertainment, sports, National and International affairs and Social Problems.

**CO. 18]: DSE 4:**

This Course is designed to introduce students to the Eastern and Western interpretation of Vedas and also suggests to study of selected parts of Major Upanisads and story from Brahmana Literature which should develop the skill of understanding the rich tradition of criticism, arguments, power of knowledge, thirst for wisdom and a very strong sense of ethics and values in a holistic approach.

**PO, PSO & CO for B.A. (Sanskrit General) Course**

**PROGRAM OUTCOMES (PO)**

- [PO.1] Students learn to appreciate the basics of different forms of literature.
- [PO.2] Students learn different technical aspects of grammar and learn to read and write the Devanagari Script.
- [PO.3] Students are exposed to the History of Classical Sanskrit Literature.

## PROGRAM SPECIFIC OUTCOMES (PSO)

[PSO.1] Students learn to study the social conditions and their ramifications in the development of Sanskrit literature.

[PSO.2] Students develop different language skills.

[PSO.3] The learners' creativity is promoted.

[PSO.4] Students learn to appreciate the development of Sanskrit literature in different areas of the world.

[PSO.5] Students develop writing and communicative skills.

## COURSE OUTCOME (CO)

[CO.1] Selected study of Sanskrit Literary works like Raghuvamsha, Sishupalavadha and Nitishataka tends to impart knowledge and an overview of the ideal state, warfare of the king, past society, Values of life and so on. History of Sanskrit poetry helps to get historical perspective, origin and development of Sanskrit poetry with special references to noted Poets and their contribution.

[CO.2] Selected study of Sanskrit Literary works like Sukonashopadesha, Shivarajavijaya tends to impart knowledge and an overview of the duty of a king, how to overcome greed, glorious past society, Values of life and so on. History of Sanskrit prose and fables helps to know historical perspective, origin and development of Sanskrit poetry with special references to noted Poets and their contribution.

[CO.3] Study of great Sanskrit Literary work Abhijnanasakuntala of Kalidasa tends to impart knowledge and Overview of various Dramaturgical concepts and Dramatic treatments, suggestive meaning of Drama different Languages used and poetic excellence. Beside that, technical terms of Sanskrit Dramaturgy, important principles and history of Sanskrit Drama helps to know historical perspective, origin and development of Sanskrit Drama Literature with special references to noted Poets and their contribution.

[CO.4] An orientation to Basic Sanskrit helps to improve Writing Skill as well as communicative skill in Sanskrit Language. Practice of translation and different suggestions to write letters, essays, paragraphs and compression tend to improve practical knowledge.

[CO. 5] Study of basic rules of Paninian Grammar helps to understand logic of Paninian Grammatical systems to develop the technical knowledge of formation of a highly sensitive language.

[CO. 6] Study of Computational Sanskrit and procedures of preservation and digitalization of Sanskrit texts, web publishing make a bridge between the glorious past experience and the technological revolution. Here, past knowledge becomes secured and preserved in the virtual world.

[CO. 7] Indian perspective of personality development through the various selected Slokas from Srimadbhagavad Gita and Upanisads help to improve Concentration

power, self realisation, confidence and characteristic features to be a good and productive human being. This perspective of controlling mind and realising self is a modified approach to human resource development which makes a learner, a devotee to the truth to a better world of self realisation and establishment.

**[CO. 8]** Basic Elements of Ayurveda through introduction and selected study of Carakasamhita and Taittiriya Upanishad help a learner to know about the ancient Indian medical tradition, various diseases, different names and procedure of treatments, application of medicinal plants to remove illness and increase the span of a healthy life.

**[CO. 9]** Study of Literary Criticism from selected chapters of Kavyaprakash helps a learner to develop ideas of definition, cause, object, difference and purposes of Kavya. Study of this helps to realise the perspective and the beauty of any human literary creation.

**[CO. 10]** Selected study from the Yogasutra of Patanjali helps to understand the philosophical aspects and various procedure Yoga Darshana to achieve the highest goal of life, to fullfill spiritual thirst and to realise the relation between the self and the soul, the inner and the outer world.



## **DEPARTMENT OF EDUCATION**

### **General Course**

#### **COURSE OUTCOME**

C.O.1: Introduction to Education: Students are exposed about concept, factors, agencies, child centralism and play-way method.

C.O.2: Psychological Foundation of Education: Students are exposed about psychology, relation between psychology and education, psychological theory learning and intelligence.

C.O.3: Sociological Foundation of Education: Students are exposed about sociology, groups, social change, and social communication in education.

C.O.4: Inclusive Education: Students are exposed about inclusion, disabilities, social disabilities, educational reforms for inclusive society.

C.O.5: Peace and Value Education: Students are exposed about peace education, non-violence, value- education.

Or

C.O.5: Educational Thought of Great Educators: Students are exposed about western and Indian educators.

C.O.6: Human Rights Education: Students are exposed about human rights, UN and human rights, human rights commission and Act 1993, role of advisory groups.

Or

C.O.6: Women Education: Students are exposed about historical perspective of women education, committee, commission on women education, role of Indian thinker.

C.O.3/5 SEC: Communication skill: Students are exposed about different skill-speaking, listening, reading, and writing.

Or

C.O.3/5 SEC : Skill for democratic citizenship : Students are expose about rights ,duties, POSCO ,democratic harmony.

C.O.4/6 SEC: Teaching Skill : Students are exposed about teaching, types, skill of teaching, learning design .

Or

C.O.4/6 SEC : Life Skill Education : Students are exposed about concept classification, training, leadership training.



### **PROGRAMME OUTCOME:**

P.O.1: Students learn about education.

P.O.2 : Students learn about psychological aspects.

P.O.3 : Students learn about educational sociology.

P.O. 4 : Students learn deeply about social inclusion.

P.O.5 : Students learn about peace and value education.

Or

P.O.5: Students learn about the great educators.

P.O.6 : Students learn about human rights and it's implication on education.

Or

P.O6 : Students learn about women education.

P.O.3/5 SEC: Communication skill: Students learn about communication.

Or

P.O.3/5 SEC : Skill for democratic citizenship : Students learn about rights, duties, democratic harmony.

P.O.4/6 SEC: Teaching Skill: Students learn different teaching skills.

Or

P.O.4/6 SEC : Life Skill Education : Students learn about life skill, leadership training.

### **PROGRAMME SPECIFIC OUTCOME:**

P.S.O 1: Students learn about educational aspects.

P.S.O 2: Students learn about psychological aspects.

P.S.O 3: Students can relate sociology with education.

P.S.O 4 : Students can find the reason of inclusion in society.

P.S.O 5: Students develop their conceptual knowledge.

or

P.S.O 5: Students develop their concept about famous personalities.

P.S.O 6: Students can gain knowledge about peace and value education.

P.S.O 6 : Students can gain knowledge about women education.

P.O.3/5 SEC: Students develop their communication skill.

Or

P.O.3/5 SEC: Students develop about democracy.

P.O.4/6 SEC: Students learn about teaching skill.

or

P.O.4/6 SEC: Students learn about teaching skill.



**DEPARTMENT OF CHEMISTRY**

**Course Outcome (CO) for Chemistry Hons.**

**SEM 1:**

CO1:	CEMA-CC-1-2-TH ORGANIC CHEMISTRY-IB Stereochemistry I <ul style="list-style-type: none"><li>• Introduction to stereochemistry, representation of molecules in saw horse, Newman, Flying wedge and Zig-zag</li><li>• Configuration</li><li>• Conformation</li><li>• To impart knowledge and concept of chirality and symmetry</li><li>• Idea about relative and absolute configuration of different organic molecules</li><li>• Knowledge of optical activity of chiral compounds.</li></ul>
CO2:	CEMA-CC-1-1-P <ul style="list-style-type: none"><li>• Separation of solid mixtures of organic compounds based upon solubility to impart detailed practical knowledge about acidic, basic or neutral characteristics of certain common organic compounds.</li></ul>
CO3:	CEMA-CC-1-2-P <ul style="list-style-type: none"><li>• Practical experience to determine the boiling points of some commonly used organic compounds.</li></ul>

**SEM2:**

CO1:	CEMA-CC-2-3-TH Stereochemistry-2 <ul style="list-style-type: none"><li>• Knowledge about chirality arising out of stereoaxis in various organic molecules</li><li>• Development of concept of prostereoisomerism</li></ul>
CO2:	CEMA-CC-2-3-TH Nucleophilic substitution reactions

	<ul style="list-style-type: none"> <li>• Students will get understanding of reactivity and stability of an organic molecule based on structure, including conformation and stereochemistry</li> <li>• an understanding of nucleophiles, electrophiles, electronegativity, and resonance</li> <li>• Students will be able to predict the mechanisms for nucleophilic substitution reactions</li> </ul>
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### **SEM3:**

CO1:	CEMA-CC-3-7-TH Addition reactions <ul style="list-style-type: none"> <li>• Electrophilic addition to C=C: Mechanism, reactivity, regioselectivity and stereoselectivity.</li> <li>• Reactions: halogenations, hydrohalogenation, hydration, hydrogenation, epoxidation, hydroxylation, ozonolysis, electrophilic addition to diene (conjugated dienes and allenes).</li> <li>• Radical addition: HBr addition.</li> <li>• Dissolving metal reduction of alkynes and benzenoid aromatics (Birch).</li> <li>• Addition to alkynes in comparison to alkenes</li> </ul>
CO2:	CEMA-CC-3-7-TH <ul style="list-style-type: none"> <li>• Concept of nucleophilic addition to <math>\alpha</math>, <math>\beta</math>- unsaturated carbonyls</li> <li>• Concept of substitution at <math>sp^2</math> carbon i.e. carbonyl system</li> </ul>
CO3:	CEMA-CC-3-7-P <ul style="list-style-type: none"> <li>• Practical knowledge of identification of various pure organic compounds (solids and liquids) by various interesting and easy to perform reactions.</li> </ul>

### **SEM4:**

CO1:	CEMA-CC-4-8-TH <ul style="list-style-type: none"> <li>• To provide detailed knowledge about various molecular rearrangements to electron deficient carbon, electron deficient nitrogen, electron deficient oxygen, aromatic rearrangements and migration from nitrogen to ring carbon.</li> </ul>
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	<ul style="list-style-type: none"> <li>To give insight into the mechanistic pathway as well as the stereochemical features of the molecular rearrangements.</li> </ul>
CO2:	CEMA-CC-4-8-TH <ul style="list-style-type: none"> <li>Synthesis of organic reaction is itself involves a large part of organic chemistry. This is called synthetic organic chemistry. This is discussed in a simple way for some simple molecule to the students. This includes fragmentation and retrosynthetic analysis and also finding synthon or reactive starting molecule of a target molecule.</li> </ul>
CO3:	CEMA-CC-4-8-P <ul style="list-style-type: none"> <li>Qualitative analysis of single organic compounds which includes detection of special elements and functional groups</li> </ul>

### **Program Outcome (PO) for Chemistry Honours Course**

PO1:	To understand basic facts and concepts in Chemistry while retaining the interesting aspects of Chemistry so as to develop interest in the study of chemistry as a discipline
PO2:	To develop the ability to apply the principles of Chemistry
PO3:	To appreciate the achievements in Chemistry and to know the role of Chemistry in nature and in society.
PO4:	To develop problem solving skills.
PO5:	To be familiarized with the emerging areas of Chemistry and their applications in various spheres of Chemical sciences and to apprise the students of its relevance in future studies
PO6:	To develop skills in the proper handling of apparatus and chemicals.
PO7:	To be exposed to the different processes used in industries and their applications.

### Program Specific Outcome (PSO) for Chemistry Honours Course

<b><u>PSO1:</u></b>	The main objective of this course is to increase the employability of the students by preparing them with the technical and theoretical aspects of this continuously emerging subject.
<b><u>PSO2:</u></b>	The students will get introduced with all the instrumental procedures used to analyze both quantitatively and qualitatively the chemical components of an unknown compound. The basic techniques which will be used includes titration, salt analysis along with pHmetry, potentiometry, conductometry, polarimetry and spectrophotometry .
<b><u>PSO3:</u></b>	Knowledge of periodic table will be beneficial for understanding the material world
<b><u>PSO4:</u></b>	Knowledge of green chemistry and ecologically sustainable chemical procedures will make a student more aware environmentally as well as socially
<b><u>PSO5:</u></b>	Students will gain knowledge about fundamental organic chemistry and can apply it in synthetic field
<b><u>PSO6:</u></b>	Knowledge in the field of synthetic organic chemistry as well as stereochemistry can be used to design various organic compounds of industrial utility
<b><u>PSO6:</u></b>	Students will have understanding about the chemical and molecular processes that take place in organic chemical reactions.
<b><u>PSO7:</u></b>	Students become able to use spectroscopic methods in identification of complicated molecules
<b><u>PSO8:</u></b>	Understanding of biomolecules like amino acid and carbohydrates will be beneficial in the field of research as well as industry.
<b><u>PSO9:</u></b>	Knowledge of basic principles of physical chemistry and how to apply it in experimental procedures of general chemistry will be understood after the end of the three years course.
<b><u>PSO10:</u></b>	To develop skills in the proper handling of apparatus and chemicals.



## **DEPARTMENT OF MATHEMATICS**

### **Programme Outcome (PO)**

**PO1:** After successful completion of B.Sc with Mathematics Hons. or General, students can choose careers in both academic and non-academic fields. Interested students can pursue their career in fundamental research in various subjects, for example different branches of Mathematics, Computer Science, Cryptography, Education, Information Technology etc. Mathematics is also pre-requisite for higher study in Insurance, Economics, Astronomy, Banking, Accountancy. They can opt career in teaching in schools, colleges and higher education institutions. They can prepare themselves for different competitive examinations also.

**PO2:** Due to pandemic situation from 2019, vast varieties of online courses are available. These courses will be helpful for students to achieve extra degrees and skills simultaneously with their Bachelor degree. These extra degrees or certified courses will help students to get more attention while facing interviews for jobs and also work as catalysts for promotions in their job.

**PO3:** Self-confidence, critical thinking, reasoning power of students will increase after completing Graduation in Mathematics Hons. and General. That will always help them to deal with real life problems. Students will gain the power of leadership.

**PO4:** Students will become good human beings with strong ethics and devote themselves for the development of human civilization.

### **Programme Specific Outcomes (PSO)**

**PSO1:** The UG syllabus of Mathematics Hons. and General Course under CBCS of University of Calcutta offers courses on Pure Mathematics and Applied Mathematics in almost same ratio. Students have a good opportunity to acquire knowledge in Basic Mathematics, Analysis, Algebra, Differential Equations, Numerical Methods, Probability and Statistics in details.

**PSO2:** In Third and Fourth Semester, students learn skill enhancement courses. In our College, we offer C Programming Language and Mathematical Logic as SEC courses. C-Programming Language will help the students to be familiar with computers, Programming. In Sixth Semester, Mathematics Hons. students learn various Numerical methods applying C-Programming. After studying Mathematical Logic, students will develop their critical thinking and power of reasoning.

**PSO3:** Students will become proficient in writing Mathematical proofs correctly.

**PSO4:** After completing Mathematics Hons. or General UG course, students will develop their innovating skills. They will be comfortable and confident in pursuing Research in Mathematics. They can also opt career in non-academic fields.

**Course Outcomes (CO)  
Mathematics (Honours)**

COURSE	PAPER		COURSE OUTCOMES
CC1	Calculus	CO1	Students will learn hyperbolic functions; higher order derivatives; curve tracing; Leibnitz rule and its applications; curvature; concavity; points of inflexion; envelopes; asymptotes; L'Hospital's rule; reduction formulae; parametric equations and parametrization of curve; arc length of curve; area under a curve; area and volume of surface of revolution in this course.
CC3, CC5, CC8	Real Analysis	CO2	Students will learn Topology of $\mathbb{R}$ ( $\mathbb{R}$ is set of real numbers); Order completeness of $\mathbb{R}$ ; sequences of real numbers; infinite series of real numbers; the concepts of limit, continuity and differentiability of real valued functions; Riemann integration; Improper integral; sequence and series of real-valued functions in this course.
CC13	Complex analysis	CO3	Students will learn Stereographic projection; concepts of limit and continuity of functions with complex variables; the notion of differentiability of functions with complex variables; analytic functions, exponential function, logarithmic functions, trigonometric functions, hyperbolic functions; Möbius transformation; complex integrations in this course.
CC7, CC9	Multivariate Calculus	CO4	After studying topology of $\mathbb{R}$ , students will learn the topology of $\mathbb{R}^n (n > 1)$ ; functions from $\mathbb{R}^n$ to $\mathbb{R}^m (m, n \geq 1)$ ; concepts of limit, continuity and differentiability of functions of several variables; extrema of functions of two variables; method of Lagrange's multiplier; constrained optimization problems; concept of multiple integrals; divergence and curl; line integrals and the application of line integrals; Green's theorem, Stoke's Theorem and Divergence theorem in this course.
CC13	Metric space	CO5	Metric space is generalization of $\mathbb{R}^n (n \geq 1)$ . Students will learn definition and examples of metric spaces; concepts of open, closed and bounded sets in metric spaces; distance between two subsets in metric

			spaces; sequences in metric spaces; the notion of continuous functions in metric spaces; concepts of compactness and connectedness in metric spaces; contraction mappings; Banach fixed point theorem and its applications to ordinary differential equations.
DSE B	Point set Topology	CO6	This course is offered in 6 <sup>th</sup> Semester. Students will learn definition and examples of topological spaces; basis and subbasis of topology; concepts of open sets and closed sets in topological spaces; concept of continuity of functions in topological spaces; first countability; $T_1$ , $T_2$ separation axioms of topological spaces; concept of connectedness and compactness in topological spaces.
CC1	Geometry	CO7	Students will learn rotation of axes and second degree equations; classification of conics using the discriminant; tangent and normal; polar equations of conics; equations of planes; straight lines in 3D; spheres; cylindrical surfaces; central conicoids; tangents and normal of conicoids in this course.
CC1	Vector analysis	CO8	Students will learn vector triple product; vector equations; applications to geometry and mechanics; vector functions; concepts of limit and continuity of vector functions; differentiation and integration of vector functions of single variable in this course.
CC2	Algebra	CO9	Students will learn basic concepts of complex numbers; De Moivre's theorem and its applications; exponential, logarithmic, trigonometric and hyperbolic functions of complex variables; Theory of equations; standard inequalities; Linear difference equations with constant co-efficients upto second order. Students will also study equivalence relations; bijective mappings; inverse mappings; Elementary Number Theory including Well-ordering property of positive integers, Division algorithm, Euclidean algorithm, prime numbers and their properties, Congruence relations between integers, Fundamental theorem of Arithmetic, Chinese Remainder Theorem, some examples of Arithmetic functions. Students also learn Matrix, System of linear equations in this course.
CC4, CC12, DSE-A	Group theory	CO10	In this course students will learn definition of group; examples of groups; cyclic groups; permutation groups; subgroups; Lagrange's Theorem; normal subgroups; group homomorphisms; First, Second and Third Isomorphism Theorems; concept of automorphism; external direct product; Cauchy's theorem for finite



			abelian group; Fundamental Theorem of finite abelian group; group actions and its applications; Class Equation and its consequences; Sylow's Theorems; Simplicity of $A_n$ ( $n \geq 5$ ); non-simplicity test.
CC6, DSE-A	Ring Theory	CO11	In core course CC6, students will study definition and examples of rings, subrings, Integral domains and Fields; Ideals; Prime and Maximal ideals; Ring homomorphisms; First, Second and Third Isomorphism Theorems for rings; Congruence on rings. In Advanced Algebra course students will learn Principal Ideal Domain; Principal Ideal ring; concepts of prime and irreducible elements; Concept of gcd and lcm; Eucliden Domain; Polynomial rings; Ring embedding and Quotient fields; Regular rings.
CC6, CC12	Linear Algebra	CO12	Students will learn definition and examples of Vector Spaces; subspaces; basis and dimension of vector spaces; geometric significance of subspaces; Linear transformations; rank and nullity of linear transformation; Matrix representation of linear transformation; Isomorphisms; eigen values, eigen vectors and characteristic equation of a matrix; Inner Product Spaces; Gram-Schmidt orthogonalization process; bilinear and quadratic forms; Hessian Matrix; Sylvester's law of inertia; index; signature; concept of dual spaces, dual basis and double dual; diagonalization; Caley-Hamilton Theorem; minimal polynomial for a linear operator; canonical form(Jordan and rational) in this course.
CC7, CC9	Differential Equation	CO13	Students will learn Ordinary Differential Equations and Partial Differential Equations in this course.
CC11	Probability and Statistics	CO14	Students will learn probability and statistics in this course.
CC14	Numerical Methods	CO15	Students will learn errors; operators; classes of approximation functions; polynomial approximation; Weierstrass polynomial approximation theorem; solutions of algebraic and transcendental equations by different methods; Interpolation; concepts of numerical differentiation and numerical integration; numerical solution of system of nonlinear equations; method of finding eigenvalue by Power method; numerical solutions of ODE.  Students will also learn the C-programming of the numerical methods which they study in theory part of this course.

CC10	Mechanics	CO16	Students will learn coplanar forces in general; an arbitrary force system in space; equilibrium in the presence of sliding friction force; virtual work; stability and equilibrium; kinematics of a particle; Newton laws of motion and law of gravitation; problems in particle dynamics; planar motion of a particle; motion of a particle in three dimensions; the linear momentum principle; the angular momentum principle; the energy principle in this course.
DSE-A	Fluid Statics and Elementary Fluid Dynamics	CO17	Students will learn definition of fluid; distinction between solid and fluid; concept of continuum; properties of fluid; definition of fluid elements; body force; surface force; normal stress in a stationary fluid; Pascal's Law of hydrostatics; Fundamental Equation of Fluid Statics; concept of Hydrostatics; concept of Gas; Kinematics of fluids; conservation equations in this course.
DSE-B	LPP and Game Theory	CO18	Students will learn definition and formation of LPP; hyperplane and convex set; Simplex method; Two phase method; Duality; Transportation & Assignment problem; Game Theory in this course.
SEC	Mathematical Logic	CO19	Students will learn Propositional and Predicate logic in this course.
SEC	C Programming language	CO20	Students will learn operations and expressions; decision making and branching; control statements; arrays; User-defined Functions; Introduction to Library functions in this course.

### Course Outcomes (CO)

#### Mathematics (General)

COURSE	PAPER		COURSE OUTCOMES
CC1/GE1	Algebra-I, Differential Calculus-I, Differential Equation-I, Coordinate Geometry-I	CO1	In Algebra-I, students will learn De Moivre's Theorem and its applications; exponential, sine, cosine logarithm of complex numbers; inverse circular and hyperbolic functions; Polynomial with real coefficients and roots of nth degree polynomial; rank of matrix and system of linear equations. In Differential calculus-I, students will learn concepts of limit, continuity, differentiability of

			<p>function of single and several variables; applications of differential calculus.</p> <p>In Differential Equation-I, students will study order, degree of differential equation; formation of differential equation; different methods to solve first order and second order ordinary differential equations.</p> <p>In Coordinate Geometry-I, students will study transformation of rectangular axes; straight lines, parabola, ellipse, circle, hyperbola.</p>
CC2/GE2	Differential Calculus-II, Differential Equation-II, Vector Algebra, Discrete Mathematics	CO2	<p>In Differential Calculus-II students will learn sequences of real numbers; infinite series of real numbers; Rolle's Theorem; Mean Value Theorem; Taylor's and Maclaurin's infinite series of functions like <math>e^x</math>, <math>\sin x</math>, <math>\cos x</math>, <math>\log(1+x)</math>, <math>(1+x)^n</math> with restrictions wherever necessary; applications of principle of maxima and minima of function of single variable in geometrical, physical and to other problems; Lagrange's multiplier.</p> <p>In Differential Equation-II, students will learn different methods to solve linear homogeneous and non-homogeneous equations with constant coefficients and simultaneous differential equations; basic concept of PDE and the methods to solve PDE of first order.</p> <p>In Vector algebra, students will study vectors and their properties; vector equations of plane and straight lines; applications to problems of Geometry and Mechanics.</p> <p>In Discrete Mathematics students will learn Elementary Number Theory including concepts of integers and concepts of congruence and congruence classes; Boolean Algebra and its applications.</p>
CC3/GE3	Integral Calculus, Numerical Methods, Linear Programming	CO3	<p>In Integral Calculus students will learn evaluation of definite integrals; reduction formulae; improper integrals; double integrals and its applications to rectification, quadrature, volume and surface areas of solids formed by revolution of plane curve and areas.</p> <p>In Numerical Methods, students will study Errors, operators; different types of interpolation methods; numerical integration.</p> <p>In Linear Programming, students will learn basic concept of LPP; formulation of LPP; solutions of LPP; Assignment and Transportation problems and their optimal solutions.</p>

CC4/GE4	Algebra-II, Computer Science and Programming, Probability and Statistics	CO4	In Algebra-II, students will learn definition and examples of group, ring, field; definition and examples of Vector Spaces; Real Quadratic Forms; Characteristic equations of square matrix; Eigenvalues and Eigen vectors. In Computer Science Programming, students will study basic idea of computer science and programming; positional number system; concepts of different programming languages like BASIC, FORTRAN, C, C++, COBAL, PASCAL; concepts of algorithm and flow charts. In Probability and Statistics, students will learn elementary probability theory; elements of statistical methods; sampling theory; bivariate frequency distribution.
SEC-A	C Programming Language	CO5	In this paper, students will learn basic concepts of computer; decision making and branching; control statements; arrays; User-defined functions; Library functions.
SEC-B	Mathematical Logic	CO6	In this paper, students will learn propositional logic and predicate logic.
DSE-A	Particle Dynamics	CO7	In this course, students will learn velocity and acceleration of particle; concept of force; motion in two dimensions; central orbit; Kepler's laws of motion; motion under inverse square law.
DSE-B	Advanced Calculus	CO8	In this paper, students will learn sequences and series of functions; Power series; periodic Fourier series on $(-\pi, \pi)$ ; Laplace Transform and its application to ODE.



## **DEPARTMENT OF PHYSICS**

**PO, PSO & CO for B.Sc. (Physics Honours) Course**

### **PROGRAM OUTCOMES (PO)**

**[PO.1]. Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.

**[PO.2]. Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.

**[PO.3]. Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.

**[PO.4]. Effective Citizenship:** Demonstrate empathetic social concern and equity-centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.

**[PO.5]. Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.

**[PO.6]. Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.

**[PO.7]. Self-directed and Life-long Learning:** Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

### **PROGRAM SPECIFIC OUTCOMES (PSO)**

**[PSO.1].** apply fundamental principles of Physics and knowledge of mathematics both in ordinary, day to day settings and in more complex problems of advanced Physics, Science and Technology.

**[PSO.2].** develop creative thinking and the power of imagination in simple exercises as well as to analyze more complex problems in advanced Physics.

**[PSO.3].** have wide exposure in research, academia and industry for broader applications of Physics.

**[PSO.4].** create an ability to describe the physical world, selecting appropriate equations, constructing models, interpreting mathematical results and critically comparing them with experiments and observations.

**Course Outcome (CO) for B.Sc. (Physics Hons.) Programme: Semester I**

Core Courses (CC)	CO
<p><b>PHSA CC1</b>  <b>Mathematical</b>  <b>Physics I</b></p> <p><b>Credit:</b>  <b>Theory-4</b>  <b>Practical-2</b></p>	<p><b>Theory:</b>  Student will be able to  (a) Understand and apply the concept/application of mathematical tools in different branches of physics.  (b) Recapitulate basic ideas of calculus, solve ordinary differential equations and have preliminary concept of multivariable calculus.  (c) Understand the basic concept of vector algebra and vector calculus involving differentiation and integration of vectors, use of curvilinear co-ordinates.  (d) Identify various types of matrices, learn matrix algebra and solve Eigen value/vector problems.</p> <p><b>Practical:</b>  Student will be able to  (a) Understand and apply the concept/application of mathematical tools using python programming.  (b) First-hand experience of using graph plotting software gnuplot.  (c) Introducing python language to Physics UG students.</p>
<p><b>PHSA CC2</b>  <b>Mechanics</b></p> <p><b>Credit:</b>  <b>Theory-4</b>  <b>Practical-2</b></p>	<p><b>Theory:</b>  Student will be able to  (a) Recapitulate Newton's laws and understand particle kinematics in different coordinate systems.  (b) Understand dynamics of systems of particles; interpret and illustrate different types of conservation laws of motion; study the manifestations of mechanical energies of objects; stable and unstable equilibrium.  (c) Know the details of central force of motion and gravitation.  (d) Analyze the motion of objects in rotating frame of reference.  (e) Understand rotational motion – moment of inertia along with its calculation for different objects; study Euler's equations of motion for rigid bodies.  (f) Appreciate general properties of matter – elasticity and fluid motion.</p> <p><b>Practical:</b>  Student will be able to do the practical of (i) finding moment of inertia of symmetric objects; (ii) determining coefficient of viscosity of water (Poiseuille's method); (iii) finding the elastic constants of materials in beam and wire by method of flexure and by Searle's method, (iv) determining the value of acceleration due to gravity using bar pendulum; (v) finding the height of a building using sextant.</p>

**Course Outcome (CO) for B.Sc. (Physics Hons.) Programme: Semester II**

Core Courses (CC)	CO
<p><b>PHSA CC3</b>  <b>Electricity and Magnetism</b></p> <p><b>Credit:</b>  <b>Theory-4</b>  <b>Practical-2</b></p>	<p><b>Theory:</b>  Student will be able to  (a) Have an understanding of Gauss’s law and multipole expansion; know the physics of dielectric materials in presence of electric field.  (b) Know basics electrostatic fields; solve electrostatic problems by (i) Laplace’s and Poisson’s equations and (ii) method of electrical images.  (c) Understand the magnetic effect of steady current in details; get knowledge of magnetic field in media and properties of magnetic materials in presence of magnetic fields.  (d) Have detailed knowledge of electromagnetic induction and alternating currents and its circuits.  (e) Get basic understanding of network theorems.</p> <p><b>Practical:</b>  Student will be able to  (a) Use multimeter for measuring Resistances, ac and dc voltages, dc current, capacitances, and checking electrical fuses as a general prerequisite.  (b) Do the practical of (i) finding an unknown Low Resistance using potentiometer and Carey Foster's bridge (ii) verifying different network theorems; (iii) studying response curve of a series LCR and RC Circuit; (iv) finding the horizontal component of the earth’s magnetic field.</p>
<p><b>PHSA CC4</b>  <b>Waves and Optics</b></p> <p><b>Credit:</b>  <b>Theory-4</b>  <b>Practical-2</b></p>	<p><b>Theory:</b>  Student will be able to  (a) Get a solid foundation of oscillations – simple harmonic motion, damped oscillation and forced oscillation; superposition of harmonic oscillation.  (b) Have an understanding of wave motion – plane progressive wave, longitudinal and transverse waves, energy transport, waves in stretched strings and pipes; superposition of harmonic waves.  (c) Have a basic understanding of physical optics.  (d) Get a solid foundation of interference, interferometers; diffraction and holography.</p> <p><b>Practical:</b>  Student will be able to  (a) Have general proficiency with spectrometer-based experiments.  (b) do the practical of (i) determining the frequency of a tuning fork by Melde's experiment; (ii) finding refractive index and dispersive power of the material of a prism including Cauchy constants; (iii) determining wavelength of sodium light using Fresnel biprism, Newton's rings; grating spectra.</p>

**Course Outcome (CO) for B.Sc. (Physics Hons.) Programme: Semester III**

Core Courses (CC)	CO
<p><b>PHSA CC5</b>  <b>Mathematical</b>  <b>Physics II</b></p> <p><b>Credit:</b>  <b>Theory-4</b>  <b>Practical-2</b></p>	<p><b>Theory:</b>  Student will be able to  (a) Understand and analyze Fourier series and its applications.  (b) Solve linear differential equation by Frobenius' method and know special functions (Legendre, Bessel and Hermite polynomial).  (c) Appreciate special integrals – beta, gamma and error functions.  (d) Understand the basics of variational calculus in physics including Lagrangian and Hamiltonian formulations of mechanics.  (e) comprehend the method of separation of variable to solve partial differential equations.</p> <p><b>Practical:</b>  Student will be able to do numerical computation using numpy and scipy for problems relating to: (i) solution of linear system of equations, (ii) solution of matrix eigen vectors and eigen values problems, (iii) generation of special functions, (iv) root finding, (v) interpolation, (vi) numerical differentiation, (vii) numerical integration, (viii) solution of ordinary differential equation, (ix) basic 3-dimensional graph plotting.</p>
<p><b>PHSA CC6</b>  <b>Thermal Physics</b></p> <p><b>Credit:</b>  <b>Theory-4</b>  <b>Practical-2</b></p>	<p><b>Theory:</b>  Student will be able to  (a) Have a thorough understanding of the laws of thermodynamics and its applications including heat engines, entropy.  (b) Understand the thermodynamic functions and their relationship.  (c) Comprehend kinetic theory of gases, know real gas behaviour.  (d) Solve problems involving conduction of heat.</p> <p><b>Practical:</b>  Student will be able to do the practical involving (i) verification of Stefan's law, (ii) determination of the coefficient of thermal expansion using optical lever, (iii) calibration of a thermocouple by direct measurement of the thermo-emf using operational amplifier, potentiometer, (iv) determination of boiling point of water, (v) determination of the coefficient of thermal conductivity by Lee and Charlton's method, (vi) determination of the temperature coefficient of resistance by platinum resistance thermometer.</p>



<p><b>PHSA CC7</b>  <b>Digital Systems and Applications</b></p> <p><b>Credit:</b>  <b>Theory-4</b>  <b>Practical-2</b></p>	<p><b>Theory:</b>  Student will be able to  (a) Have understanding of integrated circuits (IC), basic digital circuits and Boolean algebra.  (b) Comprehend data processing circuits, arithmetic circuits, sequential circuits (flip-flops), timers, shift registers and counters (4-bit).  (c) Gain preliminary ideas of computer organization.</p> <p><b>Practical:</b>  Student will be able to do the practical involving (i) design of basic logic gates with diodes and transistors, to verify the logics by universal gate NAND/NOR, (ii) formation of different combinational problems by construction of truth table and implementation using basic logic gates, (iii) construction of half adder and full adder circuits, (iv) construction of half subtractor, full subtractor, adder-subtractor using full adder IC, (v) construction of flip-flop circuits using NAND gates, (vi) construction of 4-bit shift registers (serial &amp; parallel) using D type flip-flop IC, (vii) construction of astable multivibrator using 555 timer.</p>
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**Course Outcome (CO) for B.Sc. (Physics Hons.) Programme: Semester IV**

Core Courses (CC)	CO
<p><b>PHSA CC8</b>  <b>Mathematical</b>  <b>Physics III</b></p> <p><b>Credit:</b>  <b>Theory-4</b>  <b>Practical-2</b></p>	<p><b>Theory:</b>  Student will be able to  (a) Understand the basics of complex analysis.  (b) Comprehend Fourier transforms and its application in solving differential equations in physics.  (c) Understand the basics of probability different types of probabilistic distributions.  (iv) have a thorough knowledge of special theory of relativity inclusive of four-vector notation.</p> <p><b>Practical:</b>  Student will be able to do the numerical computation / solution of following problems using numpy/ scipy programming:  (i) solution of ordinary differential equation and partial differential equation using Euler and Runge-Kutta methods (initial value problem) and finite difference method (boundary value problems), (ii) Dirac-delta function, (iii) Fourier series, (iv) Frobenius method and special functions, (v) complex analysis (numerical integration, root finding), (vi) integral transform. He will also get an introduction to OCTAVE programming.</p>
<p><b>PHSA CC9</b>  <b>Elements of Modern</b>  <b>Physics</b></p> <p><b>Credit:</b>  <b>Theory-4</b>  <b>Practical-2</b></p>	<p><b>Theory:</b>  Student will be able to  (a) Have basic ideas and experiments behind the progress of quantum mechanics.  (b) Know the basic postulates of quantum mechanics.  (c) Understand the idea of wave function, solve Schrodinger equation for one dimensional systems.  (d) Appreciate the structure of nucleus, nuclear force, nuclear force.  (e) Have through concept of radioactivity; alpha decay, beta decay and gamma ray emission.  (f) Understand basic nature of fission and fusion.  (g) Know the fundamentals of laser and its operation.</p> <p><b>Practical:</b>  Students will be able to the practical of (i) measurement of Planck's constant using LED, (ii) determination of ionization potential of Mercury, (iii) determination of e/m by using bar magnet, (iv) studying the photoelectric effect, (v) determination of the wavelength of H-alpha emission line of Hydrogen atom, (vi) showing the tunneling effect in tunnel diode, (vii) determination of wavelength and angular spread of He-Ne laser/ solid-state laser using plane diffraction grating.</p>

<p><b>PHSA CC10</b>  <b>Analog Systems and Applications</b></p> <p><b>Credit:</b>  <b>Theory-4</b>  <b>Practical-2</b></p>	<p><b>Theory:</b>  Student will be able to</p> <ul style="list-style-type: none"> <li>(a) Understand the basics of semiconductor physics, semiconductor diodes.</li> <li>(b) Know the physics and circuits involving rectifier diodes and zener diodes.</li> <li>(c) Have thorough understanding of bipolar junction transistors and its operation.</li> <li>(d) Know the basic principles of operations of field effect transistors.</li> <li>(e) Have through understanding of operations of amplifiers, feedback in amplifiers, oscillators, operational amplifiers and its applications.</li> </ul> <p><b>Practical:</b>  Students will be able to the practical of (i) studying the reverse characteristics of Zener diode, load and line regulation, (ii) studying the static characteristics of transistor in CE configuration, (iii) designing a CE transistor amplifier using voltage divider bias, (iv) studying the frequency response of the transistor amplifier in CE mode, (v) studying the static characteristics of FET, (vi) studying applications of OPAMP, (viii) designing Wien bridge oscillator.</p>
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**Course Outcome (CO) of Skill Enhancement Courses (SEC) for Semester III and IV**

<b>SEC Courses</b>	<b>CO</b>
<b>PHSA SEC-A1</b> <b>Basics of</b> <b>Programming and</b> <b>Word Processing</b>  (Semester III)  <b>Credit:</b> <b>Theory-2</b>	<b>Theory:</b> Students will be able to (a) Have basic idea of computers, algorithms, flowchart. (b) Learn basic programming in C/ FORTRAN. (c) Have first hand experience of using graph plotting software Gnuplot. (d) Use scientific word processing software LaTeX.
<b>PHSA SEC-B2</b> <b>Renewable Energy</b> <b>and Energy</b> <b>Harvesting</b>  (Semester IV)  <b>Credit:</b> <b>Theory-2</b>	<b>Theory:</b> Students will be able to (a) Appreciate fossil fuels, alternative energy sources. (b) Have detailed idea of solar energy and its use. (c) Know the basics and applications of (i) wind energy harvesting, (ii) ocean energy harvesting, (iii) geothermal energy harvesting, (iv) hydro power, (v) piezoelectric energy harvesting, (vi) electromagnetic energy harvesting.

**Course Outcome (CO) for B.Sc. (Physics Hons.) Programme: Semester V**

Core Courses (CC)	CO
<p align="center"><b>PHSA CC11</b>  <b>Quantum Mechanics and Applications</b></p> <p align="center"><b>Credit:</b>  <b>Theory-4</b>  <b>Practical-2</b></p>	<p><b>Theory:</b>            Students will be able to            (a) Have detailed idea of Schrodinger equation and related topics, bound states in an arbitrary potential.            (b) Understand thoroughly the application of quantum mechanics in simple harmonic oscillator and hydrogen-like atom.            (c) Know about generalized angular momenta and spin.            (d) Understand spectra of hydrogen atom and its fine structure.            (e) Appreciate the quantum-mechanical effects in atoms under electric and magnetic fields, many-electron atoms.</p> <p><b>Practical:</b>            Student will be able to do numerical computation using python, numpy and scipy for solution of Schrodinger equation relating to hydrogen atom for different potential formulations – Coulomb potential, screened Coulomb potential, anharmonic oscillator potential and Morse potential.</p>
<p align="center"><b>PHSA CC12</b>  <b>Solid State Physics</b></p> <p align="center"><b>Credit:</b>  <b>Theory-4</b>  <b>Practical-2</b></p>	<p><b>Theory:</b>            Students will be able to            (a) Have thorough knowledge of crystal structure.            (b) Understand elementary lattice dynamics.            (c) Have detailed knowledge of (i) magnetic properties, (ii) dielectric properties of solids.            (d) Understand the basics of (i) ferroelectric properties of solids, (ii) band theory, (iii) superconductivity.</p> <p><b>Practical:</b>            Students will be able to do the following practical: (i) to study PE hysteresis of ferroelectric crystal, (ii) to study BH hysteresis of ferromagnetic material, (iii) measurement of susceptibility of paramagnetic solution, (iv) measurement of magnetic susceptibility of solids, (v) determination of variation of dielectric constant with frequency, (vi) measurement of hall voltage by four probe method, (vii) to study temperature coefficient of a semiconductor (NTC thermistor).</p>

**Course Outcome (CO) for B.Sc. (Physics Hons.) Programme: Semester VI**

Core Courses (CC)	CO
<p><b>PHSA CC13</b> <b>Electromagnetic Theory</b></p> <p><b>Credit:</b> <b>Theory-4</b> <b>Practical-2</b></p>	<p><b>Theory:</b> Students will be able to (a) Get a solid foundation of Maxwell's equations. (b) Have thorough understanding of electromagnetic (em) wave propagation in (i) unbounded media, (ii) bounded media. (c) Have the knowledge of the electromagnetic origin of wave optics. (d) Have detailed understanding of (i) polarization in uniaxial crystals, (ii) rotatory polarization.</p> <p><b>Practical:</b> Students will be able to do the following practical: (i) to determine Brewster's angle for air-glass interface using a prism, (ii) to study Fresnel's law by the reflection on the surface of a prism, (iii) to verify the Malus law using a pair of polaroids, (iv) to study the specific rotation of optically active solution using polarimeter, (v) determination of wavelength and velocity of ultrasonic waves in a liquid (kerosene, xylene etc), (vi) to analyze elliptically polarized light by using Babinet compensator, (vii) to determine dispersive power and resolving power of a plane diffraction grating.</p>
<p><b>PHSA CC14</b> <b>Statistical Mechanics</b></p> <p><b>Credit:</b> <b>Theory-4</b> <b>Practical-2</b></p>	<p><b>Theory:</b> Students will be able to (a) Get a solid foundation of classical statistical mechanics. (b) Have thorough understanding of (i) classical theory of radiation, (ii) quantum theory of radiation. (c) Understand the basics of (i) Bose-Einstein statistics, (ii) Fermi-Dirac statistics.</p> <p><b>Practical:</b> Students will be able to do following numerical computation using python, numpy and scipy: (i) analysis of the behavior of a collection of particles in a box, (ii) determination of partition function of non-interacting particles under Maxwell-Boltzmann, Fermi-Dirac and Bose-Einstein statistics, (iii) plot Planck's law for black body radiation; specific heat of solids using Dulong-Petit law, Einstein distribution function, Debye distribution function; Maxwell-Boltzmann distribution, Fermi-Dirac distribution and Bose-Einstein distribution at different temperatures.</p>

**Course Outcome (CO) of Discipline Specific Elective (DSE) Courses: Semester V**

<b>Discipline Specific Elective (DSE) Courses</b>	<b>CO</b>
<p><b>PHSA DSE-A1 Communication Electronics</b>  (Semester V)</p> <p><b>Credit: Theory-4 Practical-2</b></p>	<p><b>Theory:</b> Students will be able to (a) Have basic concepts about electronics communications systems. (b) Get a solid foundation about analog modulation and frequency modulation. (c) Understand the concept/application of analog pulse modulation and digital pulse modulation. (d) Appreciate the basics of satellite communication and Mobile telephony system.</p> <p><b>Practical:</b> Students will be able to do the following practical: (i) to design an amplitude modulator using transistor, (ii) to study envelope detector for demodulation of AM signal, (iii) to study FM - generator and detector circuit, (iii) to study AM transmitter and receiver, (iv) to study FM transmitter and receiver, (v) to study time division multiplexing (TDM), (vi) to study pulse amplitude modulation (PAM).</p>
<p><b>PHSA DSE-B1 Nuclear and Particle Physics</b>  (Semester V)</p> <p><b>Credit: Theory-4 Tutorial-2</b></p>	<p><b>Theory:</b> Students will be able to (a) Recapitulate general properties of nuclei and radioactivity. (b) Know the basics of nuclear reactions. (c) Have an understanding of interaction of nuclear reaction with matter. (d) Appreciate detectors for nuclear reactions and particle accelerators. (e) Have basic ideas of particle physics.</p> <p><b>Tutorial</b></p>

**Course Outcome (CO) of Discipline Specific Elective (DSE) Courses: Semester VI**

<b>Discipline Specific Elective (DSE) Courses</b>	<b>CO</b>
<p><b>PHSA DSE-A2 Astronomy and Astrophysics</b></p> <p><b>(Semester VI)</b></p> <p><b>Credit: Theory-4 Tutorial-2</b></p>	<p><b>Theory:</b> Students will be able to (a) Understand the concepts of basics of astronomy – astronomical scales, astronomical time, astronomical techniques. (b) Have basic ideas of astrophysics. (c) Know extensively about the sun and solar family. (d) Have basic ideas about the milky way, galaxies and cosmology. mathematical tools in different branches of physics.</p> <p><b>Tutorial</b></p>
<p><b>PHSA DSE-B2 Nano Materials and Applications</b></p> <p><b>(Semester VI)</b></p> <p><b>Credit: Theory-4 Tutorial-2</b></p>	<p><b>Theory:</b> Students will be able to (a) Understand the differences between bulk and nano scale structures, basics of quantum confinement, application of Schrodinger equation in nano structures. (b) Have an understanding of synthesis of nano structure materials and its characterization. (c) Know the basic ideas of optical properties and electron transport properties. (d) Appreciate the various applications of nano materials based structures.</p> <p><b>Tutorial</b></p>



## PO, PSO & CO for B.Sc. (General) Physics Course

Session: 2018-19 (under CBCS curriculum)

### PROGRAM OUTCOMES (PO)

**[PO.1]. Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.

**[PO.2]. Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.

**[PO.3]. Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.

**[PO.4]. Effective Citizenship:** Demonstrate empathetic social concern and equity-centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.

**[PO.5]. Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.

**[PO.6]. Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.

**[PO.7]. Self-directed and Life-long Learning:** Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

### PROGRAM SPECIFIC OUTCOMES (PSO)

**[PSO.1].** apply fundamental principles of Physics and knowledge of mathematics both in ordinary, day to day settings and in more complex problems of advanced Physics, Science and Technology.

**[PSO.2].** develop creative thinking and the power of imagination in simple exercises as well as to analyse more complex problems in advanced Physics.

**[PSO.3].** have wide exposure in research, academia and industry for broader applications of Physics.

**[PSO.4].** create an ability to describe the physical world, selecting appropriate equations, constructing models, interpreting mathematical results and critically comparing them with experiments and observations.

**Course Outcome (CO) B.Sc. (General) Physics Programme: Semester I**

Core Courses (CC)	CO
<p><b>PHSG CC1/GE1</b>  <b>Mechanics</b></p> <p><b>Credit:</b>  <b>Theory-4</b>  <b>Practical-2</b></p>	<p><b>Theory:</b>            Students will be able to            (a) Know the preliminaries of vector algebra and vector analysis.            (b) Have basic understanding of (i) particle kinematics and work/energy, (ii) rotational motion and dynamics of rigid bodies.            (c) Have knowledge about Gravitation and Kepler’s laws of motion.            (d) Understand thoroughly free, damped and forced vibrations.            (e) Appreciate general properties of matter – elasticity, viscosity and tension.</p> <p><b>Practical:</b>            Student will be able to do the practical of (i) finding moment of inertia of symmetric objects; (ii) finding the Young’s modulus of materials in beam by method of flexure, (iii) finding the rigidity modulus of materials in wire, (iv) determining the moment of inertia of a fly wheel, (v) determining the value of acceleration due to gravity using bar pendulum; (vi) finding the height of a building using sextant.</p>

**Course Outcome (CO) B.Sc. (General) Physics Programme: Semester II**

Core Courses (CC)	CO
<p><b>PHSG CC2/GE2</b>  <b>Electricity and Magnetism</b></p> <p><b>Credit:</b>  <b>Theory-4</b>  <b>Practical-2</b></p>	<p><b>Theory:</b>  Student will be able to  (a) Know basics of electrostatic fields, Gauss’s law, physics of conductors and dielectric materials in presence of electric field.  (b) Understand the magnetic effect of steady current, properties of magnetic materials in presence of magnetic fields.  (d) Have detailed knowledge of electromagnetic induction.  (e) Get basic understanding of linear networks and bridges.  (f) Know the basics of EM wave propagation.</p> <p><b>Practical:</b>  Student will be able to  (a) Use multimeter for measuring Resistances, AC and DC Voltages, DC Current, Capacitances, and checking electrical fuses as a general prerequisite.  (b) Do the practical of (i) finding an unknown resistance using Potentiometer and Carey Foster's Bridge (ii) finding the horizontal component of the earth’s magnetic field, (iii) conversion of ammeter into voltmeter and voltmeter into ammeter, (iv) verifying different network theorems.</p>

**Course Outcome (CO) B.Sc. (General) Physics Programme: Semester III**

Core Courses (CC)	CO
<p><b>PHSG CC3/GE3 Thermal Physics and Statistical Mechanics</b></p> <p><b>Credit: Theory-4 Practical-2</b></p>	<p><b>Theory:</b> Student will be able to</p> <ul style="list-style-type: none"><li>(a) Have a thorough understanding of the laws of thermodynamics and its applications including heat engines, entropy.</li><li>(b) Understand the thermodynamic functions and their relationship.</li><li>(c) Develop an understanding of kinetic theory of gases.</li><li>(d) Know the basics of radiation.</li><li>(e) Have extensive knowledge of basics of statistical mechanics.</li></ul> <p><b>Practical:</b> Student will be able to do the practical involving (i) verification of Stefan's law, (ii) determination of the coefficient of thermal expansion using optical lever, (iii) calibration of a thermocouple by direct measurement of the thermo-emf using operational amplifier, (iv) determination of pressure coefficient of air, (v) finding of the coefficient of thermal conductivity by Lee and Charlton's method, (vi) determination of the temperature coefficient of resistance by platinum resistance thermometer.</p>

**Course Outcome (CO) B.Sc. (General) Physics Programme: Semester IV**

Core Courses (CC)	CO
<p><b>PHSG CC4/GE4 Waves and Optics</b></p> <p><b>Credit: Theory-4 Practical-2</b></p>	<p><b>Theory:</b> Student will be able to (a) Get a solid foundation of superposition of harmonic oscillation. (b) Have an understanding of wave motion – plane progressive wave, longitudinal and transverse waves, energy transport, waves in stretched strings and pipes. (c) Comprehend diverse topics in sound – simple harmonic motion, damped oscillation and forced oscillation, application of Fourier’s theorem, intensity of sound, musical notes, acoustics of sound. (d) Have a basic understanding of physical optics. (e) Get a solid foundation of interference, interferometers; diffraction and polarization.</p> <p><b>Practical:</b> Student will be able to do the practical of (i) determination of the refractive index of material of lens, liquid, (ii) finding of the focal length of concave lens by auxiliary lens method, (iii) determination of the frequency of a tuning fork by sonometer, (iv) finding radius of curvature / wavelength of a monochromatic / quasi monochromatic light using Newtons ring, (v) measurement of the spacing between the adjacent slits in a grating, (vi) finding of specific rotation of sugar solution using polarimeter.</p>

**Course Outcome (CO) Skill Enhancement Courses (SEC) for Semester III and IV**

<b>SEC Courses</b>	<b>CO</b>
<p><b>PHSA SEC-A1</b>  <b>Basics of</b>  <b>Programming and</b>  <b>Word Processing</b>    <b>(Semester III)</b>    <b>Credit:</b>  <b>Theory-2</b></p>	<p><b>Theory:</b>  Students will be able to  (a) Have basic idea of computers, algorithms, flowchart.  (b) Learn basic programming in C/ FORTRAN.  (c) Have first hand experience of using graph plotting software Gnuplot.  (d) Use scientific word processing software LaTeX.</p>
<p><b>PHSA SEC-B2</b>  <b>Renewable Energy</b>  <b>and Energy</b>  <b>Harvesting</b>    <b>(Semester IV)</b>    <b>Credit:</b>  <b>Theory-2</b></p>	<p><b>Theory:</b>  Students will be able to  (a) Appreciate fossil fuels, alternative energy sources.  (b) Have detailed idea of solar energy and its use.  (c) Know the basics and applications of (i) wind energy harvesting, (ii) ocean energy harvesting, (iii) geothermal energy harvesting, (iv) hydro power, (v) piezoelectric energy harvesting, (vi) electromagnetic energy harvesting.</p>

**Discipline Specific Elective (DSE) Course Outcome (CO) B.Sc. (General) Physics  
Programme: Semester V**

<b>Discipline Specific Elective (DSE) Courses</b>	<b>CO</b>
<p><b>PHSG DSE-A1</b> <b>Modern Physics</b></p> <p><b>(Semester V)</b></p> <p><b>Credit:</b> <b>Theory-4</b> <b>Tutorial-2</b></p>	<p><b>Theory:</b> Student will be able to (a) Know the basics of special theory of relativity. (a) Have basic ideas behind the progress of quantum mechanics, wave function, operators, Schrodinger equation and its application for one dimensional systems. (d) Appreciate the basic ideas of atomic physics – quantum theory of hydrogen atom, generalized angular momentum, many electron atoms.</p> <p><b>Tutorial</b></p>

**Discipline Specific Elective (DSE) Course Outcome (CO) B.Sc. (General) Physics  
Programme: Semester VI**

<b>Discipline Specific Elective (DSE) Courses</b>	<b>CO</b>
<p><b>PHSG DSE-B2</b> <b>Nuclear and Particle Physics</b></p> <p><b>(Semester VI)</b></p> <p><b>Credit:</b> <b>Theory-4</b> <b>Tutorial-2</b></p>	<p><b>Theory:</b> Students will be able to (a) Recapitulate general properties of nuclei and radioactivity. (b) Know the basics of nuclear models, nuclear reactions. (c) Have an understanding of interaction of nuclear radiation with matter. (d) Appreciate detectors for nuclear reactions and particle accelerators. (e) Have basic ideas of particle physics.</p> <p><b>Tutorial</b></p>



## **DEPARTMENT OF ECONOMICS**

**PO, PSO & CO for B.Sc. (Economics Honours) Course**

**Session: 2018-19**

### **PROGRAM OUTCOMES (PO)**

**[PO.1] Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, looking at our ideas and decisions (intellectual, organizational and personal) from different perspectives.

**[PO.2] Rational Outlook:** Understand and can analyse the different social and economic changes with a rational and logical frame of mind.

**[PO.3] Effective communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.

**[PO.4] Social Interaction:** Elicit views of other, mediate disagreements and help reach conclusions in group settings.

**[PO.5] Effective Citizenship:** Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.

**[PO.6] Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.

**[PO.7] Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development

**[PO.8] Self-directed and Life- long Learning:** Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological and socio-economic changes.

### **PROGRAM SPECIFIC OUTCOMES (PSO)**

**[PSO.1]** Understand the economic way of thinking and the nature and basic idea of Microeconomics.

**[PSO.2]** Analyse and apply mathematical methods in Economic problems.



- [PSO.3] Understand the nature and basic idea of Macroeconomics.
- [PSO.4] Apply higher mathematical methods Economic problems.
- [PSO.5] Understand intermediate Microeconomics.
- [PSO.6] Understand intermediate Macroeconomics.
- [PSO.7] Analyse and apply statistical methods in Economic problems.
- [PSO.8] 1. Understand Data Analysis as Skill Enhancement Course OR  
2. Understand Rural Development as Skill Enhancement Course.
- [PSO.9] Understand intermediate Microeconomics in detail.
- [PSO. 10] Understand intermediate Macroeconomics in detail.
- [PSO.11] Application of Econometrics and Mathematical techniques in Economics.
- [PSO.12] 1. Understand Research Methodology as Skill Enhancement Course OR  
2. Understand Managerial Economics as Skill Enhancement Course.
- [PSO.13] Understand the policies of International Economics.
- [PSO. 14] Understand the nature of Indian Economy.
- [PSO.15] 1 Understand Applied Econometrics as discipline specific elective OR  
2. Understand Economic History of India from 1857 to 1947 as discipline specific elective.
- [PSO. 16] 1. Understand the concept of Comparative Economic Development in global perspective as discipline specific elective OR  
2. Understand Financial Economics as discipline specific elective.
- [PSO. 17] Understand the nature and scope of Public Economics.
- [PSO. 18] Understand the concept and measures of Development Economics.
- [PSO. 19] 1. Understand Money and Financial Markets as discipline specific elective OR  
2. Understand different issues in Indian Economy as discipline specific elective.
- [PSO. 20] 1. Understand Environmental Economics as discipline specific elective OR  
2. Understand different issues in Development Economics as discipline specific elective.

### **COURSE OUTCOME (CO)**

[CO. CC1] Introductory Microeconomics: An understanding of the Economic way of thinking, the concepts of Markets, market sensitivity and adjustments, elasticity, markets and welfare, the

economic role of the Government with respect to market and market failure, externalities and Public goods.

**[CO. CC2]** Mathematical Methods in Economics-I An understanding of Functions and Graphs, Linear Algebra, Integration of Functions, Matrix Algebra, Single Variable Optimisation and Game Theory.

**[CO. CC3]** Introductory Macroeconomics: Learning the nature and scope of Macroeconomics, National Income Accounting, Income Determination in the Short Run (Part-I): The Simple Keynesian Model in a Closed Economy, The Classical system; Basic ideas of Classical, Macroeconomic Foundation I

**[CO.CC4]** Mathematical Methods in Economics-II: Function of several variables, Multi-variable optimization, Difference Equations, Differential Equations.

**[CO.CC5]** Intermediate Microeconomics I: An in-depth understanding of Consumer Theory, Production and Costs, Market Structure, Perfect Competition Input Markets and other issues related to Market.

**[CO.CC6]** Intermediate Macroeconomics I: Income Determination in the Short-run (Part-II) : The IS-LM Model, Aggregate Demand and Aggregate Supply- the Complete Keynesian Model, Keynes vs. Classics, Money Supply, Monetary Policy and Government Budgetary Operations, Inflation, Unemployment and Expectations

**[CO. CC7]** Statistical Methods for Economics: Learning the concepts and applications of Data Presentation, Central Tendency, Dispersions, Skewness and Kurtosis, Probability theory, Random variables and Probability Distributions, Sampling, Statistical Inference.

**[CO. SEC A1]** Data Analysis: Collection and presentation of data, Indian Official Statistics

**[CO. SEC A2]** Rural Development: Aspects of Rural Development, SHGs, Critical evaluation of selected Government Programmes.

**[CO. CC8]** Intermediate Microeconomics II: Imperfect Market Structure, Input market under Imperfect Competition, General Equilibrium, Efficiency and Welfare.

**[CO. CC9]** Intermediate Macroeconomics II: Basic Tenets of New Classical and New Keynesian Theories, Macroeconomic Foundations -II, Consumption: Keynesian consumption function; Fisher's theory of optimal intertemporal choice; life-cycle and permanent income hypotheses; Dusenberry's relative income hypothesis; rational expectations and random-walk of consumption expenditure, Demand for money: Regressive Expectations and Tobin's portfolio choice models; Baumol's inventory theoretic money demand, Economic Growth.

**[CO. CC10]** Introductory Econometrics: Nature and Scope of Econometrics, Classical Linear Regression Model (Simple linear regression and multiple linear regression Part I & II ), Statistical inference in linear regression model, Violations of Classical Assumptions , Specification Analysis.

[CO. SEC B1] Research Methodology: Methodological Issues I & II

[CO. SEC B 2] Managerial Economics: Demand Cost and Profit Analysis, Pricing policies and practices, Capital Budgeting, Cost of capital, Inventory Management.

[CO. CC11] International Economics: Learning the basic models of Trade, Resources, Comparative Advantage and Income Distribution, the Standard Trade Model and Trade Policy, Open Economy Macroeconomics and Balance of Payments.

[CO. CC12] Indian Economy: Understanding the nature of Indian Economy at the time of Independence, Planning and related issues, Population and Human Development, Growth and Distribution, Economic Reforms in India.

[CO. DSE A1.1] Applied Econometrics: Steps in empirical research, Regression diagnostics and specification, Application of Regression Analysis.

[CO. DSE A1.2] Economic History of India (1857-1947): Studying the Economic condition in India on the eve of British rule, Aspects of Economic Policies under British India, Impact of British rule on India.

[CO. DSE B1.1] Comparative Economic Development (1850-1950): Strategies and Policies for Economic Development, Regions of contemporary development with special reference to the development experiences of Japan, South East Asia, China, Latin America and Africa.

[CO. DSE B1.2] Financial Economics: Investment Theory and Portfolio Analysis, Options and Derivatives, Corporate Finance.

[CO. CC13] Public Economics: Government in a Market Economy, Choice and Public Economics, The Revenue and Expenditure of the Government, Public Finance

[CO. CC14] Development Economics: Meaning of Economic Development, poverty and Inequality, Dual Economy Models, Population Growth and Economic Development, Development Strategies, Political Institutions and the State.

[CO. DSE A2.1] Money and Financial Markets: Introduction to money and Money and Banking, Banking System, Financial Institutions, Markets, Instruments and Financial Innovations, Interest Rates Behaviour, Central Banking and Monetary Policy.

[CO. DSE A2.2] Issues in Indian Economy: Growth and structural changes, Macroeconomic Policies and their impact, Policies and performance in Agriculture and Industry, Trends and Performance in Services.

[CO. DSE B2.1] Environmental Economics: Basic introduction, Efficiency and Market Failure, The Design and implementation of Environmental Policy, International Environmental Problems, Measuring the Environmental Costs and Benefits.

[CO. DSE B2.2] Issues in Development Economics: Demography and Development, Land, Labour and Credit Markets, Individuals, Communities and Collective Outcomes, Environment and Sustainable Development, Globalization.

**PO, PSO & CO for B.A. / B.Sc. (Economics General) Course**

**Session: 2018-19**

**PROGRAM OUTCOMES (PO)**

[PO.1] Critical Thinking: Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, looking at our ideas and decisions (intellectual, organizational and personal) from different perspectives.

[PO.2] Rational Outlook: Understand and can analyse the different social and economic changes with a rational and logical frame of mind.

[PO.3] Effective communication: Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.

[PO.4] Social Interaction: Elicit views of other, mediate disagreements and help reach conclusions in group settings.

[PO.5] Effective Citizenship: Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.

[PO.6] Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.

[PO.7] Environment and Sustainability: Understand the issues of environmental contexts and sustainable development

[PO.8] Self-directed and Life- long Learning: Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological and socio-economic changes.

**PROGRAM SPECIFIC OUTCOMES (PSO)**

[PSO.1] Understand the introductory ideas and nature of Microeconomics.

[PSO.2] Understand the basic nature and concepts of Macroeconomics.

[PSO.3] Understand the basic issues in Economic development in the context of Indian Economy.

[PSO.4] Understand Indian Economic policies.

[PSO. 5] Understand the concepts of Money and Banking.

[PSO.6] Understand the concept of Sustainable Development.

[PSO. 7] Understand the theory of Public Finance.

[PSO.8] Understand the economic history of India.

[PSO. 9] understand the methods of field survey.

[PSO. 10] understand the concepts of rural development.

[PSO. 11] understand economic data analysis and report writing.

[PSO. 12] understand the concept of entrepreneurship and development

### **COURSE OUTCOME (CO)**

[CO. CC1] Introductory Microeconomics: To understand the basic concepts of Microeconomics involving basic knowledge of Consumer and Producer's Behaviours, Market concepts, Perfect and Imperfect markets.

[CO. CC2] Introductory Macroeconomics: To understand the theories of National Income Accounting, Keynesian and Classical Systems, Inflation and idea of External Sector.

[CO. CC3] Issues in Economic Development and India: To study the different aspects of Development and Indian Economy.

[CO.CC4] Indian Economic Policies: To study the basic ideas and policies regarding Indian economy including Agriculture, Industry, Planning and Foreign Trade.

[CO. DSE A.1] Money and Banking; Money supply and Banking system, Financial markets, Interest rates and Central Banking. OR

[CO. DSE A.2] Sustainable Development: Meaning of sustainable development, Pollution and Climate change, Sustainable Resource Management Policies in India.

[CO. DSE B.1] Public Finance: Theory of Public Finance, Issues from Indian Public Finance. OR

[CO. DSE B.2] Economic History of India (1857-1947): Colonial India, Agriculture, Railways and Industry, Economy and State in the Imperial context.

[CO.SEC A.1] Introductory Methods of Field Survey: Basic ideas of economic data, Methodology of collection of data, Recording of data. OR

[CO.SEC A.2] Rural Development: Basic issues of Rural development, Self Help Groups, selected Government Programmes and Rural Development.

**[CO.SEC B.1]** Economic Data Analysis and Report Writing: Tabular and Graphical representation of Statistical Data, Basic descriptive statistics, Elements of Report Writing. OR

**[CO.SEC B.2]** Entrepreneurship and Development: Basic issues of Entrepreneurship and Development, Growth and Sickness in Small Business.



## DEPARTMENT OF COMPUTER SCIENCE

### **Program Outcomes (PO)**

[PO.1] Students are introduced to various computer components and tools.

[PO.2] Students learn about several types of data structures in computer memory and how computer programmes may access these data. Students learn about software engineering terminology and how software is built in a methodical manner.

[PO.3] Students are introduced to several tools for official work. They are taught how to use a computer programme to create software and manage a database.

[PO.4] Students learn about the various equipment and software tools used to create a communication system. They are taught how to develop shell programmes for the UNIX operating system.

### **Program Specific Outcomes (PSO)**

[PSO.1] Students learn about computers and the terminology linked with them.

[PSO.2] Students strengthen their programming abilities.

[PSO.3] Students learn how to create a database for a specific organisation.

[PSO.4] Students learn how to create various electronic logic circuits.

[PSO.5] Students learn about computer networks and communication technology.

### **Course Outcome (CO)**

[CO.1] **Computer Fundamentals and Digital Logic Circuit:** The paper provides an overview of the computer's construction, parts, and operations. This paper also discusses computer languages and other technologies used in computers. The article discusses digital circuits such as adders, subtractors, multiplexers, flip-flops, registers, and counters.

[CO.2] **Algorithm & Data Structure, Software Engineering & Database Management System:** The paper explains how to develop a computer program and how data is stored in computer memory. It outlines the procedures required to create software. It also contains information on the database in other organisations.

[CO.3] **MS Office, Programming in C, Python, SQL:** It offers software solutions that are often utilised in all forms of official work. It includes C and Python programming languages for

communicating with the machines. It also includes the SQL language for database construction and access.

**[CO.4] Communication and Computer Networks:** It gives a general overview of the devices used in communication technology and how these devices are coupled to allow computers to communicate with one another. The practical training introduces UNIX and the commands used to run it.





## **DEPARTMENT OF ZOOLOGY**

### **Programme: B.Sc. Zoology General (CBCS)**

#### **Programme Outcome (PO):**

PO1: Relates to the knowledge of different branches of Zoology and intend to complete the basic idea for completion of a general degree course.

PO2: Helps to better understand the diversity of organisms with their ecological and evolutionary significance.

PO3: Intends to develop positive attitude towards sustainable development.

PO4: Helps to acquire required skills in the study of ecosystem; culture of honeybee, aquarium fishes and about the basic ecological experiments etc.

#### **Programme Specific Outcomes (PSO):**

PSO1: The students will acquire knowledge about animal diversity, their scientific classification and evolutionary relationships of major groups of animals. Students will be able to identify common animal depending on their basic features.

PSO2: The students will acquire knowledge about the basic systems of animal body and will understand the basic physiological, biochemical and developmental processes of animals.

PSO3: The students will understand the necessity of biodiversity conservation and will be able to identify economically important insects around us.

PSO4: The skill enhancement courses like apiculture and ornamental fish culture will nurture skills involved in rearing bees and aquarium fishes which would help students in generating self-employment making successful entrepreneurs.

#### **Course Outcome (CO):**

##### **ZOOG-CC1- Animal Diversity**

CO1: The syllabus prescribed by the University of Calcutta for the Zoology General Course helps to become familiar with the non-chordate and chordate world around us.

CO2: Create awareness about the taxonomical identification system of non-chordate and chordate fauna among students.

### **ZOOG-CC2- Comparative Anatomy and Development Biology**

CO3: Develop better understanding about comparative anatomy of the different systems of the vertebrate animals.

CO4: Builds a preliminary knowledge about the early and late embryonic development of the vertebrate animals (frog).

### **ZOOG-CC3-Physiology and Biochemistry**

CO5: Develop better understanding about various physiological, biochemical and endocrine system of human body.

### **ZOOG-CC4-Genetics and Evolutionary Biology**

CO6: Enhance the knowledge about Classical genetics and evolutionary biology.

### **DSE-A-Applied Zoology**

CO7: Develop better understanding about parasitology and host-parasite relationship. CO8: Give basic idea about economically important insects animal husbandry poultry farming and fish farming. Create awareness about the pest and pest management.

### **DSE-B-Ecology and Wildlife Biology**

CO9: Build elementary concept of ecology, population, community and ecosystem.

CO10: Develop better understanding about wild life and create awareness about the conservation of biodiversity.

### **SEC-A- Apiculture**

CO11: Enhance the knowledge about honey bee social organization, life cycle diseases and enemies and detail understanding about apiculture techniques. Develop better understanding about the bee economy and entrepreneurship in apiculture.

### **SEC-B-Aquarium Fish Keeping**

CO12: Build elementary knowledge about aquarium fishes, their biology, feeding etc. Give idea about the fish transportation methods and detail knowledge about the fish packaging techniques. Develop better understanding about the aquarium maintenance and entrepreneurship in ornamental fish culture.



## **DEPARTMENT OF BOTANY**

### **PROGRAMME OUTCOME:**

PO1: Apply the knowledge of Plant science to make scientific queries and enhance the comprehension potential after completion of a general degree course.

PO2: The students will have the overview and understanding about the structure and relationship of various forms of cryptogams and phanerogams.

PO3: The students get to understand the basic concepts of phytogeography and ecology.

PO4: The students are made aware about the ecosystem so as to bring awareness on different aspects of Biodiversity and conservation of Biodiversity.

### **PROGRAMME SPECIFIC OUTCOME:**

PSO1: Able to identify common cryptogams and phanerogams of surrounding area.

PSO2: Gain the knowledge of the basic anatomy of different group of plants.

PSO3: Understand the evolution of plant life on earth.

PSO5: Understand the basics of genetic inheritance.

PSO6: Develop basic idea about different phytogeographical area of the world.

PSO7: Explain the necessity of biodiversity conservation.

PSO8: Able to identify different plant pathogen of economically important crops and their control measure.

### **Course Outcome**

#### **CC1: PLANT DIVERSITY- I (Phycology, Mycology, Phytopathology, Bryophytes and Anatomy)**

CO1: The students can understand the General as well as Diagnostic characters along with the Importance (including economic and environmental/ecological) of Algae, Fungi, Lichen and

Bryophytes among plant groups. They are able to know about the life cycle patterns of different selected Genera among those plant groups.

CO2: Students can able to know about the Pathological impacts of some selected disease on economically important plants and their control measure. Disease management is an important aspect in Agricultural product which enriches the knowledge of students for Agriculture.

CO3. Develop better understanding about the detailed primary and secondary tissue distribution among various organs of Monocot and Dicots viz. root, stem, leaves. They can enhance their knowledge about mechanical tissue distribution pattern in relation to ecological variations with reference to the adaptations.

## **CC 2: PLANT DIVERSITY- II (Pteridophytes, Gymnosperms, Paleobotany, Morphology and Taxonomy)**

CO4. The students can understand the General as well as Diagnostic characters along with the Importance (including economic and environmental/ecological) of Pteridophytes, Gymnosperms and Angiosperms (Monocots and Dicots) among plant groups. They are able to know about the life cycle patterns of different selected Genera of Pteridophytes and Gymnosperms among the plant groups.

CO5. Students can understand about the Morphology of different Reproductive organs of Angiospermic plant groups. They are able to enhance their ideas on selected Angiospermic Plant Families of local areas by which can identify wild as well as economic important Angiospermic plant families, genera and species. By this way they can calculate the local plant diversity, threats and conservation.

CO6. Through Palaeobotanical studies students can gather knowledge about different types of Fossils and process of fossilization by which they can get ideas about the plant evolution and ancient environment along with the floristic patterns at different Geological Eras.

CO7. Palynological studies gives the students an idea about the out surface micro-sculpturing of Pollens and Spores wall along with their identification by which they can implement this knowledge in Aeropalynology, Forensic palynology and Mallisso palynology.

## **CC 3: CELL BIOLOGY, GENETICS AND MICROBIOLOGY**

CO8. Students can accumulate the Cytological knowledge about Nucleus, Nuclear envelop along with its inner filamentous material structure like Chromosome with its Nucleosome concept; Structural and numerical aberrations of Chromosomes.

CO9. Students can enrich their ideas about Protein synthetic mechanisms within a cell along with emphasis on Genetic Code properties.

CO10. A unique concept on Gene linkage, effects of different types of Mutagens on Point Mutation at DNA molecular level can strengthen the knowledge of our students regarding effects of hazardous chemicals and rays on Organisms.

CO11: The students will have the knowledge of the positive and negative importance of microorganisms along with their different gene transfer and genetic recombination methods.

#### **CC 4: PLANT PHYSIOLOGY AND METABOLISM**

CO12. Students can get an idea on structure and importance of different types of Proteins and its functions in Plants.

CO13. Basic knowledge on DNA molecular structure and RNA types can help students to enrich their concept on various biological knowledge.

CO14. Students can gather their knowledge on Enzymes, Transportation, Transpiration, Photosynthesis, Respiration, Nitrogen Metabolism, Growth regulators, Photoperiodism and Senescence so that they can implement this idea in different Agri-Horticultural aspects.

#### **SEC A (1): PLANT BREEDING AND BIOMETRY**

CO15: The students can understand the fundamental aspects of plant breeding through acquiring knowledge on the procedure of selection of natural indigenous high yielding strains/varieties as well as techniques on Hybridization, so that they can implement their ideas on Agricultural a

CO16: Through this study the students can gather knowledge on the roles of Mutation, Biotechnology and Distant Hybridization by which they can clear their ideas on high yielding crop technologies other than traditional general hybridization technologies in agricultural fields.

CO17: By the study of Biometry, students can learn about the methods of sample collection and studies as well as the implementation of Statistics regarding phenotypic characters among the filial generations of a particular crop through heredity and can calculate Genotypic flow through Gene Segregation formula/ratio.

#### **SEC A (2): BIOFERTILIZER**

CO18: By these studies learners can achieve deep knowledge about implementation of different types of Eco-friendly biological/microbial growth promoting compounds like Biofertilizers, Mycorrhizal and Organic fertilizers viz. Bio-compost and Vermi-compost in Agricultural fields. By the application of these ideas they can reduce the uses of inorganic chemical manures as well as different types of agricultural field Pollution and Human health hazards through Organic Farming.

## **SEC B (1): PLANT BIOTECHNOLOGY**

CO19: Enhances knowledge about the basic concepts of Plant Tissue Culture along with Micropropagation and its applications. Also get an idea about Recombinant DNA Technology of Biotechnology in Crop Improvement with reference to transgenic Pest Resistant Plants.

## **SEC B (2): MUSHROOM CULTURE TECHNOLOGY**

CO20: The students can understand about the nonconventional food source with nutritional and medicinal value of Edible Mushroom along with the precaution about Poisonous Mushrooms. At the same time, they can get an idea about the Cultivation techniques of edible mushrooms with its storage and food preparation techniques and marketing profit ratio. They can also aware about the National and Regional edible Mushroom Centres to enhance their knowledge for implementation in their self-employment/ self-independent scheme.

## **DSE A (1): PHYTOCHEMISTRY AND MEDICINAL BOTANY**

CO21: Through this study the students can enlightened through the knowledge on the ancient indigenous or exotic folk (Ethnobotanical) techniques viz. Ayurveda, Siddha and Unani on Medicinal Plant related Human Disease Cure/Hygiene of different tribal or Anthropogenic groups as well as give an idea about Modern Medicinal pure extracts (Active Principles) viz. Pharmacognosy from Medicinal Plants.

## **DSE A (2): NATURAL RESOURCE MANAGEMENT**

CO22: As we are the part of Nature and its Ecosystem so it is much necessary to learn about the Components and Recourses of Nature as well as the Sustainable Utilization, Threats and Management of those Resources, By this study our students can be conscious about the Conservation of Nature along with Biodiversity, Forest and Energy Conservation.

CO23: Human civilization can not proceed without Industrialization. On the other hand most of the industries are the sources of Pollution and Nature destruction. So, we have to be aware our students (the future citizens of India) about the EIA and Waste Management. Through this study they can aware about the Industrial or Municipal Waste Treatment Plant to purify the Nature as much as possible.

## **DSE B (1): ECONOMIC BOTANY**

CO24: Through this study students can be aware about different categories of Economically Important plants which have huge uses in their daily life with its Taxonomic and Morphological aspects along with the ideas on Origin, Cultivation and Processing of some selected Crop Plants. By this study they will be careful about the Crop Plant Cultivation during Agricultural Practices.

## **DSE B (2): HORTICULTURE PRACTICES AND POST HARVEST**

CO25: Our College is situated at the unique topography, which is surrounded by four main rivers viz. Ganga, Rupnarayana, Damodar and Mundeswari. So, the soil of this region consists of fertile humus containing alluvial soil, famous for cultivation of different Crop Plants especially of Horticultural importance. By the study of extensive Horticultural Practices and Post Harvest Technology, students can empower by the enhancement of Rural Economy and Employment Generation in future.



## **DEPARTMENT OF FOOD & NUTRITION**

### **Programme Outcome**

PO 1: Correlate the knowledge of physics, chemistry, physiology, and biochemistry with nutrition.

PO 2: Helps to promote a balanced lifestyle and improve people's diets.

PO 3: Helps to understand the importance of good health and well-being and reduces the risk of disease.

PO 4: Acquire knowledge of correct information on the nutritional value of foods, food quality, and safety, methods of preservation, processing, and handling, food preparation, and eating which help them to make the best choice of foods for an adequate diet

### **Programme specific outcomes**

PSO 1: Able to know about the symbol, valency, chemical, and physical changes of a chemical compound

PSO 2: Develop the general concept of acids, bases, salt, pH, buffer solution, diffusion, osmosis, and colloids.

PSO 3: Develop ideas about different laboratory processes, and the structure of the atom.

PSO 4: Able to understand gravity, measurement of weight of the mass, changes of state of matter, application of electricity, titration.

PSO 5: Understand the concept of all tissue, digestive system, metabolism, nutrients, balanced diet, basic food groups, meal planning, BMR, food processing, and preservation.

PSO 6: Develop an idea about planning and preparation of diet, diet survey, preparation of ORS, and Compare between low cost and medium cost school tiffin.

PSO 7: Develop the concept of community health, hygiene, contamination of food and water, food additives, and fermentation.

POS 8: Able to prepare a therapeutic diet.



POS 9: Able to measure blood pressure, and hemoglobin and determine the blood group.

### **Course Outcome**

#### **CO1: In FNTG – CC- GE-1-1 Th :Elementary Chemistry**

Students can correlate the elementary chemistry with food & nutrition.

#### **CO2 : In FNTG- CC- GE- 1 – 1P: Elementary Chemistry practical**

Students can develop their idea practically on filtration, Crystallization, titration, qualitative & quantitative test of Carbohydrate, Protein etc.

#### **CO3 : In FNTG-CC-GE-2-2-Th : Elementary Physics**

Students can understand the general physics & physical process which enrich their knowledge on Food & Nutrition.

#### **CO4 : In FNTG-CC-GE-2-2 P: Elementary Physics practical**

Students can enrich their practical skill on elementary physics.

#### **CO5: In FNTG-CC-GE-3-3 Th : Elementary Physiology**

Students can develop their idea about elementary physiology including cell, tissue, digestive system, metabolism, enzyme & hormone.

#### **CO6: In FNTG-CC-GE-3-3 P : Elementary Physiology practical**

Students can develop their idea on practical skill on elementary physiology including determination of blood pressure, BT, CT & blood Group & also different slide identification.

#### **CO7: In FNTG-CC-GE-4-4 Th : Basic Nutrition & Food Science**

Students also known about nutrition, Bimolecular, BMR, basic five food groups & meal planning.

#### **CO8: In FNTG-CC-GE-4-4 P: Basic Nutrition & Food Science practical**

Students can develop their idea on practical skill in planning, preparation & modification of diet as well as they also demonstrate of different food group and preserved food.

#### **CO9: In FNTG-DSE-A-5-1 Th : Community Nutrition**

Students can develop their concept on community nutrition, nutritional assessment, different health agencies, food fortification & nutrition education.

#### **CO10: In FNTG-DSE-A-5-1 P :Community Nutrition practical**

Students can develop their concept on practical skill to prepared ORS , weaning food , school Tiffin & diet Survey.

#### **CO11: In FNTG-DSE-A-5-2 Th :Public Health**

Students can develop their concept on public health especially on maternal & child mortality, immunization schedule, food & water contamination as well as prevention of contamination.

**CO12: In FNTG-DSE-A-5-2 P :Public Health Practical**

Students can develop their concept on practical skill on BMI, Growth chart & educational tools related to formulation and demonstration of nutrition.

**CO13: In FNTG-DSE-B-6-1 Th : Clinical Nutrition**

Students can develop their concept broadly on clinical nutrition.

**CO14: In FNTG-DSE-B-6-1 P : Clinical Nutrition Practical**

Students can develop their concept on practical skill on Clinical nutrition especially on planning and preparation of therapeutic diet.

**CO15: In FNTG-DSE-B-6-2 Th : Food Safety and Quality Control**

Students can develop their concept on food safety and quality control.

**CO16: In FNTG-DSE-B-6-2 P : Food Safety and Quality Control Practical**

Students can develop their concept practically on food safety and quality control.

**CO17: In FNTG-SEC-A-3/5-1 Th : Food Preservation**

Students can develop their knowledge on food preservation.

**CO18: In FNTG-SEC-A-3/5-2 Th : Nutrition & Fitness**

Student can correlate the nutrition with fitness.

**CO19: In FNTG-SEC-B-4/6-1 Th :Geriatric Nutrition**

Student can develop their concept on geriatric nutrition.

**CO20: In FNTG-SEC-B-4/6-2 Th : Bakery Science**

Students can develop their knowledge on bakery science.



## **DEPARTMENT OF COMMERCE**

### **PROGRAM OUTCOMES (PO)**

[PO.1] Such courses help to communicate effectively on commercial aspects to the trade, commerce and industry with the society at large.

[PO.2] Build the aptitude of the learner to become a successful entrepreneur, prepare a business plan, set up and handle own business enterprise.

[PO.3] Equip the learner to face the modern-day challenges in commerce and industry, meet the requirements of corporate sector.

[PO.4] Apply ethical principles and commit to the professional ethics and norms.

[PO.5] To understand the impact of responsibility for pursuing the environment and demonstrate the need for sustainable development.

[PO.6] Function effectively as an individual and as member or leader in diverse teams in multi – disciplinary settings. Speak, read, write and listen clearly in person and through electronic media in English and Hindi.

### **PROGRAM SPECIFIC OUTCOMES (PSO)**

[PSO.1] The students are well acquainted with and understand the fundamentals of Commerce and Finance, Marketing, Management of Human Resources, business Ethics Business and commercial Law and Information Technology.

[PSO.2] Maintain books of accounts; develop skills of working out of income, E. Filing of Income Tax Returns and GST, acquire various costing techniques and do the Cost Audit.

[PSO.3] To demonstrate knowledge & understand commercial and management principles, apply ethical principles and commit to professional ethics.

[PSO.4] Taxation: The students will be able to learn various tax issues.

[PSO.5] Business Law: It will demonstrate affective domain development of values.

[PSO.6] Financial Account: The students will learn financial accounting career skills.

[PSO.7] Principals of Management: It will help a student learn managerial accounting career skills.

[PSO.8] Entrepreneurship: A student will be able to recognize features and roles of businessmen, entrepreneur, managers, and consultant with critical decision making.

[PSO.9] Business Mathematics: A student will be able to prove proficiency with the ability to engage in different competitive exams and at various stages of business. Communication: A student will acquire the skills of effective communication, decision making, problem solving.

[PSO.10] Auditing: The students can also acquire practical skills to work as tax consultant, audit assistant and financial supporting services.

[PSO.11] Statistics: The students will be able to go for advance study and research.

## **COURSE OUTCOME (CO)**

### **B.Com.(Honours) Course**

AECC 1.1. Language: - **Language** are specifically designed to promote students' language development through all four language domains: reading, writing, speaking and listening

GE 1.1 Chg. Microeconomics I & Statistics Economics: - Students will learn how markets and other governance structures organize core economic activities, such as production, distribution, and consumption, and the growth of productive resources and macroeconomic policies is to maximize the level of national income, providing economic growth to raise the utility and standard of living of participants in the economy

CC 1.1 Chg. :- **Business law** include maintaining order, protecting rights and liberties, establishing standards, and resolving disputes, make better decisions, legal help when it comes to businesses and their interactions with individuals, government agencies, and other businesses.

CC 1.2 Chg. Principles & Practice of Management: - Examination of management theory and provide opportunities for application of these ideas in real world situations. This examination focuses on the managerial functions of Assessing, Planning, Organizing, and Controlling. Both traditional and cutting-edge approaches are introduced and applied. Specific attention is paid throughout the course to the ethical implications of managerial action and inaction.

CC 1.1 Ch. Financial Accounting:- Students will learn systematically record transactions, sort and analyzing them, prepare financial statements, assessing financial position, and aid in decision making with financial data and information about the business.

GE 2.1 Chg. E-Commerce & Business Communication: -This course has been designed to provide an opportunity to young graduates to acquire professional skills for pursuing a career in Digital and Social Media Marketing in India.

Business Communication: - To understand and appropriately apply modes of expression, i.e., descriptive, expositive, narrative, scientific, and self-expressive, in written, visual, and oral communication.

CC2.1 Chg. Company Law:-

**Business law** include maintaining order, protecting rights and liberties, establishing standards, and resolving disputes, make better decisions, legal help when it comes to businesses and their interactions with individuals, government agencies, and other businesses.

#### CC 2.2 Chg. Marketing Management and Human Resource Management.

To introduce the **marketing** concept and how we identify, understand and satisfy the needs of customers and markets. To analyze companies and competitors and to introduce **marketing** strategy to increase awareness of the strategic and tactical decisions behind today's top performing brands.

Human Resource Management: -Personnel planning is a process used to establish the objectives of the workers' role and to develop appropriate strategies to achieve the objectives of the company. Human resource planning means matching internal and external staff with the anticipated vacancies in the organization over a specific period of time. This allows the personnel department to provide the organization with the right staff at the right time. This is why it becomes a high priority activity. Different experts then points out the objectives of human resources planning.

#### CC 2.1Ch Cost and Management Accounting – I

To understand the basic concepts and processes used to determine product costs, to interpret cost accounting statements, to analyze and evaluate information for cost ascertainment, planning, control and decision making

#### SEC 3.1 Chg. Information Technology & Its Application in Business.

Analyze and model the flow of information through business processes. Formulate plans and architectures for the capture, storage and retrieval of data. Develop computer programs to support or automate business processes. Apply networking concepts and technologies to support business needs.

GE 3.1 Chg. Business Mathematics & Statistics. This course is to teach the mathematical concepts and principles of multivariate calculus, vector and matrix algebra, differential equations and their applications in business and economics. The course involves concept understanding, problem formulation and solution.

This subject provides a basic knowledge of the application of mathematics and statistics to business disciplines; develop the ability to analyze and interpret data to provide meaningful information to assist in making management decisions; and develop an ability to apply modern.

#### CC3.1 Ch Financial Accounting II

This course is to teach for Preparation of Partnership Accounts regarding Correction of appropriation items with retrospective effect, and Accounting for dissolution of partnership firm. It also teaches the Accounting methods and preparation of profit or loss A/Cs of Branches, Hire purchase and Installment payment System, Department and Investment Account. It also covers accounting treatment of Business Acquisition and Conversion of partnership into limited company.

### CC3.2 Ch Indian Financial System: -

The students learn the fundamental concepts and tools of finance, investment decisions, financing decisions and dividend decisions, operations of capital markets: the equity market, the bond market and the derivatives market, and the financial assets traded in each of these markets. Explain the global financial environment and the globalization process experienced by multinational corporations.

### GE 4.1 Chg. Microeconomics II & Indian Economy: -

Students will learn how markets and other governance structures organize core economic activities, such as production, distribution, and consumption, and the growth of productive resources and macroeconomic policies is to maximise the level of national income, providing economic growth to raise the utility and standard of living of participants in the economy.

### CC 4.1 Chg Entrepreneurship Development and Business Ethics.

EDP is a programme meant to develop entrepreneurial abilities among the people. In other words, it refers to inculcation, development, and polishing of entrepreneurial skills into a person needed to establish and successfully run his / her enterprise. Thus, the concept of entrepreneurship development programme involves equipping a person with the required skills and knowledge needed for starting and running the enterprise.

#### Business Ethics:-

Business Ethics is the application of ethical principles and methods of analysis to business. Business ethics deals with the topic of study that has been given its due importance in business, commerce and industry since last three decades.

CC 4.1 Ch Taxation I:- To acquaint the students with basic principles underlying the provisions of direct and indirect tax laws and to develop a broad understanding of the tax laws and accepted tax practices. To give an understanding of the relevant provisions of Direct Tax Code. To introduce practical aspects of tax planning as an important managerial decision-making process. Expose the participants to real life situations involving taxation and to equip them with techniques for taking tax-sensitive decisions.

### CC 4.2 Ch Cost and Management Accounting –II

Students will learn the Accounting Method of Joint & By product Costing, Activity Based Costing, Budget and Budgetary Control, Standard Costing, CVP Analysis & Marginal Costing and Short-term Decision Making Costing,

CC 5.1Ch Auditing & Assurance: - Checking the authenticity and validity of transactions which is done. Examining arithmetical accuracy of books of accounts, casting, balancing etc. It helps to provide an independent opinion to the shareholders on the truth and fairness of the financial

statements, whether they have been properly prepared in accordance with the Companies Act and to report by exception to the shareholders on the other requirements of company law.

## CC 5.2 Ch Taxation II

The students will learn the computation of Total Income and Tax Payable, tax management including Provision for Filing of Return, Assessment of Return, Advance Tax, Interest & Fees and TDS. It covers GST and Import Duty.

DSE 5.1 A Economics II and Advanced Business Mathematics.

## Economics II

Economics II includes Concepts and variables of Macroeconomics with National Income Accounting and determination of Equilibrium Level of National Income, Commodity market and Money market equilibrium. The students will learn concept of supply of money; Measures of money supply – High powered money – Money multiplier. Concept of Inflation – Demand-pull and Cost-push theories of inflation – Monetary and fiscal policies to control inflation; and Unemployment.

Advanced Business Mathematics.

Advanced Business Mathematics plays a vital role for analysis and making the decision in the commercial domain. It covers the Functions, Limit and Continuity, Differentiation and Integration, Applications of Derivative and Integration, Determinants: Matrix:

DSE 5.2 A Corporate Accounting: -

Students will learn systematically record transactions, sort and analyzing them, prepare financial statements, assessing financial position, and aid in decision making with financial data and information about the business

AECC 6.1Chg Environmental Studies: - Creating the awareness about environmental problems among people. Students will get the knowledge for imparting basic knowledge about the environment and its allied problems. They also learn developing an attitude of concern for the environment. Students may take a lion part for motivating public to participate in environment protection and environment improvement.

.SEC 6.1Chg. Computerized Accounting and e-Filing of Tax Returns: -

Students will learn Computerized Accounting using Generic Software, Designing Computerized Accounting System including DBMS Packages and Payroll System for Accounting and E-filing of Tax Return.

CC 6.1 Ch Project Work:- This course is designed for entrepreneurship development and project planning in order to motivate the students to take up self-employment and research work in future.

DSE 6.1 A. Financial Reporting and Financial Statement Analysis

Students will learn meaning and accounting treatment of Holding Co. and Subsidiary Co. They also know the Accounting Standard with Conceptual Framework and presentation of financial

Statements and preparation and analysis of Fund Flow Statement and Cash Flow Statement. Students will learn nature and Component of Financial Statement, application of Accounting Ratio and interpretation for measuring –Liquidity, Solvency, Capital structure, Profitability and managerial Effectiveness.

DSE 6.2 A. Financial Management: - It provides students with the opportunity to apply foundation of business knowledge and skills to develop competent decisions in the areas of accounting, economics, finance, information systems, management and marketing

### **B.Com.(General) Course**

AECC 1.1. Language: - **Language** are specifically designed to promote students' language development through all four language domains: reading, writing, speaking and listening

GE 1.1 Chg. Microeconomics I & Statistics Economics: - Students will learn how markets and other governance structures organize core economic activities, such as production, distribution, and consumption, and the growth of productive resources and macroeconomic policies is to maximize the level of national income, providing economic growth to raise the utility and standard of living of participants in the economy

CC 1.1 Chg.: - **Business law** include maintaining order, protecting rights and liberties, establishing standards, and resolving disputes, make better decisions, legal help when it comes to businesses and their interactions with individuals, government agencies, and other businesses.

CC 1.2 Chg. Principles & Practice of Management: -

Principles & Practice of Management:-Examination of management theory and provide opportunities for application of these ideas in real world situations. This examination focuses on the managerial functions of Assessing, Planning, Organizing, and Controlling. Both traditional and cutting-edge approaches are introduced and applied. Specific attention is paid throughout the course to the ethical implications of managerial action and inaction.

CC 1.1 Cg. Financial Accounting-I:- Students will learn systematically record transactions, sort and analyzing them, prepare financial statements, assessing financial position, and aid in decision making with financial data and information about the business.

GE 2.1 Chg E-Commerce & Business Communication:-

E.Commerce and Business Communication;- This course has been designed to provide an opportunity to young graduates to acquire professional skills for pursuing a career in Digital and Social Media Marketing in India.

Business Communication: - To understand and appropriately apply modes of expression, i.e., descriptive, expositive, narrative, scientific, and self-expressive, in written, visual, and oral communication.

CC2.1 Chg. Company Law: -



**Business law** include maintaining order, protecting rights and liberties, establishing standards, and resolving disputes, make better decisions, legal help when it comes to businesses and their interactions with individuals, government agencies, and other businesses.

#### CC 2.2 Chg. Marketing Management and Human Resource Management.

To introduce the **marketing** concept and how we identify, understand and satisfy the needs of customers and markets. To analyze companies and competitors and to introduce **marketing** strategy to increase awareness of the strategic and tactical decisions behind today's top performing brands.

Human Resource Management: -Personnel planning is a process used to establish the objectives of the workers' role and to develop appropriate strategies to achieve the objectives of the company. Human resource planning means matching internal and external staff with the anticipated vacancies in the organization over a specific period of time. This allows the personnel department to provide the organization with the right staff at the right time. This is why it becomes a high priority activity. Different experts then points out the objectives of human resources planning.

#### CC 2.1CgCost and Management Accounting – I

To understand the basic concepts and processes used to determine product costs, to interpret cost accounting statements, to analyze and evaluate information for cost ascertainment, planning, control and decision making

#### SEC 3.1 Chg. Information Technology & Its Application in Business.

Analyze and model the flow of information through business processes. Formulate plans and architectures for the capture, storage and retrieval of data. Develop computer programs to support or automate business processes. Apply networking concepts and technologies to support business needs.

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This subject provide a basic knowledge of the application of mathematics and statistics to business disciplines; develop the ability to analyze and interpret data to provide meaningful information to assist in making management decisions; and develop an ability to apply modern.

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This course is to teach for Preparation of Partnership Accounts regarding Correction of appropriation items with retrospective effect, and Accounting for dissolution of partnership firm. It also teaches the Accounting methods and preparation of profit or loss A/Cs of Branches, Hire purchase and Installment payment System, Department and Investment Account. It also covers accounting treatment of Business Acquisition and Conversion of partnership into limited company.

#### GE 4.1 Chg. Microeconomics II & Indian Economy:-

Students will learn how markets and other governance structures organize core economic activities, such as production, distribution, and consumption, and the growth of productive resources and macroeconomic policies is to maximise the level of national income, providing economic growth to raise the utility and standard of living of participants in the economy.

#### CC 4.1 Chg Entrepreneurship Development and Business Ethics.

EDP is a programme meant to develop entrepreneurial abilities among the people. In other words, it refers to inculcation, development, and polishing of entrepreneurial skills into a person needed to establish and successfully run his / her enterprise. Thus, the concept of entrepreneurship development programme involves equipping a person with the required skills and knowledge needed for starting and running the enterprise.

**Business Ethics:-** Business Ethics is the application of ethical principles and methods of analysis to business. Business ethics deals with the topic of study that has been given its due importance in business, commerce and industry since last three decades.

CC 4.1 Cg .Taxation I:- To acquaint the students with basic principles underlying the provisions of direct and indirect tax laws and to develop a broad understanding of the tax laws and accepted tax practices. The students acquired the knowledge of the relevant provisions of Direct Tax and Indirect Tax and practical aspects of tax planning as an important managerial decision-making process. Expose the participants to real life situations involving taxation and to equip them with techniques for taking tax-sensitive decisions.

#### CC 4.2 Cg. Costs and Management Accounting –II

Students will learn the Accounting Method of Joint & By product Costing, Activity Based Costing, Budget and Budgetary Control, Standard Costing, CVP Analysis & Marginal Costing and Short-term Decision Making Costing,

CC 5.1 Cg Auditing & Assurance:- Checking the authenticity and validity of transactions which is done through the examination of arithmetical accuracy of books of accounts, casting, balancing etc. It help to provide an independent opinion to the shareholders on the truth and fairness of the financial statements, whether they have been properly prepared in accordance with the Companies Act and to report by exception to the shareholders on the other requirements of company law.

#### DSE 5.1 A Taxation II Taxation II

The students will learn the computation of Total Income and Tax Payable, tax management including Provision for Filing of Return, Assessment of Return, Advance Tax, Interest & Fees and TDS. It covers GST and Import Duty

#### DSE 5.2 A Corporate Accounting: -

Students will learn systematically record transactions, sort and analysing them, prepare financial statements, assessing financial position, and aid in decision making with financial data and information about the business

AECC 6.1Chg Environmental Studies:-Creating the awareness about environmental problems among people. Students will get the knowledge for imparting basic knowledge about the environment and its allied problems. They also learn developing an attitude of concern for the environment. Students may take a lion part for motivating public to participate in environment protection and environment improvement.

SEC 6.1Chg. Computerized Accounting and e-Filing of Tax Returns:-

Students will learn Computerized Accounting using Generic Software, Designing Computerized Accounting System including DBMS Packages and Payroll System for Accounting and E-filing of Tax Return

DSE 6.1 A. Financial Reporting and Financial Statement Analysis.

Students will learn meaning and accounting treatment of Holding Co. and Subsidiary Co. They also know the Accounting Standard with Conceptual Framework and presentation of financial Statements and preparation and analysis of Fund Flow Statement and Cash Flow Statement. Students will learn nature and Component of Financial Statement, application of Accounting Ratio and interpretation for measuring –Liquidity, Solvency, Capital structure, Profitability and managerial Effectiveness.

DSE 6.2 A. Financial Management:- It provides students with the opportunity to apply foundation of business knowledge and skills to develop competent decisions in the areas of accounting, economics, finance, information systems, management and marketing.



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