

GOLAGHAT COMMERCE COLLEGE (AUTONOMUS)

PROGRAMME STRUCTURE OF FYUGP(Single Major)

Table 1 : Credit Distribution matrix of FYUGP (Single Major)										
Year	Semester	Core	Minor	GEC	AEC	SEC	Internship/ Community Engagement/ Project	VAC	Research/ Dissertatio n/	Total
1	I	4	4	3	4	3		2		20
	II	4	4	3	4	3		2		20
UG Certificate										40
2	III	4+4	4	3		3		2		20
	IV	4+4+4+4	4							20
UG Diploma		32	16	09	08	09		06		80
3	V	4+4+4	4				2 +2 (I + CE) OR 4 (I) / 4 (CE)			20
	VI	4+4+4+4	4							20
UG Degree		60	24	-	-	-	04	-	-	120
4	VII	4+4+4	4						4 (RM)	20
	VIII	4+4	4						8 (D)/4+4 (DSE)	20
Honours Degree		80	32	-	-	-	-	-	12	160
5	IX	4+4+4	4						4(P)/ 4 (DSE)	20
	X	4+4	4						8/4+4 (DSE)	20
PG Degree		100	40	-	-	-	-	-	24	200

FOUR YEAR GRADUATE PROGRAMME (FYUGP) IN GEOGRAPHY GOLAGHAT COMMERCE COLLEGE AUTONOMOUS

THE PREMBLE:

Geography introduces the discipline as a holistic study of the Earth, encompassing both physically and humans aspects. It is a vital discipline that helps as understand and appreciate the world we live in .

In the present day context, the significance of geography cannot be overstated . As the world become increasingly globalised, interdependent, and rapidly changing, Geography provides us with essential tool to analyse and interpret the challenges and opportunities that arise. For instance geospatial technology such as geography information system (GIS) , Remote sensing, and satellite imagery and extensively used in diverse fields, including urban planning, natural resources management, disaster response climate change adaptation, and public health. In summary geography is a discipline that contributes to our

knowledge and understanding of the world and helps us make informed decisions about our planet and future.

INTRODUCTION

The national education policy NEP of 2020 has introduced a revised syllabus for geography particularly of the undergraduate level. This syllabus aims to provide students with a holistic understanding of the subject, encompassing both physically and human dimensions of geography. The NEP syllabus emphasizes a balance approach. Integrating theoretical knowledge with practical application and field work.

AIMS OF FOUR YEAR UNDER GRADUATE PROGRAMME (FYUGP) IN EDUCATION

The aims of the four year undergraduate program in geography are:

- (1) The FYUGP in geography aims students to gain a broad base knowledge of the natural and human system that shape the Earth's landscapes and environments, as well as the social and cultural processes that influence them.
- (2) It aims to introduce students to the breadth and depth of the fields of geography including its sub-discipline theories, methods and application.
- (3) It aims to provide students with opportunities to experiential learning and research, through field trips, internships, research project, and collaboration with faculty and peer.
- (4) It aims to prepare graduate will be equipped with a range of transferable skill, including communication. Teamwork, leadership, and problem solving, that will enable them to adapt to changing professional and social contexts.

GRADUATE ATTRIBUTES OF THE FYUGP IN GEOGRAPHY

- (1) **Disciplinary knowledge**: Students will pass a deep and comprehensive understanding of the principles, theories and methodologies of the field of geography, including its sub-discipline. They will have a strong foundation in the theoretical and empirical understanding of geography.
- (2) **Global and cultural competence**: Students have an understanding of the diverse cultural, social and economic context in which environments and social issues occur.

(3) **Ethical and professional practice**: Students will be committed to ethical and professional practice with an understanding of the ethical and legal issues involved in environmental and social problem solving .

(4) **Geopolitical literacy**: Students will have a thorough understanding of the principal of cartography spatial statistics and be able to apply these principles to real world problem with strong foundation in geospatial literacy, including the ability to analyse and interpret geospatial data use geographic information system (GIS) and apply remote sensing techniques.

(5) **CRITICAL THINKING AND PROBLEM SOLVING**: The NEP syllabus aims to develop students critical thinking and problem solving abilities, which are essential for navigating complex issue in the field.

Flexibility and exit options :

The NEP allows for flexibility in course structure, with multiple exit options at the end of the each year, providing students with different pathways based on their aspirations and careers goal .

Curriculum credit system (CBCS)

The NEP-2020 syllabus for geography is designed under the CBCS framework ,allowing students to choose course that align with their interests and academic goals.

- **PROGRAMME LEARNING OUTCOMES**
- PLO 1. Demonstrate a comprehensive understanding of the principles, concepts, and theories of geography, including its sub-disciplines such as physical geography, human geography, and geomatics.
- PLO 2. Conduct fieldwork and research projects, utilizing both qualitative and quantitative methods, to collect and analyze data on environmental and social phenomena.
- PLO 3. Communicate effectively in written, oral, and visual forms, to diverse audiences, including academic and non-academic audiences, using appropriate technologies and media.
- PLO 4. Work effectively in diverse teams, demonstrating leadership, communication, and collaboration skills, to solve complex environmental and social problems.

- PLO 5. Develop an interdisciplinary and holistic perspective on environmental and social issues, drawing on knowledge and methods from diverse fields such as ecology, economics, sociology, and political science.
- PLO 6. Demonstrate global and cultural competence, with an understanding of the diverse cultural, social, and economic contexts in which environmental and social issues occur.
- PLO 7. Apply ethical and professional standards, demonstrating a commitment to responsible and sustainable environmental and social practices.
- PLO 8. Engage in lifelong learning and professional development, staying abreast of current trends and advances in the field of geography, and contributing to the advancement of the discipline through research and practice.
- PLO 9. Apply critical thinking and problem-solving skills to analyze and interpret geospatial data and phenomena, and develop innovative and sustainable solutions to environmental and social issues.
- PLO 10. Utilize a range of geospatial technologies, including geographic information systems (GIS), remote sensing, and spatial statistics, to collect, manage, and analyze geospatial data.

4. Teaching Learning Process

The programme allows to use varied pedagogical methods and techniques both within classroom and beyond.

- Lecture
- Tutorial
- Power point presentation
- Documentary film on related topic
- Project Work/Dissertation
- Group Discussion and debate
- Seminars/workshops/conferences
- Field visits and Report/Excursions
- Laboratory Work
- Mentor/Mentee

5. Teaching Learning Tools

- Projector
- Smart Television for Documentary related topic
- LCD Monitor
- WLAN
- White/Green/Black Board
- Computer Lab with GIS and Remote Sensing tools
- Soil and Water Testing Lab
- UAV (Drones)
- Tracing Table

- Dumpy's Level, Theodolite
- GPS,
- Toposheets and Satellite Image
- Globes, Charts, Maps
- Plane Table Set, Prismatic Compass,
- Levelling Staff, Rotameter

6. Assessment

- Home assignment
- Project Report
- Class Presentation: Oral/Poster/Power point
- Group Discussions
- Seminars
- Laboratory work
- Peer review
- Quizzes
- Other participatory learning activities
- In semester examinations
- End Semester examinations

GOLAGHAT COMMERCE COLLEGE(AUTONOMOUS) , JYOTI NAGAR,GOLAGHAT-785621 FYUGP STRUCTURE AS PER UGC CREDIT FRAMEWORK

YEAR	SEMESTER	COURSE	TITLE OF THE COURSE	TOTAL CREDIT
Year 01	1 st SEMESTER	GEOMAJ1	GEOMORPHOLOGY	4
		GEOMIN1	GEOMORPHOLOGY AND OCEANOGRAPHY	4
		GEOGEC1	PHYSICAL GEOGRAPHY	3
		SEC-1	DISASTER MANAGEMENT	3
	2 nd SEMESTER	GEOMAJ2	CLIMATOLOGY	4
		GEOMIN2	CLIMATOLOGY AND BIOGEOGRAPHY	4
		GEOGEC2	FUNDAMENTALS OF GEOMORPHOLOGY	3
		VAC2	ENVIRONMENTAL SCIENCE	2
		SEC2	METHODS AND TECHNIQUES OF FIELD STUDY	3

Grand Total (Semester I, II, III and IV)

The students on exit shall be awarded Undergraduate Diploma (in the Field of Study/Discipline) after securing the requisite 88 Credits on completion of Semester IV provided, they secure additional 4 credit in skill based vocational courses offered during First Year or Second Year summer term

Year 02	3rd SEMESTER	GEOMAJ3 A	ENVIRONMENTAL GEOGRAPHY	4
		GEOMAJ3 B	REMOTE SENSING AND GIS IN GEOGRAPHY	4
		GEOMIN3	HUMAN SOCIAL AND CULTURAL GEOGRAPHY	4
		GEOGEC3	SETTLEMENT GEOGRAPHY	3
		SEC3	CARTOGRAPHIC TECHNIQUES	3
	4th SEMESTER	GEOMAJ4 A	HUMAN POPULATION AND SETTLEMENT GEOGRAPHY	4
		GEOMAJ4 B	POLITICAL GEOGRAPHY	4
		GEOMAJ4 C	STATISTICAL METHODS IN GEOGRAPHY	4
		GEOMAJ4 D	BIOGEOGRAPHY AND OCEANOGRAPHY	4
		GEOMIN4	GEOGRAPHY OF RESOURCES AND ECONOMY	4

SEMESTER-I

B.A/B.Sc. IN GEOGRAPHY PROGRAMME (FYUGP)

DETAILED SYLLABUS OF 1st SEMESTER

TITLE OF COURSE : GEOMORPHOLOGY

COURSE CODE : GEOMAJ1

NATURE OF COURSE : MAJOR

TOTAL CREDITS : 4 CREDITS(3+1=4)

DISTRIBUTION OF MARKS : 60(End sem) (45 T+15P)+40(In sem)

COURES OBJECTIVES:

- To enhance the learner's understanding of the branch of Geomorphology and its fundamental concepts.
- To acquire knowledge about the interior of the earth and its interior movements.
- To have an understanding of diverse geomorphic processes acting on the earth and their role on the development of different landform under different geo-climatic conditions.

To make the students comprehend the various processes responsible for the development of diverse landforms on the earth's surface.

UNITS	NAMES	CONTENT	L	T	P	Total Hours
1 (15 marks)	Introduction to Geomorphology	a. Geomorphology: Meaning, Definition, Nature and Scope. b. Fundamental Geomorphic Concepts. c. Recent trend of development of Geomorphology	12	2		14
2 (15 marks)	Geomorphic processes (Endogenetic)	a. Earth: Interior structure and Isostasy b. continental Drift Theory c. Earth Movement Types of Fold and Fault, Plate Tectonic, concept of Geosyncline, Earthquake and volcanoes	13	2		15
3 (15 marks)	Geomorphic processes (Exogenetic) Evolution of landforms	a. Exogenetic processes - Weathering, Mass wasting, gradation. b. cycle of Erosion (Davis and penck) c. Evolution of landform (Erosional and depositional) Fluvial, karst, Aeolian, Glacial and coastal.	14	2		16
4 (15 marks)	PRACTICAL	a. Topographical Map - Interpretation of topographical Map. Profile Drawing (serial,		2	28	30

B.A/B.Sc. IN GEOGRAPHY PROGRAMME (FYUGP)**DETAILED SYLLABUS OF 1ST SEMESTER****TITLE OF COURSE : GEOMORPHOLOGY AND OCEANOGRAPHY****COURSE CODE : GEOMIN1****NATURE OF COURSE : MINOR****TOTAL CREDITS : 4 CREDITS(3+1=4)****DISTRIBUTION OF MARKS : 60(End sem) (45 T+15P)+40(In sem)****COURSE OBJECTIVES:**

- The objective of this minor course in Geomorphology and Oceanography is to introduce undergraduate students to the fundamental principles, theories, and applications of the two fields.
- The course aims to equip students with the knowledge and skills necessary to understand the interactions between the Earth's surface processes and the ocean, and the dynamic nature of coastal and marine environments.
- To enhance the learner's understanding of the branch of Geomorphology and Oceanography and its fundamental concepts.
- To acquire knowledge about the interior of the earth and its interior movements.
- To have an understanding of diverse geomorphic processes acting on the earth and their role on the development of different landform under different geo-climatic conditions.
- To make the students comprehend the various processes responsible for the development of diverse landforms on the earth's surface.
- Develop practical skills in fieldwork, laboratory analysis, and data interpretation in both geomorphology and oceanography.

UNITS	NAME	CONTENT	L	T	P	Total Hours
1 (15 marks)	Introduction to Geomorphology	a. Meaning and scope of Geography b. Geomorphology : Meaning and Definition , nature and scope c. Fundamental concept of Geomorphology.	12	2		14
2 (15 marks)	Geomorphic processes (Endogenetic and Exogenetic)	a. Earth: Interior structure and Isostasy. b. Earth Movement: Types of Fold and Fault, Plate Tectonic, Earthquake and volcanoes. c. Exogenetic process -Weathering, Mass Wasting d. Cycle of Erosion Davis and penck.	15	2		17
3 (15 marks)	Introduction to oceanography	a. Meaning nature and scope of Oceanography.	12	2		14

4. Kale V. S. and Gupta A., 2001: Introduction to Geomorphology, Orient Longman, Hyderabad.
5. Knighton A. D., 1984: Fluvial Forms and Processes, Edward Arnold Publishers, London.
6. Richards K. S., 1982: Rivers: Form and Processes in Alluvial Channels, Methuen, London.
7. Selby, M.J., (2005), Earth's Changing Surface, Indian Edition, OUP
8. Skinner, Brian J. and Stephen C. Porter (2000), The Dynamic Earth: An Introduction to physical Geology, 4th Edition, John Wiley and Sons
9. Thornbury W. D., 1968: Principles of Geomorphology, Wiley.
10. Gautam, A (2010): Bhautik Bhugol, Rastogi Publications, Meerut
11. Tikkaa, R N (1989): Bhautik Bhugol ka Swaroop, Kedarnath Ram Nath, Meerut
11. Singh, S (2009): Bhautik Bhugol ka Swaroop, Prayag Pustak, Allahabad
12. Alan P. Trujillo , Harold V. Thurman (2016): Essentials of Oceanography, 12th Edition, Pearson
13. K. Siddhartha (2018): Oceanography: A Brief Introduction, Kitab Mahal

B.A/B.Sc. IN GEOGRAPHY PROGRAMME (FYUGP)

DETAILED SYLLABUS OF 1st SEMESTER

TITLE OF COURSE	: PHYSICAL GEOGRAPHY
COURSE CODE	: GEOGEC1
NATURE OF COURSE	: GENERIC ELECTIVE COURSE (GEC)
TOTAL CREDITS	: 3 CREDITS
DISTRIBUTION OF MARKS	: 45(End sem) +30(In sem)

COURSE OBJECTIVES:

- To explain the concept, definition and scope of earth systems.
- To understand the atmospheric composition and structure.
- To acquire knowledge about the interior of the earth and its interior movements.

6. Demonstrate proficiency in fieldwork and laboratory exercises related to physical geography, including data collection and analysis.

Overall, the programme learning outcomes for the "Physical Geography" Multi-Disciplinary Generic Elective course would reflect a range of skills and knowledge that would be valuable to students pursuing careers in fields such as environmental science, resource management, and geography. Graduates would be equipped with a deep understanding of the physical processes that shape our planet, as well as the skills and expertise necessary to address real-world problems related to physical geography.

Suggested Readings:

1. Barry, R.G. and Chorley, R.J. (1998). Atmosphere, Weather and Climate. Routledge, London.
 2. Bryant, H. Richard (2001). Physical Geography Made Simple. Rupa and Co., New Delhi.
 3. Bunnett, R.B. (2003). Physical Geography in Diagrams, Fourth GCSE edition, Pearson Education (Singapore) Pvt Ltd.
 4. Garrison T (1998). Oceanography. Wordsworth Cp, Bedmont.
 5. Lake, P. (1979). Physical Geography (English & Hindi Edition) Cambridge Univ. Press, Cambridge.
 6. Monkhouse, FI (1979). Physical Geography, Methuen, London.
 7. Singh, S. (2003). Physical Geography (English and Hindi Editions) Prayag Pustak Bhawan, Allahabad.
 8. Singh, M.B. (2001) Bhoutik Bhoogol, Tara Book Agency, Varanasi.
 9. Strahler, A.N. and Strahler A.M. (1992). Modern Physical Geography, John Wiley and Sons, New York
- Wooldridge, S. W. and Morgan, R.S. (1959). The Physical Basis of Geography: An Outline of Geomorphology. Longman, London.

B.A/B.Sc. IN GEOGRAPHY PROGRAMME (FYUGP)

DETAILED SYLLABUS OF 1st SEMESTER

TITLE OF COURSE : DISASTER MANAGEMENT

COURSE CODE : SEC1

NATURE OF COURSE : SKILL ENHANCEMENT COURSE(SEC)

TOTAL CREDITS : 3 CREDITS(2+1=3)

DISTRIBUTION OF MARKS : 45(End sem) (30 T+15P)+30(In sem)

COURSE OBJECTIVES:

- The main objective of this course is to make the students aware about the concepts of hazards, disasters, risk and vulnerability.
- In this course an attempt has been made to prepare the students about the Do's and Don'ts during and post disaster

UNITS	NAME	CONTENTS	L	T	P	Total Hours
1 [10 marks]	Disasters	a. Disasters: Definition and Concepts: Hazards, Disasters; Risk and Vulnerability; Classification b. Manmade disasters: Causes, Impact and Distribution	9	1		10
2 [10 marks]	Disasters in India	a. Disasters in India :Earthquake, Tsunami, Drought- Causes, impact and distribution. b. Disasters in India : Flood, cyclone, landslide; Causes impact and distribution	9	1		10
3 [10 marks]	Response and Mitigation to Disasters	a. Response and Mitigation to Disasters: Mitigation and Preparedness, NDMA and NIDM; Indigenous Knowledge and Community-Based Disaster Management; Do's and Don'ts During and Post Disaster.	9	1		10

- Recognize the importance of public awareness campaigns in promoting a culture of safety and preparedness.
6. Ethical and Professional Considerations:
- Reflect on the ethical dimensions of disaster management, including issues of equity, social justice, and human rights.
 - Understand professional responsibilities and ethical guidelines for practitioners in the field of disaster management.
 - Develop critical thinking skills to assess and address ethical dilemmas that may arise during disaster response and recovery efforts.

By achieving these learning outcomes, students will be equipped with the necessary knowledge and skills to contribute to effective disaster management, both in terms of preparedness and response. They will also be better prepared to address the social, economic, and environmental challenges that arise in the aftermath of disasters.

Suggested Readings:

1. Government of India. (1997) Vulnerability Atlas of India. New Delhi, Building Materials & Technology Promotion Council, Ministry of Urban Development, Government of India.
2. Kapur, A. (2010) Vulnerable India: A Geographical Study of Disasters, Sage Publication, New Delhi.
3. Modh, S. (2010) Managing Natural Disaster: Hydrological, Marine and Geological Disasters, Macmillan, Delhi.
4. Singh, R.B. (2005) Risk Assessment and Vulnerability Analysis, IGNOU, New Delhi. Chapter 1, 2 and 3
5. Singh, R. B. (ed.), (2006) Natural Hazards and Disaster Management: Vulnerability and Mitigation, Rawat Publications, New Delhi.
6. Sinha, A. (2001). Disaster Management: Lessons Drawn and Strategies for Future, New United Press, New Delhi.
7. Stoltman, J.P. et al. (2004) International Perspectives on Natural Disasters, Kluwer Academic Publications. Dordrecht.
8. Singh Jagbir (2007) "Disaster Management Future Challenges and Opportunities", 2007. Publisher I.K. International Pvt. Ltd. S-25, Green Park Extension, Uphaar Cinema Market, New Delhi, India (www.ikbooks.com).

B.A/B.Sc. IN GEOGRAPHY PROGRAMME (FYUGP)

DETAILED SYLLABUS OF 2nd SEMESTER

TITLE OF COURSE	: CLIMATOLOGY
COURSE CODE	: GEOMAJ2
NATURE OF COURSE	: MAJOR
TOTAL CREDITS	: 4 CREDITS(3+1=4)
DISTRIBUTION OF MARKS	: 60(End sem) (45 T+15P)+40(In sem)

Course Objective: The objectives of this Course are:

1. To scientific understanding of the physical aspects of Earth's climate system and the factors that influence climate change.
2. To explore the global balance of energy and transfer of radiation in the atmosphere through in-depth quantitative analysis and the general circulation of winds.
3. To highlight important atmospheric phenomena and their direct bearing on man. It emphasis is on understanding the weather phenomena and its impact on day to day life.

UNITS	NAME	CONTENT	L	T	P	Total Hours
1 (15 marks)	Composition Structure and Temperature of Atmosphere	a. Climatology: Meaning, Nature and Scope. b. Atmospheric Composition and Structure. c. Temperature Distribution, Insolation, Heat Budget, Temperature Inversion	10	2		12
2 (15 marks)	Atmospheric Pressure and Winds	a. Planetary winds, forces affecting planetary wind, Global circulation of permanent wind system and jet streams. b. Concept of Airmass and Fronts, cyclones and Anticyclones, Local winds.	13	3		16
3 (15 marks)	Atmospheric Moisture, Weather and Climate	a. Evaporation, Humidity Condensation, Fog and Clouds, Precipitation and its types. b. Elements and factors of weather and climate. c. Climatic classification: Koeppen and Thornthwaite.	15	2		17
4 (15 marks)	Practical	a. Study of weather symbols and Interpretation of weather map. b. Representation of climatic data: [i] Preparation Of Climograph, Hythergraph and Ergograph and their interpretation [ii] Rainfall distribution map of Assam		2	28	30
TOTAL			38	9	28	75

Where I:lectures T: tutorials p: Practical

MODES OF IN SEMESTER ASSESSMENT:

40 marks

- Two internal examination -

20 Marks

- Attendance --

5 Marks

- **Practical --** **10 Marks**
- **Group discussion / seminar/ home assignment-** **5 marks**

Learning Outcomes: *On completion of this Course, a student will be able to –*

- (1) understand the mean global atmospheric circulations and disturbances,
- (2) world climate systems, climatic variability and change,
- (3) impact of human activities

Suggested Readings:

1. Anthes R. A., Panofsky H. A., Cahir J. J. and Rango A., 1978: The Atmosphere, Columbus.
2. Barry R. G. and Carleton A. M., 2001: Synoptic and Dynamic Climatology, Routledge, UK.
3. Barry R. G. and Corley R. J., 1998: Atmosphere, Weather and Climate, Routledge, New York.
4. Batten L. J., 1979: Fundamentals of Meteorology, Prentice-Hall Inc., Englewood Cliffs, New Jersey. 5. Boucher K., 1975: Global Climates, Halstead Press, New York.
5. Critchfield H. J., 1987: General Climatology, Prentice-Hall of India, New Delhi
6. Das, P.K.,1968: The Monsoon, National Book Trust, New Delhi.
7. Hobbs, J.E.,1980: Applied Climatology, Butterworth.
8. Lal, D.S.,1998: Climatology, Sharda Pustak Bhawan, Allahabad.
9. Lockwood, J.G.,1976: World Climatology-Environmental Approach, Ed. Arnold Ltd.
10. Lutgens F. K., Tarbuck E. J. and Tasa D., 2009: The Atmosphere: An Introduction to Meteorology, Prentice-Hall, Englewood Cliffs, New Jersey
11. Menon,P.A.,: Our Weather, National Book Trust
12. Miller, A.A.,1953: Climatology, Dutton.
- 13.Oliver J. E. and Hidore J. J., 2002: Climatology: An Atmospheric Science, Pearson Education, New Delhi.
14. Stringer, E.N., 1982: An Introduction to Climate, International Studies.
15. Thompson D. R. and Perry A. (eds.), 1997: Applied Climatology: Principles and Practice, Routledge, USA and Canada.
16. Trewartha G. T. and Horne L. H., 1980: An Introduction to Climate, McGraw-Hill

B.A/B.Sc. IN GEOGRAPHY PROGRAMME (FYUGP)**DETAILED SYLLABUS OF 2nd SEMESTER****TITLE OF COURSE : CLIMATOLOGY AND BIOGEOGRAPHY****COURSE CODE : GEOMIN2****NATURE OF COURSE : MINOR****TOTAL CREDITS : 4 CREDITS(3+1=4)****DISTRIBUTION OF MARKS : 60(End sem) (45 T+15P)+40(In sem)****Course Objectives:** The instructional objectives of this Course are:

1. To scientific understanding of the physical aspects of Earth's climate system and the factors that influence climate change.
2. To explore the global balance of energy and transfer of radiation in the atmosphere through in-depth quantitative analysis and the general circulation of winds.
3. To highlight important atmospheric phenomena and their direct bearing on man. It emphasis is on understanding the weather phenomena and its impact on day to day life.

UNITS	NAME	CONTENT	L	T	P	Total Hours
1 [15 marks]	Introduction to Climatology	a. Meaning, Nature and scope of climatology. b. Composition and structure of Atmosphere c. Temperature distribution, Insolation, Temperature inversion.	12	1		13
2 [15 marks]	Atmospheric Pressure and Wind	a. Atmospheric Pressure and wind: Planetary wind, Forces affecting winds, General circulation, Jet Streams. b. Concept of Airmass and Fronts, Cyclones and Anticyclones, Local winds c. Evaporation, Humidity, Condensation, Fog and Clouds, Precipitation and its types d. Koeppen's climatic classification	14	1		15

3 [15 marks]	Biogeography	a. Bio-geography: Meaning, Scope and Significance. b. World distribution of plants and its relation to soil, climate and Human activities. c. Soil: Soil forming processes, classification and distribution of soil, soil horizon and profile, Major soil type of India.	15	2		17
4 [15 marks]	Practical	a. Interpretation of various weather symbols depicted on maps b. Preparation of rainfall-temperature graphs; Hythergraph and Climograph c. Mapping of protected areas (National Park, biosphere reserve and wildlife sanctuary) of India. Mapping of Biodiversity hotspots of the world and India.	7	3	20	30
TOTAL			48	7	20	75

Where l:lectures T: tutorials p: Practical

MODES OF IN SEMESTER ASSESSMENT: 40 marks

- **Two internal examination - 20 Marks**
- **Attendance -- 5 Marks**
- **Practical -- 10 Marks**
- **Group discursion / seminar/ home assignment -- 5 Marks**

Learning Outcomes: On completion of this Course, a student will be able to –
 (1) understand the mean global atmospheric circulations and disturbances,
 (2) world climate systems, climatic variability and change, impact on human activities

Suggested Readings:

1. Anthes R. A., Panofsky H. A., Cahir J. J. and Rango A., 1978: The Atmosphere, Columbus.
2. Barry R. G. and Carleton A. M., 2001: Synoptic and Dynamic Climatology, Routledge, UK.
3. Barry R. G. and Corley R. J., 1998: Atmosphere, Weather and Climate, Routledge, New York.
4. Batten L. J., 1979: Fundamentals of Meteorology, Prentice-Hall Inc., Englewood Cliffs, New Jersey.
5. Boucher K., 1975: Global Climates, Halstead Press, New York.
5. Critchfield H. J., 1987: General Climatology, Prentice-Hall of India, New Delhi
6. Das, P.K.,1968: The Monsoon, National Book Trust, New Delhi.
7. Hobbs, J.E.,1980: Applied Climatology, Butterworth.
8. Lal, D.S.,1998: Climatology, Sharda Pustak Bhawan, Allahabad.
9. Lockwood, J.G.,1976: World Climatology-Environmental Approach, Ed. Arnold Ltd.

10. Lutgens F. K., Tarbuck E. J. and Tasa D., 2009: The Atmosphere: An Introduction to Meteorology, Prentice-Hall, Englewood Cliffs, New Jersey
11. Menon, P.A., : Our Weather, National Book Trust
12. Miller, A.A., 1953: Climatology, Dutton.
13. Oliver J. E. and Hidore J. J., 2002: Climatology: An Atmospheric Science, Pearson Education, New Delhi.
14. Stringer, E.N., 1982: An Introduction to Climate, International Studies.
15. Thompson D. R. and Perry A. (eds.), 1997: Applied Climatology: Principles and Practice, Routledge, USA and Canada.
16. Trewartha G. T. and Horne L. H., 1980: An Introduction to Climate, McGraw-Hill.
17. Cox, C. B., R. Ladle, and P. D. Moore. 2016. Biogeography: An Ecological and Evolutionary Approach. John Wiley & Sons.
18. Darwin, C. 1859. The Origin of Species. P. F. Collier & Son.
19. Flannery, T. 2015. The Eternal Frontier: An Ecological History of North America and Its Peoples. Grove/Atlantic, Inc.
20. Gavin, D. G. 2012. Biogeography. Pages 77-89 in J. P. Stoltman, editor. 21st Century Geography: A Reference Handbook. SAGE Publications, Thousand Oaks, CA.
21. Jackson, S. T. 2004. Quaternary biogeography: Linking biotic responses to environmental variability across timescales. Pages 47-65 in M. V. Lomolino and L. R. Heaney, editors. Frontiers of Biogeography: New Directions in the Geography of Nature. Sinauer, Sunderland, MA.

B.A/B.Sc. IN GEOGRAPHY PROGRAMME (FYUGP)**DETAILED SYLLABUS OF 2nd SEMESTER****TITLE OF COURSE : FUNDAMENTALS OF GEOMORPHOLOGY****COURSE CODE : GEOGEC2****NATURE OF COURSE : GENERIC ELECTIVE COURSE (GEC)****TOTAL CREDITS : 3 CREDITS****DISTRIBUTION OF MARKS : 45 (End Sem) + 30 (In-sem)****COURSE OBJECTIVES:**

1. To introduce the meaning, nature, scope and concepts in Geomorphology in adequate manner, many facets of surface relief features.
2. To understand various aspects of their growth and evolution on the Earth.
3. To understand the work of running water, Underground water, moving ice, wind and sea waves, Weathering and Mass Wasting–Concept

UNITS	NAME	CONTENTS	L	T	P	Total Hours
1 [15 marks]	Principles of Geomorphology	a. Meaning, nature and scope. b. Fundamental concepts in Geomorphology. c. The place of Geomorphology in Physical Geography.	12	3		15
2 [15 marks]	Interior of The Earth	a. Earth's Interior: Wegener's continental drift theory. b. Earthquake and Volcanoes. c. Plate tectonics: types of plates and plate boundaries.	12	3		15
3 [15 marks]	Evolution of Landforms due to Endogenetic & Exogenetic Forces	a. Earth movement: orogenic and epeirogenic and Folds and Faults. b. Weathering and Mass-wasting: concept and types.	12	3		15
		TOTAL	36	9		45

Where **L**:lectures **T**: tutorials **p**: Practical**MODES OF IN SEMESTER ASSESSMENT: 30 marks**

- **Two internal examination - 20 Marks**
- **Attendance -- 5 Marks**
- **Group discursion / seminar/ home assignment -- 5 Marks**

LEARNING OUTCOMES:

After the completion of this course, the learner will be able to: provide an understanding of the conceptual and dynamic aspects of landform development. Students will also learn the relevance of Geomorphology in various fields.

SUGGESTED READINGS:

1. Bloom A. L., 2003: Geomorphology: A Systematic Analysis of Late Cenozoic Landforms, Prentice-Hall of India, New Delhi.
2. Bridges E. M., 1990: World Geomorphology, Cambridge University Press, Cambridge.
3. Christopherson, Robert W., (2011), Geosystems: An Introduction to Physical Geography, 8 Ed., Macmillan Publishing Company
4. Gautam, A (2010): Bhautik Bhugol, Rastogi Publications, Meerut
5. Kale V. S. and Gupta A., 2001: Introduction to Geomorphology, Orient Longman, Hyderabad.
6. Knighton A. D., 1984: Fluvial Forms and Processes, Edward Arnold Publishers, London.
7. Richards K. S., 1982: Rivers: Form and Processes in Alluvial Channels, Methuen, London.
8. Selby, M.J., (2005), Earth's Changing Surface, Indian Edition, OUP
9. Skinner, Brian J. and Stephen C. Porter (2000), The Dynamic Earth: An Introduction to physical Geology, 4th Edition, John Wiley and Sons
10. Thornbury W. D., 1968: Principles of Geomorphology, Wiley.

B.A/B.Sc. IN GEOGRAPHY PROGRAMME (FYUGP)**DETAILED SYLLABUS OF 2nd SEMESTER**

TITLE OF COURSE	: ENVIRONMENTAL SCIENCE
COURSE CODE	: VAC-2
NATURE OF COURSE	: VALUE ADDED COURSE
TOTAL CREDITS	: 2 CREDITS
DISTRIBUTION OF MARKS	: 30(End sem) + 20 (In Sem)

3. Mckinney, M.L. & School, R.M. 1996. Environmental Science systems & Solutions, Web enhanced edition. 639p.
4. Mhaskar A.K., Matter Hazardous, Techno-Science Publication (TB) n) Miller T.G. Jr. Environmental Science, Wadsworth Publishing Co. (TB)
5. Odum, E.P., Odum, H.T., and Andrews, J. (1971). Fundamentals of Ecology. Saunders, Philadelphia, USA
6. Raven, P.H, Hassenzahl, D.M., Hager, M.C, Gift, N.Y., and Berg, L.R. (2015). Environment, 8thEdition. Wiley Publishing, USA.
7. Singh, J.S., Singh, S.P., and Gupta, S.R. (2017). Ecology, Environmental Science and Conservation. S. Chand Publishing, New Delhi. Chapter 1 (Page: 3-28)

B.A/B.Sc. IN GEOGRAPHY PROGRAMME (FYUGP)

DETAILED SYLLABUS OF 2nd SEMESTER

TITLE OF COURSE : METHODS AND TECHINQUIS OF FIELD STUDY

COURSE CODE : SEC2

NATURE OF COURSE : SKILL ENHANCEMENT COURSE(SEC)

TOTAL CREDITS : 3 CREDITS(2+1=3)

DISTRIBUTION OF MARKS : 45(End sem) (30T+15P)+30(In sem)

Course objectives: The objective of the course is

1. to enhance the learner with the concept of field study, the different types of data collected from the field and its importance in the geographical studies.
2. to make the students understand the different techniques involved in the process collection of primary data, the preparation of questionnaire and schedule and the systematic representation of data through tabulation, processing and analysis.
3. to develop the conceptual and theoretical ideas on how to prepare a field report and the use of different quantitative techniques, diagrams, maps, photograph essential for a meaningful research.
4. to develop the practical knowledge and skill of the learners in conducting the field study, collection of data and its preparation.

UNIT	NAME	CONTENTS	L	T	P	Total Hours
1 [10 marks]	Introduction	a. Field study and its importance in Geography b. Types of data	5	1		6
2 [10 marks]	Techniques of data collection	a. Techniques of data collection: Primary and Secondary b. Preparation of questionnaire and schedule c. Data tabulation, processing and analysis	10	2		12
3 [10 marks]	Designing the field report	a. Designing the field study report: Aims and objectives, methodology and interpretation. b. Use of Tables, Charts, Diagrams, Maps and Photographs in the report	10	2		12
4 [15 marks]	Practical	a. Field study and data collection b. Preparation and presentation of report		2	13	15
TOTAL			25	7	13	45

Where L:lectures T: tutorials p: Practical

MODES OF IN SEMESTER ASSESSMENT: 30 marks

- **Two internal examination - 10 Marks**
- **Attendance -- 5 Marks**
- **Practical -- 10 Marks**
- **Group discursion / seminar/ home assignment -- 5 Marks**

Learning outcome:

1. understanding the need and importance of fieldwork in the geographical studies and the collection of different data
2. The students will develop the idea of the methods of collection of primary data, preparation of questionnaire and schedule and its application. The students will be able to represent the complex data in a simpler form through tabulation for systematic analysis and logical representation of data.
3. The students will understand the structure of preparing a field report and the use of different qualitative and quantitative techniques for easy comprehension of data.

Reference books:

1. Archeer, J.E. and Dalton, T.H. (1968). *Fieldwork in Geography*, London.

2. Jones, P.A. (1968). *Fieldwork in Geography*, London.
3. Goodard, R.H., (1982). *Field Techniques and Research Methods in Geography*, Dubuque.
4. Wheelso, K.S. and Harding, M., (1965). *Geographical Fieldwork*, London.

SEMESTER-III

B.A/B.Sc. IN GEOGRAPHY PROGRAMME (FYUGP)

DETAILED SYLLABUS OF 3rd SEMESTER

TITLE OF COURSE : ENVIRONMENTAL GEOGRAPHY

COURSE CODE : GEOMAJ3 A

NATURE OF COURSE : MAJOR

TOTAL CREDITS : 4CREDITS(3+1=4)

DISTRIBUTION OF MARKS : 60(End sem) (45 T+15P)+40(In sem)

Course Objectives: The course triggers to

1. Understand the concept, nature and scope, concepts and developments of environmental geography;
2. Learn concept of ecosystem, its structure and function, ecology, types and components of ecology;
3. Understand the Human-Environment relationship in different biomes and human adaptations;
4. Learn about environmental degradation and restoration.

UNITS	NAME	CONTENT	L	T	P	Total Hours
4 [15 marks]	Environment Geography	a. concept nature and scope of Environmental Geography. b. Ecology: Meaning, Nature ,types and principle of ecology.	12	3		15
4 [15 marks]	Ecosystem	a. Ecosystem: concept, types, structure and functions. b. concept of Biodiversity and relevance of its preservation . c. Biomes: concept and types .	12	3		15
4 [15 marks]	Environmental problems	a. Environmental Degradation : pollution ,its causes and types. b. Environmental Hazards: Meaning and types. c. Policies of Environmental protection and conservation , concept of EIA.	12	3		15
4	Practical	Field observation and Data collection		2	43	45

7. Singh, J.S., Singh, S.P., and Gupta, S.R. (2017). Ecology, Environmental Science and Conservation. S. Chand Publishing, New Delhi. Chapter 1 (Page: 3-28)

B.A/B.Sc. IN GEOGRAPHY PROGRAMME (FYUGP)

DETAILED SYLLABUS OF 3rd SEMESTER

TITLE OF COURSE : REMOTE SENSING AND GIS IN GEOGRAPHY

COURSE CODE : GEOMAJ3 B

NATURE OF COURSE : MAJOR

TOTAL CREDITS : 4 CREDITS(3+1=4)

DISTRIBUTION OF MARKS : 60(End sem) (45 T+15P)+40(In sem)

Course Objectives: The course triggers to

1. Understand the principles of remote sensing, including the properties of electromagnetic radiation, sensors, and platforms.
2. Analyse remote sensing data using image processing techniques such as image enhancement, classification, and interpretation.
3. Understand the principles of GIS, including data management, spatial analysis, and cartography.
4. Use GIS software to create, manage, and analyse spatial data, including data from remote sensing sources.
5. Apply remote sensing and GIS techniques to solve real-world problems in the field of Geography, such as land-use change detection, natural resource management, and urban planning.
6. Critically evaluate remote sensing and GIS research literature, including understanding the strengths and limitations of different approaches and methods.
7. Communicate effectively about remote sensing and GIS research and applications, both in written and oral forms.

UNITS	NAME	CONTENTS	L	T	P	Total Hours
1 [15 marks]	Remote Sensing	a. Meaning and definition of Remote Sensing, Principles of Remote sensing,	12	3		15

		Historical Development of Remote sensing. b. Types of Remote sensing (Air born, space borne) Platforms and Types of Satellites, sensors. C. Electromagnetic Spectrum, EMR Interactions with Atmosphere and earth surface.				
2 [15 marks]	GIS	a. Meaning and definition of GIS, Components, Historical development. b. Spatial and non-spatial data, Raster and Vector data Structure C. Collection of Spatial Data: Point, Line, Polygon.	12	3		15
3 [15 marks]	Fundamentals of Digital Image	a. Digital image and its types b. Characteristics: Spectral, Spatial, Radiometric and Temporal resolution c. Elements of Image Interpretation d. Digital Image Processing: Components and Steps.	12	3		15
4 [15 marks]	Practical	a. Satellite Image interpretation; Delineation of landforms, river basin, land use/land cover. b. GPS: Ground verification c. Concept of visual and digital images processing, Geo-Referencing, radiometric and geometric Correction, filtering, editing and output using GIS Software		2	28	30
		TOTAL	36	11	28	75

Where l:lectures T: tutorials p: Practical

MODES OF IN SEMESTER ASSESSMENT: 40 marks

- **Two internal examination - 20 Marks**
- **Attendance -- 5 Marks**
- **Practical -- 10 Marks**
- **Group discursion / seminar/ home assignment -- 5 Marks**

LEARNING OUTCOMES:

After the completion of this course, students should be able to:

1. Practical knowledge on use of artificial intelligence and machine learning in Geography
2. Remote sensing and GIS would open up the technical ability for further research

3. Could relate geography to real world problems and capacity building for its investigation and management through artificial intelligence.

SUGGESTED READINGS:

1. Campbell J. B., 2007: *Introduction to Remote Sensing*, Guildford Press.
2. Jensen, J.R., 2004: *Introductory Digital Image Processing: A Remote Sensing Perspective*, Prentice Hall.
3. Joseph, G. 2005: *Fundamentals of Remote Sensing*, United Press India.
4. Lillesand, T.M., Kiefer, R.W. and Chipman J.W., 2004: *Remote Sensing and Image Interpretation*, Wiley. (Wiley Student Edition).
5. Nag, P. and Kudra, M., 1998: *Digital Remote Sensing*, Concept, New Delhi.
6. Rees, W.G., 2001: *Physical Principles of Remote Sensing*, Cambridge University Press.
7. Singh, R.B. and Murai, S., 1998: *Space-informatics for Sustainable Development*, Oxford and IBHPub.
8. Wolf, P.R. and Dewitt, B.A., 2000: *Elements of Photogrammetry: With Applications in GIS*, McGraw-Hill.
9. Sarkar, A. (2015): *Practical geography: A systematic approach*. Orient Black Swan Private Ltd., New Delhi
10. Chauniyal, D.D. (2010) *Sudur Samvedanevam Bhogolik Suchana Pranali*, Sharda Pustak Bhawan, Allahabad

B.A/B.Sc. IN GEOGRAPHY PROGRAMME (FYUGP)

DETAILED SYLLABUS OF 3rd SEMESTER

TITLE OF COURSE	: HUMAN, SOCIAL AND CULTURAL GEOGRAPHY
COURSE CODE	: GEOMIN3
NATURE OF COURSE	: MINOR
TOTAL CREDITS	: 4 CREDITS (3+1=4)
DISTRIBUTION OF MARKS	: 60(End sem) (45 T+15P)+40(In sem)

Course Objectives: The course triggers to

1. Introduction to Human, Social and Cultural Geography
2. To know different approaches of geographical studies and its importance
3. Understand the spatial distribution, social problems related to the subject components
4. Develop practical skilled to use statistics and graphical techniques in geography

UNITS	NAME	CONTENT	L	T	P	Total Hours
1 [15 marks]	HUMAN GEOGRAPHY	a. Definition, Nature, major Branches of Human Geography b. Schools: Determinism, possibilism and Neo-Determinism; c. Human Groups(races) : Classification and their spatial distribution	12	3		15
2 [15 marks]	SOCIAL GEOGRAPHY	a. Definition, nature and scope of social Geography b. Concept and types of space in social Geography c. Social problem in India: Education, health, Housing and crime d. Social categories: caste, religion, race and their spatial distribution	12	3		15
3 [15 marks]	SETTLEMENT GEOGRAPHY	a. Settlement: concept, origin and classification b. Rural settlement: evolution, site and situation factors, patterns and types c. Urban settlement Growth, functional classification of town d. Hierachy of settlement, primate city and urban fringe, christaller's central place theory	12	3		15
4 [15 marks]	PRACTICAL	a. Preparation of population growth Curve - Assam and India b. Preparation of population distribution and density maps of Assam and India c. Age sex pyramid for developed and developing countries d. Histogram, line graph pie diagram	8	2	20	30
TOTAL			44	11	20	75

Where l:lectures T: tutorials p: Practical

MODES OF IN SEMESTER ASSESSMENT:

40 marks

- **Two internal examination -** **20 Marks**
- **Attendance --** **5 Marks**
- **Practical --** **10 Marks**
- **Group discursion / seminar/ home assignment --** **5 Marks**

LEARNING OUTCOMES:

After the completion of this course, students should be able to:

1. Understand the human, social and cultural aspect in geography
2. Evaluate the potential social and cultural problems and prospects
3. Aware of social and cultural conservation plan of India
4. Development technical skill of spatial data interpretation in practical

SUGGESTED READINGS:

1. Smith, David M. (1977): Human Geography- A Welfare approach, Arnold-Hinmann, London. 11.
2. Hussain, Majid (1994): Human Geography, Rawat Publications, Jaipur.
3. Ahmed, A, (1999) Social Geography, Rawat publications, Jaipur.
4. Registrar General of India, (1972) , Economic and Socio cultural Dimensions of
5. Regionalization of India, Census Centenary Monograph No 7, New Delhi.
6. Ahmad ,A, (1993) (ed) Social Structure and regional Development: A Social Geography
7. Perspective, Rawat Publications, Jaipur.
8. Sen, J,(2012) Social and Cultural Geography, Kalyani Publishers, New Delhi.
9. Subba Rao B. (1958), 'Personality of India', MS University Press, Baroda.
10. Pain R, M. Barke, D Fuller, J Gough, R MacFarlane, G Mowl, (2001), Introducing Social
11. Geographies, Arnold Publishers, London.
12. 8. Dutt NK.,(1986), Origin and Growth of Caste in India, Firma Kin, Calcutta.
13. 9. Taher, M,(2017), Social Geography, Ashok Book Stall, Guwahati.
14. Sopher D. (1980) (ed) 'An Exploration of India: Geographical Perspectives on Society and Culture', Cornell Press, New York.

B.A/B.Sc. IN GEOGRAPHY PROGRAMME (FYUGP)

DETAILED SYLLABUS OF 3rd SEMESTER

TITLE OF COURSE : SETTLEMENT GEOGRAPHY

COURSE CODE : GEOGEC3
NATURE OF COURSE : GENERIC ELECTIVE COURSE (GEC)
TOTAL CREDITS : 3 CREDITS(2+1=3)

DISTRIBUTION OF MARKS : 45(End sem) +30(In sem)

Course Objectives: The course triggers to

1. To introduce settlement geography, nature, scope and classification
2. To understand concept of rural and urban settlement and development
3. To learn the basics of settlement theory

UNITS	NAMES	CONTENTS	L	T	P	Total Hours
1 [15 marks]	Introduction to Settlement Geography	a. Definition, nature and scope of settlement Geography b. Settlement: Definition and Types c. Factors affecting settlement distribution	8	4		12
2 [15 marks]	Rural Settlement	a. Origin and growth of rural settlement b. Types and Patterns of Rural Settlement c. Evolution of rural settlement and problems of rural settlement in India	8	4		12
3 [15 marks]	Urban Settlement	a. Origin and growth of Urban settlement b. Basis of Classification and Functional classification of town, problems of urban settlement in India c. Trend of urbanization and problems of urbanization in India	8	4		12
		TOTAL	24	12		36

Where L:lectures T: tutorials p: Practical

MODES OF IN SEMESTER ASSESSMENT: 30 marks

- Two internal examination - 20 Marks
- Attendance -- 5 Marks
- Group discursion / seminar/ home assignment -- 5 Marks

LEARNING OUTCOMES:

After the completion of this course, students should be able to:

1. Understand the basic concept of settlement geography and its components
2. Learn the criteria of rural and urban settlement and their growth
3. Evaluate theoretical concept of settlement on other geographic variables.

SUGGESTED READINGS:

1. Chorley, R.J. and Haggett, P.,1967: Models in Geography, Methuen, London.
2. Gregory,D.,1978:Ideology,ScienceandHumanGeography,Hutchin,Londan
3. Huntington, E,1951 Principles in Human Geography, John Wiley & Sons, Lnc,

- New York
4. Johnstone, R.J.et. (eds)1981,DictionaryofHumanGeography,BasilBlackwellOxford.
 5. Johnston, R.J.1983: Philosophy and Human Geography, Edward Arnold, London.
 6. Chandana,R.C.1986,AGeographyofPopulation,KakaniPublishers,NewDelhi
 7. Ahmed, A,et,al (eds) 1997, Demographic Transition, The Third world Scenario, Rawat Publications, Jaipur and New Delhi
 8. ClarkeJ.I.1972PopulationGeography,PergamonPress,Oxford
 9. Carter.H.1972,TheStoryofUrbanGeography,EdwardArnold,London

B.A/B.Sc. IN GEOGRAPHY PROGRAMME (FYUGP)

DETAILED SYLLABUS OF 3rd SEMESTER

- **TITLE OF COURSE** : CARTOGRAPHIC TECHNIQUES
- **COURSE CODE** : SEC3
- **NATURE OF COURSE** : SKILL ENHANCEMENT COURSE(SEC)
- **TOTAL CREDITS** : 3 CREDITS(2+1=3)
- **DISTRIBUTION OF MARKS** : 45(End sem) (30 T+15P)+30(In sem)

Course Objectives: The course triggers to

- Understand the importance of various Cartographic Techniques in the field geographical study.
- To focus on various types of map scale and their construction;
- To learn about principles of Map Projection and techniques of construction

UNITS	NAME	CONTENTS	L	T	P	Total Hours
1 [10 marks]	Introduction to Cartography	a. Definition, Representation of scale, Notation of Scale (Representative Fraction, Verbal notation, [Graphical]. Types of scale: plain, comparative, Diagonal and Vernier. b. Maps: Concept and types	9	1		10

SEMESTER-IV

B.A/B.Sc. IN GEOGRAPHY PROGRAMME (FYUGP)

DETAILED SYLLABUS OF 4th SEMESTER

TITLE OF COURSE : HUMAN, POPULATION AND SETTLEMENT GEOGRAPHY

COURSE CODE : GEOMAJ4 A

NATURE OF COURSE : MAJOR

TOTAL CREDITS : 4 CREDITS(3+1=4)

DISTRIBUTION OF MARKS : 60(End sem) (45 T+15P)+40(In sem)

Course Objectives-

The objectives of this course are:

1. To acquaint the students with distinctiveness of Geography as a field of learning in social science as well as natural science.
2. To introduce the major themes of Human Geography and its importance in present days.
3. To enhance the learner with basic ideas of population size, composition, growth & distribution of population and also the contemporary issues related with population.
4. To develop understanding of the learner about the concept, type & classification of settlements.
5. The philosophy & methodology of the subject is discussed in such a way that the students develop a keen interest in the subject & pursue it for higher studies.

UNITS	NAME	CONTENTS	L	T	P	Total
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4. Apply interdisciplinary thinking skills to address real world problems.

SUGGESTED READINGS:

1. Singh, L.R. : Fundamentals of Human Geography. Sharda Pustak Bhawan, Allahabad
2. Hussain, M. : Human Geography. Rawat Publication, Jaipur
3. Singh, Y.I. : Human Geography, Global Net Publication, New Delhi
4. Negi, B.S. : Human Geography, Kedar Nath Ram Nath Publications, Meerut
5. Maurya, S.D.: Human Geography, Pravalika Publications, Allahabad
6. Chandna, R.C.: Population Geography, Kalyani Publisher, New Delhi
7. Clarke, J.I. : Population Geography, Pergamon Press, Oxford
8. Johnstone, R.J. : Dictionary of Human Geography, Basil Blackwell, Oxford
9. Hassan, M.I. : Population Geography, Rawat Publications, Jaipur
10. Daniel, P.A. & Hopkinson, M.F.: The Geography of Settlement, Oliver & Boyd, London

B.A/B.Sc. IN GEOGRAPHY PROGRAMME (FYUGP)

DETAILED SYLLABUS OF 4th SEMESTER

TITLE OF COURSE	: POLITICAL GEOGRAPHY
COURSE CODE	: GEOMAJ4 B
NATURE OF COURSE	: MAJOR
TOTAL CREDITS	: 4 CREDITS (3+1=4)
DISTRIBUTION OF MARKS	: 60(End sem) (45 T+15P)+40(In sem)

Learning outcome:

- *Understanding the importance of political geography .
- * General understanding of the geopolitical situation of the world, India and North East India.
- * The paper will be useful for preparing different competitive examinations.

Suggested Reading:

1. Adhikari, Sudipta: Political Geography , Rawat Publication, New Delhi.
2. Adhikari, Sudipta: Political Geography of India , Sarda Pushtak Bhawan,
3. Cox,K.,2002: Political Geography, Wiley Blackwell
4. Dikshit, R.D.(1999): Political Geography, A Contemporary Perspectives, Tata McGrow, Hill, New Delhi.
5. Hazarika, Joysankar,(1996) Geopolitics of North East India- A Strategical Study.Gyan Publishing House, New Delhi.
6. Muir,R.(1976): Modern Political Geography, MacMillan, London.
7. Taylor, Peter (1985): Political Geography

B.A/B.Sc. IN GEOGRAPHY PROGRAMME (FYUGP)

DETAILED SYLLABUS OF 4rd SEMESTER

TITLE OF COURSE : STATISTICAL METHODS IN GEOGRAPHY

COURSE CODE : GEOMAJ4 C

NATURE OF COURSE : MAJOR

TOTAL CREDITS : 4 CREDITS(3+1=4)

DISTRIBUTION OF MARKS : 60(End sem) (45 T+15P)+40(In sem)

Course Objectives: The course triggers to

- Focus on importance of data in Geography.
- Focus on methods and techniques of data collection, data tabulation, interpretation and analysis.
- Focus on application of some basic statistical measures.

UNITS	NAMES	CONTENTS	L	T	P	Total Hours
1	Introduction to	a. Statistical methods in Geography-its significance and limitations.	10	3		13

7. Berry B.J.L. and Marble D.F. (eds): Spatial Analysis-A Reader in Geography.
8. Hammond P. and McCullagh P.S., 1978: Quantitative Techniques in Geography: An Introduction, Oxford University Press.
9. Sarkar, A.,(2013) Quantitative Geography. Techniques and Presentations. Orient Black Swan Private Ltd., New Delhi.
10. Elhance, D.N., 1972: Fundamentals of Statistics, Kitab Mahal, Allahabad.
11. King L,S,,1969: Statistical Analysis in Geography, Prentice Hall.
12. Yeates M.,1974: An Introduction to Quantitative Analysis in Human Geography, McGraw Hills, New York.
13. Gregory, S., 1963: Statistical Methods and Geographers, Longman , London.

B.A/B.Sc. IN GEOGRAPHY PROGRAMME (FYUGP)

DETAILED SYLLABUS OF 4rd SEMESTER

TITLE OF COURSE : BIOGEOGRAPHY AND OCEANOGRAPHY

COURSE CODE : GEOMAJ4 D

NATURE OF COURSE : MAJOR

TOTAL CREDITS : 4 CREDITS(3+1=4)

DISTRIBUTION OF MARKS : 60(End sem) (45 T+15P)+40(In sem)

Course Objectives:

- To introduce and enhance the learner's understanding of the branch of Biogeography and Oceanography and its fundamental concepts.
- To introduce undergraduate students to the fundamental principles, theories, and applications of the two fields.
- To equip students with the knowledge and skills necessary to understand the interactions between the distribution of plants and animals and human activities.

To acquaint the students and enable them to develop skills necessary to understand the ocean, and the dynamic nature of coastal and marine environments.

UNITS	NAME	CONTENT	L	T	P	Total Hours
1 [20 marks]	Biogeography	a. Definition, scope and significance b. World distribution of plants and its relation to climate, soil and human activities	20	2		22

Suggested Readings:

1. Singh.S.,: Geomorphology
2. Gataum.A.,:Geomorphology
3. Ahmed .E.1985: Geomorphology, Kalyani Publisher, New Delhi
4. Steers.J.A. : Unstable Earth
5. Bhattacharyya.N.N. : Biogeography
6. Mahanta.A.P. : Biogeography
7. Mahanta.A.P. : Snatakar Jibo Bhugul
8. Lal.D.S. : Oceanography and climatology
9. Chorley, Water, Earth and Man, Methum and Co. London.
10. Leopold. L.B. , Wolman.M.G., Miller.J.P., 1964 : luvial processes in geomorphology, Freeman , Snfransisco.
11. Penck.W., 1924 : Morphological Analysis of Landforms, Mc Millan, London.
12. Hussain H(ed), 1994: Bio-geography(Part I&II), Anmol Publications,New Delhi
13. Robinson, H.,1982: Bio-geography, ELBS, Mc Donald& Evans. London.
14. Simmons.I.G.,1974: Bio-geography : Natural and Cultural, London.
15. Tiby,1982 : Bio-geography. Longman.
16. King.CAM (1972) : Oceanography of Geographers .E. Arnold, London
17. Sharma.R.C. et al (1970) : Oceanography for Geographers, Chetnya Publ. House, Allahabad

B.A/B.Sc. IN GEOGRAPHY PROGRAMME (FYUGP)**DETAILED SYLLABUS OF 4rd SEMESTER****TITLE OF COURSE : GEOGRAPHY OF RESOURCES AND ECONOMY****COURSE CODE : GEOMIN4****NATURE OF COURSE : MINOR****TOTAL CREDITS : 4CREDITS(3+1=4)****DISTRIBUTION OF MARKS : 60(End sem) (45 T+15P)+40(In sem)****Course Objectives:** The course triggers to

- Develop the concept of recourse, utilization pattern, classification and its distribution over the earth.
- Focus on significances of resource management and sustainable development.

UNITS	NAMES	CONTENTS	L	T	P	Total Hours
1 [15 marks]	Geography of Resources	a. Resources: Meaning, definition and classification. b. Man and resources: Concept related with resources utilization, conservative and management etc. c. Fundamental theory of resources.	12	2		14
2 [15 marks]	Natural resources and economic development	a. World Distribution and Utilization, problem and management of land, water, forest resources. b. Distribution of coal, petroleum, Iron-ore and energy resources and its contribution to economic development in India. c. Appraisal and Conservation of Natural Resources	14	2		16
3 [15 marks]	Economic Development and Resource use	a. Pattern of development : Developed and Developing Country b. Sustainable resources development. c. Use of technology in resource utilization and management.	12	3		15
4 [15 marks]	Practical on Resource And Economic Development	a. Determination of levels of development in India/North-East India/Assam based on few development indicators using simple/mean ranking method. b. Mapping of spatial variation of category-wise forest cover (very dense, moderate dense and open forest) in Assam/ North East India		2	28	30

Perspectives and Approaches, Sterling, New Delhi.

14. 7. Ramachandran H. and Guimaraes J.P.C., 1991: Integrated Rural Development in Asia – Learning from Recent Experience, Concept Publishing, New Delhi.

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