Program B.Sc. Geography- ccf (Major)
Programme Specific Outcomes (PSO) for B.Sc. GEOGRAPHY

Sl No.	On completing B.Sc Geography students will be able to
PSO 1	They will have an idea about the fundamental concepts of Geography and will have a general understanding about the geomorphologic and geo-tectonic process and formation.
PSO 2	Students can correlate the knowledge of physical geography with the human geography. They will analyze the problems of physical as well as cultural environments of both rural and urban settlements and possible measures, features of these settlements and related models.
PSO 3	They will be capable of conducting social survey project which is needed for measuring the status of development of a particular group or section of the society. This will enable them to analyse the associated problems with the help of statistical techniques.
PSO 4	They will understand the functioning of global economies, politics of world resource, geopolitics, global geostrategic views and functioning of political systems. They will study the spatially uneven outcomes of political processes and the ways in which political processes are themselves affected by spatial structures. They will be aware of how resource utilisation and allocation leads to development, management and conflict. In Historical geography is the branch of geography that studies the ways in which geographic phenomena have changed over time.
PSO 5	Students will develop an idea on sustainable approach towards the soil management, ecosystem and the biosphere with a view to conserve natural systems and maintain ecological balance. They will have an idea about the global water cycle.
PSO 6	Inculcate a tolerant mindset and attitude towards the vast socio-cultural diversity of India by studying and discussing contemporary concepts of social and cultural geography. Explaining and analysing the regional diversity and regional problems of India and West Bengal through interpretation of natural and planning regions. The thrust is also on the relevant issue of regional development, including uniqueness, problems and prospects of different regions.
PSO 7	The students will become aware of the present climatic condition of the world which will help them analyse the need for sustainable development. The various types of environmental hazards have been addressed so that students become aware of measures to protect the physical environment. they have a knowledge about the physical and chemical properties of water. They become aware of the global ocean resources.
PSO 8	They will be capable of analyzing the differential patterns of the human habitation of the Earth, through studies of human settlements and population dynamics. Understanding and accounting for regional disparities, poverty, unemployment and the impacts of globalization with a thrust of population welfare is considered.
PSO 9	Understanding the history of the subject; over viewing ancient and contemporary geographical thought and its relationship with modern concepts of empiricism, positivism, radicalism, behaviouralism, idealism etc.

PSO 10	They get the knowledge in practical techniques like using instruments for survey, mapping, cartography, software, interpretation of maps, photographs and images etc; This makes them understand the spatial variation of phenomena on the Earth's surface. They will learn how to prepare map based on GIS by using the modern geographical map making techniques. They will also learn the use of satellite imageries and mapping techniques using supervised image classification. They will learn to collect waypoints using GNSS and associated skills.
PSO 11	Students will learn various methods of field research, as field based knowledge are essential to understand the ground reality, spatial patterns and processes.
PSO 12	They will learn about watershed management involving the management of land, water, biota, and other resources in a defined area for ecological, social, and economic purposes. They will also learn about technical, applied ecological, legal, political, social, and policy issues relating to the use of coastal and ocean resources and environments.

Course Outcomes (CO) are mapped to the revised Bloom's Taxonomy using the following abbreviations

R- Remembering, U- Understanding, Ap- Applying, An- Analysing, E- Evaluating, C- Creating

Semester-1 (July to December)
Core Course-1: Physical Geography
Course Code:- CC1-CCF

PROGRAMME	B.SC. Hons Geography
COURSE CODE	COURSE NAME
CC1	Physical Geography
YEAR & SEMESTER	1st Year 1st Semester
PREREQUISITE COURSE	nil
COURSE OBJECTIVE	Understanding Earth's surface processes, landscape evolution processes, cartographical technique & geographical hazards.

Sl no.	Course outcome	On completing the course,the students will be able to	PSO addressed	Cognitive level
UNIT 1: CARTOGRAPHY	CO1	*Understanding the concept & application of scales & projections. *Develop an idea about components & classification of maps	PSO 11	R,U,Ap
UNIT II: GEOTECTONICS	CO2	* Acquire knowledge of seismic waves & internal structure of the earth	PSO 1	U,An
UNIT III : GEOMORPHOLOGY	CO3	*Understanding the classification of weathering & agents of erosion. *Develop an idea of fluvial processes & erosion	PSO 1	U,An
UNIT IV: CLIMATOLOGY	CO4	*Gains knowledge about the atmosphere & the circulation of winds.	PSO 7	U,R
UNIT V: SOIL GEOGRAPHY	CO5	*Understanding the factors of soil formation & evolution of soil profile.	PSO 5	R,U
UNIT VI: BIOGEOGRAPHY	CO6	*Acquire the knowledge of plant adaptation & distribution	PSO 5	R,U
UNIT VII: GEOGRAPHY OF HAZARDS	CO7	*Develop an idea of nature & classification of hazards & disasters	PSO 7	R,U
UNIT VIII: PHYSICAL GEOGRAPHY LAB	CO8	*To understand the graphical construction of scale, *To delineate the drainage basins, *To identify drainage & channel pattern, *To construct & interpret wind rose	PSO 10	U,Ap,An,C

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10	PSO11	PSO12
CO1											3	
CO2	3											
CO3	3											
CO4							2					
CO5					2							
CO6					2							
CO7							2					
CO8										3		
Average	**3**				**2**		**2**			**3**	**3**	
Correlation level					1-Low(40%<Achievement<50%), 2- Medium (50%<Achievement<60%), 3- High (60%<Achievement)							

Semester- I (July to December)
GEOG-H-SEC-01/ MD-SEC-01 TH (Methods in Geography)

Programme	B.A/B.Sc HONS Geography
Course Code	Course Name
SEC-01	Methods in Geography
Semester	1ST semester
Prerequisite Course	Nil
Course Objective	Learn various methods in field work, get knowledge in practical techniques

Sl no.	Course outcome	On completing the course, the students will be able to	PSO addressed	Cognitive level
UNIT I: FIELD DATA COLLECTION AND COMPILATION	CO1	* Designing of primary survey based on diverse research problems. * Preparation of questionnaire and interview schedule .Data compilation into master table * Tabulation and analysis of data	PSO11	Ap, C
UNIT II: METHODS IN PHYSICAL GEOGRAPHY	CO2	* Knowledge in practical techniques like Use of minor survey instruments * Mapping and extraction from satellite image and survey of India maps	PSO10	Ap, C
UNIT III: METHODS IN HUMAN GEOGRAPHY	CO3	* Preparation of different maps using different methods	PSO10	Ap

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10	PSO11	PSO12
CO1											3	
CO2										3		
CO3										3		
Average										**3**	**3**	
Correlation level					1-Low(40%<Achievement<50%), 2- Medium (50%<Achievement<60%), 3- High (60%<Achievement)							

Semester-2 (January to June)
Core Course-2: Human Geography
Course Code:- CC2-CCF

PROGRAMME	B.Sc. Hons Geography
COURSE CODE	COURSE NAME
CC2	HUMAN GEOGRAPHY
Year & Semester	1st year 2nd Semester
PREREQUISITE COURSE	Nil
COURSE OBJECTIVE	Understanding scope & approaches of human geography, social, population & settlement geography,

Sl.no.	Course outcome	On completing the course, the students will be able to	PSO addressed	Cognitive level
UNIT I: Scope & Approaches	CO1	*Understanding the elements of human geography, *Develop the idea about school of thoughts.	8	U,R,An
UNIT II: Social Geography	CO2	*Acquire knowledge about the evolution of human societies. *Gains knowledge about human adaptation to the environment. *Understanding the evolution & characteristics of post-industrial urban societies.	8	U,R
UNIT III: Population Geography	CO3	*Develop an idea about Demographic transition. *Understanding distribution, density & growth of population.	8	U,R
UNIT IV: Settlement Geography	CO4	*Acquire knowledge about the characteristics of settlements, *To know about the site situation, types & patterns of rural settlement.	8	U,R
UNIT V: Urban Geography	CO5	*Develop an idea about size-class classification of urban settlements	8	U,R,An

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10	PSO11	PSO12
CO1								2				
CO2								3				
CO3								3				
CO4								2				
CO5								3				
Average								**2.6**				
Correlation level						1-Low(40%<Achievement<50%), 2- Medium (50%<Achievement<60%), 3- High (60%<Achievement)						

Program B.Sc. Geography (Major) CCF
Programme Specific Outcomes (PSO) for SEC ARTIFICIAL INTELLIGENCE (AI)

Sl No.	On completing B.Sc Geography students will be able to
PSO 1	Define and explain the fundamental concepts & subfields of AI.
PSO 2	Identify real-world applications of AI across various industries.
PSO 3	Analyze the ethical , social and economic implications of AI.
PSO 4	Recognize the potential of AI to drive innovation &transformation in different domains

Course Outcomes (CO) are mapped to the revised Bloom's Taxonomy using the following abbreviations

R- Remembering, U- Understanding, Ap- Applying, An- Analysing, E- Evaluating, C- Creating

Semester-II (January-June)
CORE COURSE:-SEC-2
Course Code:- SEC 2-CCF

PROGRAMME	B.SC. Hons Geography
COURSE CODE	COURSE NAME
SEC2	AI for everyone
YEAR & SEMESTER	1st Year 2nd Semester
PREREQUISITE COURSE	nil
COURSE OBJECTIVE	Understand the basics of AI & its subfield; Explore real world application across different industries; Gains insights into the ethical, social & economic implications; Recognize the potential of AI to drive innovation & transformation in different domains

Sl no.	Course outcome	On completing the course, the students will be able	PSO addressed	Cognitive level
UNIT 1: Introduction to Artificial Intelligence	CO1	*to know the definition & scope of AI. *To understand the historical overview & key milestones. *To differentiate AI from human intelligence	PSO 1	U,Ap
UNIT II: AI Subfields &Technologies	CO2	*To acquire the knowledge of machine learning, *To understand the deep learning & neutral networks, *To know the natural language processing & computer vision	PSO 2	Ap, U
UNIT III : Applications of AI	CO3	AI in healthcare; AI in finance; AI in transportation; AI in customer service; AI in education	PSO 2, 3	U, Ap
UNIT IV: Ethical & Social Implications of AI	CO4	*To understand the bias & fairness in AI; *To know the privacy &data protection concerns *To recognize the impact of AI on employment *To acquire the knowledge of AI &social inequality	PSO 2	U, An
UNIT V: Other important issues	CO5	*Ethical guidelines & responsible AI practices, *AI & innovation, *Emerging trends & future directions in AI *AI &creativity	PSO 1, 3	U,Ap, An

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10	PSO11	PSO12
CO1	3											
CO2		2										
CO3		3	3									
CO4		2										
CO5	3		2									
Average	**3**	**2.34**	**2.5**									
Correlation level						1-Low(40%<Achievement<50%), 2- Medium (50%<Achievement<60%), 3- High (60%<Achievement)					

Program B.Sc. Geography (Major) CCF
Programme Specific Outcomes (PSO) for SEC DIGITAL EMPOWERMENT (DE)

Sl No.	On completing B.Sc Geography students will be able to
PSO 1	Use ICT & digital services in daily life.
PSO 2	Develop skill to communicate &collaborate in cyberspace using social platforms, teaching /learning tools.
PSO 3	Understand the significance of security& privacy in the digital world.
PSO 4	Evaluate ethical issues in the cyber world

Course Outcomes (CO) are mapped to the revised Bloom's Taxonomy using the following abbreviations
R- Remembering, U- Understanding, Ap- Applying, An- Analysing, E- Evaluating, C- Creating

Semester-II (January-June)
CORE COURSE:-SEC-2
Course Code:- SEC 2-CCF

PROGRAMME	B.SC. Hons Geography
COURSE CODE	COURSE NAME
SEC2	Digital Empowerment
YEAR & SEMESTER	1st Year 2nd Semester
PREREQUISITE COURSE	nil
COURSE OBJECTIVE	Understand the fundamentals of digital technologies & their impact on society; enhance online communication & collaboration skills; Promote digital citizenship & responsible online behavior; gain awareness of digital security risks & implement best practices; explore ethical considerations in the use of digital technologies.

SL NO.	COURSE OUTCOME	On completing the course, the students will be able	PSO Addressed	Cognitive Level
UNIT 1: Digital literacy & Digital Empowerment	CO1	*T o understand the definition of Digital Literacy; *To know the current trends of Digital Technology; *To evaluate the credibility of online information; *Copyright & plagiarism awareness, *Important application of our country	PSO 1	U,
UNIT II: Online communication & collaboration	CO2	*To understand electronic communication *To create collaborative digital platforms *To know about the tools / platforms for online learning, *To collaborate using files & sharing	PSO 1, 2	U, Ap
UNIT III : Digital Security	CO3	*Online security & privacy *Threats in the digital world *Block chain technology *Security initiatives by the Govt of India	PSO 3	Ap, An

UNIT IV: Digital citizenship & ethics	CO4	*Responsible online behavior & digital etiquette *Understanding online communities & their norm *Ethical considerations in digital technology usage	PSO 2, 4	Ap, An
UNIT V: Emerging Technology	CO5	*Exploring emerging technology & its impact, *AI & Machine learning *IOT &Connected devices	PSO 3	Ap

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	PSO9	PSO10	PSO11	PSO12
CO1	3											
CO2	2	2										
CO3			3									
CO4		3		3								
CO5	3		2									
Average	**2.67**	**2.5**	**2.5**	**3**								
Correlation level					1-Low(40%<Achievement<50%), 2- Medium (50%<Achievement<60%), 3- High (60%<Achievement)							