Structure and Detailed Syllabus

for

# **Undergraduate Course**

in



Under Curriculum and Credit Framework for Undergraduate Programmes (CCFUP) - NEP 2020



With effect from Academic Session 2023-24

Kazi Nazrul University Asansol 713 340 West Bengal & www.knu.ac.in &



# Scheme for the Curriculum under CCFUP (As per NEP 2020)

♦ Major Course (MJC)
BSCGEOMJ101 - Fundamentals of Physical Geography
BSCGEOMJ201 - Fundamentals of Human Geography
BSCGEOMJ301 - Climatology
BSCGEOMJ302 - Cartography and Surveying
BSCGEOMJ401 - Soil and Biogeography
BSCGEOMJ402 - Remote Sensing, GIS and GNSS
BSCGEOMJ501 - Economic and Transport Geography
BSCGEOMJ502 - Statistical Techniques in Geography
BSCGEOMJ503 - Basic Field Training and Field Report
BSCGEOMJ601 - Geographical Thought
BSCGEOMJ602 - Geography of India and West Bengal
BSCGEOMJ603 - Population and Settlement Geography
BSCGEOMJ604 - Advanced Remote Sensing and GIS
BSCGEOMJ701 - Advanced Geomorphology, Hydrology and Oceanography
BSCGEOMJ702 - Environmental Geography
BSCGEOMJ703 - Urban and Regional Planning
BSCGEOMJ704 - Advanced Analytical Techniques in Geography
BSCGEOMJ801 - Research Methodology in Geography
BSCGEOMJ802 - Geography of Development
BSCGEOMJ803 - Agricultural Geography and Landuse Planning
BSCGEOMJ804 - Social and Political Geography
♦ Minor Course (MNC)
BSCHGEOMN101 - Fundamentals of Physical Geography
BSCHGEOMN201 - Fundamentals of Human Geography
BSCHGEOMN301 - Climate Change: Vulnerability and Adaptations
BSCHGEOMN401 - Geospatial Science and Technology
BSCHGEOMN501 - Sustainable Resource Development
BSCHGEOMN701 - Geotourism
BSCHGEOMN801 - Rural Development

 $\diamond$  Multidisciplinary Course (MD): Courses from Other Disciplines

MD-1 - Physical Science (Department of Physics/ Chemistry)



- MD-1 E-Commerce (Department of Commerce/ BBA)
- MD-1 Human Rights (Department of Political Science)
- MD-1 Disaster Management (Department of Geography/ Geology)
- MD-1 Film Appreciation (Department of English)
- MD-2 Business Environment (Department of Commerce)
- MD-2 Adhunik Bangla Sahitya (Department of Bengali)
- MD-2 Adhunik Hindi Sahitya (Department of Hindi)
- MD-2 Application of Bio-Science (Department of Zoology/ Botany/ Microbiology)
- MD-2 Educational Philosophy (Department of Education)
- MD-2 Sports and Fitness (Department of Physical Education)
- MD-3 Mathematical Science (Department of Mathematics)
- MD-3 Cultural History of Bengal (Department of History)
- MD-3 Business Management (Department of BBA)
- MD-3 Nutrition and Public Health (Department of Nutrition)
- MD-3 Stress Management (Department of Psychology/ Philosophy/ Sociology)
- ♦ Ability Enhancement Compulsory Elective/ Course (AECE/ AECC)
- AEC-1 English/ MIL Communication
- AEC-2 English Communication
- ♦ Skill Enhancement Course (SEC)
- BSCGEOSE101 Elementary Practicals in Physical Geography
- BSCGEOSE201 Elementary Practicals in Human Geography
- BSCGEOSE401 Computer Applications in Geography
- ♦ Value Added Course (VAC)
- VAC201 Environment Studies
- VAC401 Health and Wellness
- VAC402 Social Values and Ethics
- VAC403 Digital and Technological Solutions
- VAC404 Understanding India
- Summer Internship/ Apprenticeship
- BSCGEOSI601 Summer Internship
- ♦ Research Project/ Dissertation
- BSCGEORP801 Research Project/ Dissertation



### Syllabus (UG) Geography

# $\diamond$ Credits and Marks Distribution Scheme for Course Structure under CCFUP: UG Geography Discipline Code: BSCGEO

		Course Code and Name		Cuedit	Marks Distribution					
Semester	Course Type and Details		Credits	Credit Pattern	Continuous Assessment Marks		End Semester Marks		Total	
				(L-T-P)	Practical Exam	Theoretical Exam	Practical Exam	Theoretical Exam	Marks	
	Major MJC-1	BSCGEOMJ101: Fundamentals of Physical Geography	5	4 - 1 - 0		30		70	100	
	Minor MNC-1	Choose from the Pool of Minor Courses offered in 1 <sup>st</sup> Semester by the other Disciplines	5	4 - 1 - 0		30		70	100	
Marks: 350 Credits: 20	MD Multidisciplinary Course-1	Choose from the Pool of Multidisciplinary Courses offered in 1 <sup>st</sup> Semester	3	3 - 0 - 0		15		35	50	
	AEC-1 Ability Enhancement Elective Course	AECE: English/ MIL Communication (See Pool)	4	4 - 0 - 0		15		35	50	
	SEC Skill Enhancement Course-1	BSCGEOSE101: Elementary Practicals in Physical Geography	3	0 - 0 - 6	30		20		50	
	Major MJC-2	BSCGEOMJ201: Fundamentals of Human Geography	5	4 - 1 - 0		30		70	100	
11	Minor MNC-2	Minor Course opted for in the 1 <sup>st</sup> Semester should be continued in the 2 <sup>nd</sup> Semester with the Syllabus Content of 2 <sup>nd</sup> Semester	5	4 - 1 - 0		30		70	100	
Marks: 350 Credits: 20	MD Multidisciplinary Course-2	Choose from the Pool of Multidisciplinary Courses offered in 2 <sup>nd</sup> Semester	3	3 - 0 - 0		15		35	50	
	VAC Value Added Course-1	VAC-201: Environment Studies	4	4 - 0 - 0		15		35	50	
	SEC Skill Enhancement Course -2	BSCGEOSE201: Elementary Practicals in Human Geography	3	0 - 0 - 6	30		20		50	



# Syllabus (UG) Geography

Students exiting the programmes after securing 40 credits will be awarded UG Certificate in the relevant Discipline/ Subject, provided they secure 4 credits in work-based vocational courses offered during the Summer Term or Internship/ Apprenticeship in addition to 6 credits from skill-based courses earned during the first and second semesters.

		Course Code and Name		Gradit	Marks Distribution					
Semester	Course Type and Details		Credits	Credit Pattern	Continuous Assessment Marks		End Semester Marks		Total	
				(L-T-P)	Practical Exam	Theoretical Exam	Practical Exam	Theoretical Exam	Marks	
III Marks: 400 Credits: 22	Major MJC-3	BSCGEOMJ301: Climatology	5	3 - 0 - 4	30	15	20	35	100	
	Major MJC-4	BSCGEOMJ302: Cartography and Surveying	5	0 - 0 - 10	60		40		100	
	Minor MNC-3	Choose from the Pool of Minor Courses offered in 3 <sup>rd</sup> Semester by the other Disciplines	5	4 - 1 - 0		30		70	100	
	MD Multidisciplinary Course-3	Choose from the Pool of Multidisciplinary Courses offered in 3 <sup>rd</sup> Semester	3	2 - 1 - 0		15		35	50	
	AEC-2 Ability Enhancement Compulsory Course	AECC: English Communication	4	4 - 0 - 0		15		35	50	
	Major MJC-5	BSCGEOMJ401: Soil and Biogeography	5	3 - 0 - 4	30	15	20	35	100	
IV	Major MJC-6	BSCGEOMJ402: Remote Sensing, GIS and GNSS	5	3 - 0 - 4	30	15	20	35	100	
Marks: 400 Credits: 22	Minor MNC-4	Choose from the Pool of Minor Courses offered in 4 <sup>th</sup> Semester by the other Disciplines	5	4 - 1 - 0		30		70	100	
	SEC Skill Enhancement Course-3	BSCGEOSE401: Computer Applications in Geography	3	0 - 0 - 6	30		20		50	

				Credit		Mar	ks Distribut	ion	
	Course Type and Details	Course Code and Name	Credits	Credit Pattern	Continuous Assessment Marks		End Semester Marks		Total
				(L-1-P)	Practical Exam	Theoretical Exam	Practical Exam	Theoretical Exam	Marks
		VAC-401: Health and Wellness		4 - 0 - 0		15		35	
	VAC	VAC-402: Social Values and Ethics		4 - 0 - 0		15		35	50
(Any One)	(Any One)	VAC-403: Digital and Technological Solutions	4	4 - 0 - 0		15		35	50
		VAC-404: Understanding India		4 - 0 - 0		15		35	
Students exitin based vocatio	Students exiting the programmes after securing <b>80 credits</b> will be awarded <b>UG Diploma</b> in the relevant Discipline/ Subject, provided they secure additional <b>4 credits</b> in skill- based vocational courses offered during first year or second year summer term.								
	Major MJC-7	BSCGEOMJ501: Economic and Transport Geography	5	3 - 0 - 4	30	15	20	35	100
V	Major MJC-8	BSCGEOMJ502: Statistical Techniques in Geography	5	0 - 0 - 10	60		40		100
Marks: 400 Credits: 22	Major MJC-9	BSCGEOMJ503: Basic Field Training and Field Report	5	0 - 0 - 10	60		40		100
	Minor MNC-5	Choose from the Pool of Minor Courses offered in 5 <sup>th</sup> Semester by the other Disciplines	5	4 - 1 - 0		30		70	100
	Major MJC-10	BSCGEOMJ601: Geographical Thought	5	3 - 0 - 4	30	15	20	35	100
VI	Major MJC-11	BSCGEOMJ602: Geography of India and West Bengal	5	3 - 0 - 4	30	15	20	35	100
Marks: 450	Major MJC-12	BSCGEOMJ603: Population and Settlement Geography	5	3 - 0 - 4	30	15	20	35	100
Credits: 22	Major MJC-13	BSCGEOMJ604: Advanced Remote Sensing and GIS	5	3 - 0 - 4	30	15	20	35	100
	SI Summer Internship-1	BSCGEOSI601: Summer Internship	2	0 - 0 - 4	30		20		50



Total Credit	and Marks	Total Credit	126				т	otal Marks	2350	
Students who	want to undertake <b>3-year</b>	UG programme will be awarded <b>UG Degree</b> in the r	elevant Dis	cipline / Sub	oject upon se	ecuring <b>126 cr</b>	edits.			
					Marks Distribution					
Semester	Course Type and Details	Course Code and Name	Credits	Credit Pattern	Cont Assessm	inuous ent Marks	End Semester Marks		Total	
				(L-T-P)	Practical Exam	Theoretical Exam	Practical Exam	Theoretical Exam	Marks	
VII Marks: 500 Credits: 25	Major MJC-14	BSCGEOMJ701: Advanced Geomorphology, Hydrology and Oceanography	5	3 - 0 - 4	30	15	20	35	100	
	Major MJC-15	BSCGEOMJ702: Environmental Geography	5	3 - 0 - 4	30	15	20	35	100	
	Major MJC-16	BSCGEOMJ703: Urban and Regional Planning	5	3 - 0 - 4	30	15	20	35	100	
	Major MJC-17	BSCGEOMJ704: Advanced Analytical Techniques in Geography	5	0 - 2 - 6	60		40		100	
	Minor MNC-6	Choose from the Pool of Minor Courses offered in 7 <sup>th</sup> Semester by the other Disciplines	5	4 - 1 - 0		30		70	100	
	Major MJC-18	BSCGEOMJ801: Research Methodology in Geography	5	3 - 0 - 4	30	15	20	35	100	
VIII	Major MJC-19	BSCGEOMJ802: Geography of Development	4	2 - 0 - 4	30	15	20	35	100	
Marke: 500	Major MJC-20	BSCGEOMJ803: Agricultural Geography and Landuse Planning	4	2 - 0 - 4	30	15	20	35	100	
Marks: 500 Credits: 22	Major MJC-21	BSCGEOMJ804: Social and Political Geography	4	2 - 0 - 4	30	15	20	35	100	
	Minor MNC-7	Choose from the Pool of Minor Courses offered in 8 <sup>th</sup> Semester by the other Disciplines	5	4 - 1 - 0		30		70	100	
Total Credit	and Marks	Total Credit	173		Total Mar		otal Marks	3350		
Students will b	e awarded <b>UG Degree</b> (Ho	nours) in the relevant Discipline / Subject provided	they secur	e <b>173 credi</b> t	s.					



4-year UG Degree (Honours with Research)										
					Marks Distribution					
Semester	Course Type and Details	Course Code and Name	Credits	Credit Pattern (L-T-P)	Continuous Assessment Marks		End Semester Marks		Total	
					Practical Exam	Theoretical Exam	Practical Exam	Theoretical Exam	Marks	
	Major MJC-14	BSCGEOMJ701: Advanced Geomorphology, Hydrology and Oceanography	5	3 - 0 - 4	30	15	20	35	100	
VII	Major MJC-15	BSCGEOMJ702: Environmental Geography	5	3 - 0 - 4	30	15	20	35	100	
Marks: 500 Credits: 25	Major MJC-16	BSCGEOMJ703: Urban and Regional Planning	5	3 - 0 - 4	30	15	20	35	100	
	Major MJC-17	BSCGEOMJ704: Advanced Analytical Techniques in Geography	5	0 - 2 - 6	60		40		100	
	Minor MNC-6	Choose from the Pool of Minor Courses offered in 7 <sup>th</sup> Semester by the other Disciplines	5	4 - 1 - 0		30		70	100	
VIII	Major MJC-18	BSCGEOMJ801: Research Methodology in Geography	5	3 - 0 - 4	30	15	20	35	100	
Marks: 500	RP Research Project-1	BSCGEORP801: Research Project/ Dissertation	12	0 - 0 - 24	180		120		300	
Credits: 22	Minor MNC-7	Choose from the Pool of Minor Courses offered in 8 <sup>th</sup> Semester by the other Disciplines	5	4 - 1 - 0		30		70	100	
Total Credit	and Marks	Total Credit	173	73 Total Marks		otal Marks	3350			
Students will b	be awarded <b>UG Degree</b> (I	Honours) in the relevant Discipline / Subject provided	they secu	re <b>173 credit</b>	S.					



# Syllabus (UG) Geography

Semester wise Pool of Multidisciplinary Courses offered for Major Disciplines									
			Credits	Credit Pattern		Mar	ks Distributi	ion	
Semester	Course Type and Details	Course Code and Name			Continuous Assessment Marks		End Semester Marks		Total
				(L-T-P)	Practical Exam	Theoretical Exam	Practical Exam	Theoretical Exam	Marks
		Physical Science (Department of Physics/ Chemistry)	3	3 - 0 - 0		15		35	50
MD Multidisciplinary Marks: 50 Credits: 3		E-Commerce (Department of Commerce/ BBA)	3	3 - 0 - 0		15		35	50
	MD Multidisciplinary	Human Rights (Department of Political Science)	3	3 - 0 - 0		15		35	50
	Disaster Management (Department of Geography/ Geology)	3	3 - 0 - 0		15		35	50	
		Film Appreciation (Department of English)	3	3 - 0 - 0		15		35	50
	MD	Business Environment (Department of Commerce)	3	3 - 0 - 0		15		35	50
		Adhunik Bangla Sahitya (Department of Bengali)	3	3 - 0 - 0		15		35	50
		Adhunik Hindi Sahitya (Department of Hindi)	3	3 - 0 - 0		15		35	50
Marks: 50 Credits: 3	Course -2	Application of Bio-Science (Department of Zoology/ Botany/ Microbiology)	3	3 - 0 - 0		15		35	50
		Educational Philosophy (Department of Education)	3	3 - 0 - 0		15		35	50
		Sports and Fitness (Department of Physical Education)	3	3 - 0 - 0		15		35	50
111	MD	Mathematical Science (Department of Mathematics)	3	3 - 0 - 0		15		35	50
Marke 50	Multidisciplinary	Cultural History of Bengal (Department of History)	3	3 - 0 - 0		15		35	50
Credits: 3	Course -3	Business Management (Department of BBA)	3	3 - 0 - 0		15		35	50



						Mar	ks Distribut	ion	
Semester	Course Type and Details	Course Code and Name	Credits	Credit Pattern	Continuous Assessment Marks		End Semester Marks		Total
				(L-T-P)	Practical Exam	Theoretical Exam	Practical Exam	Theoretical Exam	Marks
	MD Multidisciplings	Nutrition and Public Health (Department of Nutrition)	3	3 - 0 - 0		15		35	50
	Course -3	Stress Management (Department of Psychology/ Philosophy/ Sociology)	3	3 - 0 - 0		15		35	50
Pool of Communication Courses offered as Ability Enhancement Compulsory Courses									
•		AECEE101: English Communication	4	4 - 0 - 0		15		35	50
•	AEC-1	AECEB101: Bengali Communication	4	4 - 0 - 0		15		35	50
Marks: 50 Elective Course	Elective Course	AECEH101: Hindi Communication	4	4 - 0 - 0		15		35	50
Credits: 4		AECEU101: Urdu Communication	4	4 - 0 - 0		15		35	50
Semester wise	Pool of Minor Courses of	fered by this Discipline for other Disciplines							
I	Minor MNC-1	BSCHGEOMN101: Fundamentals of Physical Geography	5	4 - 1 - 0		30		70	100
П	Minor MNC-2	BSCHGEOMN201: Fundamentals of Human Geography	5	4 - 1 - 0		30		70	100
ш	Minor MNC-3	BSCHGEOMN301: Climate Change: Vulnerability and Adaptations	5	4 - 1 - 0		30		70	100
IV	Minor MNC-4	BSCHGEOMN401: Geospatial Science and Technology	5	4 - 1 - 0		30		70	100
v	Minor MNC-5	BSCHGEOMN501: Sustainable Resource Development	5	4 - 1 - 0		30		70	100
VII	Minor MNC-6	BSCHGEOMN701: Geotourism	5	4 - 1 - 0		30		70	100
VIII	Minor MNC-7	BSCHGEOMN801: Rural Development	5	4 - 1 - 0		30		70	100



	Programme: B.Sc.		Year: I		Semeste	r: I				
		Subje	ct: Geography							
	Course Na	me: Introd	uction to Phys	sical Geogra	ohy					
	Course Code: BSCGEOMJ101									
Course	e Type: Major (Theoretical)		Course Details: <b>M</b>	JC-1	L-T-P: <b>4 -</b>	1 - 0				
		Full Marks:	CA M	arks	ESE M	arks				
Course	e Credit: <mark>5</mark>	100	Practical	Theoretical	Practical	Theoretical				
Cours	<ul> <li>Course Objectives:</li> <li>The course offers basic knowledge about the principal characteristics of the Earth's physical environment.</li> <li>To provide fundamental knowledge of the different aspects of Geomorphology, along with the ability to objectively identify and characterize the different Earth surface processes that have influenced the landscape expressions and landform assemblages and vital roles in the occurrence of several natural hazards.</li> <li>Learning Outcome:</li> <li>Students shall obtain an overview of the causes of various geophysical and geomorphic phenomena, their impression on the land surface, and their effect on the habitable world.</li> <li>The students will definitely assist people regarding risk reduction from any geomorphic hazards.</li> <li>Professional Skill Development:</li> <li>The obtained knowledge is vital to provide a foundation for future studies in Physical Geography or Earth System Sciences.</li> <li>This knowledge will help to provide inputs on the basic concepts that underlie much of the United Nations Sustainable Development Goals on clean water, land, natural resources, and human impacts on the physical</li> </ul>									
Sub units		Topics	to be covered			No. of Lectures				
Unit I	: The Earth and its Physical E	nvironment [	30 Hours]							
1.1	Earth as a Planet: Theories Laplace)	on the origin	of the Earth (Im	manuel Kant ar	nd Pierre-Simon	2				
1.2	The Solid Earth: Earth's tecton of Geochronology	iic and structur	al evolution throu	ıgh geological tir	mescales; Basics	4				
1.3	Thermal and physical state of evidence; Genesis of earthqua	of the Earth's ake; Vulcanicity	interior with spe and related land	cial reference t forms	o seismological	4				
1.4	Continental drift and seafloor (Models of Airy, Pratt and the	r spreading wit ir applicability)	h special referen	ce to Paleomag	netism; Isostasy	4				
1.5	Earth's atmosphere: Insolation global warming	n; Pressure bel	ts; Planetary wind	system; Greenh	ouse effect and	4				
1.6	Earth's hydrosphere: Global (Atlantic and Pacific)	hydrological c	ycle; Ocean circu	ulation - major	ocean currents	4				



1.7	Earth's biosphere: Major Biomes of the world (Tropical Rainforest, Temperate Grassland and Tundra); Classification of forest (Champion)	4					
1.8	Earth's pedosphere: Concept of Zonal, Azonal and Intrazonal Soil; Soil erosion and conservation	4					
Unit II	: Earth Surface Dynamics and Processes [30 Hours]						
2.1	Basic concepts of Geomorphology (W.D. Thornbury); Scales in Geomorphology	4					
2.2	Plate Tectonics and associated landforms: Processes and landforms at plate margins and plate interiors	4					
2.3	Degradational processes: Weathering, mass wasting and resultant landforms						
2.4	Models of landscape evolution: Views of Davis, Penck, and Hack	4					
2.5	Development of river network and landforms on uniclinal and folded structures	4					
2.6	Development of landforms on igneous rocks: Granite and basalt; Landforms on sedimentary rocks: Sandstones and limestones	4					
2.7	Surface processes and landforms: Fluvial, Aeolian and fluvio-aeolian, Glacial and glacio-fluvial						
2.8	Coastal processes and landforms	2					

# • Continuous Assessment: 30 Marks

**1.** <u>Seminar presentations</u>: A powerpoint presentation to be conducted for internal assessment on the notified portions / topics. [**14 Marks**]

**2.** <u>Class test</u>: There shall be test (s) of knowledge and understanding through written test on the notified portions / topics (s). [**16 Marks**]

# • End Semester Examination: 70 Marks

The end semester examination shall be conducted based on written test.

Question Pattern: Students have to answer <u>Two questions</u> carrying **10 marks** out of given **four** questions; <u>Four questions</u> carrying **5 marks** each out of given **eight** questions;. <u>Ten questions</u> carrying **2 marks** each out of given **sixteen** questions; <u>Ten questions</u> carrying **1 mark** each out of given **sixteen** questions.

### $\diamond$ References

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Programme: B.Sc.		Year: I		Semest	er: I		
	Subje	ct: Geography					
Course Name:	Elementary	Practicals in	Physical Geo	ography			
Course Code: BSCGEOSE101							
Course Type: SEC (Practical)	(	Course Details: <b>Si</b>	EC-1	L-T-P: <b>0 - 0 - 6</b>			
	Full Marks:	CA M	arks	ESE Marks			
Course Credit: 3	50	Practical	Theoretical	Practical	Theoretical		
	-	30		20			
<ul> <li>Course Objectives:</li> <li>♦ This course is an initiative to impart knowledge on the basic concept of the practicals in Physical Geography to students so that they can apply it to solve geographical problems in the field.</li> <li>♦ To orient the students towards identifying and analysing various facets of geographical features and processes from maps and field.</li> </ul>							
<ul> <li>Learning Outcome:</li> <li>♦ Students will learn about the application of scale in geographic studies.</li> <li>♦ Students will be able to interpret landform structures with the help of geological maps and learn to identify</li> </ul>							

minerals and rocks, the fundamental element of landforms.

 $\diamond$  Upon completing this course, students will understand the interpretation techniques of topographical maps and their application.



Profes	<ul> <li>Professional Skill Development:</li> <li>         ♦ The acquired knowledge is beneficial for future studies in physical geography.     </li> <li>         ♦ This obtained knowledge will provide essential inputs in skill development, which will place the students in their professional life in the near future.     </li> </ul>							
Sub units	Topics to be covered	Lab work hours						
Unit I	Scale, Minerals and Rocks [20 Hours]							
1.1	Concept and classification of map scales (Linear, Diagonal and Vernier)	12						
1.2	Megascopic identification of (a) Mineral samples: Bauxite, Calcite, Chalcopyrite, Feldspar, Galena, Gypsum, Hematite, Magnetite, Mica, Quartz, Talc, Tourmaline; and (b) Rock samples: Granite, Basalt, Dolerite, Pegmatite, Limestone, Shale, Sandstone, Conglomerate, Slate, Phyllite, Schist, Gneiss, Quartzite, Marble	8						
Unit I	: Basic Geological and Geomorphological Exercises [40 Hours]							
2.1	Measurement of dip and strike using clinometer; Analysis of geological maps (Horizontal, Uniclinal and folded structure along with intrusions and unconformities)	20						
2.2	Preparation of data inventory in Physical Geography (Seismic data, Hydro-meteorological data, Soil data); Landform identification from Google Earth; Measurement of pebble shape using slide caliper	20						
Unit I	I: Topographical Maps [30 Hours]							
3.1	Survey of India topographical maps: History, indexing vis-a-vis scale (old and open series); Information on the margin of maps	04						
3.2	Extraction and interpretation of geomorphic information from topographical maps of plateau region (Open and Defence Series maps, RF 1:50k): Construction and interpretation of relief (superimposed, projected and composite) profiles and river profiles (cross and longitudinal), delineation of drainage basins, stream ordering (Horton and Strahler) and bifurcation ratio on a drainage basin; Morphometric techniques in 10 cm x 12 cm area: Relative Relief (after G.H. Smith, 1935), Average Slope (after C.K. Wentworth, 1930), Drainage Density and Stream Frequency (after R.E. Horton, 1945)	26						

### • Continuous Assessment: 30 Marks

**1.** <u>Practical records</u>: A laboratory notebook covering all practical topics must be prepared and duly signed by the teacher. **[10 Marks]** 

2. <u>Class test</u>: Internal Assessment to be conducted on the basis of above three units. Students have to

answer two compulsory questions of 10 marks from the above three units. [20 Marks]

### • End Semester Examination: 20 Marks

1. Written test: In the End Semester Examination, students have to answer one compulsory question

from the above three units, except unit 2.2 [15 Marks]

2. <u>Viva-voce</u> based on laboratory notebook [5 Marks]



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Programme: B.Sc.	Year: I		Semester: II		
Subject: Geography					
Course Name: Fundamentals of Human Geography					
Course Code: BSCGEOMJ201					
Course Type: Major (Theoretical)	(	Course Details: MJC-2		L-T-P: <b>4 - 1 - 0</b>	
	Full Marks: 100	CA Marks		ESE Marks	
Course Credit: 5		Practical	Theoretical	Practical	Theoretical
			30		70
Course Objectives:	g of human asp	ects of geograph	ical phenomena	and their inte	erface within

♦ To impart fundamental knowledge about Population Geography and basic concepts in Settlement Geography.

# Learning Outcome:

 $\diamond$  At the end of this course, it is expected that students will be able to understand the social environment from local to global perspectives.

♦ Students will be able to describe and evaluate relevant issues to the needs of the contemporary world.

### **Professional Skill Development:**

♦ This knowledge will provide students with a wide range of professional skills applicable to various fields.

♦ It will prepare them for careers in urban planning, public policy, community development, international development, and social research.

Sub units	Topics to be covered		
Unit I	: Nature and Principles of Human Geography [30 Hours]		
1.1	Nature, scope and recent trends; Development and branches of human geography	3	
1.2	Approaches to Human Geography: Resource, locational, landscape, environmental	4	
1.3	Evolution of Man-Nature interaction: Hunting and Food gathering, Pastoral nomadism, Agrarian society and industrial society	4	
1.4	Human adaptation to environment: Case studies of Eskimo and Masai; Primitive people of India (Santhal and Nagas)	6	
1.5	Space and Society: Concept of culture and its components, innovation, diffusion and convergence of culture	3	



1.6	Race and ethnic groups: Concept, origin and distribution	4
1.7	Language and religion: Origin, diffusion and distribution	4
1.8	Cultural realms of the world and their characteristics	2
Unit II	: Population, Settlement and Development [30 Hours]	
2.1	Population geography and demography; Population growth and distribution; Population composition (Age-Sex composition)	4
2.2	Theories of population: Malthusian and demographic transition; Population-resource regions (W. Zelinsky and E.A. Ackerman)	4
2.3	Population and environment relations with special reference to development-environment conflict (Multi-purpose river valley projects)	2
2.4	Origin and growth of rural settlements; Social morphology and rural house types in India; Types and patterns of rural settlements	6
2.5	Origin and growth of urban settlements; Functional classification of urban settlements; Morphology of urban settlements: Models of Burgess, Hoyt, Harris and Ullman	6
2.6	Trends and patterns of world urbanization (ancient and modern)	2
2.7	Poverty and inequality: Concept, causes and consequences; Food Security in Indian context	3
2.8	Indicators of social well-being; Human development	3

### • Continuous Assessment: 30 Marks

**1.** <u>Seminar presentations</u>: A powerpoint presentation to be conducted for internal assessment on the notified portions / topics. [**14 Marks**]

**2.** <u>Class test</u>: There shall be test (s) of knowledge and understanding through written test on the notified portions / topics (s). [**16 Marks**]

### • End Semester Examination: 70 Marks

The end semester examination shall be conducted based on written test.

Question Pattern: Students have to answer <u>Two questions</u> carrying **10 marks** out of given **four** questions; <u>Four questions</u> carrying **5 marks** each out of given **eight** questions;. <u>Ten questions</u> carrying **2 marks** each out of given **sixteen** questions; <u>Ten questions</u> carrying **1 mark** each out of given **sixteen** questions.

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	Programme: B.Sc.	Year: I		Semester: II		
		Subje	ct: Geography			
	Course Name: Elementary Practicals in Human Geography					
		Course Co	de: BSCGEOSE	201		
Course	e Type: SEC (Practical)		Course Details: <b>SE</b>	C-2	L-T-P: <b>0 - 0 - 6</b>	
Course Credit: <b>3</b>	Full Marks	CA Marks		ESE Marks		
	e Credit: 3	<b>50</b>	Practical	Theoretical	Practical	Theoretical
			30		20	
Cours	e Objectives:					
	develop students' aptitude for a	cquiring basic s	kills of carrying ou	ut fieldwork for o	collecting demo	graphic and
	economic data. Juide students to learn the sciev	nce and art of c	collecting process	ing and interpre	ating the data	
Learn	ing Outcome:					
♦ Stud	dents shall be able to identify t	he socio-enviro	onmental problen	ns of a locality t	hrough field ex	perience in
future.	students will officiently extract	roprocont and	aluce and interpre	t domographic	and social acons	mic data
v me		, represent, and				
Profes	ssional Skill Development:					
♦ The	acquired knowledge is benefic	ial for future st	udies in human ge	eography.		
♦ This	s obtained knowledge will prov	vide essential ir	nputs in skill deve	elopment, which	n will place the	students in
their p	professional life in the near futu	re.				
Sub	Topics to be covered			Lab work		
units						nours
Unit I	: Data Collection and Repres	entation [30 H	lours]			
	Sources of demographic and socio-economic data; Data access from Census of India web					
1.1	portal; Preparation of questi	onnaire or sch	edule for collect	ing data throug	gh a household	18
	survey; interview with special reference to focused group discussions					
1.2	Preparation of maps showing population density by choropleth; Rural and urban population			12		
	by dots and spheres; Populati	on growth rate	s by line graph (A	nnual and Deca	dal)	
Unit I	I: Data Analysis and Interpre	tation [30 Hou	ırs]			



2.1	Measurement of inequality by Lorenz curve and Gini coefficient; Analysis of occupation structure by pie diagram	14
2.2	Computation of Human Development Index (HDI), Multidimensional Poverty Index (MPI) and representation	16
Unit I	II: Topographical Maps [30 Hours]	
3.1	Study of correlation between physical and cultural features from Survey of India 1:50k topographical maps using transect chart and scatter plots	14
3.2	Analysis of transport and settlements: Transport network analysis by detour index and Nearest	16

### • Continuous Assessment: 30 Marks

**1.** <u>Practical records</u>: A laboratory notebook covering all practical topics must be prepared and duly signed by the teacher. [**10 Marks**]

**2.** <u>Class test</u>: Internal assessment to be conducted on the basis of above three units. Students have to answer two compulsory questions of 10 marks from the above three units. **[20 Marks]** 

### • End Semester Examination: 20 Marks

1. Written test: In the End Semester Examination, students have to answer one compulsory question

from the above three units [15 Marks]

2. <u>Viva-voce</u> based on laboratory notebook [5 Marks]

### $\diamond$ References

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