2.6.1

Programme Outcome, Programme Specific outcome and Course Outcome

B.A (Bachelor of Arts) Honours
B.A (Bachelor of Arts) General
B.Sc (Bachelor of Science) Honours
B.Sc (Bachelor of Science) General
M.A (Master of Arts) Bengali
M.A (Master of Arts) Education
M.Sc (Master of Science) Geography
M.A (Master of Arts in 6 Subjects Under Vidyasagar University)
M.A (Master of Arts in 4 Subjects Under Rabindra Bharati University)

(PROGRAMME OUTCOME 2020-2021)

SL NO	DEPARTMENT	TOPIC
1.	English	1. Romantic Poetic Aesthetics & John Keats. 2. Representation of Women Characters in the Poetry of John Keats and Samuel Taylor Coleridge. 3. Issues of Marginalization and Subordination in the Poetry of William Wordsworth. 4.Gender and Sado masochism in My Last Duchess 5.Detailed discussion on Feminism as a literary theory 6.Ancient Indian Society as depicted in Mrcchakatikam
2.	Bengali	1.Rabindra kabyadhara. 2.Prachin Banglar samaj o sanskriti. 3.Raja natok o Rabindra tattwa darshan. 4.Rajnoitik uponyas hisabe Saratchandra Chattopadhyayer Pather dabi.
3.	History	1) Gandhi and Non-violence in present situation 2) Communal politics in present perspectives 3) Golden age of ancient India and its recalls
4.	Education	1. Logical Positivism. 2.Metaphysics 3. Contemporary trends in Special Education.
5.	Pol Science	1) Gender and Violence in India, 2) Caste and Race in India, 3) Terrorism and Insecurity of Minorities in India 4) Understanding Woman ‘s Work and Labour
6.	Philosophy	1. Environmental ethics and ecosystem. 2. Role of media ethics on democracy. 3. Values of Buddhist non-violence thought in COVID scenario.
7.	Journalism and Mass communication	1. Media & Democracy 2. Development Communication: 3. Concept & Approaches 4. Media & International Communication 5. Media & Cultural Globalization

8.	Geography	1. Environment and livelihood: Contemporary scenarios and future challenges. 2. Sustainable development and solidarity. 3. Geospatial technology for clean water and sanitation. 4. Global to local sustainability and future Earth. 5. Biodiversity and conservation, 6.Sustainable Development and Resource Base and Inequality 7. Water Resources Management (Rain water harvesting)
9.	Chemistry	1. Thermochemistry 2. Stereochemistry of olefin compounds 3. Green Chemistry
10.	Mathematics	1. Non Linear Analysis 2. Cryptography 3. Wave Propagation in Elastic Solids
11.	Physics	(1) Importance of Higgs bosons in academic field. (2) Thermodynamics and thermal engine (3) Thermal radiation.
12.	Computer Science	Image authentication, document authentication & steganography.

PROGRAMME OUTCOME AND PROGRAMME SPECIFIC OUTCOMES

Department of English

Programme Outcome:

The objectives of the B.A. English (Hons.) and English (Gen.) Course may be summed up as follows: Critical thinking, effective communication, social interaction, effective citizenship, ethics, self-directed and life-long learning:

a. To motivate and educate students to achieve creative and critical faculties in an encouraging and inspiring environment,

b. To help students learn the basic skills of textual analysis and criticism of literary and cultural texts from different historically significant periods,

c. To assist students in their quest for knowledge beyond the utmost bound of human thought,

Outcomes:

a. Critical thinking: In their involvement with literary texts students will be encouraged to critically examine the different patterns which emerge in their aesthetic pursuit of understanding literature,

b. Communication skills: Our mutual interactions in the classroom ambience will ensure the students' capacity of proper expression of critical ideas in speech and writing,

c. Social interaction: The students are given the space to think and express themselves freely and without fear by encouraging them to interact effectively with all stake holders both in the department in particular and the college in general,

d. Application of critical and theoretical approaches: Students should be able to apply critical and theoretical learning to the discernment of literary and cultural texts,

e. Writing skills: Students are encouraged to write essays, term papers, projects, and critical reviews in their study of literature.

Course Outcomes of B.A English (Hons.):

Course Outcome: (Semester Wise)

Semester 1: Course Structure and Outcome: To know and appreciate the location of literature within humanities and to establish connections across frontiers of disciplines:

CC1: Indian Classical Literature: Students are expected to participate in the background discussion on Indian Epic, themes and recension, classical Indian drama, theory and praxis

CC2: European Classical Literature: In this course, students are taught epic, comedy and tragedy in classical drama like Homer's Iliad, Oedipus, Plautus, etc.

Semester 2: Course Structure and Outcome: To appreciate, interpret and critically evaluate literature:

CC3: After studying Indian and European classical thought, students are now taught Indian writing in English and this course helps in creating an awareness towards the problems of interpreting Indian culture via the English language and acquaintance with the work of significant Indian writers of Poetry, Prose Fiction and Drama.

CC4: British Poetry and Drama: In this course, students are introduced to the historical, political, socio-cultural background, literary intellectual details with special reference to the poems of the period. The development of English Drama on the Elizabethan stage and religious and political thought of the period is also taught.

Semester 3: Course Structure and Outcome: To understand the various aspects of American society through an examination of different literary texts:

CC5: American Literature: Students acquire knowledge about American Literature, its cultural themes, literary periods, and key artistic features. Students are taught the various aspects of American society through a critical examination of the literary texts representing different periods and cultures.

CC6: Popular Literature: Students are given a clear idea of popular literature, ethics and education in children's literature, sense and nonsense, the graphic novel, the detective novel, etc.

CC7: British Poetry and Drama: In this course, students are introduced to the historical, political, socio-cultural background, literary intellectual details with special reference to the poems of the period. The development of English Drama on the Elizabethan stage and religious and political thought of the period is also taught.

Semester 4: Course Structure and Outcome: To study different literary genres and develop the intellectual capability to apply these in literary research:

CC8: 18th Century British Literature: In this semester, the 18th century texts are taught, specially the mock epic and satire and classroom lectures are organized on the rise of the periodical press and the novel as a genre.

CC9: British Romantic Literature: In this paper, students are taught the trends, traditions and techniques of Romantic and Victorian Poetry with an overview of poets and their works. This is done with a discussion on social, political and intellectual developments of the period. There is significant emphasis on topics like

reason and imagination, conception of man and nature, literature and revolution, utilitarianism, faith and doubt, marriage and sexuality.

CC10: 19th Century British Literature: In this paper, students are taught seminal texts by renowned Victorian poets like Tennyson, Browning, and Arnold; besides these novels and non-fictional prose are also taught.

Semester 5: Course Structure and Outcome: To have a holistic idea of women's literature and different critical terms related to feminism, etc.

CC11: Women's Writing: The students will have an awareness of class, race and gender as social constructs and how they influence women's lives. Students are taught the basic tenets of feminism as a social movement. Students are encouraged to write papers interrogating patriarchal norms.

CC12: Early 20th Century British Literature: In this paper, students are taught Modernism, Post- Modernism and Non- European cultures. The poems of Yeats and Elliot, the novels of Conrad and Lawrence, etc. help students acquire precise ideas on the women's movement in the early 20th century, Psychoanalysis and the stream of consciousness.

DSE1: History of English Literature and Philology: Students will be able to understand the range, significance and scope of English Literature and the growth and evolution of the language.

DSE2: Literary types are taught with special emphasis on Tragedy, Comedy and Novel.

Semester 6: Course Structure and Outcome: To provide an overview of the various phases of the evolution of European and Indian writing in English with thematic concerns, genres and trends.

CC13: Modern European Drama: Students in this semester will study politics, social change and the stage, text and performance and European Drama with intense focus on Ibsen, Brecht, Becket, and Ionesco.

CC14: Postcolonial Literature: The students will be familiar with literary productions that address issues related to cultural identity, in different societies and this would also entail a study of the resistance of the colonized against the colonizer through applicable literary texts.

DSE3: Literary Criticism: Students are encouraged to differentiate between judgment and appreciation and to get in touch with various movements and schools of thought.

DSE4: Partition Literature: Students are taught critical terms like Colonialism, Nationalism, etc. and are informed about the horrors of the Partition, Communalism and Violence.

Course outcomes of B.A. English (Gen.): Critical thinking, cultural integration, writing skills, social interaction, self-directed and life-long learning.

a. To critically understand and analyze poetry and other literary terms,

b. To acquire a holistic idea of Indian Writing in English by Indian authors,

c. To empower students to communicate and express their thoughts cogently,

d. To encourage students to engage in different forms of writings like letters and essays,

e. To help students respond appropriately in group discussions by enabling them to express their views clearly.

Course outcomes of Compulsory English (Gen.):

a. To read and understand English texts,

b. To write letters, e-mails, reports, etc. in the correct format,

c. To prepare CV,

d. To help develop writing skills and to help respond appropriately to questions in class,

e. To acquaint students with literary texts and the important of language across the disciplines,

f. To help in critical interpretation of meanings.

PROGRAMME OUTCOME
(Department of Bengali)

Course - B.A - Bengali	Outcomes
Rabindra kabyadhara.	To provide knowledge and understanding of concept, scope and different forms of Rabindra kabyadhara. It also enables the students to acquire knowledge about Indian and Western philosophical thoughts to help the students understand and realize the relationship between intelligence, creativity and Rabindra kabyadhara. To acquire in depth knowledge about different Rabindra kabya for human mental development.
Prachin Banglar samaj o sanskriti	To make them reflect critically upon the Prachin Banglar samaj o sanskriti and concept of reality of the Prachin Banglar Samaj and Sanskriti. In this respect, students will aware regarding Prachin Banglar samaj o sanskriti in comnection with modern aspect of the Samaj o Sanskriti in present scenario of mainly Bengali Samaj.To help the students understand the cultural lag, conflict, National Integration and International Understanding on Prachin Banglar Samaj o Sanskriti. To make them aware about different social issues preparing in society. To provide knowledge and understanding of different basis of Prachin Banglar Samaj o Sanskriti.
Course - B.A(Hons.) -Bengali	**Outcomes**
Raja natok o Rabindra tattwa darshan.	To help them to appreciate and reflect critically on the development of Raja natok o Rabindra tattwa darshan. In this regard, students will aware the philosophy of Rabindranath in Raja Natok. The students will aware regarding Rabindra Darshan and its impact in the modern society and elsewhere. Students also aware the value of Rabindra Darshan to read this topic.
Rajnoitik uponyas hisabe Saratchandra Chattopadhyayer Pather dabi.	To help the students understand the importance of Rajnoitik Uponyas Hisabe Saratchandra Chattopadhyayer Pather dabi.the students will motivate to love our Country. They also know how to protest against the Bad rule of British Government. The students also motivated how to serve the country for common people. The Pather Dabi Uponnash grew-up the attitude of the students how to protest against injustice.

PROGRAM OUTCOMESES
Department of History
(Topic and Programme Outcomes)

1. **Golden age of Ancient India and its recalls:**

A significant attribute of ancient Indian culture has been the commingling of cultural elements from all over India. The peaceful Indian state and the social organization that helped the growth of science and technology in the Maurya and Gupta periods in ancient period. From that context the students know their glorious past. The students also notice that Indian science and technology has taken a pivot roll in the worldwide. Now a day India produces most of Covid-19 vaccine among the world and completed 'Mission Mangal'. The students can realize the development of ancient Indian science and technology and modern Indian science and technology.

2. **Gandhi and Non-violence in present situation**

Gandhi's Non-violence conceptual fact is that appears to be simple to everyone but in real sense practicing it in day to day life is difficult. For instance, remaining truthful, tolerant, non-violent and respecting others in difficult circumstances of life require a great degree commitment. The great concept of Gandhi's non-violence plays an enthusiastic roll to the students. They have to controlled and escape out them from different kinds of unexpected social obligation.

3. **International relations in historical perspective**

A great part of Indian history is International relationship from ancient times to recent. India makes its relations with Mesopotamian civilization, Babylon civilization, Chinese civilization in ancient times and USA, UK, Japan, Russia and so other countries of the world in recent times. The student realizes that the strategic changes of this relationship from historic angle.

4. **The concept of Indian administration**

Indian administration constructed on the basis of local self administration from the beginning. After that few numbers of empirical state grown up and made their centralized administration whoever local-self government was the main key of Indian administration. As the example of 'sava', 'samiti', 'panchiyati raj' etc. are ancient tradition which are the recent basis of administration of India. The student knowing all the administrative fact from ancient to recent and join themselves as civilian.

5. **Religious concept of India**

India is the grassland of all religious among the world. India was the birth place of Brahmanism or Hinduism, Jainism, and Buddhism, but all these cultures and religions intermingled and interacted with each other. After that other religious like Muslim and Christian also dissolves themselves in Indian society. However, Indian religious concept is rather different from other state in the world. Students are adapted themselves how can they live with others. Indian history taught them to assimilation to others easily.

6. **Communal politics in present perspectives**

India is made upon on the basis of communal diversity. However, tolerance in the society will help in neutralizing the ethnocentric bias in the globe that is taking place day by day on the basis of religion, caste, ethnicity and region etc. The crucial concept of communalization regenerated by British Government in India with their own interest. Our students recognized the real fact of communalization. The state politics always try to socialize communal policy for their own voting interest. The student society always sends back the policy and elects non-communal personal.

(Department of Education)

PROGRAMME OUTCOME

Course - B.A - Education	Outcomes
Educational Philosophy and Psychology	To provide knowledge and understanding of concept, scope and different forms of education. It also enables the students to acquire knowledge about Indian and Western philosophical thoughts to help the students understand and realize the relationship between intelligence, creativity and education. To acquire in depth knowledge about different theories of learning and psychology of human development.
Educational Sociology and Pedagogy	To make them reflect critically upon the scope and concept of educational sociology, functions of different social groups. To help the students understand the cultural lag, conflict, National Integration and International Understanding on education. To make them aware about different social issues pertaining in society. To provide knowledge and understanding of different bases of pedagogy, different levels of teaching and application of pedagogy in classroom.
Course - B.A(Hons.) - Education	**Outcomes**
Education in Pre and Post-Independence India, Contemporary Issues, Field Tour and Report Writing	To help them to appreciate and reflect critically on the development of education in ancient and medieval India. To require knowledge about the position of education system during British Period and after Independence. To provide knowledge about the development of education as stated in Radhakrishnan, Mudaliar, Kothari Commission and also of National Education Policy – 1968 and 1986, Sarvashiksha Mission and RTI, 2009. To explain them the societal relevance of different contemporary issues, traditional, social and educational issues. To enable them experience the value of field tour and get them engaged in report writing also.
Basics of Educational Research and Statistics in Education and Basic ICT	To provide them knowledge about concept, nature and need for educational research. To make them identity and address different research related terminological, sampling methods types and types of research hypothesis. To enable them to pursue standardization of a test to help them analyze the importance of graphical representation of data, description statistics in education. To empower the students to integrate the computer and its components, excel operation and oral presentation with PPT.
Guidance and counselling, Curriculum Studies, Special Education and Importance of Women , Teacher, Value and Peace Education, including life skill and environmental education	To help the students understand the importance of guidance and counselling in the field of education to understand the necessity of curriculum framework and to appreciate and value the position of Women, Teacher, Value, Peace. Life skill and environmental education in educational and social sphere.

DEPARTMENT OF POLITICAL SCIENCE

PROGRAMME OUTCOME

Political Science, as we all know, is a social science study that analyses government and state while also applying empirical theory and scientific methodology to the analysis of political issues. Because the world today revolves around political and economic factors, a formal degree in Political Science is quite useful. Its subject topic is the day-to-day life of an individual living in a society and state. Political science is the study of how institutional circumstances, as well as political actors' beliefs, interests, and resources, impact political behaviour, governance, and power. As a result, a degree in political science not only allows students to improve their understanding of the fundamental structures and processes of governmental systems, public policies, and political forces that directly affect their lives, but it also enables them to analyse political problems, arguments, information, and theories, as well as apply methods appropriate for gathering and interpreting data applicable to this discipline. Above all, it assists students in becoming informed citizens by expanding their awareness of their rights and responsibilities within a state.
A graduate of the college's Political Science programme should be able to:-

A) Demonstrate knowledge of fundamental political processes, institutions, players, behaviour, and ideas, as well as familiarity with important theories, methodologies, and concepts in the field.
B) Demonstrate a thorough understanding of political connections in national, global, and international contexts.
C) Demonstrate the ability to think about the ethical dimensions of politics in a systematic way.
D) Form and convey clear arguments, write well, and engage in intellectually informed oral discussion.
E) Synthesize, analyse, and critically assess the discipline's major arguments.
F) Understand the fundamental structures and operations of government systems, as well as their theoretical foundations.
G) Analyze and/or evaluate political issues, arguments, data, and/or theories.
H) Apply suitable data collection and interpretation approaches to the topic of political science.
I) Educate the elected representatives about the parliamentary procedures and constitutional position of the country.
J) Service to people by opting for civil services.

COURSE OUTCOME (HONOURS)

POLITICAL THEORY

- Accruing advance level of knowledge in political theory.
- Helping the students in the future preparation of their course of study in political theory.
- Updating their knowledge level in the field of study of political theory with latest information.
- Helping the students in preparing them for different competitive examinations.

CONSTITUTIONAL GOVERNMENT AND DEMOCRACY IN INDIA

- To understand Functions of Government.
- To understand Judiciary of India.
- To understand Bureaucracy of India.
- To understand biggest Democracy of the World.
- Know the Ministries, their role & responsibilities.
- Know the roles & responsibilities of Members of Parliament/ State Assemblies.
- Know the process of drafting & presenting a Bill in the Parliament / Assemblies.

INTRODUCTION TO COMPARATIVE GOVERNMENT AND POLITICS

- Accruing knowledge about the structure & functioning of five major governments (UK, USA, CHINA & BRAZIL) in the world.
- Having a comparative study of these governments in a glance.
- Helping the students in building their base in the study of comparative government.
- Accruing knowledge about different forms of government found in different political systems in the world.
- Students have a stronger and more informed perspectives on approaches in studying politics, governments and political systems comparatively. They become familiar with the primary theories and concepts that form the building blocks of the sub-field.

PERSPECTIVES ON INTERNATIONAL RELATIONS AND WORLD HISTORY

- With a focus on politics at the transnational or global level, it demonstrates a generalized understanding of the diplomatic relationship between nation- states, the functioning of international organizations, international law and economy, disarmament and peace efforts, foreign policies of states, the behaviour and roles of nation-states in diverse political situations and also help gain an insight into subjects of Human Rights law and theory.
- Understand the major concepts of international relations, including: power, the international system, balance of power, hegemony, conflict, cooperation, integration, globalization, interdependence, dependence, regimes, globalization, equality, justice, sustainability and international political economy.
- Understanding and critically evaluating the theories and approaches to international relations, including realism, liberalism, classical and neo-Marxism, critical, postmodernist, post-colonial, sexuality and feminist.
- Identify the key actors in international relations—including states, intergovernmental organizations, non-governmental organizations, transnational corporations, global civil society, and individuals—and understand how these actors interact to give substance to international relations.
- Demonstrate a knowledge of the key dimensions, events and processes of international relations within their historic context, such as: the formation of the modern state system, the Treaty of Westphalia, the evolution of global capitalism, the origins of the Cold War, the shift to the post-Cold War system, the role of race, gender and class in the structure of the modern world system, major conflicts, such as the world wars, US intervention in various places in the world, ascendant conflicts, the features and effects of globalizing market capitalism, growing environmental problems and human rights.
- Demonstrate knowledge of the multi-disciplinary nature of international relations by establishing connections with the disciplines that have shaped and continue to influence international relations: politics, economics, society, culture, history, language, race, ethnicity, gender and sexuality.

CLASSICAL POLITICAL PHILOSOPHY:-

- It helps students discover the political philosophy that forms the basis of politics in the Western world, to interpret the political philosophies of the Greek, Roman, French, English and German philosophers in historical context as well as relate them to contemporary politics.
- Origin of the knowledge in Political Thought.
- Concertizing their base in political thought.
- Differences of thought in the different phases of the History of political thought.
- Getting enlightened with fundamental features of political thought.
- Helping the students in the future preparation of their course of study in political thought.

INDIAN POLITICAL THOUGHT

- Helping the students in accruing knowledge in the field of Indian Political thought in the initial stage of their study.
- Apprising the students about India' contribution towards the enrichment of the field of political thought.
- Gathering knowledge regarding India's orientation towards politics and apprising the students about the growth of modern democratic political consciousness in India.
- Helping the students in their future course of study in India's political thought.

COURSE OUTCOME (GENERAL)

COMPARATIVE GOVERNMENT AND POLITICS

- Knowledge gained: About evolution of Comparative Politics as a domain, its methods and theories with a focus on politics in different nations in a comparative perspective.
- Skill gained: To acquire skills to compare politics among nations.
- Competency gained: To apply the knowledge gained in understanding the politics of different nations and the political trends including area studies.

WOMEN, POWER AND POLITICS

- Knowledge gained: About the Schools of Feminism and role of gender in the participation of women in politics.
- Skill gained: Awareness of and understanding about the political role of women.
- Competency gained: To apply the knowledge in doing research as well as for work in NGO sector working on women's issues.

UNDERSTANDING GLOBAL POLITICS

Students will be familiarized with different theories on International Politics, and to make them aware of the different units and actors that operate in the Global system which determine the domestic and foreign policies of a nation state. The students are also expected to be able to grasp the operation of various international organizations, and how the national interests of nation states are attained and defended. Students are also expected to understand power politics and relations among states, while also making them aware of he different characteristics and parameters of national power.

DEPARTMENT OF PHILOSOPHY

PROGRAMME OUTCOME

The aim of B.A Philosophy course is an overall development of the students, morally elevating them to walk in the correct path of life excelling not only in academics but also in all other fields they touch.

- It is that branch of study which deals with humans, their needs their values, they being compassionate to one another. Not only to humans only but also to other lives also.

- After completion of B.A Philosophy course, the students will be able to understand and discuss major philosophical problems in the Indian as well as Western tradition. They also will be able to assess arguments and philosophical perspectives using critical reasoning and can also express complex thoughts logically & coherently.

- Students in the B.A Philosophy course will be able to learn how to explore answers to these fundamental questions by debating and defending complex ideas & arguments & express their beliefs with clarity & precision.

- At the end of the programme the students are expected to learn the research methodology and to apply them validly while writing research papers. While donning so they are expected to consult both the primary and the secondary sources of books and also to study research articles both contemporary and modern.

- Recognizing and understanding the different values- personal, social and global, recognizing the value of the total existence and their harmonious relations, building ability to live in harmony in the midst of diversity and its importance.

- Identifying the inherent problems of philosophy to reflect logically on them and providing a necessary solution to it.

- To understand the importance and significance of the historical development of each philosophical tradition and attain knowledge from them.

- To develop a proper understanding and significance of the different kinds of traditions, social change, the role of philosophy in guiding each and every branches of social and political theories.

PROGRAMME SPECIFIC OUTCOME

COURSE: B.A Philosophy	Outcomes
Outlines of Indian Philosophy	This course helps the students to have a close acquaintance with the major issues and important concepts of Indian Philosophy, and this paper is to learn the meaning of Indian Philosophy, distinction between the Nastika and Astika Schools
History of Modern Western Philosophy	The importance and usefulness of studying the history of modern western Philosophy is that it is based on logical reasoning and as such it is more consistent than any other paper besides logic. After studying the paper students will be able to realize the western thoughts as well as they can apply this thoughts in day to day life.
Philosophy of Religion	Religion is a special aspect of human experience and therefore needs a philosophical explanation. The function of philosophy of religion is to determine the significance and values of human experience of religion. By studying this paper, students can come in acquaintance with the concepts related to philosophy of religion. Gather knowledge about the concept of religious pluralism and the concept of universal religion
Ethics	In this course content students will understand what is "Good" in the ethical terms, the different traditional theories of Good. The meaning of "Right",the meaning of "Duty". The relations between Good and Right and Duty, and the nature of "Good Will ", the three maxims will also be learnt by the students.
Epistemology and Metaphysics	From this unit students will learn about what is philosophy, the definition , methods and scope of philosophy. The relation between philosophy and Science, philosophy of religion.
Western Logic	After studying the paper students will be able to uplift their understanding level in math mathematical perspectives
Social and Political Philosophy	After studying the paper students can enrich himself and able to know about the primary concepts like society, community, various customs and laws of society . Knowledge about the concept of social gradation, social Class and caste systems, the social status as well as the inequalities in our society. Acquaintance with the description of the manifold diversities in race, religion, languages as well as the unity and the knowledge about the political philosophy, the meaning and the nature of secularism as well as the nature of secularism in India.

Department of Journalism & Mass Communication

Programme Specific Outcomes

Outcome 1

The students understand that media works as a watchdog and mirror of the society that aware of people various activities like politics, economic, social and cultural phenomena etc.

The students understand that media also exposes the vaccum of loopholes and making the administration more democratic friendly.

The students also learn that freedom of expression is very crucial for the healthy growth of civilization and make the people realised that free flow of information is too much essential for building a democractic society.

Outcome 2

The students learns a clear idea about the diffusion of extension and community development approach, the ideological and mass mobilization method, the

centralized mass media method, the localized mass media method, and the integrated approach.

The students also understand that development communication

plays the more important role of creating an atmosphere for understanding how these new ideas fit into the real social situation in which the people operate. The ultimate goal is to catalyze local development activities, local development planning and implementation, and local communication to smoothen the path to development

Media and International Communication

Outcome 3

The students understand that how global information is exchanged across the countrires and how international communication is done through varous forms of media network. They also gather knowledge about that how information is shared through media communication in world wide context.

The students understand that media role's in supplying the global infornation in relation to world politics, wars, pandemic and diplomatic policies of the different countries from time to time. The students also learns that the strategies of the international media during the time of crisis and controversy and bring the issue to the forefront of the society accordingly.

Media and Democracy

Outcome 1

The students understand that media works as a watchdog and mirror of the society that aware of people various activities like politics, economic, social and cultural phenomena etc.

The students understand that media also exposes the vaccum of loopholes and making the administration more democratic friendly.

The students also learn that freedom of expression is very crucial for the healthy growth of civilization and make the people realised that free flow of information is too much essential for building a democractic society.

Devopment Communication: Concept and Approaches

Outcome 2

The students learns a clear idea about the diffusion of extension and community development approach, the ideological and mass mobilization method, the

centralized mass media method, the localized mass media method, and the integrated approach.

The students also understand that development communication

plays the more important role of creating an atmosphere for understanding how these new ideas fit into the real social situation in which the people operate. The ultimate goal is to catalyze local development activities, local development planning and implementation, and local communication to smoothen the path to development

Media and International Communication

Outcome 3

The students understand that how global information is exchanged across the countrires and how international communication is done through varous forms of media network. They also gather knowledge about that how information is shared through media communication in world wide context.

The students understand that media role's in supplying the global infornation in relation to world politics, wars, pandemic and diplomatic policies of the different countries from time to time. The students also learns that the strategies of the international media during the time of crisis and controversy and bring the issue to the forefront of the society accordingly.

Media and Cultural Globalization

Outcome 4

The students understand that how globalization of

culture is promoted through the international media networks system. Hence, the entire world has been molded in the image of western world and promoted western culture especially the american culture through popular media. The also known that a steady flow of transactional western images that connects the worldwide audiences through the various form of global media.

The students also learns that how various cultures, societies and economies through a global network of trade and communication become integrated in all respects.

The students also know that role of the mass media in the globalization of culture is a contested issue in international context. This part should be addressed in broader sense and needs a widespread research in international communication theory and research.

DEPARTMENT OF GEOGRAPHY

PROGRAMME OUTCOME

B.A. /B.Sc. (Hons.)

The programme of Geography(Hons)aims to achieve the following outcomes-

- To provide knowledge and understanding of the fundamental concepts and skills in the major domains of geography: physical geography, human geography, human- environment interactions, and geographic information science
.
- To empower the students to integrate the domains of geography and apply their knowledge to issues concerning people, places, and environments.

- To help the students understand and apply descriptive and analytical knowledge about map reading, statistics, geospatial technologies to the ever-changing interplay of people and their physical and human environments at local to global scales.

- To help them analyze the earth as an integrated human-environment system by examining dynamic flows, interactions and exchanges at different spatial and temporal scales.

- To make them reflect critically upon the scope and evolution of the diverse discipline of geography.

- To help them recognize, synthesize and evaluate diverse sources of knowledge, arguments and approaches pertinent to exploring human-environment problems.

- To provide them knowledge about Collection and Analysis of geographical data and interpret its significance within the context of human-environment relations.

- To make them communicate geographical concepts and data effectively using oral, written and visual forms.
- To help them collaborate effectively as a team leader and member to pursue innovative solutions to human environment problems.

- To make them identify and address geographical questions using creativity and critical thought in diverse settings (e.g. classroom, lab, field, community).

- To help them to investigate complex real world challenges using appropriate concepts, methods, and tools from one or more geographical sub-disciplines.

- To help them to appreciate and reflect critically on the importance of holistic, integrative human-environment perspectives

- To explain them the societal relevance of geographical knowledge and apply it to real world human-environment issues.

- To make them value respectful, responsible, and just community engagement and demonstrate active citizenship when addressing human-environment issues.

B.A/B.Sc(General)

- Students will learn fundamental concepts in physical geography, human geography, and human-environment interactions while developing technical proficiency.
- Students will acquire the knowledge to describe, analyze, and explain the patterns, processes, and interactions of human and physical phenomena on Earth's surface.
- Students will have a general understanding of physical geographic processes, the global distribution of landforms and ecosystems, and the role of the physical environment on human populations
- Students will learn written, verbal, and graphic communication skills
- Students will learn to use analytical techniques and apply them to the ever-changing interplay of people and their physical and human environments at local to global scales.
- Students will understand the societal relevance of geographical knowledge and apply it to real world human-environment issues. To help them to appreciate and reflect critically on the importance of holistic, integrative human-environment perspectives
- Students will be able to appreciate and reflect critically on the importance of holistic, integrative human-environment perspectives
- Students will acquire an understanding of and appreciation for the role that geography can play in community engagement.
- students will read, interpret, and generate maps and other geographic representations as well as extract, analyze, and present information from a spatial perspective.
- Students will acquire an understanding of and appreciation for the role that geography can play in community engagement.

PROGRAMME SPECIFIC OUTCOME

B.A/B.Sc(Hons.)

The programme specific outcome of the discipline aims-

- To understand the key concepts in physical geography of environmental systems, major landforms, process linkages, variable scale, and "cause and effect" and how they relate to the influence of climate, geology, and human activities in shaping the earth surface.
- To understand different climatic phenomena, processes occurring in the atmosphere and their impact on human environment.
- To understand the major processes of soil formation, different soil –types, their characteristics, spatial distribution and impact on agriculture and economy.

- To develop an in-depth understanding of the concepts of “space," “place” and “region” and the importance of spatial and temporal patterns in explaining world affairs.
- To understand the different economic processes,economic regions and their relation with physical and cultural environment.
- To understand, analyze and interpret general demographic principles, their pattern, causes and their implications at regional and global scales.
- To understand social regions, cultural regions, and individual states.
- To understand the various processes and many facets of urbanization and itsimpact on the environment.
- To understand global and regional patterns of cultural, political and economic institutions, and their effects on the preservation, use and exploitation of natural resources and landscapes

- To use accepted field, laboratory, geospatial, and statistical techniques to quantify the quantity, characteristics, and history of physical phenomena for geographic research and natural resources management.
- To use the scientific methods including critical thinking, sampling, hypothesis formulation and testing, and controlled experimentation to assess environmental problems, and be able to effectively communicate research objectives, methodology, results, interpretations, and conclusions in oral and written formats.
- To synthesize geographic knowledge and apply innovative research strategies to solve problems in resource conservation, environmental change, and sustainable development within the community, region, and world
- To use geospatial tools, technologies, and analytical techniques in the context of social science research.
- To understand and apply descriptive and analytical knowledge about map reading, statistics, geospatial technologies, and field techniques.

PROGRAMME SPECIFIC OUTCOME

B.A/B.Sc (General)

- To understand the major geomorphic features and landforms created by agents of gradation, and the processes of weathering.
- To understand the major climatological phenomena and the atmospheric processes at work on the globe.
- To gain knowledge regarding the basic soil forming processes and different soil types and their utilization.
- To develop a solid understanding of the concepts of “space," “place” and “region” and their importance in explaining world affairs
- To understand general demographic principles and their patterns at regional and global scales.
- To understand the major economic processes and economic regions of the world.
- To understand physical features, cultural regions, and individual states and urban centers.
- To understand the global and regional patterns of cultural, political and economic institutions, and their effects on the preservation, use and exploitation of natural resources and landscapes.
- To have an indepth knowledge regarding the regional geography of our country.
- To understand the major environmental problems and issues concerning bio-geography.

- To understand the basic techniques of cartography and mapping and their application.

- To understand the basic quantitative techniques and their application in the solution of geographical problems.

COURSE OUTCOME

B.A/B.Sc (Honours)

Outcome Number 1 – To have knowledge of the major geomorphological features of the Earth,major physical processes and landforms created by them.

Outcome Number 2- To have a detailed understanding of the geo-tectonic processes, plate tectonics, vulcanicity and other tectonic activity.

Outcome Number 3- To have knowledge about the major atmospheric processes,climatic phenomena and its impact on the natural and anthropogenic environment.

Outcome Number 4-To gain a detailed understanding of the various soil forming processes,distribution of soils their formation and characteristics and their impact on agriculture.

Outcome Number 5 – To have knowledge of the major cultural and social processes and features of the earth and their relation to the physical environment.

Outcome Number 6 – To have knowledge of quantitative methods used by geographers and their ability to use statistical software to solve geographic problems.

Outcome Number 7- To gain knowledge of the foundations and theories of geographic information systems (GIS) and use the tools and methods of GIS.

Outcome 8– To demonstrate their knowledge of physical geography and the methods and techniques for observing, measuring, recording and reporting on geographic phenomena.

Outcome 9 –To will demonstrate their competence to work individually and as a team to develop and present a client-driven GIS solution.

Outcome 10–To demonstrate their knowledge of resource and environmental issues. Students will also be able to demonstrate their knowledge of the role that geography can play in analyzing resource / environmental degradation and improving resource / environmental management.

Outcome 11 – To demonstrate their knowledge of urban and regional planning and how effective land management influences the utility of the land.

Outcome 12 – To gain knowledge of the formation, use, conservation and management of water resources including legal, economic, political and societal factors and the evaluation of attempts to manage water resources.

Outcome 13- To have a working knowledge of hydrology, water availability and quality, hazards, use, demand and allocation.

Outcome 14- To have a detailed knowledge regarding the geography of India.

Outcome 15- To have a detailed knowledge regarding the geography of West Bengal.

COURSE OUTCOME

B.A/B.Sc (General)

Outcome Number 1 – To have knowledge of some of the major geomorphological features of the Earth,major physical processes and landforms created by them.

Outcome Number 2- To have a general understanding of the geo-tectonic processes, plate tectonics, and other continental drift.

Outcome Number 3- To have knowledge about the major climatic processes and phenomena and major climatic types.

Outcome Number 4- To have knowledge of the major cultural and social processes and features of the earth and their relation to the physical environment.

Outcome Number 5 – To have knowledge of some of the common quantitative and statistical methods used by geographers and their application to solve geographic problems.

Outcome Number 6- To have knowledge regarding the various typesof rural and urban settlements and their evolution.

Outcome Number 7- To gain knowledge of resource and environmental issues

Outcome 8- To have a detailed knowledge regarding the physical and regional geography of India

DEPARTMENT OF GEOGRAPHY (PG)

PROGRAMME OUTCOME

P.G.(GEOGRAPHY)

The programme of Geography(P.G.)aims to achieve the following outcomes-

- Compare and contrast the theories, philosophies, and concepts in the discipline of geography, including unifying themes of spatial patterns and structures, the interrelationship between people and places, and the interactions between nature and society.
- To provide knowledge and understanding of the fundamental and applied concepts and skills in the major domains of geography: physical geography, human geography, human- environment interactions, Remote Sensing and Geographic information science.
- To empower the students to integrate the domains of geography and apply their knowledge to issues concerning people, places, and environments.

- Demonstrate an advanced understanding of and ability to differentiate among the various methodologies used in geographic research.

- To help them analyze the earth as an integrated human-environment system by examining dynamic flows, interactions and exchanges at different spatial and temporal scales.

- To make them reflect critically upon the scope and evolution of the diverse discipline of geography.
- To help them recognize, synthesize and evaluate diverse sources of knowledge, arguments and approaches pertinent to exploring human-environment problems.
- Communicate mastery of geographic data, theories, philosophies, and concepts in oral, written, and visual forms, with ethical engagement and respect for diversity of individuals, groups, and cultures.
- Identify and assess how geographic concepts apply in the workplace and in everyday life to solve real-world problems.
- To make them identify and address geographical questions using creativity and critical thought in diverse settings (e.g. classroom, lab, field, community).

- To help them to investigate complex real-world challenges using appropriate concepts, methods, and tools from one or more geographical sub-disciplines.

- To help them to appreciate and reflect critically on the importance of holistic, integrative human-environment perspectives

- To help them collaborate effectively as a team leader and member to pursue innovative solutions to human environment problems.

- To make them value respectful, responsible, and just community engagement and demonstrate active citizenship when addressing human-environment issues.

PROGRAMME SPECIFIC OUTCOME

P.G.(GEOGRAPHY)

The postgraduate syllabus for M.Sc. course in Geography has been framed with the objective of giving the students a holistic understanding of the subject putting equal weightage on both Physical Geography and Human Geography and their interactive relationships. The principal goal of the syllabus is to enable the students to secure a job at the end of the Postgraduate programme. Keeping this in mind and in tune with the changing nature of Geography, adequate emphasis has been rendered on the applied aspects of the subject.

PSO01: Physical Geography

The courses in Physical geography focusses on geography as earth sciences and covers areas such as biogeography, climatology and meteorology, geomorphology, environment management, hydrology, oceanography, paleo-geography, and quaternary science. On completion of the programme, with a specialisation in Physical Geography the students will develop knowledge base and skills as follows:

Knowledge base:

- Genesis of major geomorphic features and their potential use as indicators of environmental change.

- Physical processes of tropical ecosystems with focus on soils, vegetation and changing land use.

- The relationship between environmental change and human activity including resilience, vulnerability and adaptive processes.
- The interplay between atmospheric circulation and energy balance and correlation with global climate change and hydrology.
- Methods and equipment used in the study of fluvial, estuarine and marine environments, the potential effect of sea-level and climate change.

Skills:

- Identify and describe key factors that control a range of biogeochemical processes and net effects in terms of the environmental impact of pollutants and greenhouse gases
- Assess how models at different scales and databases can be used to enhance our understanding of present and past climate and predict future development in climatic trends.
- Review a scientific literature and communicate results of projects orally and in writing.
- Field methods used in studies of sediment transport in the fluvial, estuarine and marine environment

PSO02: Human Geography

The courses in Human geography deals more with patterns and processes that shape human society and covers areas such as culture, development, economy, health, geopolitics, demography, religion, society, transport and regional development and planning. On completion of the programme, with a specialisation in Human Geography the students will develop knowledge base and skills as follows:

Knowledge base:

- Conceptualisations of space and place including social, economic and development issues as well as human environment interactions.
- The role of uneven geographical development including its implications for urban and regional development and planning.

Skills:

- Work at a scientific and application-oriented level with a broad range of theoretical and methodological approaches to human geography
- Work with interdisciplinary dimensions of human geographical processes and their impacts and spatial aspects at different scales.
- Work in and understand the implications of cross-cultural contexts.

PSO03: Applied Geographical Aspects

The Applied aspects in Geography include courses in Remote Sensing and GIS, advanced techniques of mapping and field-based data generation. On completion of the programme, in Geography the students will develop specific skills as follows:

Skills:

- Student will be able to analyse the problems of physical as well as cultural environments of both rural and urban areas. They will try to find out the possible measures to solve those problems through Social Survey Project:
- Integrate RS data with other data in a GIS environment for applications in spatial planning, environmental monitoring and modelling.
- Advanced methods of field mapping and primary data collection.
- Assess data quality, in terms of uncertainty, in order to understand and describe the limitations of current RS and GIS technology.
- Develop the capability of observation through field experience so that they will be able to identify the socio-environmental problems of a locality.

PSO04: Development of Communication Skill and Interaction Power

- The students will be efficient in communication skill and social interaction.
- The students will be able to understand and write effective reports and design credentials, make effective demonstrations and give and receive clear instructions.

PSO05: Understand Environmental Ethics and Sustainability

- The students will understand the impact of their acquired knowledge in societal and environmental contexts
- Demonstrate their sensitivity towards social responsibility and sustainable development.

COURSE OUTCOME

P.G.(GEOGRAPHY)

GEOPCOR01T: GEOTECTONICS AND GEOMORPHOLOGY

- Making the students' aware about the basic concepts of Geomorphology with background knowledge of geology and environmental sciences.
- Understanding crustal mobility and tectonics; with special emphasis on their role in landform development.
- Establishing the relationships between landforms, processes and underlying structure
- Overview and critical appraisal of landform development models
- Exploring how landforms and geomorphic processes vary under different climatic regimes.
- Students will be introduced to geomorphic features that are not found on Earth. As geomorphologists they will know how to use landforms on Earth to understand those on other solar system bodies.
- Develop understanding of fluvial and other geomorphic processes together with emphasis upon the applied aspect of Geomorphology and hazard management.

GEOPCOR02T: SOIL AND PLANT GEOGRAPHY

- To familiarise the students with the basic and fundamental concepts of soil geography and discuss the processes of soil formation.
- Students will know the concept, causes and controlling factors of soil erosion, soil degradation and conservation of soils
- Students should know the concept, need and methods soil of management
- To introduce the concept of Phytogeography
- Assess the adaptation of plants in relation to light, temperature, water, wind and fire.
- To provide thorough knowledge about the conditions of plant growth
- Students will be able to understand adaptation, development and behaviour of different plant groups.
- Evaluate energy sources of ecological system

GEOPCOR03T: POPULATION AND WELFARE GEOGRAPHY

- Objective of the course is to make the students aware about the basic concepts and theories of human population and their development.
- Provide an insight into the contemporary and emerging wellbeing issues, based on the components of welfare
- Address the geographical dimensions of inequality through the Constitutional imperatives

GEOPCOR04T: GEOGRAPHY OF ECONOMIC ACTIVITIES

- The objectives of this course are to integrate the various factors of economic development and acquaint the students about the dynamic aspects of Economic Geography
- To familiarise the students with the concept, origin, and development of agriculture
- To examine the role of agricultural determinants towards changing cropping patterns, intensity, productivity, diversification and specialisation.
- To familiarise students to understand the location of major manufacturing activities with the support of various industrial location theories and models.
- The changing industrial scenario and its impact on the Indian economy along with the economics of global trade.

GEOPCOR05P: STATISTICAL TECHNIQUES AND COMPUTER APPLICATION

- Using statistical techniques in order to summarise, represent, analyse and interpret data.
- Introduce basic statistical procedures and train the students to apply these procedures towards analysing the geographical problems.
- The course also aims to provide training in application of computers in analysis and synthesis of a variety of quantitative data.

GEOPCOR06T: HYDROLOGY AND OCEANOGRAPHY

- Understanding the variations of global hydrological cycle and analysing the concept of Hydrology as an integral part of all living things in the world.
- Developing understanding about the significance of a systematic study on fresh water resources, their storage and utilisation, emphasising the significance of groundwater quality and its circulation.
- Introduce students to the physical and chemical properties of sea water, atmospheric and oceanic linkage.
- Students will be able to understand aquifer properties and its dynamics after the completion of the course and get an exposure towards the behavior and characteristics of the global oceans and the national and international laws for governing the coastal area and territorial sea
- Students can be involved in managing, monitoring and protecting water and water resources. They can be involved in planning, development and sustainable use of natural and domestic water resources.

GEOPCOR07T: SYNOPTIC AND APPLIED CLIMATOLOGY

- Developing the understanding about the Earth's atmosphere and global climate.
- Understanding the major forms of weather disturbances and the dynamics of the Monsoon
- Assessing the phenomenon of climate change and its implications including the role of man in global climate change.
- Geographers can be absorbed as climate change analysts, studying and interpreting data, maps reports, photographs and charts to predict long and short scale patterns.
- Exposure of students to the various branches of Applied Climatology

GEOPCOR08T: HUMAN CULTURE AND SOCIETY:

- An insight into the notion of Cultural Geography will help students in understanding and comprehending the prevalent social-cultural relations with changing human adaptations.
- To relate these issues through the study on the elements of Indian society and the processes of their transformations.

- The course is significant to disseminate knowledge on the Indian society with its multicultural identity as existing in this era of cultural globalization.

- It will inculcate in students the pride of universalization of Indian culture and social values.

GEOPCOR09T: INDIA: RESOURCE APPRAISAL AND MANAGEMENT

- The objective of the course is to understand India in terms of various regional divisions, their important characteristics and to analyse the natural and human resource endowments, their conservation and management.

- It also aims to sensitize the students with development issues and policies designed for regional development. The paper also gives an insight into the geography of West Bengal, to acquaint the students with the state — its problems and prospects.

GEOPCOR10P: MAP INTERPRETATION AND MAPPING TECHNIQUES

- Acquire knowledge different types of map projection and develop a clear concept of their properties and applicability.

- Gain knowledge about topographical maps and apply this knowledge in understanding ground realities.

- Demonstrate competence in fundamental geological skills in identification; interpretation of geologic maps and cross-sections with basics of three-dimensional conceptualisation

- The course also aims to train the students in various methods of analysing socio-economic data.

GEOPCOR11T: PHILOSOPHIES OF GEOGRAPHY AND GEOPOLITICS

- Develop an idea about evolution of geographical thinking and disciplinary trends in different parts of the world.
- Build an idea about the dichotomous nature of Geography.
- Establishing relationship of Geography with other disciplines and man-environment relationships
- Analysing modern and contemporary philosophies of Post-colonialism, Post-structuralism, Modernism and Post-modernism in Geography
- Main objective of the course on Geopolitics is to provide insight into the complex relationship between geographical factors that have a strong bearing on the political scenario at global, regional and local level.
- To sensitise the students to geopolitical understanding of conflicts and regional cooperation with respect to borders.

GEOPCOR12T: MULTIVARIATE STATISTICS IN GEOGRAPHY

- Students should have the understanding of basic concepts associated with matrix algebra, multivariate normal distributions and their properties with special emphasis on bivariate normal distribution
- To develop the capability of analysing multivariate data using techniques like Principal Component Analysis, Factor Analysis.
- Familiarising students to Classification and Clustering methods.

GEOPDSE01T: A. FLUVIAL PROCESSES AND MANAGEMENT

- The rivers being the major geomorphic agent of erosion, the course assumes significance as it mainly deals with an understanding of the fluvial system.
- The students are introduced to the forces resisting and driving the flow of water which has its resultant effect on the flow patterns and sediment load.
- The course also emphasises on anthropogenic disturbance of channel, floodplain and the various management options.
- The impacts of dams, river training structures are also dealt with.
- The students will be familiarised with the various Management Action Plans adopted in India for river restoration and management.
- The course also highlights the necessity of watershed management and the application of geomorphological knowledge in environmental management.

GEOPDSE01T: B. RURAL INSTITUTIONAL MANAGEMENT AND DEVELOPMENT IN INDIA

- The course intends to focus on Rural Institutional Management and Development in India at the micro-regional level.
- Evolution of decentralisation process has led to Community Development Programmes and the Institutional set-up of the Panchayati Raj Institutions.
- The students will be aware of the various facets of rural development through the various approaches to rural development, rural reconstruction and the changing rurality as a consequence.
- The conceptual background and its sound knowledge will guide them in seeking employment in several of the schemes launched by the government and implemented by it along with the NGOs. This is an added advantage as most of the students are from the rural background

GEOPCOR13P: REMOTE SENSING AND GEOGRAPHICAL INFORMATION SYSTEM

- The objective of the course is to introduce to the students the basic principles of remote sensing and the methods of digital interpretations of satellite images.
- The course provides hands-on-training on the basic elements of GIS and its areas of application.
- Geospatial analysis is a growing field of employment. The role includes analysis of data, design and use of this database.
- The work of a geospatial analyst varies greatly depending on which sector the student wants to work

GEOPCOR14P: GROUND SURVEY AND FIELD METHODS

- Main objective of field method is to provide the students the understanding of ground reality; mapping of land use and to enhance the skill of the students during field survey.
- On completion of this course students shall be able to understand the advantages of electronic surveying over conventional surveying methods.
- Students completing this course would have acquired practical knowledge on handling survey instruments like Theodolite and Total station and have adequate knowledge to carryout Triangulation surveying including general field marking for various projects.
- The course aims to give hands-on-training in preparation of maps with application of GPS.
- The students should be able to take decisions regarding what measurements to take, and which instruments to use.
- The skill to carry out surveying with Theodolites and Total Station will make the students eligible for securing jobs as surveyors in various Government and Non-government organizations.

GEOPCOR15T: ENVIRONMENTAL GEOGRAPHY AND SUSTAINABLE URBAN DEVELOPMENT

- The importance of conserving the environment to sustain ecological balance has been emphasised in the course.
- Examples of human-induced social and ecological changes and some environmental issues in contemporary India have also been highlighted.
- To study the integrated themes and biodiversity, natural resources, pollution control and waste management
- To study the nature and facts about environment and finding and implementing scientific, technological, economic and political solutions to environmental problems.
- The course will also enlighten students on environmental issues with special emphasis on urban sustainability as the world is fast urbanizing.
- Case studies showcasing failure and success stories implemented by the governmental policies on urban development with local community participation will help in understanding critically the concept of sustainable development and its management in India.
- Students can find career opportunities in Government ministries and other public and private sector organisations concerned with policy analysis in the fields of sustainable development and environmental planning as a sustainability consultant.

GEOPDSE02T: A. COASTAL PROCESSES AND MANAGEMENT

- This course includes interpretation of coastal environment and its management and understands coastal regions as dynamic and contested environment.
- Regional or local case studies will teach the students the techniques of geomorphic assessment of specific problems.

- This course will give students an understanding of coastal resources management and protection as a public policy problem.
- The course sensitises students about the issues of coastal vulnerability like sea level change, coastal erosion, estuarine pollution and unplanned reclamation efforts
- The students will learn to critically assess the impacts of conventional coastal management options.
- Geomorphologists can find career opportunities as Environmental Consultant in engineering consulting firms and government agencies.

GEOPDSE02T: B. RURAL RESOURCE ECONOMICS AND DEVELOPMENT IN INDIA

- We are to generate livelihoods in the village itself so that people do not have to migrate to urban areas utilizing the rural resources.
- The students are introduced to the indigenous knowledge of the people in order to bring about sustainable resource management. Local experiences shape local craft and some of the industrial products are centuries old which needs to be taken care of.
- In the long run, rural tourism can make a significant contribution to arresting migration, making the villages attractive to their residents, and even result in some reverse migration.
- Establishing a rural tourism network will have a synergistic effect benefitting all players. Promotion of tourism will be 'value addition'. Once tourists start coming, local initiative combined with governmental support can ensure further augmentation of facilities, attractions and activities, including the development of social welfare measures in the fields of health, education and employment.
- Knowledge of these issues will benefit the students as they can apply this knowledge at the grass root level. They can also carry out their own business or get jobs in these sectors instead of migrating to urban areas as most of them are from the rural background.

GEOPDSE03T: A. MANAGEMENT OF NATURAL AND MAN-MADE HAZARDS

- The course elucidates the importance of disaster management, explain the causes and describe the dimensions of natural and anthropogenic disasters.
- The students will be equipped with the principles and components of disaster management, the contents of an emergency operational plan and explanation of the role of disaster mitigation and its role in sustainable development.
- The course will sensitize the students regarding the problems of groundwater and soil.
- The problems of urban geomorphology are gaining relevance in sustainable hazard management strategies. Case studies will help the students to connect with the real-world issues.
- Geographers can be engaged as Emergency Management Specialists' who can coordinate disaster response and crisis management through planning, assessment and vulnerability analysis. With the introduction of GIS and remote sensing in Geomorphology, preparation of maps for disaster management has been very effective.

GEOPDSE03T: B. RURAL CULTURE AND HERITAGE AND DEVELOPMENT

- Communal tolerance, mass gathering, religious practices and folk music have sustained India's peace and development. So, a study on such practices will sustain our peace by the younger generation and inculcate moral value in the students.
- Heritage of rural India encompasses almost all aspects of life: monuments and historic structures, performing and visual arts, crafts and artisan skills, traditional knowledge in agriculture, water management and medicine and the heritage and history embedded in mythology, folklore, ritual, and language. Traditional crafts have survived in India because rural folk still make and use them. These are visual dialogues between the craftsmen and culture of the land.
- Case studies on these various facets as an exemplar from India in general and West Bengal in particular will set new benchmarks for rural development and promotion of local culture.
- Heritage and culture and rural tourism are tools capable to boost local economy, community mobilization and conservation and in sustainable renewal of resources.
- The course will also provide prospective job opportunities in government and NGO departments and many can act as independent entrepreneurs themselves.

GEOPDSE04P: A. PRACTICAL ON APPLIED GEOMORPHOLOGY

The course aims to give hands-on-training on interpretation and quantification of fluvial and coastal processes.

- The students are trained on water and sediment analysis procedures which are indicators of the operating geomorphic processes.
- The stress on on-field data collection and monitoring will train the students to identify the problem areas and give them hand-on experience in management of fluvial or coastal problems.
- Qualitative and quantitative analysis of geomorphic data will facilitate the students to suggest the suitable management procedure.

GEOPDSE04P: B. PRACTICAL ON REGIONAL PLANNING AND RURAL DEVELOPMENT

- Research in Geography involves thinking about the relationships between methods, techniques, analysis, and interpretation, the important role of which is filled by the research design.
- Method is a technique for gathering evidence, while methodology is a theory of how research should proceed through its various stages and phases, discussing the philosophical approach to the work.
- The course includes techniques of collection of primary and secondary data; organising, processing and analysing the socio-economic data and techniques of formulating rural planning for its holistic development. Results from qualitative research are more understandable to people who are not statistically trained and can reveal more insightful geographical thinking than purely numerical outcomes.
- The study of the same phenomenon through the use of multiple methods of data collection quantitatively and qualitatively, cross verifying it through two or more sources will help students learn of validation of the data.
- The course outcome is very promising as students can help in formulating rural plans required for Regional Planning and Rural development as little focus is on this sphere in our country.

GEOPDSE05M: A. PROJECT BASED ON APPLIED GEOMORPHOLOGY

GEOPDSE05M: B. PROJECT BASED ON REGIONAL PLANNING AND RURAL DEVELOPMENT

- The project on optional paper (A or B) will be based on primary data collected from field. The topic will be based on any problem that has contemporary relevance.

GEOPAEC01M: COMMUNICATION SKILLS

In an era of technology and globalization communication plays an important role. Helping students to develop their communication skills is the need of the day to motivate and help them through various strategies like to expand vocabulary, to improve fluency, to exhibit confidence to communicate better. The course will focus on developing communication skills as part of academic ability required by students. This will in turn help in improving their research skill and aptitude. It will also help them while presenting a paper in a seminar or facing interviews seeking a job. This course is a scientific approach towards their learning process. It is really promising as it will develop expertise of the learners.

GEOPSEC01M: INTRODUCTION TO COMPUTER PROGRAMMING

- The course will focus on developing basic programming skills using the Python language and source programming language.
- Python helps to curtail software development cost applying those skills to solve various problems related to quantitative geography. The course will involve a brief introduction followed by computer-based tasks.
- Since Python is supported by many operating systems it is suitable for creating prototype of the software applications. At present the job market for Python developer GIS Analyst is highly promising

GEOPGEC01M: GEOSPATIAL ANALYSIS

- Comprehend fundamental concepts and practices of Geographic Information Systems (GIS) and advances in Geospatial Information Science and Technology.
- Apply basic graphic and data visualization concepts, demonstrate skills in file and database management.
- Give examples of interdisciplinary applications of Geospatial Analysis.
- Apply GIS analysis to address geospatial problems and/or research questions.
- Demonstrate proficiency in the use of maps, satellite images and GIS tools to create maps that effectively convey the information they are intended to.

Department of Chemistry

Learning Outing of B.Sc. General Course

Chapter	Topics we learn
Atomic Structure & Chemical Periodicity	We get clear idea about structure of atom from Various Atomic models and information about the Discoveries and properties of Electron, Proton and Neutron (Sub-atomic Particles), From the Change of spectral behaviour in presence of electric and magnetic field we can understand the Quantum Mechanical Model of Atoms (four Quantum numbers of electron), Electronic Configuration. The periodic table lists all the elements, with information about their atomic weights, chemical symbols, and atomic numbers.The arrangement of the periodic table leads us to visualize certain trends among the atoms.The vertical columns (groups) of the periodic table are arranged such that all its elements have the same number of valence electrons. All elements within a certain group thus share similar properties.
Thermodynamics and Thermochemistry	Thermodynamics, science of the relationship between heat, work, temperature, and energy. In broad terms, thermodynamics deals with the transfer of energy from one place to another and from one form to another. The key concept is that heat is a form of energy corresponding to a definite amount of mechanical work.Concept of enthalpy and entropy also came from thermodynamics. It also helps to predict the spontaneity of natural process and to solve the numerical using Hess's law.
Basic knowledge of Organic Chemistry	From the Basic knowledge of Organic Chemistry we get the idea about Organic molecules and its composition, Representation, Classification. The different behaviour of these molecule depends on their Various electronic effect such as Inductive Effect, Resonance and the Resonance Effect. We can utilize these molecules in different scenario depending on their different behaviour.
Stereochemistry	Stereochemistry deals with the Three dimensional arrangement of Molecule or it's functional group. It helps to understand the relation between two, three dimensional molecule having same empirical formula. Stereochemistry introduces the chirality, chiral molecule and their various projection, conformation, Configuration.
Polymer Chemistry	polymer, any of a class of natural or synthetic substances composed of very large molecules, called macromolecules, that are multiples of simpler chemical units called monomers. Polymers make up many of the materials in living organisms, including, for example, proteins, cellulose, and nucleic acids. Moreover, they constitute the basis of such minerals as diamond, quartz, and feldspar and such man-made materials as concrete, glass, paper, plastics, and rubbers.

Department of Mathematics

PROGRAMME OUTCOME

SL NO	DEPARTMENT	TOPIC
1.	Mathematics	4. Metric Spaces 5. Partial Differential Equations 6. Complex Analysis 7. C- Programming language 8. Numerical Analysis

1. Course Title: - Metric Spaces
   Course Outcomes:-

▪Able to understand the Euclidean distance function on R n and appreciate its properties, and state and use the Triangle and

▪Reverse Triangle Inequalities for the Euclidean distance function on R n

▪ Explain the definition of continuity for functions from R n to R m and determine whether a given function from

R n to R m is continuous

▪Explain the geometric meaning of each of the metric space

▪Distinguish between open and closed balls in a metric space

▪Define convergence for sequences in a metric space and

▪Determine whether a given sequence in a metric space converges

▪Properties of Different Mathematical Operators

2. Course Title: - Partial Differential Equations

Course Outcomes:-

▪Be familiar with the modelling assumptions and derivations that lead to PDEs

▪Recognize the major classification of PDEs and the qualitative differences between the classes of equations, and

▪Be competent in solving linear PDEs using classical solution methods.

3. Course Title: - Complex Analysis

Course Outcomes:-

▪Compute sums, products, quotients, conjugate, modulus, and argument of complex numbers

▪Define and analyse limits and continuity for complex functions as well as consequences of continuity

▪Conceive the concepts of analytic functions and will be familiar with the elementary complex functions and their properties

▪Determine whether a given function is differentiable, and if so find its derivative. Applies the theory into application of the power series expansion of analytic functions

▪Understand the basic methods of complex integration and its application in contour integration.

▪Analyse sequences and series of analytic functions and types of convergence.

▪Evaluate complex contour integrals directly and by the fundamental theorem, apply the Cauchy integral theorem in its various versions, and the Cauchy integral formula.

4. Course Title : - C-Programing Language

Course Outcomes : -

▪To describe the advantages of a high level language like C, the programming process, and the compilation process.

▪To describe and use software tools in the programming process.

▪To design, implement, debug and test programs using the fundamental elements of C.

▪To demonstrate an understanding of primitive data types, values, operators and expressions in C.

5. Course Title: - Numerical Analysis

Course Outcome -

▪To apply appropriate numerical methods to solve the problem with most accuracy.

▪ Using appropriate numerical methods determine approximate solution of ODE and system of linear equation.

▪Compare different methods in numerical analysis with respect toaccuracy and efficiency of solution.

DEPARTMENT OF PHYSICS

PROGRAMME OUTCOME

B.Sc. (Honours)

The programme of Physics(Hons)aims to achieve the following outcomes-

- To provide the knowledge to make them capable to understand Physics which was the development of mathematical skills such as functions, graph plotting, vector analysis, differential equation, probability and matrix.
- To make them confident to solve basic problems in classical mechanics in Newtonian and Lagrangainformulations.
- To make them feel why the classical mechanics becomes failure in the high velocity regime and need for special theory of relativity.
- To make them understood again the failure of classical mechanics for the subatomic particles and the formulation of quantum mechanics.
- To give them fundamental idea how the heat engine works and calculation of their efficiencies.
- To provide the knowledge of analog and digital electronics and the basic computation mechanism (hardwire) using Boolean algebra.
- To develop the skill to handle the instruments for the basic experiments, to know the source of errors, graph plotting etc.
- To make them confident for making the electrical circuit using discrete components.
- To understand and write the basic computer coding(progamme) using Python.

B.Sc (General)

The programme of Physics (General)aims to achieve the following outcomes-

- To make the students capable to understand Physics which was the development of mathematical skills such as functions, graph plotting, vector analysis, differential equation etc.
- To clear the basic idea of classical mechanics proving them formulation of coordinate space and position vectors.
- To make them understood how the geostationary satellite are launched in the parking orbit and the idea of rocket motion.
- To give them fundamental idea of thermodynamics and the mechanics of heat engines.
- To develop the skill to handle the instruments for the basic experiments, to know the source of errors, graph plotting etc.
- To make them confident in analysis the electrical circuit.
- To provide the basic knowledge of analog and digital electronics and the basic computation mechanism using Boolean algebra.

Department of Computer Science

Program Outcome

On completion of B.Sc in Computer Science degree the graduates will be able to

1. Demonstrate basic knowledge of computer applications and apply standard practices in software project development.
2. Understand, analyse and develop computer programs for efficient design of computer-based systems of varying complexity.
3. An ability to apply knowledge of Mathematics in Computer Science.
4. An ability to design and conduct experiments, as well as to analyze and interpret data.
5. An ability to design a system, component or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, healthy and safety, manufacturability and sustainability.
6. An ability to acquire required programming skills, formulate and solve practical problems.
7. An understanding of professional and ethical responsibility.
8. An ability to communicate effectively.
9. An ability to function on multidisciplinary teams.

Courses Outcome

Programme: Under Graduate Bachelor of Arts
Subject Combinations of Arts [Honours]

Name of the course	Code	Honours Subjects	Generic Elective	
			1	2
B.A (Honours)	BNGA 01	Bengali	History	Geography
	BNGA 02	Bengali	Philosophy	History
	BNGA 03	Bengali	Education	Pol Science
	ENGA 01	English	Philosophy	Bengali
	ENGA 02	English	History	Education
	ENGA 03	English	Journalism & Mass Com	Pol Science
	HISA 01	History	Bengali	Education
	HISA 02	History	Philosophy	Pol Science
	HISA 03	History	English	Journalism
	EDCA 01	Education	History	Philosophy
	EDCA 02	Education	Bengali	History
	EDCA 03	Education	Journalism	Pol Science
	PHIA 01	Philosophy	Pol Science	Education
	PHIA 02	Philosophy	Bengali	Education
	PHIA 03	Philosophy	Education	History
	PLSA 01	Political Science	English	Journalism
	PLSA 02	Political Science	Bengali	Education
	PLSA 03	Political Science	History	Education
	JORA 01	Journalism & Mass Com.	English	Pol Science
	JORA 02	Journalism & Mass Com.	Bengali	Geography
	JORA 03	Journalism & Mass Com.	History	Education

Programme: Under Graduate Bachelor of Science

Subject Combinations of Science [Honours]

Name of the Course	Code	Hons Subjects	Generic Electives	
			1	2
B.Sc (Honours)	GEOA 01	Geography	Pol Science	Mathematics
	GEOA 02	Geography	Pol Science	Computer Science.
	GEOA 03	Geography	Mathematics	Computer Science
	MTMA 01	Mathematics	Physics	Computer Science
	MTMA 02	Mathematics	Physics	Chemistry
	MTMA 03	Mathematics	Chemistry	Computer Science
	PHSA 01	Physics	Mathematics	Computer Science
	PHSA 02	Physics	Chemistry	Computer Science
	PHSA 03	Physics	Mathematics	Chemistry
	CMSA 01	Computer Science	Mathematics	Physics

Programme: Under Graduate Bachelor of Arts (General)

Subject Combinations of Arts [General]

Name of the course	Code	DSC 1	DSC 2	GE
B.A (General)	AG 01	Bengali	History	Education
	AG 02	History	Geography	Pol Science
	AG 03	English	Journalism & Mass Com	Education
	AG 04	History	Education	Philosophy
	AG 05	Bengali	Journalism & Mass Com	Pol Science
	AG 06	Education	Philosophy	Pol Science
	AG 07	Geography	History	Bengali

Programme: Under Graduate Bachelor of Science (General)

Subject Combinations of Science [General]

Name of the course	Code	DSC 1	DSC 2	DSC 3
B.Sc (General)	SG 01	Physics	Chemistry	Computer Science
	SG 02	Mathematics	Physics	Chemistry
	SG 03	Physics	Chemistry	Mathematics

Programme: Post Graduate of Arts

Name of the course	Code	Subjects	Semester	Special paper	AECC	SEC
M.A(Regular)	02	Education	SEM-1		Communi cative English	
			SEM - IV	1) Teacher Education		Fundamentals of Education
	03	Bengali	SEM-1		Ability Enhance ment Core Course	
			SEM - IV	1) Katha Sahitya 2) Rabindra Sahitya		Skill Enhancement Course

Programme: Post Graduate of Science

Name of the course	Code	Subjects	Semester	Special paper	AECC	SEC
M.Sc(Regular)	01	Geography	SEM-1		Compulsory English	
			SEM - IV	1) Geo Morphology 2) Rural Development		Computer Application

Programme: Distance Education of Post Graduate Courses of Arts under Vidyasagar University

Name of the course	Code	Subjects	Year
M.A(Distance Mode under Vidyasagar University)	01	Geography	Part-I and Part-II
	02	English	Part-I and Part-II
	03	Bengali	Part-I and Part-II
	04	History	Part-I and Part-II
	05	Political Science	Part-I and Part-II
	06	Sanskrit	Part-I and Part-II

Programme: Distance Education of Post Graduate Courses of Arts under Rabindrabharati University

Name of the course	Code	Subjects	Year
M.A(Distance Mode under Rabindrabharati University)	01	Geography	Part-I and Part-II
	02	Education	Part-I and Part-II
	03	Bengali	Part-I and Part-II
	04	History	Part-I and Part-II

Programme : Certificate Courses of Computer Literacy

Name Of the Programe	Specialization
Certificate	Computer Application (UGC)
Certificate	Basic Computer Literacy (Webel Technolodgy Ltd.)

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