



GOVERNMENT OF WEST BENGAL

Office of the Principal

SHAHID MATANGINI HAZRA GOVT. GENERAL DEGREE COLLEGE FOR WOMEN

Chaksrikrishnapur-Kulberia :: Kulberia :: Purba Medinipur 721649



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Criterion 2 - Teaching-learning and Evaluation

2.6 Student Performance and Learning Outcomes

2.6.1 Programme Outcomes (POs) and Course Outcomes (COs) for all Programmes offered by the institution are stated and displayed on website.

2.6.1 SUPPORTING DOCUMENTS

No	Supporting Documents
1.	<p>Programme Outcomes (POs) and Course Outcomes (COs) for all Programmes offered by the institution are stated and displayed on website</p> <p>College Website Link: https://matanginicollege.ac.in/Po-co.aspx</p>

Principal
Shahid Matangini Hazra Govt. General Degree
College for Women
ChaksriKrishnapur-Kulberia::Kulberia::Purba Medinipur
721649

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General Degree College for Women,



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Programme Outcomes (POs) and Course Outcomes (COs) for all Programmes offered by the institution

PO, CO, PSO (CBCS)

Sl. No	Title	College Website Link
1	Bengali	View
2	Chemistry	View
3	Economics	View
4	English	View
5	Geography	View
6	Geology	View
7	Mathematics	View
8	Philosophy	View
9	Physics	View
10	Political Science	View
11	Sanskrit	View

College Website Link for Syllabus: <https://matanginicollege.ac.in/Syllabus.aspx>



Shahid Matangini Hazra Govt. General Degree College for Women,
Government of West Bengal, Affiliated to Vidyasagar University

**DEPARTMENT OF POLITICAL SCIENCE
PROGRAMME OUTCOME (PO)
CBCS BACHELOR OF ARTS**

PO	Summary	Description
PO1	Specialized Knowledge of the Discipline	After completing the course Students should gain a comprehensive understanding of various political theories and ideologies, both historical and contemporary, to analyze and interpret political phenomena in both theory and practice.
PO2	Comprehension & Communication Skills	Students should be able to articulate their ideas and arguments clearly, both orally and in written form. They will be able to comprehend the hidden structures of political phenomena particularly and social phenomena in general.
PO3	Critical Reasoning & Problem Analysis	The program develops students' analytical and critical thinking skills, enabling them to evaluate political issues and policies objectively. The course will give them knowledge of critical reasoning, which will enable to grasp a problem critically and take logical and best decision.
PO4	Develop Interdisciplinary Perspective	The program incorporates interdisciplinary approaches, drawing insights from related fields like history, sociology, economics, and philosophy. In order to explain a particular social issue or in other word to cognize the social reality social, economic, culture and political knowledge is necessary. Through this course students will able to construct an interdisciplinary approach.
PO5	Socio-Cultural Applicability	To apply the acquired knowledge to solve the ongoing socio-cultural problems of the society in general.
PO6	Ethical and Moral Perspectives	The program encourages students to consider ethical and moral dimensions in political decision-making. Develops the culture of value-based thinking, understand the pros and cons while taking decisions and lead a sound value based ethical life.
PO7	Research, Writing Skills and Learning	Students should be able to conduct research, gather data, and present their findings effectively in written form. The process of theory building, various techniques of research methodology will enable them to carry out research in latter period of their life.



Shahid Matangini Hazra Govt. General Degree College for Women,
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Political Science - CBCS

PO8	Familiarity with Recent Developments	Students will acquire knowledge about recent development of theory and practice including government and politics in the field of Political Science.
PO9	Environmental Awareness & Sustainability	Politics play a determinant role in environmental problems. This knowledge will enable students to understand the problem comprehensively and program will enable students to implement in real life platform.

Programme Specific Outcomes Nos	Programme Specific Outcomes (PSO)
PSO1	<ul style="list-style-type: none">- Acquiring basic knowledge of political theory. Understanding political institutions, political thought and ideologies prevalent in different countries.- To be familiar with the functioning of the organs of government like legislatures, executives, judiciaries.
PSO2	<ul style="list-style-type: none">- To understand the evolutions of political theory with specific emphasis of modern times.
PSO3	<ul style="list-style-type: none">- Develop a profound knowledge of Indian Constitution and Politics and understand the changing pattern of Indian polity and society as a whole.
PSO4	<ul style="list-style-type: none">- Applying the practical knowledge to analyse the political behaviour of mankind of in the Indian context and in international scenarios.
PSO5	<ul style="list-style-type: none">- Be able to gather knowledge of government and politics of various countries of the world.
PSO6	<ul style="list-style-type: none">- Be able to explain and analyse the existing socio-political reality. Political Science graduate student have ample scope in academics, higher research institutes, UPSC and other government services and many others.



COURSE OUTCOME (CO)
BACHELOR OF ARTS - POLITICAL SCIENCE HONOURS
(CBCS SYLLABUS)

PAPER NAME	COURSE	COURSE OUTCOME
SEM I (Paper CC- I T) Understanding Political Theory I: Introducing Political Theory II: Political Theory and Practice The Grammar of Democracy	CO1	CO1.1: Develop a holistic understanding of the fundamental concepts of politics and political theory. CO1.2: To develop the skill of analytical theory building. CO1.3: Acquire the skill to analyse the political issues and apply rational understanding in contextualizing the same.
SEM I (CC-2 T) Constitutional Government and Democracy in India I. The Constituent Assembly and the Constitution II. Organs of Government III. Federalism and Decentralization	CO2	CO2.1: To develop an idea of Indian Constitution-its conception, making, philosophy (underlying the constitution), different Political institutions, various political Roles and their inter relations. CO2.2: To develop basic understanding about the functioning of Indian democracy. CO2.3: Critically analyse the concept of Quasi - Federal Union and other related theories pertaining to Indian political system.
SEM2 (CC3T) Political Theory-Concepts and Debates Section A: Core Concepts I. Importance of Freedom II. Significance of Equality III. Indispensability of Justice IV. The Universality of Rights Section B: Major Debates	CO3	CO3.1: To give an idea of different political theories of nineteenth and twentieth century, which prevailed in the understanding of political theory since 19 th century. CO3.2: To enlighten the students with major debates of political science both in the fields of theory and practices.
SEM2 (CC4T) Political Process in India I. Political Parties and the Party System II. Determinants of Voting Behaviour III. Regional Aspirations IV. Religion and Politics V. Caste and Politics VI. Affirmative Action Policies VII. The Changing Nature of the Indian State	CO4	CO4.1: To develop clear idea of political process of India, the various determinants of political process, and the multidimensional socio-political interaction. CO4.2 Understanding the inherent socio-economic bases of Indian politics.



<p>SEM3 (CC-5) Introduction to Comparative Government and Politics I. Understanding Comparative Politics II. Historical context of modern government III. Themes for comparative analysis</p>	<p>CO5</p>	<p>CO5.1: To give an idea about the constitution of major countries of the world.</p> <p>CO5.2: To give knowledge of political process of major countries</p>
<p>SEM3 (CC-6) Perspectives on Public Administration I. Public administration as a discipline II. Theoretical perspectives III. Public policy IV. Major approaches in public administration</p>	<p>CO6</p>	<p>CO6.1: To give preliminary idea of public administration (idea of how the state functionaries act)</p> <p>CO6.2: To give knowledge of bureaucracy, secretariat, Directorate, Functions of various departments, posts of the government of India</p>
<p>SEM3 (CC-7) Perspectives on International Relations and World History A. Studying International Relations B. Theoretical Perspectives C. An Overview of Twentieth Century IR History</p>	<p>CO7</p>	<p>CO7.1: It provides basic knowledge of international relations, the various state and non-state actors, the prevalent theories of international politics thus enabling a comprehensive understanding of the importance of International Relations.</p> <p>CO7.2: To give a brief chronological account of world history and chronologically understand the major events of twentieth century.</p> <p>CO7.3 Comprehend the implications of various international conflicts of interest, war and outcome that is shaping the global power dynamics.</p>
<p>SEM4 (CC-8) Political Processes and Institutions in Comparative Perspective I. Approaches to Studying Comparative Politics II. Electoral System III. Party System IV. Nation-state V. Democratization VI. Federalism</p>	<p>CO8</p>	<p>CO8.1: To give knowledge of political process of major countries.</p> <p>CO8.2: To acquaint with some major debates of political process in postcolonial world.</p>
<p>SEM4 (CC-9) Public Policy and Administration in India I. Public Policy II. Decentralization III. Budget IV. Citizen and Administration Interface V. Social Welfare Administration</p>	<p>CO9</p>	<p>CO9.1: To give an idea of public policy process in India.</p> <p>CO9.2: Provides a brief idea of local self - governance.</p> <p>CO9.3: Provides a brief idea of different issues related to governance.</p>



SEM4 (CC10) Global Politics I. Globalization: Conceptions and Perspectives II. Contemporary Global Issues III. Global Shifts: Power and Governance	CO10	<p>CO10.1: To provide an idea of world politics in the era of globalization.</p> <p>CO10.2: To provide an idea of global political economy.</p> <p>CO10.3: Covers major global issues such as environmental issues, non-proliferation of nuclear weapon, issue of international terrorism and problem of migration.</p>
SEM5 (CC-11) Classical Political Philosophy I. Text and Interpretation II. Antiquity Plato, Aristotle III. Interlude: IV. Possessive Individualism Hobbes, Locke	CO11	<p>CO11.1: This course introduces one to the basic philosophical understanding of human nature and the intersection of man and politics.</p> <p>CO11.2: It introduces the basic political understandings of philosophers like Plato, Aristotle, Hobbes, Locke which are still relevant in today's world.</p>
SEM5 (CC-12) Indian Political Thought-I I. Traditions of Pre-colonial Indian Political Thought II. Ved Vyasa (Shantiparva): Rajadharma III. Manu: Social Laws IV. Kautilya: Theory of State V. Aggannasutta (Digha Nikaya): Theory of kingship VI. Barani: Ideal Polity VII. Abul Fazal: Monarchy VIII. Kabir: Syncretism	CO12	<p>CO12.1: This course introduces one to the rich heritage of ancient Indian thought and enables one to understand the philosophical basics of the modern Indian nation state.</p> <p>CO12.2: The readings of Manu, Kautilya, Barani etc. is essential to the understanding of the inclusive and resilient nature of the present Indian state.</p>
SEM6 (CC- 13) Modern Political Philosophy I. Modernity and its discourses II. Romantics III. Liberal socialist IV. Radicals	CO13	<p>CO13:1: To provide knowledge critically examining Rousseau's views on Freedom and Democracy.</p> <p>CO13:2: It evaluates John Stuart Mill's views on liberty and provide idea about representative government.</p> <p>CO13:3: It identifies the origins and complexities of the theories developed by Wollstonecraft</p> <p>CO13:4: It evaluates and examine Marx's views alienation, class struggle etc.</p>



SEM6 (CC-14) Indian Political Thought-II I. Introduction to Modern Indian Political Thought II. Rammohan Roy: Rights III. Pandita Ramabai: Gender IV. Vivekananda: Ideal Society V. Gandhi: Swaraj VI. Ambedkar: Social Justice VII. Tagore: Critique of Nationalism VIII. Iqbal: Community IX. Savarkar: Hindutva X. Nehru: Secularism XI. Lohia: Socialism	CO14	<p>CO14.1: This Course gives an idea of the various multifaceted inclusive political thought of famous personalities which contributed in shaping the Indian nation</p> <p>CO14.2: It provides a clear idea of the major theoretical foundation of the present Indian State, encompassing within its purview the thoughts of Raja Rammohan Roy as well as Iqbal and Lohia,</p> <p>CO14.3: It also enables one to understand the all-encompassing nature of the Indian State.</p>
SEM5 (DES-1) India's Foreign Policy in a Globalizing World	CO15	<p>CO15.1: This course enables one to understand the importance of setting the contours of ones own foreign policy , keeping in mind the changing and dynamic nature of a globalised world,</p> <p>CO15.2: It gives an idea of Indisa present status , rple and responsibility as an actor in International field and the major matrix operating which is reflected in her foreign policy.</p>
SEM5 (DSE-2) United Nations and Global Conflicts I. The United Nations II. Major Global Conflicts since the Second World War III. Assessment of the United Nations as an International Organisation: Imperatives of Reforms and the Process of Reforms	CO16	<p>CO16.1: This course provides an understanding about the need of an international Organisation like the UNO in maintaining peace and balance in the international scenario.</p> <p>CO16.2: It also gives knowledge about the major conflicts in the past decades which devastated the world and thus the necessity to prevent any such war situation in future, It teaches the need to be tolerant and accommodative.</p>
SEM6 (DSE3T) Citizenship in a Globalizing World	CO17	<p>CO17.1: The issue of Citizenship and its various dimensions are of uttermost importance today. This course enables one to understand the basic notion of a Citizen, the evolution of this concept since ancient times and also the role and responsibility of a true citizen in the present scenario. It also gives an idea of the role of modern State towards its citizens.</p>
SEM6 (DSE4T) Human Rights in a Comparative Perspective I. Human Rights: Theory and Institutionalization II. Issues	CO18	<p>CO18.1: This course enables students to develop a theoretical understanding of the concept of Human Rights.</p> <p>CO18.2: It gives a historical and global perspective on human rights.</p>



<p>III. Structural Violence</p>		<p>CO18:3: The course outline also contains a detailed institutional framework set up to deal with human rights violations.</p>
<p>SEM3 (SEC-1) Public Opinion and Survey Research I. Introduction to the course II. Measuring Public Opinion with Surveys: Representation and sampling III. Survey Research IV. Quantitative Data Analysis V. Interpreting polls</p>	<p>CO19</p>	<p>CO19.1: To provide knowledge of research methodology. It enables one to learn the process to use of different techniques in research.</p> <p>CO19.2: This course enables one to learn the fundamentals of any research, the methodology to be used, the process of data analysis and most importantly to develop an unbiased, neutral approach as a researcher.</p> <p>CO19.3: It teaches one to develop a keen understanding of the context of research, the importance of opinion analysis and enhance rationality in thinking process.</p>
<p>SEM4 (SEC2T) Legislative Practices and Procedures I. Powers and functions of people's representative at different tiers of governance II. Supporting the legislative process III. Supporting the Legislative Committees IV. Reading the Budget Document V. Support in media monitoring and communication</p>	<p>CO20</p>	<p>CO20.1: To provide detailed knowledge of power and functions of people's representatives at different level.</p> <p>CO20.2: To give detailed knowledge of various legislative process of India including budget, law making.</p>
<p>SEM1 (GE-IT) Nationalism in India I. Approaches to the Study of Nationalism in India Nationalist, Imperialist, Marxist, and Subaltern Interpretations II. Reformism and Anti-Reformism in the Nineteenth Century Major Social and Religious Movements in 19th century. III. Nationalist Politics and Expansion of its Social Base IV. Social Movements V. Partition and Independence</p>	<p>CO21</p>	<p>CO21.1: The program enables to understand explores the historical evolution of Indian nationalism, its key ideologies, and prominent leaders.</p> <p>CO21.2: Students gain a comprehensive understanding of the factors influencing India's nationalist movement. They can critically analyze its impact on the country's political, social, and cultural development, fostering a deeper appreciation of India's identity and history.</p>



SEM2 (GE-2T) Governance: issues and challenges 1. Government and governance: concepts 2. Governance and development 3. Environmental Governance 4. Local governance 5. Good governance initiatives in India: best practices Public Service Guarantee Acts	CO22	<p>CO22.1: The program provides understanding of the complexities of governance in diverse contexts.</p> <p>CO22.2: One can gain knowledge about the governance mechanisms, policy formulation, and public administration and can critically assess governance challenges, propose innovative solutions, and contribute to effective and ethical decision-making for fostering inclusive and sustainable development in societies.</p>
SEM3 (GE-3T) Gandhi and the Contemporary World I. Gandhi on Modern Civilization and Ethics of Development II. Gandhian Thought: Theory and Action III. Gandhi's Legacy IV. Gandhi and the Idea of Political	CO23	<p>CO23.1: The program gives understanding about Mahatma Gandhi's life, philosophy and activism.</p> <p>CO23.2: Student gains insight into the idea of nonviolent resistance, social justice and global relevance and can apply Gandhian principles to address contemporary challenges, promote peace, human rights and sustainable development and that equips one to be ethical leaders, fostering positive change in the world.</p>
SEM4 (GE-4T) GE4T: United Nations and Global Conflicts I. The United Nations II. Major Global Conflicts since the Second World War III. Assessment of the United Nations as an International Organisation: Imperatives of Reforms and the Process of Reforms	CO24	<p>CO24.1: This course provides an understanding about the need of an international Organisation like the UNO in maintaining peace and balance in the international scenario.</p> <p>CO24.2: It also gives knowledge about the major conflicts in the past decades which devastated the world and thus the necessity to prevent any such war situation in future, It teaches the need to be tolerant and accommodative.</p>

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COURSE OUTCOME (CO)
BACHELOR OF ARTS - POLITICAL SCIENCE (GENERAL)
(CBCS SYLLABUS)

PAPER NAME	COURSE	COURSE OUTCOME
SEM1 (DSC-1A) (CC-1) Introduction to Political Theory Credit 1. Course Content: 2. Concepts: 3. Debates in Political Theory:	CO25	CO25.1: Develop the basic understanding about what is political theory and it's various theoretical approaches. CO25.2 : Understanding the basic political theories of rights, liberty, equality, democracy and sovereignty and the debates which are basic to the understanding of political science.
SEM2 (DSC-1B) (CC-2) Indian Government and Politics	CO26	CO26.1: Develop the basics of Indian political System, Constitution of India, the powers and functions of the government, the executive, the legislative and judiciary. CO26.2: Understanding the decentralization of powers, the challenges to Indian polity, communalism, casteism and regionalism.
SEM3 (DSC-1C) (CC-3) Comparative Government and Politics	CO27	CO27.1: To give an idea about the constitution of major countries of the world. CO27 .2: To give knowledge of political process of major countries
SEM4 (DSC-1DT) (CC-4) Introduction to International Relations 1. Approaches to International Relations 2. Cold War & Post-Cold War Era 3. India's Foreign Policy	CO28	CO28.1: The course enables to develop the key concepts and theoretical bases to international relations and provides a comprehensive overview of the evolution of the international system. CO28.2: Gives understanding of the international political system with special reference to the Cold war and post cold war scenarios. CO28.3: Develop analytical understanding of Indian foreign policy and it's dynamics.
SEM3 (SEC- 1) Legislative Support 1. Powers and functions of people's representatives 2. Supporting the legislative process: 3. Supporting the legislative committees. 4. Reading the budget document: 5. Support in media monitoring and communication:	CO29	CO29.1: The program provides knowledge about legislators and legislative bodies. CO29.2: Skills are developed in research, policy analysis, and drafting legislation, formulating and implementing laws, and thereby contributing to informed decision-making and efficient legislative processes to address societal needs and challenges.



SEM4 (SEC-2) Public Opinion and Survey Research I. Introduction to the course II. Measuring Public Opinion with Surveys: Representation and sampling III. Survey Research IV. Quantitative Data Analysis V. Interpreting polls	CO30	<p>CO30.1: The program equips individuals with expertise in conducting accurate and comprehensive surveys to gauge public sentiment and attitudes.</p> <p>CO30.2: Students become skilled in data analysis and interpretation that enables to provide valuable insights to policymakers, organizations, and businesses for informed decision-making and effective public engagement strategies.</p>
SEM5 (SEC-3) Democratic Awareness with Legal Literacy	CO31	<p>CO31.1: Illustrate the different laws related to criminal jurisdiction and gain knowledge of laws relating to consumer rights, Right to Information etc.</p>
SEM6 (SEC4T) Conflict and Peace Building Unit I. Concepts Unit II: Dimensions of Conflict Unit III: Sites of Conflict Unit IV: Conflict Responses: Skills and Techniques	CO32	<p>CO32.1: The program equips one with the knowledge and skills to understand the root causes of conflicts, develop strategies for effective peacebuilding, and promote sustainable reconciliation processes.</p> <p>CO32.2: Students will be equipped to foster dialogue, mediate disputes and contributing to the resolution and prevention of conflicts in diverse social and international contexts.</p>
SEM5 (DSE-1A) Themes in Comparative Political Theory 1. Distinctive features of Indian and Western political thought 2. Western Thought: Thinkers and Themes 3. Indian Thought: Thinkers and Themes	CO33	<p>CO33.1: Illustrate various political ideologies and systems across cultures and history and gain a deep understanding of various comparative theoretical frameworks.</p> <p>CO33.2: They can critically assess political phenomena, identify trends, and make informed evaluations of governance and policy in diverse global contexts.</p>
SEM6 (DSE1BT) Administration and Public Policy: Concepts and Theories 1. Public administration as a discipline: 2. Administrative theories: 3. Understanding public policy: 4. From Development Administration to New Public Management.	CO34	<p>CO34.1: Relate the different approaches to the development of public administration.</p> <p>CO34.2: Illustrate the nature scope and evolution of public administration.</p>



SEM5 (GE1T) Nationalism in India I. Approaches to the Study of Nationalism in India Nationalist, Imperialist, Marxist, and Subaltern Interpretations II. Reformism and Anti-Reformism in the Nineteenth Century Major Social and Religious Movements in 19th century III. Nationalist Politics and Expansion of its Social Base IV. Social Movements V. Partition and Independence	CO35	<p>CO35.1: The program enables to understand explores the historical evolution of Indian nationalism, its key ideologies, and prominent leaders.</p> <p>CO35.2: Students gain a comprehensive understanding of the factors influencing India's nationalist movement. They can critically analyze its impact on the country's political, social, and cultural development, fostering a deeper appreciation of India's identity and history.</p>
SEM6 (GE2T) United Nations and Global Conflicts I. The United Nations II. Major Global Conflicts since the Second World War III. Assessment of the United Nations as an International Organisation: Imperatives of Reforms and the Process of Reforms	CO36	<p>CO36.1: The program enables deep understanding on the United Nations' role in conflict resolution and peacekeeping efforts worldwide.</p> <p>CO36.2: One can gain an insight about global conflicts, the UN's mechanisms, and diplomatic strategies and can analyze complex international crises, propose effective solutions, and contribute to fostering peace, security, and cooperation on the global stage.</p>

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Shahid Matangini Hazra Govt. General Degree College for Women
Department of Chemistry
POs, PSOs and COs

Programme Outcomes (POs)

PO	Description
PO1	Student acquires basic idea about fundamental laws, kinetics, basic rules and principles of chemistry that involve in different types of physico-chemical phenomena.
PO2	Student gains knowledge about physical and chemical properties, spectral and magnetic properties, optical and geometrical properties, structures and bonding of organic and inorganic compounds also biomolecules.
PO3	Student learns about syntheses, chemical reaction and mechanism, separation techniques of compounds.
PO4	Student acquires knowledge about the basic application, function, use and also adverse effect of different kinds of materials and compounds.
PO5	Student gains basic idea about the analysis and characterization of compounds as well as biological and environmental samples.
PO6	Student becomes aware about the impact of chemistry on the environment, society and also everyday life.

Programme Specific Outcomes (PSOs)

PSO	Description
PSO1	Be able to explain properties of matter, thermodynamics and kinetics of physico-chemical phenomena of macro and microscopic systems.
PSO2	Acquiring basic knowledge and understanding to carry out the synthesis, characterization, analysis and separation of compounds.
PSO3	Acquiring knowledge and idea about the different properties, structure and bonding, reaction mechanism application and use of compounds.

Courses Outcomes (COs)

Paper Name	Course	Outcomes
SEM-I(CC1) Organic Chemistry a) Bonding and Physical Properties b) General Treatment of Reaction Mechanism I c) Stereochemistry I	CO1	CO1.1: Basic idea about bonding and Properties of organic molecules CO1.2: Acquire knowledge about the reaction mechanism of organic reaction CO1.3: To understand symmetry and optical activity of chiral compounds.
SEM-I(CC2) Physical Chemistry a) Kinetic Theory and Gaseous state b) Chemical Thermodynamics	CO2	CO2.1: Acquire knowledge about the behaviour of different ideal gases and real gases. CO2.2: Know about the thermodynamic principles or laws governing the physiochemical behaviour of a system CO2.3: Gain knowledge about the kinetics of a chemical reactions.

c) Chemical kinetics		
SEM-II(CC3) Inorganic Chemistry a) Extra nuclear Structure of atom b) Chemical periodicity c) Acid-Base reactions d) Redox Reactions and precipitation reactions	CO3	CO3.1: Know about the fundamentals behavior of sub-atomic particles. CO.3.2: Explain the nature of elements and their different periodic properties. CO3.3: Know about the acid-base nature of different substance. CO3.4: Know about the redox nature of different substance.
SEM-II(CC4) Organic Chemistry a) Stereochemistry II b) General Treatment of Reaction Mechanism II c) Substitution and Elimination Reactions	CO4	CO4.1: To understand symmetry and optical activity of chiral compounds. CO4.2: Acquire knowledge about the reaction mechanism of organic reaction CO4.3: Idea about Substitution and Elimination Reactions.
SEM-III(CC5) Physical Chemistry a) Transport processes b) Applications of Thermodynamics – I c) Foundation of Quantum Mechanics	CO5	CO5.1: Know about the principle of transport processes. CO5.2: Gain knowledge about the application of thermodynamic laws or principle to explain physico-chemical changes. CO5.3: Learn about theoretical approach to explain the properties of physico-chemical systems.
SEM-III(CC6) Inorganic Chemistry a) Chemical Bonding-I and II b) Radioactivity	CO6	CO6.1: Acquire knowledge about the different types of interactions present in molecules and recognize the three dimensional structures of molecules by VBT and MOT. CO6.2: Knowledge about the radioactivity and related phenomena of radioactive atoms.
SEM-III(CC7) Organic Chemistry a) Chemistry of alkenes and alkynes b) Aromatic Substitution c) Carbonyl and Related Compounds d) Organometallics	CO7	CO7.1: Chemical behaviour of different types of organic molecules including hydrocarbon and carbonyl compounds. CO7.2: Knowledge about electrophilic and nucleophilic aromatic substitution reaction of organic molecules. CO7.3: Know about chemical behaviour of organometallic compounds.
SEM-IV(CC8) Physical Chemistry a) Application of Thermodynamics – II b)Electrical Properties of molecules c) Quantum Chemistry	CO8	CO5.1: Application of thermodynamic laws or principle to explain physico-chemical changes CO5.2: Study the behaviour of Electrical Properties of molecules CO5.3: Theoretical approach to explain properties of macro and micro systems.
SEM-IV(CC9) Inorganic Chemistry a) General Principles of Metallurgy b) Chemistry of <i>s</i> and <i>p</i> Block Elements c) Coordination Chemistry-I	CO9	CO9.1: Know about metal extraction and purification techniques. CO9.2: Reaction, structure and bonding properties of <i>s</i> and <i>p</i> -block elements CO9.3: Basic idea about coordination chemistry.

SEM-IV(CC10) Organic Chemistry a) Nitrogen compounds b) Rearrangements c) The Logic of Organic Synthesis d) Organic Spectroscopy	CO10	CO10.1: Acquire knowledge about properties and reaction of nitrogen compounds CO10.2: Know about rearrangement reaction of organic molecules. CO10.3: Get an idea about syntheses of organic molecules. CO10.4: Application of UV, IR, NMR Spectroscopy in different organic compounds.
SEM-V(CC11) Inorganic Chemistry a) Coordination Chemistry-II b) Chemistry of d- and f-block elements	CO11	CO11.1: Application and study the properties of coordination compound. CO11.2: Reaction, structure and bonding properties of d and f-block elements
SEM-V(CC12) Organic Chemistry a) Carbocycles and Heterocycles b) Cyclic Stereochemistry c) Pericyclic reactions d) Carbohydrates and Bio-molecules	CO12	CO12.1: Get an idea about carbocyclic and heterocyclic reactions. CO12.2: To understand symmetry and optical activity of cyclic chiral compounds CO12.3: Knowledge about pericyclic reaction of organic molecules. CO12.4: Identification and analyses of different types of Carbohydrates and Bio-molecules
SEM-VI(CC13) Inorganic Chemistry a) Bioinorganic Chemistry b) Organometallic Chemistry c) Reaction Kinetics and Mechanism	CO13	CO13.1: Acquire knowledge about enzymatic and catalytic biological processes. CO13.2: Application of organometallic compounds in the fields of catalysis, medicine etc. CO13.3: Acquire knowledge about the reaction mechanism of inorganic molecules.
SEM-VI(CC14) Physical Chemistry a) Molecular Spectroscopy b) Photochemistry c) Surface phenomenon	CO14	CO14.1: Know about fundamental principles of different spectroscopic techniques. CO14.2: Study the different types of photochemical reactions CO14.3: Basic idea about the laws of surface phenomena of liquids and solids. Process.
SEM-V(DSE1) Advanced Physical Chemistry a) Crystal Structure b) Statistical Thermodynamics c) Specific heat of solid, 3rd law and Adiabatic demagnetization	CO15	CO15.1: Know about the structural properties of solid. CO15.2: Acquires knowledge about the properties microscopic particles. CO15.3: Gain basic theoretical laws and principles of matter.
SEM-V(DSE2) Analytical Methods in Chemistry a) Qualitative and quantitative aspects of analysis b) Optical, Thermal & Electroanalytical methods of analysis methods of	CO16	CO16.1: Learn basic concepts of different analytical techniques including optical, thermal and electrical. CO16.2: Know about different techniques of separation including chromatography and solvent extraction.

analysis c) Separation techniques		
SEM-VI(DSE3) Green Chemistry a) Principles of Green Chemistry and Designing a Chemical synthesis b) Examples of Green Synthesis/ Reactions and some real world cases c) Future Trends in Green Chemistry	CO17	CO17.1: Know about the principle and designing of green chemistry. CO17.2: Learn about synthesis of the green chemical reaction.
SEM-VI(DSE4) Polymer Chemistry a) Introduction and history of polymeric materials b) Nature and structure and functionality of polymers c) Properties of Polymer	CO18	CO18.1: Study the properties and characterization of polymers. CO18.2: Know about the syntheses and applications of polymers in different field.
SEM-III(SEC1) Analytical Clinical Biochemistry a) Basic understanding of the structures, properties and functions of carbohydrates, lipids and proteins b) Biochemistry of disease: A diagnostic approach by blood/ urine analysis	CO19	CO19.1: Acquire knowledge about the properties, structure and function of biomolecules including carbohydrate, proteins, Lipids, enzymes. CO19.2: Know about the diagnosis approach of blood and urine.
SEM-IV(SEC2) Pesticide chemistry a) General introduction to pesticides b) Synthesis, structure and use of Pesticides	CO20	CO20.1: Get general idea about pesticides and adverse effects (natural and synthetic) CO20.2: Acquiring knowledge about syntheses, structure and uses.



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DEPARTMENT OF ECONOMICS
PROGRAMME OUTCOME (PO)
CBCS BACHELOR OF SCIENCE :: HONOURS COURSE

PO	Summary	Description
PO1	Specialized Knowledge of the Discipline	After completing the course Students should gain a comprehensive understanding of various economic theories and models which will help them to understand practical economic problems and the working of an economy.
PO2	Comprehension & Communication Skills	The programme should orient the mind of the students in such a way that they will be able to comprehend practical economic scenarios and the possible solution or policies to tackle any economic problems and it would also help the students to increase their communication skills.
PO3	Critical Reasoning & Problem Analysis	The structure of the programme should increase the reasoning capabilities and the analytical skills of the students which would gradually help them to solve to analyse the economic situations critically and provide suggestions, checking the validity and accuracy using effective tools. Prepare students to develop own thinking /opinion regarding current national or international policies and issues.
PO4	Develop Interdisciplinary Perspective	The discipline of economics has an extremely rich and multifaceted history, with numerous actors and varied theoretical and methodological contributions which incorporates several interdisciplinary approaches from philosophy, psychology, sociology and political science. This helps students to understand any economic problem with a broader perspective.
PO5	Socio-Cultural Applicability	Several courses under this programme helps students to understand various socio-cultural problems and to recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them. Prepare students to develop critical thinking to carry out investigation about various socio-economic issues objectively while bridging the gap between theory and practice.
PO6	Ethical and Moral Perspectives	The program encourages students to consider ethical and moral dimensions while formulating an economic policy. The value judgement of a particular economic phenomena or of a policy has been considered in the welfare economics.

PO7	Research, Writing Skills and Learning	The students should get an understanding about research methodology for identifying, formulating and analysing complex economic problems to substantiate and conclude by applying the knowledge of statistics., crucial learning skills in data collection, analysis and interpretation with appropriate statistical and econometric tools.
PO8	Familiarity with Recent Developments	The programme would help the students to get more familiar to recent economic scenarios and equip them with concepts and tools to have a better understanding of the developments.
PO9	Environmental Awareness & Sustainability	The programme also helps the students to understand the issues of environmental contexts and sustainable development.





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Economics - CBCS

Programme Specific Outcomes Nos	Programme Specific Outcomes (PSO)
PSO1	This programme will provide a strong foundation in economic theories and their applicability.
PSO2	They would also provide a strong understanding of using mathematical, statistical and econometric tools in solving economic problems.
PSO3	The students will develop an economical way of thinking.
PSO4	They will also be able to interpret large sets of data as well as develop theoretical models.
PSO5	The students will also have a handful of experience in using soft wares like MS Office and different ICT facilities.
PSO6	The students will develop effective communication skills, teamwork, leadership and managerial abilities which will play a strong role in their future careers in academics, industry and entrepreneurship and other fields.



**COURSE OUTCOME (CO)
ECONOMICS HONOURS
(CBCS SYLLABUS)**

PAPER NAME	COURSE	COURSE OUTCOME
Semester I C1T: Introduction Microeconomics	CO1	Each student will have a clear idea of CO1.1: The subject matter of economics CO1.2:How market work CO1.3:Household Behaviour CO14:Behaviour of Firms in Product Markets that are Perfect CO1.5: Behaviour of Firms in Product Markets that are imperfect CO1.6: Behaviour of Firms in Input Market.
CT2: Mathematical Methods in Economics -I	CO2	After the completion of this course students will be able to CO2.1: Get aware about the increased use of mathematical tools in solving economic problems. CO2.2: Use various mathematical techniques like differentiation, integration, Difference Equations etc. for understanding basic economics CO2.3: To get a taste of probability theory for studying theoretical distribution.
Semester II C3T: Introductory Macroeconomics	CO3	CO3.1: The course will acquaint students with introductory ideas of Macroeconomic structure. CO3.2: Understanding the role of money in the economics CO3.3: Appreciation of the problems related to inflation and how to address the same. CO3.4: Understanding how an economy works in the short run.

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C4T Mathematical Economics II:	CO4	<p>CO4.1:A matrix provides a very powerful way of organizing manipulating data. So the student must be very well versed with matrix operations so as to apply in economic problem.</p> <p>CO4.2:Develop techniques for dealing with constraints</p> <p>which satisfy one or more functional equations while Maximizing or minimizing a function. The fundamental objective in this section is the derivation and application of the method of Lagrange multiplier.</p> <p>CO4.3: Explain the techniques for solving and analyzing ordinary differential equations and techniques of analysis that are most common in economics.</p>
Semester III C5T: Intermediate Microeconomics-I	CO5	<p>CO5.1: This course will give students an understanding of consumer behavior through utility maximization theories.</p> <p>CO5.2: To discuss the concept of production and costs</p> <p>CO5.3: To study perfectly competitive market equilibrium: short run and long run</p> <p>CO5.4: Operations of firms under perfect competition, social cost of perfect competition and operation of input market under perfect competition will also be introduced in this course.</p>
C6T: Intermediate Macroeconomics-I	CO6	<p>CO6.1: This course will enable the students to study most important macroeconomic models, e.g., Keynesian model.</p> <p>CO6.2: This will also enable them to explain the economic activities using the theoretical ideas.</p> <p>CO6.3:To introduce the concept of Inflation, its causes and effects, the inflation- unemployment trade-off.</p>
		CO7.1: To study what data are, how data are characterized and what tools are used to describe a set of data.

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<p>C7T: Statistical Methods for Economics</p>	<p>CO7</p>	<p>CO7. 2: Analysis of bivariate data on the basis of descriptive statistical measures (correlation and regression). This is a stepping stone to study econometrics.</p> <p>CO7.3: Index number is a widely used statistical device for comparing a group of related variables with another group of same variables over two different time periods. So the students are provided with a detail analysis of index number with special reference to cost of living index number and gross domestic product deflator.</p> <p>CO7.4: To introduce random variable, probability, probability Distributions.</p> <p>CO7.5: To discuss joint distributions of random variables;</p> <p>CO7.6: They will also learn about sampling methods, distributions and estimations</p>
<p>Semester Iv</p> <p>C8T: Intermediate Microeconomics-II</p>	<p>CO8</p>	<p>CO8.1: To explain theoretical concepts pertaining to working of imperfect marks, general equilibrium, welfare economics and market failures.</p> <p>CO8.2: Specific focus on techniques of game theory and its applications in oligopolistic markets</p> <p>CO8.3: The student is expected to learn outcomes of the labor market under monopsony, bilateral monopoly and surplus value of labor.</p>
<p>C9T: Intermediate Macroeconomics II</p>	<p>CO9</p>	<p>This paper will help students</p> <p>CO9.1: To discuss the different schools of Macroeconomic thoughts</p> <p>CO9.2: To study the microeconomic foundations of macroeconomics including consumption, investment and demand for money</p> <p>CO9.3: This course will also enable them to learn various theories of economic growth.</p>
		<p>CO10.1: The course will enable the students to learn some sophisticated econometric tools to deal with statistical da</p>

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C10T: Introductory Econometrics	CO10	<p>CO10.2: This course is meant to learn the Linear Econometric Model with the basic Assumptions of the Simple Model.</p> <p>CO10.3: They will also have knowledge of ANOVA. In econometrics this course offers deep understanding of the problems of Multi collinearity, Heteroscedasticity, Auto-correlation and Dummy variables.</p>
Semester v C11T: International Economics	CO11	<p>CO11.1: This course will acquaint the students with various theories and models regarding international trade among economies.</p> <p>CO11.2: It will also enable them to learn about different policies of international trade and their Implications</p>
C12T: Public Economics	CO12	<p>CO12.1: To study government intervention in case of market failure and analysis of public expenditure to finance development.</p> <p>CO12.2: To analyze private versus public good and to study the allocation of public goods with reference to Lindale and voting equilibrium.</p> <p>CO12.3: To study the principles of taxation and its impact on income distribution, work efforts, and on savings and optimal taxation.</p>
Semester VI C13T: Indian Economy	CO13	<p>CO13.1: To analyze economic Development since independence.</p> <p>CO13.2: The students are supposed to gain an intensive exposure of the problems and growth aspects</p> <p>Through sectoral analysis of the Indian Economy.</p> <p>CO13.3: To explain the demographic dividend and analyze the development of social sectors</p>
C14T: Development Economics	CO14	<p>CO14.1: This course gives the students the idea of development as against growth. The students are expected to learn different models of the theories of development</p>

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		CO14.2: To study the measures of poverty like head count ratio, poverty gap etc. CO14.3): To study the political Institutions and the State.
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DISCIPLINE SPECIFIC ELECTIVE (DSE)

Semester v DSE 1T: Economics of Health and Education	CO15	CO15.1: This course provides a microeconomics framework to analyze, among other things, individual choice in the demand for health and education, government intervention and aspect inequality and discrimination in both sectors. It also gives an overview of health and education in India.
DSE 2T: Financial Economics	CO16	CO16.1: This course is expected to make students aware of the basic theory of financial economics. CO16.2: The students will also be able to form various models of modern financial economics CO16.3: This course will help the students to get the idea new emerging field of corporate finance
Semester VI DSE3T: Topics in Microeconomics –I	CO17	CO17.1: This course introduces students to the advanced topics of microeconomics and its applications. CO17.2: It introduces the basic concepts of game theory in a way that allows students to use them in solving simple problems. CO17.3: The emphasis will be on giving conceptual clarity to the student.
		CO18.1: This course is expected to make students aware of the economic policies in tackling economic problems and development issues in other developing, developed and emerging economies like Japan, China, Russia, and Latin America.

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DSE4T: Comparative Economic Development (1850-1950)	CO18	CO18.2: The students will also be exposed to success stories of economies from under development to development.
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SKILL ENHANCEMENT COURSE (SEC)

Semester III	CO19	<p>CO19.1: To understand the sources of data and to understand the basic methods of sampling.</p> <p>CO19.2: To have an understanding of the measures of frequency distribution and summary statistics.</p> <p>CO19.3: Analysis of Indian Data: To have a basic idea about performing data analysis using MS-Excel</p> <p>CO19.4: To know about the websites for obtaining secondary data e.g. Economic Survey, RBI Bulletin on currency and finance, ASI DATA, Foreign Trade Statistics, NSS Consumer survey</p>
Semester IV	CO20	<p>CO20.1: This course is expected to orient students towards research .</p> <p>Understanding the nature of research and formulating the research topic</p> <p>CO20.2: Approaches to research and research strategy</p> <p>CO20.3: Using Secondary data and Primary data</p> <p>CO20.4: To have an idea about Sample Selection Methods.</p>
SEC1T Data Analysis:		
SEC2T: Research Methodology		

GENERIC ELECTIVE(GE)

Semester I	CO21	<p>After studying this paper the students will be able to</p> <p>·CO21.1: Illustrate how microeconomic concepts can be applied to</p> <p>Analyze real-life situations.</p> <p>CO21.2; Decipher the optimization techniques of the consumer and producer and cost pattern of the firms</p>
GE1T: Introductory Microeconomics		

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		CO21.3; Realize the differences between competitive and imperfectly competitive market structures on the basis of pricing policies, features and assumptions.
Semester II GE2T: Introductory Macroeconomics	CO22	CO22.1: To introduce to basic concepts of Macroeconomics and National Income Accounting. CO22.2: To study the functions of money and credit creation. CO22.3: To study the basics of inflation. CO22.4: To study the Closed Economy in the Short Run Classical and Keynesian systems.

COURSE OUTCOME (CO)
ECONOMICS (GENERAL)
(CBCS SYLLABUS)

Semester I DSC1AT(CC-1): Microeconomics	CO23	CO23.1: This course is designed to introduce students to the basic principles of Microeconomic theory. This course familiarizes the students about the concepts of consumer's and producer's behavior; the interaction between demand and supply; the Concept of utility and elasticity and the concepts of market. It helps the students to understand The real life situation by applying the all these theories.
Semester II DSC1BT(CC-2): Macroeconomics	CO24	CO24.1: This course aims to introduce the broad conceptual frameworks of the macroeconomics which will enable students to learn and understand real economic phenomenon like GDP, National Income, inflation, money market, commodity market. After Completion of this course students will be able to critically evaluate various macroeconomics policies.

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Semester III	CO25	<p>CO25.1: This core course introduces students to the basics of development economics. It learns the Students about the meaning of economic development and growth. It introduces the students to the growth models-</p> <p>Harrods -Dammar model, Solow models etc., Development planning-balanced and unbalanced</p> <p>Growth theories. This course also gives overview of Poverty and inequality; Political Institutions and the State; role of foreign investment on economic development.</p>
DSC1CT(CC-3): Development Economics		
Semester IV	CO26	<p>CO26.1; It introduces the students with the structure of Indian economy-sectoral distribution, its occupational pattern, inequalities in income distribution, economic reforms and reduction in poverty, different schemes undertaken by Govt. of India to reduce unemployment and</p> <p>Underemployment. The course also gives overview of Agricultural sector, Industrial sector and Banking sector. It also learns the students about Indian Public Finance and Foreign trade in India in the post-Liberalization period</p>
DSC1DT(CC-4): Features of Indian Economy		

Discipline Specific Electives (DSE)

Semester V	CO27	<p>CO27.1: This course gives the ideas about the different types of money ; basic concepts of money market and capital market and financial markets . It also focuses on the Banking system and non-Banking</p> <p>financial intermediaries. This actually helps the students to analyze the effects of monetary policy on the economy</p>
DSE1T Money & Banking:		
Semester VI		<p>CO28.1: Public economics is the branch of economics course that studies of government policy from the points of view of economic efficiency and equity.</p>



DSE2T: Public Finance	CO28	This course deals with Fiscal functions, Pareto efficiency, equity and social welfare; Public goods and its characteristics, exclusion Principal; market failure and externalities. It teaches the students the Principles of Taxation Which includes Ability and benefit approaches; Public debt-Internal and External debt. It also introduces the students the current issues of Indian tax system, Fiscal Federalism in India and State and Local Finance etc.
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Skill Enhancement Course(SEC)

Semester VI SEC4T: Entrepreneurship Development	CO29	CO29.1: To understand the functions and characteristics of an entrepreneur. CO29.2: To understand the Problem of Rural entrepreneurship in India. CO29.3:To understand different theories and experiment (Motivation theories, Maslow's need Hierarchy Theory and Kakinada Experiment). CO29.4: Explain the Stages of growth, types of growth strategies etc. CO29.5: Explain the causes and consequences of industrial sickness. 6)Analysis growth strategies in small business the business
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Programme Outcomes, Course Outcomes

Department of English

The CBCS course curriculum is highly interesting, benefitting and promising as the core course stimulates the students' intellectual dexterity, enhances their knowledge and skill and sharpens the power of observation in a dynamic way. The generic electives integrate various interdisciplinary courses to enable the students to learn about the recent emerging trends like race, class, gender, partition, post-nationalism etc to study literature. The course offers multidisciplinary subjects like soft skills, creative writing, film studies, translation literature which aim at developing the critical practices and fundamental skills required to pursue a course in English literature in this postmodern era of globalization. The Department of English in our college aspires to sharpen the analytic, expressive, and interpretative skills of the students. It welcomes the students to express their opinions and perceptions freely, boldly and confidently. The department of English promotes and propagates the essence of culture, values, tradition and modernity. This programme helps the learners understand literature from multiple viewpoints. The learners learn to interrogate with different types of problems in society and find out their solutions. The manifold objectives of this programme foster the intellectual, emotional and psychological maturity of the learners.

Course Outcomes:

B.A English Honours (Under Choice Based Credit System)

CC-1 : The students will be able to develop a comprehensive and thorough knowledge of English literature. Beginning with Beowulf, Cynewulf, the Anglo- Saxon elegies the course of CC 1 will enlighten the students with the unending gifts of the history of British literature. The students will be aware of the British poetry, drama, novel, short stories, and essays. The students will acquire a sound knowledge of Philology or the history of English language as well. **The students will be able to . . .**

1. . . . apply their knowledge in diverse practical fields of life and foster the formation of a meaningful world with a holistic attitude to life.

2. ... identify and recognize the fictitious characters in Chaucer's canvas with real persons in society.
3. ... examine the exceptional case of robust feminism in a fourteenth century woman i.e. the Wife of Bath. They will be able to compare and contrast the Wife of Bath with the postmodern feminists in today's world.
4. ... understand the bravehearted Beowulf and apply the lessons of a larger than life hero to their own life.
5. ... examine, analyse and understand how various linguistic influences i.e. Latin influence, Greek influence, French influence and Scandinavian influence contribute to the shaping of an ever-growing English language.
6. ... know about the advent of Christianity and its influence on the English language
7. know about the Black Death from English social history and be able to compare it with the crisis caused by the pandemic in this century.
8. ... know thoroughly the characteristics of various periods in the history of English literature. Shaw, Shakespeare, Marlowe, Bacon, Jonson, Keats, Wordsworth, T.S. Eliot, Galsworthy and many more luminaries and literary exponents are sure to captivate and enlighten the young minds.

CC-2 : The students will be aware of British poetry and drama from Renaissance to the seventeenth and the eighteenth centuries and its background. **The students will be able to.**

1. ... understand Edmund Spenser's Sonnet LXXV "One Day I wrote Her Name". They will be able to apply the lesson in their own life. They will prepare themselves for blows and buffets of life. They will seek refuge in the power of creation .
2. ... judge the Dark Lady in Shakespeare's sonnets. William Shakespeare's Sonnet 130 "My mistresses eyes are nothing like the sun. . ." They will be able to differentiate between love and lust.
3. ... understand the power of love. They will be able solve the problems of their own life through the peace , bliss, happiness of love as promised in Donne's "Good Morrow".

4. . . .develop their notions about good and evil. It will help them discard the Satanic spirit in themselves to be a better human being. It will strengthen their sense of ethics. Milton's *Paradise Lost Book I* produce valuable, wise human beings in the society.
5. . . .understand that one must not quarrel over light, trivial things like cutting of a lock of hair from a woman's head. *The Rape of the Lock (3 Cantos)* of Pope will enable the readers to identify themselves with the silly behaviours of the fashionable, aristocratic society.
6. . . .criticise the characters like Edward II, Isabella, Gaveston and Mortimer. Christopher Marlow's *Edward II* will make them familiar with the critical Aristotelian concepts like hamartia, tragedy etc. They will be able to recognize the faults of the king and therefore they can apply the lessons into their own life.
7. . . .understand the terrible results of overambition and greed in William Shakespeare's *Macbeth*. They will be able to judge Macbeth from their own points of view. They will be able to differentiate between Macbeth's overriding greed and Banquo's restraints.
8. . . .understand and evaluate the genres like poetry and drama through the literary terms. The terms are given here- Allegory, Ballad, Blank Verse, Heroic Couplet, Bathos, Comedy, Dramatic Monologue, Elegy, Image, Ode, Carpe-diem, Soliloquy, Symbol, tragedy, Catharsis, Hamartia, Three Unities, Anagnorisis, Antagonist, Chorus, Denouement, Comic relief, Aside, Anti-Hero, Catastrophe. The students will be able to apply them to appreciate and examine a good piece of writing.
9. . . .acquire knowledge about Renaissance Humanism. They will be able to relate those lessons to their own life.
10. . . .come to know of the stage, court and city from the Renaissance to the seventeen and eighteenth centuries. They will be able to compare and contrast between the theatres of the past and those of the present i.e. the postmodern period of the recent times.
12. . . .evaluate the religious and political thoughts from the Renaissance to the seventeen and eighteenth centuries.

CC 3 : To give the idea of British literature of the 18th century. The students will be able to :

1. . . . recognize the society depicted in *The Way of the World* of William Congreve. They will be able to criticise the hypocrisies, so-called values presented by Congreve.
2. . . .understand and examine Swift's *Gulliver's Travels* (Books III and IV) in the present context.
3. . . .appreciate the world of Sir Roger. The simple way of living as depicted in Addison and Steele's "Sir Roger at Church" will charm them.

4. . . .understand the narrating style of Laurence Sterne's *The Life and Opinions of Tristram Shandy, Gentleman*.
5. . . . understand the Enlightenment and Neoclassicism, Restoration Comedy, novels and the periodical essays of the eighteenth century.

CC 4 : To give idea about British Romantic literature (1798-1832) and its background. The students will be able to :

1. ... appreciate William Blake's "The Lamb", "The Tyger". They will be aware of the various powers in society through the lens of childhood. They will be familiar with the rich romantic poetry of the nineteenth century. The poets like Wordsworth, Keats, P.B. Shelley, P.B. Shelley, S.T. Coleridge will enthral him. Mary Shelley's *Frankenstein* and Jane Austen *Pride and Prejudice* will make readers worldly wise.
2. ... understand the concepts of the Gothic, the romantic lyric, literature and revolution, concepts of nature, reason and imagination.

CC 5 : To give an idea of the 19th century British literature (1832-1900) and its background. Learning outcomes are understanding of Alfred Tennyson's "Ulysses", Robert Browning's "My Last Duchess", "The Last Ride Together", Matthew Arnold's "Dover Beach", Charles Dickens's *Hard Times*. They will be able to recognise and criticise utilitarianism, the concepts of marriage and sexuality of the Victorian period.

CC6:

The students will get an idea of the early 20th century literature and its background. The students will be enabled to know about W.B. Yeats's "The Second Coming" and "The Wild Swans at Coole", T.S. Eliot's "The Love Song of J. Alfred Prufrock", Joseph Conrad's *The Secret Sharer*, Katherine Mansfield's "The Fly". The theoretical threads of modernism and non-European cultures will help them assess culture, society and identity. The students will know about the women's movement in the early 20th century and they can appreciate psychoanalysis and the stream of consciousness technique, the technique of Avant Garde.

CC 7 : The students can learn about American literature and its background thoroughly. Learning outcomes are:

1. ... knowing about Robert Frost's "The Road not Taken". They will be able to apply the lesson in their own life.
2. ... understanding and feeling of the world of Harlem in Langston Hughes's "Harlem to be Answered". They will sympathize with the sufferers.
3. . . . understand Walt Whitman's "O Captain, My Captain", Edgar Allan Poe's "The Purloined Letter", Mark Twain's *The Adventures of Huckleberry Finn*, Tennessee Williams's *A Streetcar Named Desire*. They will be able realize the American Dream and social realism as a context for the American novel. They will be able to sympathize with Black Women's writings

CC 8 : To know European Classical literature and its background . Learning outcomes are

1. Understanding of Homer's *The Iliad*, Sophocles's *Oedipus the King*, Plautus's *Pot of Gold*, Ovid's selections from *Metamorphoses* "Bacchus" (Book III), "Pyramus and Thisbe" and the epic, comedy and tragedy in classical drama, the Athenian city State, catharsis and mimesis, satire and literary cultures in Augustan Rome.

CC 9 : The learners will know about modern European drama and its background. They will be wiser by reading Henrik Ibsen's *Ghosts*, Bertolt Brecht's *The Good Woman of Szechuan*, Samuel Beckett's *Waiting for Godot*. They will be able to criticise text and performance, European drama : Realism and beyond, tragedy and heroism in modern Euroan drama and the Theatre of the Absurd.

CC 10 : The learners will know about Lewis Carroll's *Through the Looking Glass*, Agatha Christie's *The Murder of Roger Ackroyd*, Shyam Selvadurai's *Funny Boy*. They will be able to appreciate nonsense literature like *Abol Taboll* translated by Sukanta Chowdhuri.. *They will understand "coming of age" novel, the Canonical, the Popular literature, caste, gender, and identity children's literature and the graphic novel*

CC 11: To know postcolonial literature and its background . Learning outcomes are:

1. Understanding of Pablo Neruda's "Tonight I can write", "The Way Spain Was"
2. Understanding of Derek Walcott's "A Fra Cry from Africa", "Names"
3. Understanding of Mamang Dai's "Small Towns and the River", "The Voice of the Mountain"

4. Understanding of Chinua Achebe's *Things Fall Apart*
5. Understanding of Bessie Head's "The Collector of Treasures"
6. Understanding of Ama Ata Aidoo's "The Girl who can"
7. Understanding of the theories of decolonization, globalization, and literature
8. Understanding of literature and identity politics
9. To understand the writing for the New World Audience
10. knowledge of region, race, and gender
11. Understanding of postcolonial literatures and questions of form

CC 12 : To make students aware of women's writing and its background. Learning outcomes are:

1. Emily Dickinson's "I Cannot Live With You", "I'm Wife", "I've Finished that"
2. Understanding Sylvia Plath's "Daddy"
3. Understanding Eunice D Souza's "Advice to Women"
4. Understanding Mahasweta Devi's "Draupadi" translated by Gayatri Spivak Chakraborty
5. Understanding Toni Morrison's *Beloved*
6. Understanding Baby Kamble's *Our Wretched Life*
7. Understanding Rassundari Debi's Excerpts from *Amar Jiban*
8. Understanding the confessional mode in women's writing
9. Understanding the theory of sexual politics
10. Understanding race, caste and gender
11. Understanding social reform and Women's Rights.

CC 13: To make students aware of Indian classical literature and its background. Learning outcomes are the understanding of Kalidasa's *Abhijnana Shakuntalam* translated by Chandra Rajan, Vyasa's "The Dicing" and "The Sequel of Dicing", "The Book of the Assembly Hall", "The Temptation of Karma", Book V, "The Book of Effort", Sudraka's *Mrcchakatika* translated by Ramachandra Kale. They will be made familiar with the Epic tradition : themes and recensions, the classical Indian drama, theory and practice, Alankara and *rasa* and *dharma* and heroic

CC 14: To know Indian writing in English and its background. The students will be able to :

1. ... appreciate the world R.K.Narayan,
2. understand the postcolonial scenario of India through H.L.V. Derozio's "The Harp of India"
3. . . . understand the perspectives of feminism, Third World Woman and Postcolonial woman through Kamala Das's "Introduction"
4. . . . recognize themselves, identify themselves with any Indian woman through Nissim Ezekiel's "The Night of the Scorpions"
5. ... understand Mulk Raj Anand's "Two Lady Rams" and Rushdie's "The Free Radio" and Girish Karnad's *Tughlaq* under the various theoretical perspectives.
6. ... understand and appreciate Indian English literature and its readership themes and contexts of the Indian English novel. They will be able to apply the aesthetics of Indian English poetry in their own creative endeavour.
11. . . . learn about modernism in Indian English literature

DSE 1: The readers will be able to know the nineteenth century European realism and its background . Learning outcomes are:

understanding of Fyodor Dostoyvesky's *Crime and Punishment*, Gustave Flaubert's *Madame Bovary*, *history, realism and the novel form, ethics and the novel, the novel and its readership in the 19th century, politics and the Russian novel: Slavophiles and Westernizers.*

DSE 2: The readers will be able to know World Literatures and their background . Learning outcomes are: Understanding of V.S. Naipaul's *Bend in the River*, Julio Cortazar's "Blow Up", Judith Wright's "Bora Ring", the idea of world literature, memory, displacement and diaspora, hybridity, race and culture, Adult reception and children's literature, literary translation and the circulation of literary texts

DSE 3: The readers will be able to understand of science fiction and detective literature and its background. They will be able to compare Collins's *The Woman in White*, Arthur Conan Doyle's *The Hound of the Baskervilles* with other detective novels written by different writers. They will be able to recognize the crimes across media, constructions of criminal identity, cultural stereotypes in crime fiction, crime fiction and cultural nostalgia, crime fiction and ethics, crime and censorship

DSE 4: The readers will be able to know about partition literature and its background. The students will be able to know Amitav Ghosh's *The Shadow Lines*, Dibyendu Palit's "Alam's Own House", Manik Bnadyopadhyay's "The Final Solution", Saddat Hasan Manto's "Toba

Tak Singh”, Jibanananda Das’s “I Shall Return to this Bengal”, the concepts of Colonialism, nationalism, and the partition, communalism and violence, homelessness and exile , women in the partition.

SEC 1 (Skill Enhancement Courses): The students will be able to know about English language teaching. They will understand the learner, structures of English language, methods of teaching English and literature, materials of teaching English language and literature, materials of language teaching, assessing language skills, application of technology in language teaching

Or

SEC 1: The students will be able to know the soft skills. They will understand the nature of soft skills, teamwork, adaptability, leadership, problem solving, precis, comprehension, essays

SEC 2 (Creative Writing): The students will be able to know what creative writing is, the art and craft of creative writing, modes of creative writing, writing for the media, preparing for publication.

Generic Elective (GE 1): The students will know about academic writing and composition by learning writing process, conventions of academic writing, summarizing and paraphrasing, synthesis, analyses, evaluation, structuring an argument,. They will know about editing, book and media review.

GE2: The students will learn about media and communication skills or text and performance

GE 3: The students will learn about language and linguistics

Or, they will lean about contemporary India: Women and empowerment.

GE4: The students will know about gender and human rights

B.A. English General

DSC 1A(CC1): The students will have a thorough knowledge of William Shakespeare’s “Sonnet 116), William Wordsworth’s “A Slumber did my Spirit Seal”, John Keats’s “Bright Star”, Wilfred Owen’s “Strange Meeting”, Charles Lamb’s “Dream Children”, H.E. Bates’s “The Ox”.

DSC 1B(CC2): The students will have knowledge of George Orwell's "Shooting an Elephant", George Bernard Shaw's *Arms and the Man*, J.B. Priestley's *An Inspector Calls*, Ernest Hemingway's *The Old Man and the Sea*.

DSC 1C(CC3): The students will have knowledge of women empowerment in contemporary India, social construction of gender, masculinity, femininity, patriarchy, sex, gender, gender socialization, gender discrimination, gender stereotyping. They will have idea of Nibedita Menon's *Sexualities, Issues in a Contemporary Indian Feminisms (Selections)*, and *Gender and Politics in India (selections)*. They will know about women's movement in India through some specific texts, and theories, They will know about women and law, women and violence by going through both theories and texts.

DSE 1: The students will come to know about William's Shakespeare's *As You Like It*, Thomas Hardy's "Ah, Are you Digging on my Grave?", Robert Lynd's "On Not Being a Philosopher", OR , They will learn about Indian literature in translation through texts like Tagore's "The Wife's Letter", Vijay Tendulkar's *Silence the Court is on Session*, Mahasweta Devi's "Draupadi".

DSE 2: The students will have an idea about partition literature by reading texts like Saddat Hasan Manto's "Toba Tek Singh", Jibanananda Das's "I Shall Return to this Bengal".

Or, They will have a knowledge of nation, culture in India by reading Amartya Sen's "Secularism and its Discontents" and Rabindranath Tagore's "Nationalism in India".

SEC 1: The students will come to know about soft skills, teamwork, emotional intelligence, adaptability, leadership, problem solving.

Or They will know about film studies by learning about silent film, talkie, colour film, digital are, 3D films.

SEC 2: The students will come to know about creative writing, The art and craft of creative writing, modes of creative writing, writing for the media.

SEC 3: The students will come to know about English language teaching. They will understand the learner, structures of English language, methods of teaching English language,

assessing language skills, materials for language teaching, or application of technology in language teaching.

SEC 4: The students will come to know about business communication ,or spoken English .

Generic Elective (GE 1): The students will come to know about gender and human rights by reading Meena Kandasamy’s “Aggression”, Temsula Ao’s “Laburnum for my Head”, Virginia Woolf’s “Professions for Women”, *Women’s Rights are Human Rights*, and The Human rights Frameworks in Practice

Or, They will come to know about Academic wiring and composition

GE 2: The students will come to know about Environment and literature,

Or, They will know about novel and prose by reading texts like Charles Dickens’s *Oliver Twist*, R.K. Narayan’s “A Library without Books”, and Guy de Maupassant’s “My Uncle Jules”.

Or, They will know about language and linguistics

AECC CORE 1: The students will know about Shakespeare’s “Shall I compare thee to a Summer’s Day”, John Donne’s “Batter My Heart”, Milton’s “On His Blindness”, Pope’s “Ode on Solitude” William Blake’s “A Poison Tree”, Wordsworth’s “To the Skylark”, Shelley’s “To a Skylark”, Keats’s “Ode to Autumn”, and rhetoric and prosody.

AECC Core 2: The students will learn about Alfred L. Tennyson’s “Break, Break, Break”, Robert Browning’s “Porphyria’s Lover”, T.S. Eliot’s “Preludes”, W.B. Yeats’s “The Lake Isle of Innisfree”.

AECC ELECTIVE ENGLISH: The students will know about communicative skills, speaking skills, reading skills , writing skills.

Programme Outcomes

The Course helps a deep and vivid understanding about English language & literature. Literature is mirror of life. So, one can realize the changes of the civilization through a lens of literature with historical perspective. The course level assessment is based on the results of Internal Examinations and Semester End Examination conducted by Vidyasagar University. Class attendance is also a factor of the evaluation system. The Prospects of the U.G programme in English Honours as follows—

- Further studies in Vidyasagar University or any other reputed university.
- Scope in print or digital media as well as book publishing & advertising industry.
- Eligible for School Service Commission examination and Public Service Commission exams conducted for recruitment of teacher in Primary, Secondary and Higher Secondary level.
- Scope for social service, engagement through academic skills as well as practical knowledge.
- Scope for being freelancer
- Scope for being editors of English newspapers.
- Scope for being in the administrative and executive posts in WBCS or UPSC.
- Scope for recruitment in the companies for content writing,



SHAHID MATANGINI HAZRA GOVT. GENERAL DEGREE COLLEGE FOR WOMEN,
GOVERNMENT OF WEST BENGAL, AFFILIATED TO VIDYASAGAR UNIVERSITY

DEPARTMENT OF GEOGRAPHY

PROGRAMME OUTCOME (PO)

CBCS BACHELOR OF SCIENCE: HONOURS COURSE

PO	Summary	Description
PO1	Specialized knowledge of the Different Branches of the Discipline	The students can understand the vast extent of the subject. A holistic approach becomes clear to them. They get a total idea of the different and varied branches of the subject which helps them to extend their knowledge as well as to find a proper path of individual's interest and future prospects.
PO2	Enhancement of the skill in practical application of the theoretical concepts	Practical techniques are an integral part of the subject. After completion of the course students gain an extensive knowledge about the practical works specially laboratory based knowledge. Handling different instruments enhance their capability as an expert in the subject.
PO3	Develop Interdisciplinary Perspective	The programme incorporates interdisciplinary approaches which helps students to find out the significance of the subject and to relate the different concepts with a much wider perspective. The subject is very much interrelated to different concepts of Economics, Geology, Statistics, Biology, International Relationship, History and Philosophy.
PO4	Become an expert in Field work	The subject includes extensive field studies which helps students to have an idea about the actual scenario in the ground. They faced various problems during fieldwork and become experienced about the solutions which helps them in future. Their management skill enhanced.
PO5	Understanding the concepts like Gender Inequality, Ethical Values	The curriculum includes various issues related to gender, ethics, and human values. Develops the thought of gender discrimination, helps them to think about the ethical and moral values, understand the pros and cons while taking decisions which encourages them to build an ethical value based attitude in their life.
PO6	Development of Environmental Perspective	Students get an in depth knowledge about the environmental concepts, sustainability of resources. This helps them to think, analyze, and assess the reality and making decisions.
PO7	Research Writing skill Enhancement	Research is an experience which helps them in facing the problems and to find the solutions. Once they go through the process they become self-sufficient, disciplined. It helps them to enhance their skill and prepare them for future research work.

PROGRAMME SPECIFIC OUTCOMES Nos.	PROGRAMME SPECIFIC OUTCOMES (PSO)
PSO1	To understand the basic concepts like evolution of landforms, time scale, basic tools of practical concepts
PSO2	To understand the diversities of the discipline. Introduction of basic instruments of survey, first hand on experience of field work
PSO3	Develop a basic knowledge of Statistical methods, understanding Indian Geography and climatology
PSO4	Introduction of Environmental concepts, laboratory works, Regional Planning and Development and conceptualization of the broader scope of the subject.
PSO5	A detailed study on Research Methodology and Field work. The most significant part of the total syllabus which prepares students for the individual research work for the next semester. introduction of Remote Sensing and GIS ,the modern techniques of the discipline
PSO6	The final semester provides the scope for preparing individual dissertation along with disaster management and introduction of history and evolution of the subject.

COURSE OUTCOME (CO)**GEOGRAPHY HONOURS****(CBCS SYLLABUS)**

PAPER NAME	COURSE	COURSE OUTCOME
SEM 1 (Paper C1T) GEOTECTONICS AND GEOMORPHOLOGY	CO1	Detailed description of formation of earth, different theories, landforms specially focusses the physical part of the subject
SEM 1 (Paper C2T) CARTOGRAPHIC TECHNIQUES	CO2	A very significant part of the syllabus. Introduction of basic tools and techniques for mapping, idea of scale projection and all the other elements of mapping.
SEM 1 (Paper C2P) CARTOGRAPHIC TECHNIQUES LAB	CO3	The practical knowledge of the theoretical part of Cartography, the map making science.
SEM 2 (Paper C3T) HUMAN GEOGRAPHY	CO4	Introduction of the another branch of the discipline, Human Geography and the adaptation of human being with varying physical environment focusing different tribes, settlement pattern, formation of cultural regions etc.
SEM 2 (Paper C4T) CARTOGRAMS AND THEMATIC MAPPING	CO5	Provide detailed information about the diagrammatic representation of different data, mathematical calculations and concepts related to the discipline.
SEM 2 (Paper C4P) CARTOGRAPHY LAB	CO6	It introduces the basic field instrument and its use. Students work in the field with the instruments for mapping. Post survey mapping, preparation of different cartograms and thematic maps are done.
SEM 3 (Paper C5T) CLIMATOLOGY	CO7	This course introduces a detailed description of the different elements of climate
SEM 3 (Paper C6T) STATISTICAL METHODS IN GEOGRAPHY	CO8	It provides the theoretical concepts of the statistical techniques used in the discipline.
SEM 3 (Paper C6P) STATISTICAL METHODS IN GEOGRAPHY LAB	CO9	It teaches the detailed practical problems, calculations, drawing and application of all the statistical techniques used in the discipline.
SEM 3 (Paper C7T) GEOGRAPHY OF INDIA	CO10	This paper introduces different physical, economic, social characteristics of India with special reference to West Bengal.
SEM 3 (Paper SEC 1T) COASTAL MANAGEMENT	CO11	It provides a full description about the coastal processes, problems and management.
SEM 4 (Paper C8T) REGIONAL PLANNING & DEVELOPMENT	CO12	This paper introduces the concept of planning, development, related theories, and different policies of India for regional planning and development of backward areas.
SEM 4 (Paper C9T) ECONOMIC GEOGRAPHY	CO13	It provides different concepts of economic geography, theories, different economic activities
SEM 4 (Paper C10T) ENVIRONMENTAL GEOGRAPHY	CO14	The basic environmental concepts, issues are discussed here. The nature of the subject, the holistic view are explained

SEM 4 (Paper C10P) ENVIRONMENT GEOGRAPHY LAB	CO15	The EIA concept is introduced ,preparation of questionnaire for environmental survey, checklist preparation are given emphasized. Soil testing is included with using Soil Kit.
SEM 4 (Paper SEC2T) RESEARCH METHODS	CO16	Research methods are introduced in this paper as a skill enhancement paper.
SEM 5 (Paper C11T) RESEARCH METHODOLOGY & FIELDWORK	CO17	This paper includes a detailed discussion of Research Methodolgy, its step, tools, techniques, methods etc. It also discusses about the field work details and guide students to prepare them for a field based study
SEM 5 (Paper C11P) RESEARCH METHODOLOGY & FIELDWORK	CO18	Students are taken to field and they prepare a field report based on an intensive field study including the physical, social and economic features and problems of the study area.
SEM 5 (Paper C12T) REMOTE SENSING & GIS	CO19	This paper includes the basic concepts of Remote Sensing and GIS which includes the methods, techniques, types and uses.
SEM 5 (Paper C12P) REMOTE SENSING & GIS LAB	CO20	It provides students the opportunity to do the hand on training on Remote Sensing and GIS in a lab
SEM 5 (Paper DSE1T) GEOGRAPHY OF HEALTH & WELL BEING	CO21	It provides information about how health issues are related to geographical factors and how it varies from developed to developing regions.
SEM 5 (Paper DSE2T) SOCIAL GEOGRAPHY	CO22	This paper is related to space in which human being works, social space, social process of human interaction, groups and different social problems.
SEM 6 (Paper C13T) GEOGRAPHICAL THOUGHT	CO23	It is the history of evolution of geographical thought which helps to find out different concepts, ideas lies within the subject, different schools of thought focusing contribution of different scholars, philosophers from different parts of the world from ancient to modern and post modern period.
SEM 6 (Paper C14T) DISASTER MANAGEMENT	CO24	It is an extensive study on hazards and disasters, highlighting their causes, consequences and management.
SEM 6 (Paper C14P) DIASTER MANAGEMENT BASED PROJECT WORK	CO25	In this paper, an individual project is prepared by the students on any disaster mentioned in the syllabus with the help of primary and secondary data.
SEM 6 (Paper DSE3T) SOIL & BIOGEOGRAPHY	CO26	It provides basic concepts of soil and Bio geography with a detailed information on soil formation, processes, types in different parts of the world with different physical conditions and different ecosystems and their interaction.
SEM 6 (Paper DSE4T) URBAN GEOGRAPHY	CO27	Urban geography is an important branch of Settlement Geography. It includes basic concepts of urban geography, different urban processes, urban problems and pattern of urbanization in different parts of the world.

Shahid Matangini Hazra Govt. General Degree College for Women

Department of Geology

Programme outcome & Course Outcomes of Geology

Programme outcome (PO) in Geology (Honours)

Students will acquire a solid foundational knowledge of the entire science of geology regarding earth materials, earth history, petrology of the rocks, sedimentation and stratigraphy, deformation processes and structural features, and topographic processes and landforms. They will develop the skills to communicate complex geological concepts in clear, technically correct sentences. They will also develop the skills to verbally communicate complex geological concepts. They will also be able to use some software applications for research work such as CorelDraw, Matlab, Q-GIS, OpenRose, ImageJ etc. They will develop the skills and dispositions necessary to contribute to the democratization of society by obtaining and retaining employment as professional geologists.

PO	Description
PO1	Applying basic Geology Concepts
PO2	Developing fundamental understanding of the field
PO3	Ability of making use of Geological Problems
PO4	Developing skills in performing analysis and interpretation of data
PO5	Developing investigative Skills
PO6	Developing Technical and ICT skills
PO7	Developing skills in Mathematical modelling

Programme Specific Outcome (PSO):

PSO	Description
PSO1	Demonstrate a working knowledge of the terminology of geology with a comprehensive understanding of the earth's interior, surface, resources, climate, biosphere, and the different methods used to study them and as well as the optical and physical properties of minerals in hand specimens as well as under the microscope..
PSO2	Receive training in geochemistry of earth and geological field techniques such as mapping and surveying required for collection, interpretation and application of the geological data.
PSO3	Develop the knowledge regarding the basic concepts of Igneous and sedimentary petrology. Understand the formation and preservation of fossils, identifications of invertebrate and plant fossils.
PSO4	Develop the knowledge regarding the basic concepts of stratigraphy in order to understand the Precambrian and Phanerozoic stratigraphy of India, along with an Understanding of metamorphic petrology.
PSO5	Receive training in hydrogeology, economic geology and fuel geology. Understand various types of ore-forming processes and their relationship with tectonism.
PSO6	Recognize the importance of remote sensing and geographic information system in data acquisition and interpretation of satellite images and aerial photographs. Be professional geologist through exposure to theory and field exploration techniques in earth sciences.

Course outcome

On successful completion of the course, the student will be able to:

SEMESTER I

Course name	Course	Course outcome
Core 1: Earth System Science	CO1	CO1.1 Explain about Solid Earth, Hydrosphere, Atmosphere and Biosphere. CO1.2 Describe the Earth's internal structure. CO1.3 Examine plate tectonics, volcanism, isostasy, earthquake. CO1.4 Describe Oceanic current system and effect of Coriolis force. CO1.5 Discuss about Earth surface processes. CO1.6 Analyse the Distribution of elements in solar system and in Earth.
Core 2: Mineral Science	CO2	CO2.1 Identify different types of crystals and their crystal system. CO2.2 Identify common rock-forming minerals in hand specimen and in thin section using diagnostic physical, optical, and chemical properties; Predict the formation environment of a silicate mineral; CO2.3 Describe the information that minerals can provide about Earth processes and Earth history; CO2.4 Apply the basic techniques of mineral characterization.

SEMESTER II

Course name	Course	Course outcome
Core 3: Elements of Geochemistry	CO3	CO3.1 Discuss the evolution of the early Earth from proto-planetary material and its differentiation to present day state; CO3.2 Describe the composition of the Earth's main geochemical reservoirs CO3.3 Explain element fractionation and how this can be used to understand geochemical processes. CO3.4 Apply radiogenic isotope signatures to trace the source of minerals, rocks and to date magmatic and metamorphic events.
Core 4: Structural Geology	CO4	CO4.1 Identify the basic structural elements of lithounits. CO4.2 Describe the different types of ductile and brittle deformational structures. CO4.3 Identify fold, faults, foliation and lineation in regional scale CO4.4 Examine shear zone and related features.

SEMESTER III

Course name	Course	Course outcome
Core 5: Igneous petrology	CO5	CO5.1 Apply the concept of melt generation and crystallization mechanisms to common igneous rocks CO5.2 Identify different igneous rocks and their common tectonic occurrences. CO5.3 State different magmatic differentiation process. CO5.4 Discuss the rock textures with the help of phase diagram. CO5.5 Identify different igneous body in field.

Core 6: Sedimentary petrology	CO6	<p>CO6.1 Apply the concept of fluid flow, fluid- sediment interaction in describing the formation of bedforms at various scales in different flow regime conditions;</p> <p>CO6.2 Describe scales of sedimentary grain size measurement and statistical analysis of data to interpret provenance, transportation history or depositional environment;</p> <p>CO6.3 Describe texture and structure of clastic sedimentary rocks;</p> <p>CO6.4 Compute paleocurrent data from the orientation of sedimentary structures;</p> <p>CO6.5 Analyse the signatures in rocks to deduce the depositional setting of sedimentary rocks;</p> <p>CO6.6 Describe and interpret the diagenetic overprinting of chemical sedimentary rocks;</p>
Core 7: Palaeontology	CO7	<p>CO7.1 Define fossils and fossilization processes.</p> <p>CO7.2 Identify the older life forms with their external and internal features.</p> <p>CO7.3 Apply the morphological modifications to deduce the ecology.</p> <p>CO7.4 Apply the concepts of principles of speciation and evolution.</p>
SEC 1: Field geology I	CO8	<p>CO8.1 Arrange field visit and lead the group</p> <p>CO8.2 Use topographic sheets in field and mark location in topographic sheet using physical features and bearing.</p> <p>CO8.3 Use GPS in the field.</p> <p>CO8.4 Identify the rocks and geological structures (primary and deformational) in field.</p> <p>CO8.5 Collaborate and co-operate effectively to perform in group fieldwork as well as staying together in groups in hotels/lodges after returning from field.</p>

SEMESTER IV

Course name	Course	Course outcome
Core 8: Metamorphic Petrology	CO9	<p>CO9.1 Identify the mineralogy, texture and microstructure of the metamorphic rock.</p> <p>CO9.2 Recognize the process of metamorphism and their different types.</p> <p>CO9.3 Identify the pressure temperature condition of the rock through geothermobarometry.</p> <p>CO9.4 Explain the tectonic evolution through nature of metamorphism and deformational process</p>
Core 9: Principles of Stratigraphy and Precambrian Stratigraphy of India	CO10	<p>CO10.1 Apply the basic principles of stratigraphy, concepts of stratigraphic units and nomenclature</p> <p>CO10.2 Describe the crustal evolution during the Precambrian in peninsular India and how the biosphere responded to the Precambrian-Cambrian boundary events.</p>
Core 10: Phanerozoic Stratigraphy of India	CO11	<p>CO11.1 Apply the concept of plate tectonic movements that separated India from contiguous landmasses and shaped the depositional basins of the Indian Phanerozoic, their effects on climate and life.</p> <p>CO11.2 Describe the stratigraphy and sedimentation in India – Asia</p>

		continental collision zone and Himalayan foreland basin.
SEC 2: Field geology2	CO12	CO12.1 Plan field visit and lead the group CO12.2 Construct the geological map in a particular area. CO12.3 Correlate the stratigraphy of that area. CO12.4 Participatory management for group tasks.

SEMESTER V

Course name	Course	Course outcome
Core 11: Hydrogeology	CO13	CO13.1 Describe the occurrence of groundwater, water bearing properties of formations, aquifer types and aquifer parameters. CO13.2 Apply the concept of development of water wells, CO13.3 Estimate the aquifer parameter and to deduce the groundwater flow under different conditions. CO13.4 Describe the groundwater chemistry and its influence in the society CO13.5 Apply the concepts of groundwater exploration in an integrated way.
Core 12: Economic Geology	CO14	CO14.1 Recognize ore minerals and their distribution in India. CO14.2 Describe different types of ore forming processes. CO14.3 Calculate the methods of ore estimation. CO14.4 Delineate the concept of grade, tenor of ore minerals.
DSE 1: Introduction to Geophysics	CO15	CO15.1 Explain different kinds of geophysical methods of exploration. CO15.2 Apply those methods in exploration of different kinds of ore body. CO15.3 Recognize geophysical anomalies. CO15.4 Interpret those anomalies to identify the mineral deposits.
DSE 2: Fuel Geology	CO16	CO16.1 Apply the fundamentals of coal and petroleum in identifying the coal and petroleum forming sedimentary environments, effect of tectonics and sea-level changes on coal and petroleum formation. CO16.2 Describe the basis of coal classification, concept of grade, type and rank in coal and analyse the techniques in coal and its importance in coal classification and their use for various industries. CO16.3 Describe the concept of underground coal gasification, clean coal technology, carbonization etc. coal as unconventional source of energy (CBM, Coal liquefaction) and its potential in Indian and environmental impact. CO16.4 Apply the concept of plate tectonics and supercontinent configuration in terms of coal deposits in India vis-a-vis rank, grade and their geological and geographical distribution and utilization. CO16.5 Use the concept of kerogen and its type to the origin of fossil fuel. CO16.6 Apply the concept of origin to accumulation in deducing the petroleum system

SEMESTER VI

Course name	Course	Course outcome
Core 13: Geomorphology, Remote sensing & GIS	CO17	<p>CO17.1 Identify different geomorphological features related with different surface processes and clarify the basic idea about remote sensing & GIS and their application.</p> <p>CO17.2 Identify the satellite imagery through data interpretation.</p> <p>CO17.3 Recognize the types of aerial photography, scale of resolution, principles of stereoscopy, digital image processing, etc and use GIS and GPS.</p>
Core 14: Engineering Geology	CO18	<p>CO18.1 Explain different geological factors that controls engineering constructions.</p> <p>CO18.2 Examine the basic concept behind foundation treatment, rock aggregate and support mechanism.</p> <p>CO18.3 Analyse the techniques of site investigations and compute different parameters of rock mechanics.</p>
DSE 3: Exploration Geology	CO19	<p>CO19.1 Recognize the different kinds of exploration methods and apply those exploration methods in field.</p> <p>CO19.2 Classify mineral deposits with respect to processes of formation and exploration strategies.</p> <p>CO19.3 Evaluate the sampling data - Mean, mode, median, standard deviation and variance and compute the methods of reserve estimation and its error.</p>
DSE 4: Geodynamics	CO20	<p>CO20.1 Define the concept of lithosphere and asthenosphere, physical character of lithosphere and asthenosphere and concept of plate.</p> <p>CO20.2 Apply the concept of palaeomagnetism and supercontinental cycle in plate tectonics.</p>



Shahid Matangini Hazra Govt. General Degree College for Women,
Government of West Bengal, Affiliated to Vidyasagar University

DEPARTMENT OF MATHEMATICS
PROGRAMME OUTCOME (PO)
CBCS BACHELOR OF SCIENCE

PO	Description
PO1	To prepare the students for a successful career in teaching or other professions as well as to motivate them for higher education and to take research as a career.
PO2	To provide strong foundation in basic sciences and mathematics.
PO3	To identify, formulate and analyze complex scientific problems reaching substantiated conclusions.
PO4	To develop individual and team work by functioning effectively as an individual or as a member in a group in computer laboratory classes.
PO5	To develop computational , logical and analyzing ability in solving different problems of Mathematics.
PO6	To develop communicating ability, prepare effective presentations, and give and receive clear instructions.
PO7	To develop the ability to engage in independent and life-long learning in the current context of technological change.
PO8	To inculcate scientific temperament in the young minds and outside the scientific community.

**DEPARTMENT OF MATHEMATICS
PROGRAMME SPECIFIC
OUTCOME(PSO)
CBCS BACHELOR OF SCIENCE**

Programme Specific Outcomes Nos	Programme Specific Outcomes (PSO)
PSO1	To apply knowledge in emerging and varied areas of Mathematics for higher studies, research and industries related to software applications.
PSO2	To develop leadership and managerial skills and understanding the need for lifelong learning to be a competent professional.
PSO3	To equip with front level communication technologies (ICT) for innovating ideas and solutions to existing/novel challenges.
PSO4	To be acquainted with good laboratory practices.

COURSE OUTCOME (CO)
BACHELOR OF SCIENCE - MATHEMATICS HONOURS
(CBCS SYLLABUS)

COURSE CODE and NAME	COURSE OUTCOME NAME	COURSE OUTCOME
SEM -I (Paper CC- I T) Calculus, Geometry & Differential Equation	CO1	This course deals with the applications of derivatives, integration and analytical geometry. It also helps to improve the skill of sketching curves.
SEM -I (CC-2 T) Algebra	CO2	This course deals with the basic knowledge of complex numbers, inequalities, theory of equation and set theory. It also helps to improve the knowledge of matrices and linear transformation.
SEM-II (CC3T) Real Analysis-I	CO3	Understanding the properties of real numbers, sequence of real numbers and infinite series are the main goals of this course.
SEM-II (CC4T) Differential Equations & Vector Calculus.	CO4	Students can solve differential equations of second order and systems of linear differential equations with the help of this course. In addition, it provides the basic knowledge of vector algebra and power series solution of a differential equation.
SEM-III(CC5T) Theory of Real Functions & Introduction to Metric Space	CO5	Developing the concept of metric space, continuity of a function, differentiability of a function and the application of mean value theorem are the main goals of this course.
SEM-III(CC6T) Group Theory-I	CO6	This course helps to develop the basic concept on group Theory.
SEM-III(CC7T) Numerical Methods	CO7	Students can solve the transcendental and polynomial equations, system of linear algebraic equations, ordinary differential equations with the help of numerical methods. In addition, this course helps to generate the ideas of numerical differentiation and integration.
SEM-III(SEC-I) Logic & Sets	CO8	This course provides the basic concept of logic and sets.
SEM-IV(CC8T) Riemann Integration and Series of Functions	CO9	Generating the concept of Riemann Integration, Sequence of Functions, Fourier series and Power series are the ultimate aims of this course.
SEM-IV(CC9T) Multivariate Calculus	CO10	This course targets to encompass the portions of solving double and triple integral and developing the concept of Multivariate Calculus.
SEM-IV(CC10T) Ring Theory and Linear Algebra-I	CO11	This course deals with the Ring, Field, Vector Spaces and Linear Transformation.
SEM-IV(SEC-II) Graph Theory	CO12	This course helps to generate the idea of Graph Theory.
SEM-V(CC11T) Partial Differential Equations & Applications	CO13	With the help of this course, students can solve partial differential equations of first and second order specially heat equation, wave equation and Laplace equation with differential initial and boundary conditions.

SEM V-(CC12T) Group Theory-II	CO14	This course deals with the advanced knowledge of group Theory.
SEM V-(DSE-I) Linear Programming	CO15	Students can solve Linear Programming Problem specially transportation problem and assignment problem by different methods with the help of this course.
SEM V-(DSE-II) Probability & Statistics	CO16	Developing the deeper concept on probability and statistic are the ultimate aim of this course.
SEM VI-(CC13T) Metric Spaces and Complex Analysis	CO17	This course enlightens the advanced knowledge of Metric Space and Complex Numbers.
SEM VI-(CC14T) Ring Theory and Linear Algebra-II	CO18	This course covers with the advanced knowledge of ring theory, dual space, linear operator and Inner product space.
SEM VI-(DSE-III) Number Theory	CO19	Developing the deeper concept on numbers specially prime number is the aim of this course.
SEM VI-(DSE-IV) Mathematics Modelling	CO20	This course provides the basic ideas of mathematical modelling.

**COURSE OUTCOME (CO)
BACHELOR OF SCIENCE - MATHEMATICS (GENERAL)
(CBCS SYLLABUS)**

PAPER NAME	COURSE OUTCOME NAME	COURSE OUTCOME
SEM1 (DSC-1A) (CC-1) Differential Calculus	CO21	This course deals with the application of derivatives.
SEM2 (DSC-1B) (CC-2) Differential Equations	CO22	Students can learn to solve differential equations of second order and systems of linear differential equations with the help of this course. In addition, It helps to generate the basic ideas of Partial Differential Equations.
SEM3 (DSC-1C) (CC-3) Real Analysis	CO23	Understanding the properties of real numbers, sequence of real numbers and infinite series are the main goals of this course.
SEM4 (DSC-1D) (CC-4) Algebra	CO24	This course helps to develop the basic concept on group theory, ring theory and fields.
SEM3 (SEC- I) Theory of Equation	CO25	This course deals with the theory of equations.

SEM4 (SEC-II) IntegralCalculus	CO26	Developing the idea of integration by partial fraction, reductionformula and the knowledge of application of integrations are the aims of this course.
SEM5 (SEC-III) Mathematical Modeling	CO27	This course provides the basic ideas of mathematical modelling.
SEM6 (SEC-IV) Probability and Statistics	CO28	Developing the basic concept on numbers specially prime number is the aims of this course.
SEM5 (DSE-1A) Vector Calculus andAnalytical Geometry	CO29	This course deals with the analytical geometry in two or threedimension and algebra of vectors.
SEM6 (DSE-1B) NumericalMethods	CO30	Students can solve the transcendental and polynomial equations, ordinary differential equations with the help of numerical methods. In addition, this course helps to generate the idea of numerical differentiation and integration.

PSO, PO, CO

Department of Physics



Programme Specific Outcome of BSc Physics Programme

- **PSO1:** Understand and apply the principles of Classical mechanics, Quantum mechanics, Thermodynamics & Statistical Mechanics , Nuclear physics and Electrodynamics
- **PSO 2:** Understand and apply the principles of Solid state physics, Optics, Photonics and Spectroscopy, Nanomaterials.
- **PSO 3:** Understand the principles of Electronics, Design and test electronic circuits and their application in communication system.
- **PSO 4:** Understand and apply the principles of Mathematical Physics and Computational Physics and do Error analysis in measurements.

These program-specific outcomes aim to equip Physics Honors students with a strong foundation in theoretical and experimental physics, as well as critical thinking and research skills necessary for further studies or careers in academia, industry, or other scientific fields.

Programme Outcomes (PO)

- ❖ PO1: Demonstrate a comprehensive understanding of fundamental principles and theories in classical mechanics, Statistical Mechanics, electromagnetism, thermodynamics, quantum mechanics, and relativity, Nanomaterials, Electronics and communication.
- ❖ PO2: Design and conduct sophisticated experiments, utilizing a range of laboratory equipment and techniques, to investigate physical phenomena and validate theoretical models and effectively communicate the results through oral presentations and written reports.
- ❖ PO3: Demonstrate proficiency in using computer programming languages and numerical simulation tools to model physical systems and simulate experimental outcomes.
- ❖ PO4: Apply critical thinking and problem-solving skills to identify, analyse, and solve complex physics problems, both independently and collaboratively, using appropriate theoretical frameworks and experimental techniques.
- ❖ PO5: Develop a deep understanding of the interconnections between different branches of physics and their applications in other scientific disciplines and real-world contexts.
- ❖ PO 6: Demonstrate knowledge of current research trends and recent advancements in physics, and critically evaluate scientific literature to stay abreast of developments in the field

- ❖ PO 7: Exhibit ethical conduct in scientific research, including responsible data handling, adherence to safety protocols, and consideration of the societal impact of physics research and technology.
- ❖ PO 8: Cultivate effective communication and teamwork skills by actively participating in group projects, discussions, and scientific presentations, and engaging with diverse perspectives within the field of physics.



Courses Outcomes (COs)

Semester-I		
CC1	Mathematical Physics I	<p>CO 1: Understand the concept of Calculus.</p> <p>CO 2: Develop the knowledge of vector.</p> <p>CO 2: Understand the Probability theory and apply it in physical problem.</p> <p>CO 3: Develop the concept of Curvilinear coordinate system.</p>
CC2	Mechanics	<p>CO 4: Develop the knowledge of Mechanics as an introductory course that explores the fundamental principles and applications of classical mechanics like, kinematics.</p> <p>CO 5: Understand the concept of Newton's laws of motion, forces, energy, momentum, rotational motion, and gravitation, special theory of relativity.</p> <p>CO 6: Determine the mathematical concept, laboratory experiments, and problem-solving exercises. Students will develop a solid understanding of the laws that govern the motion of objects and systems.</p>
Semester-II		
CC3	Electricity and Magnetism	<p>CO 7: Electricity and Magnetism is an introductory and a very important course that explores the fundamental principles and applications of electromagnetic phenomena. Through theoretical study, mathematical analysis, laboratory experiments, and problem-solving exercises, students will develop a strong mathematical and analytical skills, as well as experimental and problem-solving abilities in the context of electricity and magnetism.</p> <p>CO 8: Students gain an appropriate knowledge for the practical applications of electromagnetic principles in various scientific and engineering disciplines.</p>
CC4	Waves and Optics	<p>CO 9: Waves and Optics is a comprehensive course that explores the principles and applications of wave phenomena and optics. This course covers topics such as wave properties, wave propagation, interference, diffraction, polarization, and the behaviour of light.</p> <p>CO 10: Through theoretical study, mathematical analysis, laboratory experiments, and problem-solving exercises, students will develop a solid understanding of wave mechanics and optical phenomena.</p>

GE2	Thermal Physics and Statistical Mechanics	<p>CO 11: Thermal Physics and Statistical Mechanics is a special course that combines the principles of thermal physics with the concepts of statistical mechanics. This course covers topics such as laws of thermodynamics, kinetic theory of gases, heat transfer mechanisms, statistical distributions, and equilibrium statistical mechanics.</p> <p>CO 12: Through theoretical study, mathematical analysis, and problem-solving exercises, students will develop a comprehensive understanding of the behaviour of thermal systems at both macroscopic and microscopic levels.</p>
Semester-III		
CC5	Mathematical Physics II	<p>CO 13: Upon successful completion of this course, students will be equipped with a comprehensive understanding of various mathematical techniques commonly used in physics. Specifically, they will be able to learn and analyse Fourier Series, Understand the Frobenius method and its significance in solving differential equations with regular singular points, Grasp the concepts of Beta and Gamma Functions, Comprehend the principles of variational calculus and its role in solving optimization problems in physics.</p>
CC6	Thermal Physics	<p>CO 14: This course covers topics such as laws of thermodynamics, kinetic theory of gases, heat transfer mechanisms, and statistical mechanics. Through theoretical study, mathematical analysis, and problem-solving exercises, students will develop a deep understanding of thermal phenomena and their implications in various scientific and engineering disciplines.</p>
CC7	Digital Systems and Applications	<p>CO 15: This course covers topics such as digital logic gates, Boolean algebra, combinational and sequential circuits, digital arithmetic, memory systems, and digital system design .</p> <p>CO 16: By the end of this course, students will have a solid understanding of digital systems and their applications. They will be able to design and analyse digital circuits using various techniques and tools. Students will also gain practical skills in digital system implementation and troubleshooting. They will develop problem-solving and critical thinking abilities in the context of digital systems and be prepared to apply their knowledge in various technological domains.</p>
SEC 1	Electrical Circuits and Network Skills	<p>CO 17: This course covers topics such as circuit elements, Ohm's law, Kirchhoff's laws, network theorems, transient analysis, and frequency response.</p> <p>CO 18: Through theoretical study, problem-solving exercises, and hands-on experiments, students will develop a strong foundation in electrical circuits and acquire essential skills for circuit analysis and design.</p>

GE3	Solid State Physics	CO 19: This course covers topics such as crystal structures, electronic band theory, lattice vibrations, electrical and thermal properties of solids, magnetism, and semiconductor physics. Through theoretical study, mathematical analysis, and laboratory experiments, students will develop a deep understanding of the behaviour of solids and their technological applications.
Semester-IV		
CC8	Mathematical Physics III	CO 20.1 : After completing this course, students will possess a strong foundation in advanced mathematics relevant to engineering. They will be able to employ complex analysis to understand and solve problems involving complex variables, utilize integral transforms to simplify the analysis of engineering systems, and effectively work with matrices and eigenvalues to model and solve various engineering scenarios. CO 20.2: will equip them with the necessary mathematical tools to address complex engineering challenges and excel in their respective fields of study and future careers.
CC9	Elements of Modern Physics	CO 21.1: This course covers topics such as quantum mechanics, special relativity, atomic and nuclear physics, particle physics, and the basics of condensed matter physics. By the end of this course, students will have a solid foundation in the principles and applications of modern physics. CO 21.2: Students will also gain an introductory understanding of condensed matter physics. They will develop problem-solving and analytical skills through theoretical study and laboratory experiments.
CC10	Analog Systems and Applications	CO 22.1: Analog Systems and Applications is an in-depth course that focuses on the principles, design, and applications of analog electronic systems. This course covers topics such as analog signal processing, amplifiers, filters, analog-to-digital and digital-to-analog conversion, and practical circuit design techniques. CO 22.2: Through theoretical study, practical applications, and hands-on projects, students will develop a strong understanding of analog electronic systems and their diverse applications in various fields.
SEC B	Renewable Energy & Energy Harvesting	CO 23: This course covers topics such as solar energy, wind energy, hydroelectric power, biomass energy, and emerging technologies for energy harvesting. Through theoretical study, practical applications, and case studies, students will develop a deep understanding of renewable energy systems, their advantages, limitations, and their role in sustainable energy production.
GE4	Digital, Analog Circuits and Instrumentation	CO 24.1: Students will have a solid understanding of digital and analog circuits, as well as instrumentation techniques. CO 24.2: They will be able to design, analyse, and troubleshoot electronic circuits, including both digital and analog components. Students will also gain practical skills through hands-on laboratory.
Semester-V		

CC11	Quantum Mechanics and applications	<p>CO 24.1: Students will have a comprehensive understanding of quantum mechanics principles and applications. They will be able to analyse quantum systems, quantum dynamics, and quantum measurements. Additionally, students will gain knowledge of quantum applications in various fields such as atomic physics, condensed matter physics, and quantum information.</p> <p>CO 24.2: Students will also get knowledge about practical skills through problem-solving, data analysis, and research projects, and be able to effectively communicate scientific ideas in the field of quantum mechanics.</p>
CC12	Solid State Physics	<p>CO 25.1: In this course, students will have a comprehensive understanding of solid state physics principles and applications. They will be able to analyse the electronic, magnetic, and optical properties of solid materials and understand the behaviour of electrons and lattice vibrations in crystalline structures.</p> <p>CO 25.2: Students will also gain practical skills through laboratory experiments and develop the ability to effectively communicate and present scientific ideas in the field of solid state physics.</p>
DSE1	Advanced Mathematical Physics - I	<p>CO 26.1: This is an advanced and a very useful course for students for future study. After this course Students will gain a strong foundation in tensor analysis and linear vector spaces, equipping them with essential mathematical tools to tackle complex problems in various scientific and engineering domains. They will be able to work with tensors, understand their geometric and physical interpretations, and use tensor calculus to solve real-world problems.</p> <p>CO 26.2: This course will prepare students for advanced studies and research in fields where tensor analysis is crucial, as well as enhance their analytical and problem-solving skills in a wide range of disciplines.</p>
DSE2	Nuclear and Particle Physics	<p>CO 27.1 : By the end of this course, students will have the understanding of nuclear and particle physics principles and applications. They will be able to learn nuclear structure, radioactive decay, and nuclear reactions. Additionally, students will gain knowledge of elementary particles, their interactions, and the Standard Model of particle physics.</p> <p>CO 27.2: They will also develop practical skills through data analysis and research projects and be able to effectively communicate scientific ideas in the field of nuclear and particle physics.</p>
Semester-VI		
CC13	Electromagnetic Theory	<p>CO 27.1: After completion of this course, students will have a solid understanding of electromagnetic theory and its applications. They will be able to analyse and solve problems related to electric and magnetic fields, electromagnetic waves, and Maxwell's equations.</p> <p>CO 27.2: Students will also gain practical skills in applying electromagnetic theory to real-world applications, such as antenna design, transmission</p>

CC14	Statistical Mechanics	<p>CO 28.1: Statistical mechanics is one of the most important theoretical courses. By the end of this course, students will have a solid foundation in statistical mechanics and the ability describe the behaviour of physical systems at a microscopic level.</p> <p>CO 28.2: They will be equipped with the skills to apply statistical mechanics to a wide range of problems, both theoretical and experimental, and understand the underlying principles that govern the behaviour of matter.</p>
DSE3	Communication Electronics (Theory) OR	<p>CO 29.1: This course will give a solid understanding of communication electronics principles and techniques. Students will be able to design, analyse, and evaluate electronic circuits and systems for communication applications.</p> <p>CO 29.2: Students will also have some advanced level knowledge on analog and digital modulation techniques and some basic ideas of satellite communication and mobile telephony systems by the end of this course.</p>
	Nano Materials and Applications	<p>CO 30.1: This course will give a solid understanding of Nanoscale Systems, Synthesis of Nanostructure Materials, Different characteristic of nanomaterial specially optical property and electron transport.</p> <p>CO 30.2: Students will also gain knowledge about practical application of nanoparticles, quantum dots, nanowires and thin films for photonic devices (LED solar cells). They also able to Synthesis of metal nanoparticles by chemical route, Synthesis of semiconductor nanoparticles, Surface Plasmon study of metal nanoparticles by UV-Visible spectrophotometer, XRD pattern of nanomaterials and estimation of particle size.</p>
DSE4	Digital Signal Processing	<p>CO 31.1: By the end of this course, students will have a solid understanding of digital signal processing theory, techniques, and applications. They will be able to analyse and process digital signals using various transformation and filtering techniques.</p> <p>CO 33.2: Students will also gain practical experience through programming exercises and laboratory experiments, enabling them to apply DSP algorithms to real-world signals and effectively communicate their findings.</p>



Shahid Matangini Hazra Govt. General Degree College for Women,
Government of West Bengal, Affiliated to Vidyasagar University

**DEPARTMENT OF SANSKRIT
PROGRAMME OUTCOME (PO)
CBCS BACHELOR OF ARTS**

PO	Summary	Description
PO1	Sound Comprehension & Communication Skills	Sanskrit sound comprehension and communication skills provide a unique opportunity to explore the wisdom of ancient Indian civilization, improve linguistic abilities, and gain insights into the cultural and spiritual dimensions of one of the world's most ancient languages.
PO2	Develop Interdisciplinary Knowledge	Sanskrit is an ancient and classical language of India with a rich history dating back thousands of years. It holds immense significance in the fields of linguistics, literature, philosophy, religion, and culture. Its interdisciplinary nature makes it a valuable subject of study for scholars and researchers from various disciplines.
PO3	Socio-Cultural Applicability	Sanskrit, an ancient Indo-European language, holds immense socio-cultural applicability throughout history and across various societies. Its significance spans several domains, such as religion, philosophy, literature, art, science, and governance.
PO4	Ethical Values	Sanskrit, one of the oldest languages in the world, is not just a language but a repository of ancient wisdom and ethical values. Many sacred texts and philosophical treatises in India, such as the Vedas, Upanishads, Bhagavad Gita, and various epics like the Mahabharata and Ramayana, are written in Sanskrit. These texts contain profound insights into human behavior, morality, and ethical conduct.
PO5	Research & Life-long Learning	Sanskrit research involves the scholarly exploration of the language's grammar, syntax, phonetics, literature, and role in shaping ancient Indian culture and philosophy. Researchers delve into the origins and evolution of the language, its connections to other Indo-European languages, and its profound impact on various fields such as linguistics, anthropology, and philosophy.
PO6	Familiarity with Recent Developments	It's important to note that developments beyond my last update might include new scholarly discoveries, technological advancements in Sanskrit-related fields, and efforts to promote the language through digital resources and educational initiatives. To learn about more recent developments, I recommend consulting up-to-date sources or academic publications.
PO7	Environmental Awareness & Sustainability Description	The Vedas, the oldest sacred texts of Hinduism, contain hymns, rituals, and philosophical discussions that demonstrate a deep reverence for nature. Several verses in the Rigveda, for instance, praise the natural elements like Earth (Prithvi), Water (Apah), Fire (Agni), and Air (Vayu), acknowledging their essential roles in sustaining life.



Shahid Matangini Hazra Govt. General Degree College for Women,
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Political Science - CBCS

Programme Specific Outcomes Nos	Programme Specific Outcomes (PSO)
PSO1	Know Sanskrit well and apply it at work. Being well established in society. To develop a distinct status or identity in society, politics, and culture.
PSO2	The more he studied Sanskrit, the more his knowledge, sense of right and wrong, and religious sense all began to increase.
PSO3	To develop skills in hard-core reasoning through deduction and inductive reasoning, learn to discover validity and understand the formal techniques of evaluative arguments.
PSO4	These questions naturally come to the minds of students: 'Who am I?' 'Where did I come from?' 'What do I do in this world? And how are we alive?' etc.
PSO5	Students are deeply passionate about their subjects. And they apply their knowledge in various fields.
PSO6	Sanskrit graduates have diverse career options in academia, research, government services, UPSC and other fields.

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COURSE OUTCOME (CO)
BACHELOR OF ARTS - SANSKRIT HONOURS(CBCS
SYLLABUS)

PAPER NAME	COURSE	COURSE OUTCOME
SEM I (Paper CC- I T) Classical Sanskrit Literature (Poetry)	CO1	CO1.1: Full development of personality through literary knowledge. CO1.2: Efficiency in singing, reading, teaching, and composing verses by acquiring rhyme
SEM I (CC-2 T) Classical Sanskrit Literature (Prose)	CO2	CO2.1: Acquisition of moral, cultural, social, and practical values through knowledge of the literary world. CO2.2: Entry into the arts of literary criticism
SEM2 (CC3T) Critical Survey of Sanskrit Literature	CO3	CO3.1: Acquisition of the ability to carry out the journey of life in the modes of sacrificial devotion through knowledge of devotional poetry and devotional scriptures CO3.2: Discretion for comparative studies.
SEM2 (CC4T) Self Management in the Gita	CO4	CO4.1: To produce skilled teachers for the preservation of Indian culture. CO4.2 Production of practical skills through experimental programmers.
SEM3 (CC-5) Classical Sanskrit Literature (Drama)	CO5	CO5.1: Full development of the individual through knowledge of theatre literature CO5.2: Acquisition of proficiency in Indian arts through knowledge of theatrical literature.
SEM3 (CC-6) Poetics and literary Criticism	CO6	CO6.1: Efficiency in singing, reading, teaching and composing verses by acquiring the verse. CO6.2: Capacity in Indian arts through literary knowledge.



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SEM3 (CC-7) Indian Social Institutions and Polity	CO7	CO7.1: Political knowledge and availability in ancient India. CO7.2: Increases people's political knowledge.
SEM4 (CC-8) Indian Epigraphy, Paleography and Chronology	CO8	CO8.1: Knowledge of Indian epigraphy. CO8.2: Ethical and professional conduct.
SEM4 (CC-9) Modern Sanskrit Literature	CO9	CO9.1 Analyzing literary texts improves vocabulary, grammar, and comprehension. CO9.2: Study 19th-century literature, familiar with literary movements and trends.
SEM4 (CC10) Sanskrit and World Literature	CO10	CO10.1: Familiarise yourself with Sanskrit texts, authors, and Vedas. CO10.2: The course will enhance students' research and writing abilities.
SEM5 (CC-11) Vedic Literature	CO11	CO11.1: Familiarize oneself with text content, structure, and historical context. CO11.2: Critically evaluate Vedic literature interpretations and commentaries.
SEM5 (CC-12) Laghusidhanta Koumudi	CO12	CO12.1: "Laghusidhanta Koumudi" may be a specific term or course, not widely available. CO12.2: Provide context on the course, institution, and subject for assistance.
SEM6 (CC- 13) Ontology and Epistemology	CO13	CO13.1: Explores reality, knowledge, mind-world relationships, truth, and external world nature. CO13.2: Study classical and contemporary philosophical traditions.
SEM6 (CC-14) Sanskrit Composition and Communication	CO14	CO14.1: Essential for accurate Sanskrit sentence composition, paragraph construction. CO14.2: Understanding context-specific meanings of words, phrases, and sentences.

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SEM5 (DES-1) Art of Balanced Living	CO15	CO15.1: Participants gain understanding of life balance, including work-life balance, well-being, relationships, and personal growth. CO15.2: Implement mindfulness, relaxation, time management, and self-care practices.
SEM5 (DSE-2) Theater and Dramaturgy in Sanskrit	CO16	CO16.1: Familiarize yourself with Sanskrit theater themes, plots, characters, and techniques. CO16.2: Explore Sanskrit theater plot development, characterization, dialogue, and stagecraft.
SEM6 (DSE3T) Sanskrit Linguistics	CO17	CO17.1: Students learn Sanskrit pronunciation, phonetic categories, and articulation points. CO17.2: Acquire proficiency in dictionaries and lexical resources.
SEM6 (DSE4T) Fundamentals of Ayurveda	CO18	CO18.1: Students comprehend Ayurveda's fundamental principles, concepts, Panchamahabhutas, Tridosha, and Agni. CO18.2: Explore Ayurvedic understanding of Nadis, subtle energy channels.
SEM3 (SEC-1) Reading Skills in Brahmi Script	CO19	CO19.1: They should expand their vocabulary in Brahmi script. CO19.2: They should gain knowledge of the Brahmi script's linguistic, historical, and cultural contexts so they may understand the significance of the written words.
SEM4 (SEC2T) Evolution of Indian Script	CO20	CO20.1: Identify script features and explain their significance in Indian languages. CO20.2: Understand the connection between scripts, languages, and cultural identities, preserving knowledge.
SEM1 (GE-IT) Basic Sanskrit (Grammar)	CO21	CO21.1: Personality development through in-depth classical knowledge. CO21.2: Success in physical life by developing perception



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SEM2 (GE-2T) Sanskrit And other Modern Indian Languages	CO22	CO22.1: Creating worlds with human qualities. CO22.2: To protect the environment and establish peace through value-based education
SEM3 (GE-3T) Fundamentals of Indian Philosophy	CO23	CO23.1: Knowledge of the major schools of Indian philosophy. CO23.2: Understanding philosophical concepts.
SEM4 (GE-4T) Basic Principal of Indian Medicine System (Ayurveda)	CO24	CO24.1: Tridosha (three doshas) and the concept of Prakriti (individual constitution). CO24.2: Practical application of Ayurvedic principles.

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Political Science - CBCS

**COURSE OUTCOME (CO)
BACHELOR OF ARTS - SANSKRIT (GENERAL)(CBCS
SYLLABUS)**

PAPER NAME	COURSE	COURSE OUTCOME
SEM1 (DSC-1A) (CC-1) Sanskrit Poetry	CO25	CO25.1: Ability to insert characters and phrases appropriately. CO25.2 : Moral character through proper access to other scriptures (poetry, etc.)
SEM2 (DSC-1B) (CC-2) Sanskrit Prose	CO26	CO26.1: Chahvans of the upcoming contemporary with advanced Sanskrit knowledge. CO26.2: Providing traditional knowledge of Sanskrit education.
SEM3 (DSC-1C) (CC-3) Sanskrit Drama	CO27	CO27.1: Knowledge of Sanskrit Dramatic Literature. CO27 .2: Analysis of Themes and Motifs.
SEM4 (DSC-1DT) (CC-4) Sanskrit Grammar	CO28	CO28.1: Learn Sanskrit phonetics, pronunciation rules, sounds and accents. CO28.2: learn to write simple Sanskrit sentences, paragraphs, essays using grammar rules.
SEM3 (SEC-1) Indian Architeeture System	CO29	CO29.1: Knowledge of Architectural History. CO29.2: Appreciation of Cultural and Religious Significance
SEM4 (SEC-2) Basic Elements of Ayurveda	CO30	CO30.1: Participants should gain a foundational understanding of the principles and philosophy that underpin Ayurveda. CO30.2: This may include examination of the pulse, observation of physical characteristics, analysis of the tongue, and assessing the balance of the dishes.



SEM5 (SEC-3) Basic Elements of Jyotisha	CO31	CO31.1: Learn to identify planets, zodiac signs, houses, and aspects in birth charts. CO31.2: Explore gemstones, rituals, mantras for promoting positive energy.
SEM6 (SEC4T) Indian Theatre	CO32	CO32.1: Learn to effectively convey emotions, portray characters, and engage with the audience. CO32.2: Explore Indian theatre's history, aesthetics, and cultural significance.
SEM5 (DSE-1A) Philosophy, Religion And Culture in Sanskrit Tradition	CO33	CO33.1: Understand Sanskrit philosophical, religious, and cultural concepts like Vedanta, Yoga, Nyaya, Vaisheshika, and Mimamsa. CO33.2: Sanskrit literature, including ancient texts, continues to inspire contemporary Indian literature.
SEM6 (DSE1BT) Literary Criticism	CO34	CO34.1: Learn to analyze literature elements, form informed opinions, and understand their significance. CO34.2: Understand and apply key theories in literary analysis.
SEM5 (GE1T) Political Thoughts in Sanskrit	CO35	CO35.1: understand Sanskrit political texts like Arthashastra, and Manusmriti. CO35.2: Explore dharma, karma, varna, ashrama's relevance to political governance.
SEM6 (GE2T) Basics of Sanskrit Linguistics	CO36	CO36.1: Acquiring knowledge of sounds, pronunciation, accents, and intonation patterns. CO36.2: Acquire Sanskrit sentence analysis and construction skills.

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Political Science - CBCS



**DEPARTMENT OF PHILOSOPHY
PROGRAMME OUTCOME (PO)
CBCS BACHELOR OF ARTS**

PO	Summary	Description
PO1	Specialized Knowledge of the Discipline	After the completion of this course a comprehensive knowledge of different philosophical thought can be achieved. Students will get the idea of different world views and different conceptual framework.
PO2	Analytical and Critical Thinking in Problem Solving	This course will develop the power of analytical reasoning. Students can critically analyse any complex problem and try to solve them by examining in simplest terms.
PO3	Abstract Thinking	Philosophy is a discipline which mostly deals with abstract concepts. This course encourages students to think the real significance beyond this given material world and explore various basic concepts of life which we usually presuppose without raising any questions.
PO4	Logical Reasoning	The programme develops logical reasoning skill amongst students. They will be able to identify any illogical process hidden in an argument in any arena of theoretical practise and like a true technician, could be able repair the fault by providing the exact logical explanation.
PO5	Ethical Perspective	Ethics is one of the most important parts of Philosophy. This course will help the students to understand the ethical and moral implications and to learn applying them in all the spheres of life either academic or non-academic. This programme instils among the students the greater values of life to become a worthy citizen of the country.
PO6	Environmental Awareness	This programme includes much discussed environmental issues which will make students aware of the importance of environment as well as they will come to know that environment should be incorporated within the ethical sphere.
PO7	Interdisciplinary Approach	The programme encourages students to find the intellectual connections that exists with other discipline. Enriching and stimulating exchange of ideas that students typically experience when they cross their discipline specific boundaries indicates that there is something more to interdisciplinary studies than a simple combination of fields of study. It is this 'something more' that is hoped to be captured in this programme.



DEPARTMENT OF PHILOSOPHY
PROGRAMME SPECIFIC OUTCOMES (PSO)
CBCS BACHELOR OF ARTS

Programme Specific Outcomes Nos	Programme Specific Outcomes (PSO)
PSO-1	<ul style="list-style-type: none">Students can develop a holistic understanding of spiritual outlook and argumentative skills while learning different theories and their criticisms within the field of metaphysics, epistemology and Ethics of classical Indian Philosophy and contemporary Indian Philosophy as well.
PSO-2	<ul style="list-style-type: none">Students can acquire critical thinking and argumentative skills while learning different theories and their criticisms within the field of metaphysics, epistemology and Analytical Philosophy, Philosophy of Language and all others aspect of Western Philosophy.Students will be familiar with both Indian and Western philosophical theories and so will be able to make a comparative study of these two kinds of theory.
PSO-3	<ul style="list-style-type: none">Students will gain logical thinking ability and argumentative skills for the learning of different theories of deductive and Inductive logic.Students will acquire critical ability; will be able to construct cogent argument in both speech and writing as a result of learning logic.
PSO-4	<ul style="list-style-type: none">Students will acquire socio-ethical, socio-Political thinking ability and argumentative skills for the learning of different theories of Ethics, Philosophy of religion, social and political philosophy.
PSO-5	<ul style="list-style-type: none">Students will attain skills to understand the nature of human mind; they will develop knowledge about learning skills and personality traits of mind as well as levels of consciousness.



**DEPARTMENT OF PHILOSOPHY
PROGRAMME SPECIFIC OUTCOMES (PSO)
CBCS BACHELOR OF ARTS**

Paper Name	Course	Course Outcome
Sem-1 : (Paper CC-1T) Indian Philosophy-I	CO1	Students will gain detailed knowledge about meaning and approach of Indian Philosophy, nature and characteristic of Indian Philosophy, the history of it and the main difference between the various schools of Indian Philosophy - <i>Astika</i> & <i>Nastika darshana</i> . They will develop an understanding of various theories and beliefs of Carvaka, Bouddha, Jaina, Nyaya and Vaisesika schools with critical understanding from both epistemological and metaphysical perspectives.
Sem -1 : (Paper CC-2T) History of Western Philosophy-I	CO2	This syllabus will help the students to be acquainted with the historical development of western philosophical thought. They will become aware of the theories of Knowledge and that of metaphysics of Plato and Aristotle. Students will have critical understanding of the doctrines of some well-known western philosophers, like that of Thomas Aquinas (a famous philosopher of the Medieval period) and that of Descartes, Spinoza, Leibnitz the pioneers of Modern Rationalist school.
Sem-1 : (Paper GE-1) Logic	CO3	Students will develop the detailed knowledge about basic terms of Logic like propositions, sentences, arguments, truth, validity etc. They will come to know of quality, quantity and distribution of terms of Categorical Propositions. differences between Deductive and Inductive Logic, various methods of mediate and immediate inferences, Existential Import of categorical propositions and also with rules and fallacies of Categorical Syllogism, test validity of deductive arguments by Venn Diagrams, some concepts of Inductive Logic like Nature of Induction, 'Meaning of Cause', 'Mill's Inductive Methods'.
Sem-2 : (Paper CC-3T) : Outlines of Indian Philosophy-II	CO4	Students will develop critical assessment of the theories of <i>Astika</i> Indian philosophers like Samkhya, Yoga, Mimamsa and the schools of Vedanta, their key concepts, beliefs, arguments and doctrines from both the standpoints of great Vaidantiks like Sankara and Ramanuja.
Sem-2 : (Paper CC-4T) : History of Western Philosophy-II	CO5	This part of the syllabus gives a brief idea about the British Empiricist school of modern philosophical era through the philosophies of Locke, Berkeley, Hume; their beliefs and doctrines regarding Knowledge, God and World and the ethical views. They will also develop the idea of Kant's philosophical thought. Students will be enriched with the complete understanding of the similarities and the differences between Rationalism and Empiricism in Modern Western Philosophy.
Sem-3 : (Paper CC-5T) : Philosophy of Mind	CO6	Students will acquire comprehensive knowledge regarding philosophy of mind, different psychological concepts and doctrines of the eminent psychological thinkers like Freud, Thorndike, Skinner etc. and will be benefitted to apply their knowledge in critical thinking of everyday life. They will gain an insight into the theories of Learning and

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		theories regarding relation between mind and body.
Sem-3 : (Paper CC-6T) : Social and Political Philosophy	CO7	Students will develop the idea regarding the nature and scope of both Social and Political philosophy and will also absorb the relation between Social and Political philosophy, different socio-political terms like, society, community, Association, Institutions, Civilisation and culture, social class and caste, social change, Marxist view of Class, Democracy, socialism etc and the doctrines of eminent thinkers like Marx, Gandhi etc. which can apply their philosophical knowledge in socio-political affairs in future.
Sem-3 : (Paper CC-7T) Philosophy of Religion	CO8	With the help of this course students will develop their ability to explain and analyze the main issues, concepts, religious terms and arguments of philosophy of religion, and know different doctrines in both western as well as Indian philosophical perspectives. They come to comprehend the view of different religious thinkers like St. Anselm, Aquinas in the of Europe and Mohammad, Buddha, Mahavira in Asia. Students will develop an understanding about the possibility of Universal Religion and also about the peculiarity of religious language.
Sem-3 : (Paper - SEC-1T) : Philosophy of Human Rights	CO9	The aim of this part of the syllabus is to make students aware about the definition, idea and nature of Human Rights, its origins and historical developments through ancient, modern and contemporary period. It will enable students to distinguish between the idea of natural law and natural rights. They will understand the significance of the natural rights and fundamental right.
Sem-3 : (Paper - GE-3) : Nyaya theories of Inference	CO10	Students will be aware of the difference between <i>anumiti</i> and <i>anumana</i> . Significance of <i>anumana</i> in practical life. Basic ideas of <i>nyaya</i> syllogism or <i>nyaya</i> logic which contains five propositions, called its <i>avayavas</i> or members. These are <i>pratijna</i> , <i>hetu</i> , <i>udaharana</i> , <i>upanaya</i> , and <i>nigamana</i> .
Sem-4 : (Paper : CC-8T) : Western Logic-I	CO11	Students will be oriented with basic terms of Logic like propositions, sentences, arguments, truth, validity etc. They will come to know of quality, quantity and distribution of terms of Categorical Propositions, various methods of mediate and immediate inferences, existential import of categorical propositions and also with rules and fallacies of Categorical syllogism, Venn diagrams and critical assessment of some concepts of Inductive Logic like 'Meaning of Cause', 'Science and Hypothesis' as well as 'Mill's Inductive Methods', and they will also develop the skill to practice Probability Calculus.
Sem-4 : (Paper - CC-9T) : Western Logic-II	CO12	The students will develop the basic concepts of Symbolic Logic in this part of the syllabus. Students will be equipped with the concept and value of various logical symbols and truth functions like conjunction, disjunction, negation, material implication and material equivalence and Stroke / dagger functions. They will comprehend the distinction between argument and argument forms, statement and statement forms. They will be able to test the validity and invalidity of arguments through different decisional procedures like Truth table, Method of Resolution; and Proof procedures like Formal Proof of Validity and method of assigning truth value. Students will also be oriented with the need for Quantificational

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		Theory. They will be able to understand the concept of individual variable, propositional function, predicate variable etc. They will also be able to test Validity / invalidity of arguments with Quantificational logic.
Sem-4 : (Paper - CC-10T) : Epistemology and Metaphysics (Western)	CO13	This paper focuses on the basic concepts of knowledge and truth. Students may explore important philosophical theories such as realism, idealism, phenomenology, the concepts of cause etc. It will help to build a strong knowledge base of philosophical inquiry and criticism. Students can recognize and solve problematic issues of epistemology and they will also develop an understanding of various philosophical or theories that are common to the Western world.
Sem-4 : (Paper - SEC-2T) : Man and Environment	CO14	This part of the syllabus contains a much contemporary issue in the arena of Philosophy which includes the discussions about the relation between man and environment. Students will come to know that the environmental issues should be included in the discussion into the moral domain. This philosophical approach indicates the human, non-human dichotomy in nature, the inter dependence of humans and the environment. Most importantly they will be able to critically think about the intrinsic and extrinsic value of nature.
Sem-4 : (Paper - GE-4T) : Termination of Life and Ethics	CO15	There is much common ground based on the application of the four major principles of medical ethics: nonmaleficence, beneficence, autonomy, and justice. The goal of end-of-life care for elderly people is to improve their quality of life, helping them cope with illness, disability, death, and an honorable death process.
Sem-5 : (Paper - CC-11T) : Indian Logic & Epistemology-I	CO16	Students will be familiar with the logic & epistemology of Nyaya school of thought through the classical text - <i>Tarkasamgraha</i> , written by <i>Navya Naiyayika Acharya Annambhatta</i> . They will understand the typical Indian approach of a philosophical discussion through this text. So long, students acquired a general idea of different schools of thought. But in this paper, they will develop the detailed understanding about the approach of a typical school through this special text. They will be equipped with the idea of the <i>laksana</i> (definition) and classification of typical Indian philosophical terms <i>paribhashika shabdas</i> & concepts like <i>Buddhi</i> , <i>Smriti</i> , <i>Prama</i> , <i>Aprama</i> , <i>Karana</i> (general causal condition), <i>Karana</i> (special causal condition), <i>Karya</i> , <i>Anyathasiddhi</i> etc. They will also develop the detailed knowledge about <i>Pratyaksha pramana</i> , <i>Sannikarsa</i> , classification of <i>Pratyaksha</i> , the unnecessary admittance of <i>Anupalabdhi</i> etc. from Nyaya-Vaisesika point of view.
Sem-5 : (Paper CC-12T : Ethics (Indian)	CO17	The target of this part of the syllabus is to develop the idea of moral discussion in traditional Indian context. Students will develop an understanding of classical Indian ethical view from the ancient text Gita, which includes the concept of <i>karmavada</i> , <i>purusharthas</i> , the <i>lakshana</i> of <i>sthitaprajna</i> . They will be equipped with the Indian concept of <i>wrina</i> , <i>writa</i> , and the classification of dharmas and the difference between <i>vidhi</i> and <i>nisheda</i> . This paper does not concentrate only in the Hindu notion of ethics, but also Bouddha and Jaina view of ethical understanding. This

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		syllabus will build the ability to distinguish between different kinds of karmas involving <i>bimsa</i> and <i>abimsa</i> .
Sem-5 : (Paper DSE-1T) Philosophy of Language (Indian)	CO18	This syllabus incorporates the linguistic approach of Indian Philosophy. <i>Annambhatta</i> has arranged the topics under discussion in the classical text <i>Tarkasamgraha</i> from the Nyaya point of view. He introduces the basic concepts relating to verbal testimony.
Sem-5 : (Paper : DSE-2T) : Philosophy of Language (Western)	CO19	Students will be acquainted with the analytical philosophical thought and linguistic analysis. It is an important stream of history of western philosophy. They will be able to distinguish between semantic and syntactical concepts of a language. Vagueness and ambiguity are two core concepts of philosophy of language and students will come to understand that, on this aspect, analytic philosophers differ from the traditional view of linguistic. They will understand the basic concepts of languages like, word, meaning, sentence etc. They will also learn, what should be the criterion of the truth value of a sentence meaning.
Sem-6 : (Paper CC-13T) : Indian Logic & Epistemology-II	CO20	Students will be familiar with Indian logic & epistemology through the classical Indian text - <i>Tarkasamgraha</i> , written by <i>Navya Naiyayika</i> Acharya <i>Annambhatta</i> . They will accumulate a detailed understanding about <i>anumana</i> , <i>anumiti</i> , <i>vyapti</i> , <i>paramarsha</i> , classification of <i>anumiti</i> , <i>linga (betu)</i> and its classification, marks of <i>sat-betu</i> , <i>hetvabhava</i> and its classification, concept of <i>paksata</i> with <i>sapaksa</i> & <i>vipaksa</i> etc., the definition and classification of <i>upamana pramana</i> , the definition of <i>sakti-vrtti</i> , <i>saktigraha</i> , <i>laksana-vrtti</i> , varieties of <i>laksana</i> , <i>vyanjana-vrtti</i> , varieties of <i>vyanjana</i> , <i>akanksa</i> , <i>yogyata</i> , <i>sannidhi</i> , <i>tatparya</i> , concept of <i>yoga-rudhi</i> , two kinds of statements distinguished – <i>vaidika</i> & <i>laukika</i> etc. and also <i>arthapatti</i> and <i>pramanyavada (svatah & paratah)</i> from Nyaya-Vaisesika point of view.
Sem-6 : (Paper CC-14T) : Ethics (Western)	CO21	Students will acquire knowledge about Western Ethics and will develop critical insight on different western ethical theories consists of Classification of Ethics into Prescriptive, Meta Ethics and Applied Ethics. Western Ethics also discusses about object of moral judgement and also about the Moral Theories of Plato and Aristotle. This Ethics also consists of Standards of Morality like Hedonism, Deontological Ethics and also of Theories of Punishment.
Sem-6 : (Paper DSE-3T) : Text : The Problems of Philosophy by Bertrand Russel	CO22	In this section students get chance to be familiar with the thoughts of Bertrand Russell, one of the greatest thinkers of twentieth century, about basic issues and problems of Philosophy.
Sem-6 : (Paper DSE-4T) : Philosophy of M. K. Gandhi	CO23	Discusses the concepts of truth, non-violence, Sarvodaya and Satyagraha and their significance constitute Gandhian philosophy and are the four pillars of Gandhian thought.

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Programme Outcome (PO)
BA (Honours) in Bengali
(CBCS)

PO	Summary	Description
PO1	Disciplinary Knowledge	After completing the course, Students will gain specialization and in-depth knowledge in Bengali language and literature.
PO2	Communication Skill	Students will be capable of expressing their thought and idea in written form or orally. They will be confident to share own views in a clear and concise manner.
PO3	Critical Thinking	Students will be in a position to apply analytical thought and critically evaluate policies and practices.
PO4	Problem Solving	One May apply their competencies to solve different problems in real life.
PO5	Moral and Ethical Awareness	Students may identify ethical issue of society as well as individual. They will be free to act accordingly moral standpoint for self or collective. They will be able to establish themselves unbiased and truthful.
PO 6	Multi-Cultural Competence	Literature is mirror of life. Therefore, after completing the course, students will be capable to understand different types of living and belief system. They will reveal multicultural Identity of our society and they should respect all diversity.
PO7	Research Related Skills	A sense of inquiry and capability for

		asking appropriate questions may lead to theoretical base. Interpretation, Analysis and establishment of hypothesis may open a new dimension.
PO8	Cooperation/ Team Work	Every single student will learn to perform their duty as a member of a team. Common interest and work will make them together.
PO9	Environment and sustainability	Understand the issues of environmental contexts and do the needful for the society.
PO10	Self-Directed and lifelong Learning	One may able to work independently. Students can participate in lifelong learning activities.

Programme Specific Outcomes Nos	Programme Specific Outcome (PSO)
PSO1	On successful completion of the course, students will be able to develop understanding of Bengali Language and Literature.
PSO2	Acquaint with some basic concepts of literary criticism.
PSO3	To familiarize different Dialects and culture of Bengal.
PSO4	Students will be able to understand in both the artistry and utility of the Bengali Language.
PSO5	Utilize Writing Skills and intellectual consciousness for the society.
PSC6	The logical Skills, Liberal mindset, meaningful arguments will be better than before.
PSO7	Students can get various Job opportunity in Govt. and Private Sector. They will be able to join in research field.

Course Outcome
B.A (Honours) in Bengali
(Choice Based Credit System)

Semester- I

Year	Course Type	Course Title	Credit	Course Outcome
I	Core-1	CT1 : বাংলা ভাষার উদ্ভব ও পরিচয়	6	To make students aware of origin & development of Bengali Language, knowledge in historical context and understanding of Bengali dialects.
	Core-2	CT2: বাংলা সাহিত্যের ইতিহাস (প্রাচীন ও মধ্যযুগ)	6	Discussion of history of Bengali Literature. Basic literary trends in Early and Medieval Bengali Literature. A conception about the relation of society and art.
	GE-1	GE-2T : বাংলা ভাষার বিভিন্ন স্তর ও ভাষাচর্চা	6	To make students in depth knowledge in linguistics. Conception about dialects as well as how sound changes, meaning differs. An idea about Bengali Vocabulary.

Semester-II

Year	Course Type	Course Title	Credit	Course Outcome
I	Core-3	CT 3 : প্রাচীন ও মধ্যযুগের পদপাঠ	6	To give the idea of Early and Medieval Bengali literature through collection of texts. To develop a concept of literature and society-reflection and reaction.
	Core-2	CT4: চৈতন্য জীবনী ও মঙ্গল সাহিত্যপাঠ	6	Selected part of Chaitanya Bhagavata, Chandimangala and Annadamangala give the idea regarding medieval literary tradition. Students can know the social, political and economic history of that time.
	GE-2	GE-2T : কাব্য সাহিত্যের ধারা ও বৈষ্ণব পদাবলী পাঠ	6	An idea about ancient and medieval Bengali Literature. Knowledge about main features of modern Bengali Poet.

Semester-III

Year	Course	Course Title	Credit	Course Outcome
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Type			
Core-5	CT 5 : উনিশ-বিশ শতকের প্রবন্ধ ও কাব্য-সাহিত্যের ইতিহাস এবং আখ্যান সাহিত্য পাঠ	6	Conception about the detailed history of Poetry & Prose in the 19 th & 20 th Century of Bengal. Getting to know different literary personality.
Core-6	CT6: ছন্দ-অলংকার ও নির্বাচিত কবিতা পাঠ	6	Basic knowledge on rhythm and rhetoric. Reading of selected poems help to cultivate literary sense and appreciation.
Core-7	C7T: প্রবন্ধ সাহিত্য পাঠ	6	Introduction to essay literature. Concept about various aspects of social movements
GE-3	GE-3T : বাংলা প্রবন্ধ ও কথাসাহিত্যের ধার এবং প্রবন্ধ পাঠ	6	To students make knowledge about Bengali Essay, Novel and Short Story. Idea of prose work with different personality.
SEC-1	SEC-1: বাংলা ব্যাকরণ ও অনুবাদতত্ত্ব	2	It gives over view about Bengali grammar and translation theory as well as terminology.

Semester- IV

Year	Course Type	Course Title	Credit	Course Outcome
II	Core-8	CT 8 : উনিশ-বিশ শতকের নাট্য ও কথাসাহিত্যের ইতিহাস এবং ছোট গল্প পাঠ	6	Conception about the detailed history of Drama & fiction in the 19 th & 20 th Century
	Core-9	CT9: কাব্যপাঠ	6	Selected texts of eminent poets enriches literary consciousness with the understanding of modernism.
	Core-10	CT10: উপন্যাস পাঠ	6	It may create conception about theory of novel. A reader can enriches own skill as a critic. Understanding of human nature and behavior through selected texts.
	GE-4	GE-4T : বাংলা গীতিসাহিত্য, শিশুসাহিত্য ও রম্যরচনার ধারা	6	To students make knowledge about Bengali Lyrical literature, children literature, belles-lettres. Make aware of its popularity.
	SEC-2	SEC-2: বাংলা ভাষা ও সাহিত্য বিষয়ক প্রকল্প রচনা ও প্রকল্পের উপস্থাপনা	2	Idea about research methodology. Develop writing proficiency. Paper Presentation helps student to increase communication skill.

Semester V

Year	Course Type	Course Title	Credit	Course Outcome
III	Core- 11	CT 11 : নাট্যপাঠ	6	Conception about theory of drama. In addition, senses about the brilliance of dramatic presentation.
	Core-12	CT 12 : কাব্যতত্ত্ব, পাশ্চাত্য সাহিত্য সমালোচনা-তত্ত্ব ও সাহিত্যের রূপরীতি	6	To make students aware of poetics, western criticism, and various genre of literature. Discussion about literary terms and short history of literary criticism.
	DSE-1	DSE-1T : সাহিত্য আন্দোলন, সমালোচনা ও রূপরীতি	6	Idea about literary movement, various school of criticism. Formalistic approach towards literature.
	DSE-2	DSE 2T: বাংলা ছোটগল্প, ভ্রমণ কাহিনি ও গোয়েন্দা কাহিনি পাঠ	6	To students make knowledge about Bengali short story, travel literature and detective narrative. Awareness of various genre of literature

Semester VI

Year	Course Type	Course Title	Credit	Course Outcome
III	Core- 13	CT 13 : লোকসাহিত্য	6	Introduction to the Folk Literature with definition, form and characteristics. Different text of folk literature help to gather knowledge of our history and tradition.
	Core-14	CT 14 : সংস্কৃত, ইংরেজি ও প্রতিবেশী সাহিত্যের ইতিহাস	6	To create a sense of history of Sanskrit, English and neighboring literature. Compare the different literary tradition and culture.
	DSE-3	DSE-3T : নাট্যসাহিত্য পাঠ	6	Idea about drama. Students can enjoy the text of one act play.
	DSE-4	DSE-4T: রবীন্দ্রসাহিত্য পাঠ	6	An idea of Tagore's creation. Notion about multidimensional philosophy reflected in selected texts.

Bengali (General)

Semester- I

Year	Course Type	Course Title	Credit	Course Outcome
I	CC 1 (DSC-1A)	বাংলা সাহিত্যের ইতিহাস ও বাংলা ভাষাতত্ত্ব	6	To get elaborate knowledge about origin and development of Bengali Language and literature.
	CC 2 (DSC-2A)			

Semester-II

Year	Course Type	Course Title	Credit	Course Outcome
I	CC 3 (DSC-1B)	কাব্য-কবিতা	6	Detailed conception about poetry of medieval time as well as modern era.
	CC 4 (DSC-2B)			
	AECC Core (L-1)	MIL-1 কবিতা ও ছোটগল্প	6	Primary knowledge on Bengali poetry and Short story. It can increase the reading interest.

Semester III

Year	Course Type	Course Title	Credit	Course Outcome
II	DSC -1C	বাংলা কথাসাহিত্য, নাটক ও প্রবন্ধ	6	Primery idea on Bengali fiction, drama and essay. Development of critical view about life and world.
	DSC-2C			
	SEC-1	লিখন নৈপুণ্য বৃদ্ধি	2	It may enhance writing skill and develop social consciousness.

Semester IV

Year	Course Type	Course Title	Credit	Course Outcome
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II	DSC -1D DSC-2D	সাহিত্যতত্ত্ব ও সাহিত্য নির্মাণ কলা	6	It gives a guideline to literary criticism and define structure of a poem.
	AECC Core (L-2)	উনিশ শতকের বাংলা প্রবন্ধ ও লোকসাহিত্য	6	Students can know about Bengali essay of 19 th century. Idea about folk literature.
	SEC-2	বাংলা ধ্বনিতত্ত্ব ও রূপতত্ত্ব	2	It may enhance language skill. Develop the knowledge of phonetics and morphology.

Semester V

Year	Course Type	Course Title	Credit	Course Outcome
III	DSE -1A DSE-2A	বাংলা নাটক ও কবিতা	6	It gives a conception of Bengali drama and poetry. Develop the sense of communication in different technique.
	GE-1	কাব্য	6	Students can know about Bengali poetry. From Selected texts, they can learn the main feature of major poets.
	SEC-3	শৈলী, কাব্যশৈলী বিচার, গদ্যশৈলী ও নাট্যশৈলী বিচার	2	It may enhance the power of criticism. Knowledge of stylistics is enriched through various texts.

Semester VI

Year	Course Type	Course Title	Credit	Course Outcome
III	DSE -1B	প্রবন্ধ ও ভ্রমণকাহিনি	6	It gives a description of essay and travel literature. Changing scenario of society is discussed through the mirror of text.
	DSE-2B			
	GE-2	প্রবন্ধ ও সাহিত্যের রূপরীতি- বিচার পদ্ধতি	6	Students can know about literary style and judgement method. By selective texts of essay, student can learn art of reading. They can develop their power of thinking.
	SEC-2	বিষয়ভিত্তিক আলোচনা ও আলোচনাপত্র উপস্থাপন	2	It enriches subject knowledge, develops research interest as well as writing and communication skill.

