BAGNAN COLLEGE
Bagnan, Howrah

Course Outcome (CO) for 2021-2022 (under CBCS curriculum)

DEPARTMENT OF BENGALI

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: 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, KrishnadasKabiraj

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: 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: 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: MIL Bengali (2 credits)

➢ This course is offered to studentsof all disciplines. This course is about Essays, Tagore's poems, short stories and terminology.

SEMESTER 2

A. Core Course

BNGA CC 3: History of Bengali Literature (Ninteenth 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 an contact with the colonial modernity.

CO1: Develop a thorough understanding of the poetry of Madhusudan Dutt and GirindramohiniDasi, 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, TattwabodhiniPatrika, 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, sociallyconscious aspect of Bengali prose and essays.

BNGA CC 4: Bengali Literature – Introductory Text (6 credits peer 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'sCharyapada to the poetry of Joy Goswami, and recognize the diversity of Bengali poetry ranging from 'Sab loke koyLalon ki jaat' to 'Babar-er prarthana'.

CO2: Juxtapose diverse texts such as Bankimchandra Chatterjee's Kapalakundala and SamareshBasu'sAdaab.

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 UnobingshoShatabdirNaribiplab.

B: Generic Elective GE2: 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: 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 Ashapurna Debi.

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

BNGA CC 6: 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: 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 AranyerAdhikar.

Skill Enhancement Course SEC-A-2: 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: 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: 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 ChandimangalKabya.

BNGA CC 9: 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: 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: 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: Bengali Fiction and Essays (6 credits per week)**
CO 1: In this course Bengali fiction and essay literature will be given.

D. **LCC 2 (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: 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: 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 gananatya

B. Discipline Specific Electives

BNGA DSE A-1: 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: 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: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: 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: 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 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: 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 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 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 theIntroductory 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 onthe 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. Consciaousness: 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,TestofIntelligence,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 oftheFour Purusarthās– dharma, artha, kāma and mokṣa and their interrelation. Karma (Sakāma&Niṣkāma), CārvākaEthics.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 PhilosophyA. 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 ReligionA. 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 Vedāntaii)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 identitifying .

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, Mimansa 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 UniversalReligion, 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; theParadoxes of MaterialImplication; The Three Laws of Thought.c) Determining the logical character of statement form and statements byi) The Method of Truth-table.ii) The Method of Resolution [dot notation excluded, d) Testing Argument Form and Argument for validity byi) 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 theDefinition of buddhi or jñāna (cognition), its two kinds; Definition of smriti; Two kinds of smriti (memory); Definition of anubhava, its division into veridical (yathārtha) and non-veridical (ayathārtha);Three kinds of non-veridical anubhava; Definitions clarified in TarkasaṁgrahaDīpikā b) Four-fold division of pramā and pramāṇa. Definition of "Karaṇa"(special causal condition) and "kāraṇa" (general causal condition). The concept of anyathāsiddhi (irrelevance) and its varieties.The definition of kārya (effect). Kinds of cause: samavāyi, a-samavāyi and nimittakāraṇa (definitions and analysis).c) Definition of pratyakṣa and its two-fold division: nirvikalpaka and savikalpakajñāna. 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 thea) Introduction: Concerns and Presuppositions, Concept of Sthitaprañjna,Karmayoga: (Gīta) Puruṣārthas and their inter-relations.b) Meaning of Dharma, Concept of Ṛṇa and Ṛta. Classification of Dharma: sādhāraṇadharma and Asādhāranadharma,Varnāsramadharma.c) Vidhi and Niṣedha.d) Buddhist Ethics: Pañcaśīla, Brahmavihārabhāvanā (Bauddha) Anuvrata,Mahāvrata, Ahimsā.e) Jaina Ethics: anubtrata, mahabrata.f) Mimamsa Ethics: nittyanaimittika 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 pañcāvayaviNyāya. Necessity of parāmarśa. Three kinds of linga. Definitonof 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) "Bādhita"(definition and illustration).d) "Upamānapramāṇa" :Definition and analysis."Śabdapramāṇa" :Definition and analysis. "Śakti" (the direct signifying power), the

padapadārtha- sambandha considered as Īśvara-saṁketa,Controversy betweentheMīmāṃsakas 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-bījatātparya, g) "Arthāpatti" as a distinctive pramāṇa: Controversy between the Mīmāṃsakas and the Naiyāyikas. h) The theory of prāmānya:the issue between svataḥ-prāmānyavāda andparataḥ-prāmānyavāda regarding utpatti and jñapti; The Prābhākaratheory 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. DeontologicalTheories: 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

Course Outcome

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

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, EURPOEAN CLASSICAL LITERATURE- 6 CREDITS)

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)

- 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)

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)

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

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)

- 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

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

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)

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

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)

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)

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

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)

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

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)

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)

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)

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

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)

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 20th Century British Literature (6 Credits)

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)

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)

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)

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)

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

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)

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)

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)

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)

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)

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)

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

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:

Course Outcome (CO)

Semester-I

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

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)

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)

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

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).

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).

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 lean the rights of citizens and relevancies of judicial practices in major countries of the world.

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

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)

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 in formations 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)

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)

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)

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)

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)

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)

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).

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 patriarchical 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)

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)

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).

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)

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)

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

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)

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)

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)

similar to the papers this SEC also cis 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)

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).

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)

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)

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, LokAdalats and Mahila Courts as well.

Semester-VI

Discipline-Specific Elective Category:

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

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)

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

Course Outcomes

SEMESTER-1

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 worlds 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. 1206to1707

CO1.tudents 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 1707to1950

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 it's 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.

DEPARTMENT OF SANSKRIT

COURSE OUTCOME (CO)

[CO.1]: CC 1:

Textual and literary analysis from selected Slokas of Mahākāvyas composed by kālidāsa namely Raghuvamsha and Kumarasambhava, textual analysis of selected Slokas from a well knownMahākāvya 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'sAbhijñānaśakuntala (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 acquaintedto 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 KautiliyaArthasastra, 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 Epigrapical Texts written in Sanskrit Language withit'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 Sanskritic 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, Vishesha, 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, TinnantaPrakarana and Ajanta Pumlinga 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, usees 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.

Sanskrit General Course

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

DEPARTMENT OF CHEMISTRY

Course Outcome (CO) for Chemistry Hons.

SEM 1:

CO1:	CEMA-CC-1-2-TH ORGANIC CHEMISTRY-IB Stereochemistry I • Introduction to stereochemistry, representation of molecules in saw horse, Newman, Flying wedge and Zig-zag • Configuration • Conformation • To impart knowledge and concept of chirality and symmetry • Idea about relative and absolute configuration of different organic molecules • Knowledge of optical activity of chiral compounds.
CO2:	CEMA-CC-1-1-P • 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.
CO3:	CEMA-CC-1-2-P • Practical experience to determine the boiling points of some commonly used organic compounds.

SEM2:

CO1:	CEMA-CC-2-3-TH Stereochemistry-2 • Knowledge about chirality arising out of stereoaxis in various organic molecules • Development of concept of prostereoisomerism

CO2:	CEMA-CC-2-3-TH Nucleophilic substitution reactions • Students will get understanding of reactivity and stability of an organic molecule based on structure, including conformation and stereochemistry • an understanding of nucleophiles, electrophiles, electronegativity, and resonance • Students will be able to predict the mechanisms for nucleophilic substitution reactions

SEM3:

CO1:	CEMA-CC-3-7-TH Addition reactions • Electrophilic addition to C=C: Mechanism, reactivity, regioselectivity and stereoselectivity. • Reactions: halogenations, hydrohalogenation, hydration, hydrogenation, epoxidation, hydroxylation, ozonolysis, electrophiilic addition to diene (conjugated dienes and allenes). • Radical addition: HBr addition. • Dissolving metal reduction of alkynes and bezenoid aromatics (Birch). • Addition to alkynes in comparison to alkenes
CO2:	CEMA-CC-3-7-TH • Concept of nucleophilic addition to α, β- unsaturated carbonyls • Concept of substitution at sp2 carbon i,e. carbonyl system
CO3:	CEMA-CC-3-7-P • Practical knowledge of identification of various pure organic compounds (solids and liquids) by various interesting and easy to perform reactions.

SEM4:

CO1:	CEMA-CC-4-8-TH • 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. • To give insight into the mechanistic pathway as well as the stereochemical features of the molecular rearrangements.
CO2:	CEMA-CC-4-8-TH • 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.
CO3:	CEMA-CC-4-8-P • Qualitative analysis of single organic compounds which includes detection of special elements and functional groups

DEPARTMENT OF MATHEMATICS

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 R (R is set of real numbers); Order completeness of 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; M*ö*bius transformation; complex integrations in this course.
CC7, CC9	Multivariate Calculus	CO4	After studying topology of R, students will learn the topology of R^n(n>1); functions from R^n to R^m(m, n ≥ 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 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 6th 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 seconddegree 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-efficientsupto 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 transformations; 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 ofthe numerical methods which they study in theory part of this course.
CC10	Mechanics	CO16	Students will learn coplanar forses 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 function of single and several variables; applications of differential calculus. 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. In Coordinate Geometry-I, students will study transformation of rectangular axes; straight lines, parabola, ellipse, circle, hyperbola.
CC2/GE2	Differential Calculus-II,Differential Equation-II,Vector Algebra,Discrete Mathematics	CO2	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 e^x, sin x, cos x, log(1+x), $(1+x)^n$ with restrictions whereever necessary; applications of principle of maxima and minima of function of single variable in geometrical, physical and to other problems; Lagrange's multiplier. 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. In Vector algebra, students will study vectors and their properties; vector equations of plane and straight lines; applications to

			problems of Geometry and Mechanics. 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.
CC3/GE3	Integral Calculus,Numerical Methods,Linear Programming	CO3	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. In Numerical Methods, students will study Errors, operators; different types of interpolation methods; numerical integration. In Linear Programming, students will learn basic concept of LPP; formulation of LPP; solutions of LPP; Assignment and Transportation problems and their optimal solutions.
CC4/GE4	Algebra-II,Computer Science andProgramming,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

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

Core Courses (CC)	CO
PHSA CC1 Mathematical Physics I **Credit: Theory-4 Practical-2**	**Theory:** 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. **Practical:** 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.

PHSA CC2 **Mechanics** **Credit:** **Theory-4** **Practical-2**	**Theory:** 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. **Practical:** 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.

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

Core Courses (CC)	CO
PHSA CC3 **Electricity and Magnetism** **Credit:** **Theory-4** **Practical-2**	**Theory:** 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. **Practical:** 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.

PHSA CC4 **Waves and Optics** **Credit:** **Theory-4** **Practical-2**	**Theory:** 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. **Practical:** 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.

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

Core Courses (CC)	CO
PHSA CC5 **Mathematical Physics II** **Credit:** **Theory-4** **Practical-2**	**Theory:** 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. **Practical:** 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.

PHSA CC6 **Thermal Physics** **Credit:** **Theory-4** **Practical-2**	**Theory:** 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. **Practical:** 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.
PHSA CC7 **Digital Systems and Applications** **Credit:** **Theory-4** **Practical-2**	**Theory:** 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. **Practical:** 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 combina-tional 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 & parallel) using D type flip-flop IC, (vii) construction of astable multivibrator using 555 timer.

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

Core Courses (CC)	CO
PHSA CC8 Mathematical Physics III **Credit: Theory-4 Practical-2**	**Theory:** 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. **Practical:** 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.

PHSA CC9 **Elements of Modern Physics** **Credit:** **Theory-4** **Practical-2**	**Theory:** 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. **Practical:** 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.
PHSA CC10 **Analog Systems and Applications** **Credit:** **Theory-4** **Practical-2**	**Theory:** Student will be able to (a) Understand the basics of semiconductor physics, semiconductor diodes. (b) Know the physics and circuits involving rectifier diodes and zener diodes. (c) Have thorough understanding of bipolar junction transistors and its operation. (d) Know the basic principles of operations of field effect transistors. (e) Have through understanding of operations of amplifiers, feedback in amplifiers, oscillators, operational amplifiers and its applications. **Practical:** 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.

Course Outcome (CO) of Skill Enhancement Courses (SEC) for Semester III and IV

SEC Courses	CO
PHSA SEC-A1 **Basics of Programming and Word Processing** **(Semester III)** **Credit:** **Theory-2**	**Theory:** 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.
PHSA SEC-B2 **Renewable Energy and Energy Harvesting** **(Semester IV)** **Credit:** **Theory-2**	**Theory:** 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
PHSA CC11 **Quantum Mechanics and Applications** **Credit:** **Theory-4** **Practical-2**	**Theory:** 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. **Practical:** 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.
PHSA CC12 **Solid State Physics** **Credit:** **Theory-4** **Practical-2**	**Theory:** 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. **Practical:** 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).

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

Core Courses (CC)	CO
PHSA CC13 **Electromagnetic Theory** **Credit:** **Theory-4** **Practical-2**	**Theory:** 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. **Practical:** 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 Fresnels' 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 ion a liquid (kerosene, xylene etc), (vi) to analyze elliptically polarized light by using babinate compensator, (vii) to determine dispersive power and resolving power of a plane diffraction grating.
PHSA CC14 **Statistical Mechanics** **Credit:** **Theory-4** **Practical-2**	**Theory:** 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. **Practical:** Students will be able todo 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.

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

Discipline Specific Elective (DSE) Courses	CO
PHSA DSE-A1 Communication Electronics **(Semester V)** **Credit: Theory-4 Practical-2**	**Theory:** 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. **Practical:** 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).
PHSA DSE-B1 Nuclear and Particle Physics **(Semester V)** **Credit: Theory-4 Tutorial-2**	**Theory:** 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. **Tutorial**

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

Discipline Specific Elective (DSE) Courses	CO
PHSA DSE-A2 Astronomy and Astrophysics **(Semester VI)** **Credit:** **Theory-4** **Tutorial-2**	**Theory:** 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. **Tutorial**
PHSA DSE-B2 Nano Materials and Applications **(Semester VI)** **Credit:** **Theory-4** **Tutorial-2**	**Theory:** 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. **Tutorial**

CO for B.Sc. (General) Physics Course

Course Outcome (CO) B.Sc. (General) Physics Programme: Semester I

Core Courses (CC)	CO
PHSG CC1/GE1 **Mechanics** **Credit:** **Theory-4** **Practical-2**	**Theory:** 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 tension. **Practical:** 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.

Course Outcome (CO) B.Sc. (General) Physics Programme: Semester II

Core Courses (CC)	CO
PHSG CC2/GE2 Electricity and Magnetism **Credit: Theory-4 Practical-2**	**Theory:** 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. **Practical:** 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.

Course Outcome (CO) B.Sc. (General) Physics Programme: Semester III

Core Courses (CC)	CO
PHSG CC3/GE3 Thermal Physics and Statistical Mechanics **Credit: Theory-4 Practical-2**	**Theory:** 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) Develop an understanding of kinetic theory of gases. (d) Know the basics of radiation. (e) Have extensive knowledge of basics of statistical mechanics. **Practical:** 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.

Course Outcome (CO) B.Sc. (General) Physics Programme: Semester IV

Core Courses (CC)	CO
PHSG CC4/GE4 **Waves and Optics** **Credit:** **Theory-4** **Practical-2**	**Theory:** 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. **Practical:** 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) determina-tion 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.

Course Outcome (CO) Skill Enhancement Courses (SEC) for Semester III and IV

SEC Courses	CO
PHSA SEC-A1 **Basics of Programming and Word Processing** **(Semester III)** **Credit:** **Theory-2**	**Theory:** 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.
PHSA SEC-B2 **Renewable Energy and Energy Harvesting** **(Semester IV)** **Credit:** **Theory-2**	**Theory:** 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.

Discipline Specific Elective (DSE) Course Outcome (CO) B.Sc. (General) Physics Programme: Semester V

Discipline Specific Elective (DSE) Courses	CO
PHSG DSE-A1 Modern Physics **(Semester V)** **Credit:** **Theory-4** **Tutorial-2**	**Theory:** 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. **Tutorial**

Discipline Specific Elective (DSE) Course Outcome (CO) B.Sc. (General) Physics Programme: Semester VI

Discipline Specific Elective (DSE) Courses	CO
PHSG DSE-B2 Nuclear and Particle Physics **(Semester VI)** **Credit:** **Theory-4** **Tutorial-2**	**Theory:** 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. **Tutorial**

DEPARTMENT OF ECONOMICS

CO for B.Sc. (Economics Honours) Course

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, NationalIncomeAccounting, Income Determination in the Short Run (Part-I): The Simple Keynesian Model in a Closed Economy, TheClassicalsystem; Basic ideas of Classical, MacroeconomicFoundation 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: IncomeDeterminationintheShort-run(Part-II):TheIS-LMModel, AggregateDemandandAggregateSupply-theCompleteKeynesianModel, Keynesvs.Classics, MoneySupply,MonetaryPolicyandGovernmentBudgetaryOperations, Inflation,UnemploymentandExpectations

[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: ImperfectMarketStructure, InputmarketunderImperfectCompetition, GeneralEquilibrium,EfficiencyandWelfare.

[CO. CC9] Intermediate Macroeconomics II: BasicTenetsofNewClassicalandNewKeynesianTheories, MacroeconomicFoundations-II, Consumption:Keynesianconsumptionfunction;Fisher'stheoryofoptimalintertemporalchoice;life-cycleandpermanentincomehypotheses;Dusenberry'srelativeincomehypothesis;rationalexpectation sandrandom-walkof consumptionexpenditure, Demand for money: Regressive Expectations and Tobin's portfolio choice models; Baumol'sinventorytheoreticmoneydemand, EconomicGrowth.

[CO. CC10] Introductory Econometrics: NatureandScopeofEconometrics, ClassicalLinearRegressionModel(Simplelinearregressionandmultiple linearregression Part I &II), Statistical inference in linear regression model, ViolationsofClassicalAssumptions , SpecificationAnalysis.

[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.

CO for B.A. / B.Sc. (Economics General) Course

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

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

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

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, Forensicpalynology and Mallissopalynology.

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

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

COURSE OUTCOME (CO)

B.Com.(Honours) Course

AECC 1.1. Language: - **Language** are specifically designed to promote students' **l**anguage 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 helpwhen 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 helpwhen 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-filling 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' **l**anguage 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 helpwhen 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 helpwhen 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.

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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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CC 3.1 Cg 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.

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.

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Students will learn Computerized Accounting using Generic Software, Designing Computerized Accounting System including DBMS Packages and Payroll System for Accounting and E-filling of Tax Return

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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.