FACULTY OF ARTS

BACHELOR OF ARTS IN GEOGRAPHY

SEMESTER 1

SUBJECT TITLE: - PHYSICAL GEOGRAPHY

Prerequisite:	Knowledge of basic concept of Geography.
Rationale:	This course introduces geography, emphasizing its scope, multidisciplinary nature, and branches, particularly physical geography. Students will explore concepts such as Internal structure of the Earth, tectonic theories, geomorphic processes, climatology, Oceanography, Biogeography, Environmental Geography. This knowledge will aid in analyzing and interpreting the physical environment, supporting decision-making in environmental management.
Objectives:	• To acquaint the students with Earth's Physical and Human behaviour of Geography. • To generalize the Internal structure of the Earth, Forces acting upon earth surface and Plate tectonics. • To Illustrate global and regional climate patterns, weather phenomena, and ocean Circulation.

Teaching Scheme			Credit	Examination Scheme					Total
				External		Internal			
Lect Hrs/ Week	Tut Hrs/ Week	Lab Hrs/ Week		T	P	T	CE	P	
4	0	0	4	60	0	20	20	0	100

Unit	Topic	Weightage %	Teaching Hrs.
1	**General Introduction of Geography** • Definition and meaning of Geography. • Scope and multidisciplinary approach of Geography • Branches of Geography.	10	06
2	**Introduction to Physical Geography** • Definition and meaning of Physical Geography • Components of Physical Geography • Meaning, scope and approaches of Geomorphology, Contribution of various scientist	20	12

	in Physical Geography		
3	**Basics of Geomorphology** • Theories of Origin of Earth. • Definition and Importance of Study. • Nature, Scope, Approaches and Objective. • Origin and Evolution of Earth's internal structure • Endogenetic and Exogenetic forces	20	12
4	**Fundamentals of Climatology** • Definition and Importance of Study. • Nature, Scope, and Objective. • Approaches and relation to meteorology. • Composition and structure of Earth's atmosphere.	18	12
5	**Principles of Oceanography** • Oceans of the Earth • Composition of oceanic basin and mid oceanic ridge • Ocean currents and their distribution, tides and waves • Physical properties of the Oceans: Temperature and salinity	20	12
6	**Environmental Geography** • Concept of Ecology: definition and principles • Environmental degradation and management.	12	06
	Total	100%	60 Hrs.

References:

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

Supplementary Reading Material:

Kale V. S. and Gupta A., 2001: Introduction to Geomorphology, Orient Longman, Hyderabad.
Knighton A. D., 1984: Fluvial Forms and Processes, Edward Arnold Publishers, London.
Richards K. S., 1982: Rivers: Form and Processes in Alluvial Channels, Methuen, London.
Selby, M.J., (2005), Earth's Changing Surface, Indian Edition, OUP
Skinner, Brian J. and Stephen C. Porter (2000), The Dynamic Earth: An Introduction to physical Geology,4th Edition, John Wiley and Sons
Thornbury W. D., 1968: Principles of Geomorphology, Wiley.
Gautam, A (2010): Bhautik Bhugol, Rastogi Punlications, Meerut
Tikkaa, R N (1989): Bhautik Bhugol ka Swaroop, Kedarnath Ram Nath, Meerut
Singh, S (2009): Bhautik Bhugol ka Swaroop, Prayag Pustak,Allahabad

Course Outcomes: (4-6 CO's)

No.	Course Outcome
CO1	To relate the definition, scope, and multidisciplinary nature of geography, and its branches to modern studies.
CO2	To discuss, physical geography, its components, and branches.
CO3	To determine the theories of Geomorphology.
CO4	To explore the climate of the earth and it's biospheric interaction
CO5	To analyse oceanic processes and circulations of oceanic waters.
CO6	To formulate interrelation of biotic and abiotic components of environment.

FACULTY OF ARTS

BACHELOR OF ARTS IN GEOGRAPHY

SEMESTER 1

SUBJECT TITLE: - BIOGEOGRAPHY

Prerequisite:	Basic knowledge of geography and environmental science.
Rationale:	To provide an understanding of the interrelationships between the biological and physical aspects of the Earth's environment.
Objectives:	• Explain key concepts of Bio-geography • Classify the cycle of nutrients in environment. • Analyse the global distribution pattern of flora and fauna.

Teaching Scheme			Credit	Examination Scheme					Total
				External		Internal			
Lect Hrs/ Week	Tut Hrs/ Week	Lab Hrs/ Week		T	P	T	CE	P	
4	0	0	4	60	0	20	20	0	100

Unit	Topic	Weightage %	Teaching Hrs.
1	**Basics of Biogeography** • Meaning and significance of biogeography. • Food chain and Food Web • Energy flow & Ecological Pyramids. • Biogeographic realms. • Communities, Biotic Succession, and types.	24	13
2	**Bioenergy cycles in terrestrial & Hydrological ecosystems:** • Nitrogen cycles • Carbon cycles • Oxygen cycles • Sulphur cycles • Phosphorus cycles.	20	13
3	**Geological Time Scale:** • Eons, eras, periods, epochs, and ages	16	10

4	**Biodiversity and Conservation** • Concepts, significance, and types of biodiversity. • Biodiversity indices, ecosystem services. • Hotspots of biodiversity in India. • Methods of conservation: In-situ & Ex-situ, their advantages and disadvantages. • Forest ecosystem.	16	10
5	**Evolution of Flora and Fauna** • Evolution of major groups of floral and faunal provinces. • Factors influencing the world distribution of plants and animals.	10	06
6	**Ecological Succession and Dispersal** • Dispersal of plants and animals: Agents & Barriers. • Problems of deforestation and conservation measures. • Biodiversity conservation	14	06
	Total	100%	60 hrs.

References:

Barry, C : Biogeography, Blackwell Scientific Publication, Oxford, London, 1993
Begon, M, Harper, T.L. & Townsend: Ecology, Individuals, Population & Communities, Blackwell Scientific Publication
Bharucha Erach, The Biodiversity of India, Mapin Publishing Pvt. Ltd., Ahmedabad – 380 013, India

Supplementary Reading Material:

Daubenmire, R.F.: Plant communities, Paper Publishers
Darling, Emma (2018) Introductory Biogeography, Larsen Kellar Newyork
Hanks S.L.B.: Ecology & the Biosphere, Principle & Problems, Vanity Bok, Delhi
Krishnamurthy, K.V. (2004). An Advanced Text Book of Biodiversity - Principles and Practices. Oxford and IBH Publications Co. Pvt. Ltd. New Delhi.
Kumar, H.D.: Modern concepts of Ecology, Vikas Publishing House Pvt.Ltd
Mal, Suraj., and Singh, R.B. (Eds.) (2009) Biogeography and Biodiversity. Rawat Publication, Jaipur
Mathur, H.S.: Essentials of Biogeography, Pointer Publishers, Jaipur, 1988
Nair, P.K.G.: A Textbook of Environmental Science, Himalaya Publications
Negi, S.S.: Bio diversity and its conservation in India; Indus Pub. Co., N Delhi
Sehgal, J. (1996): Pedology: Concepts and Applications, Kalyani Publishers, New Delhi

Course Outcomes: (4-6 CO's)

No.	Course Outcome
CO1	Discuss the nature and scope of biogeography.
CO2	Illustrate different components of the biosphere.
CO3	To inspect the geographical distribution of plants and animals in relation to physical and human environments.
CO4	To explore energy cycles and ecological successions.
CO5	To analyse biodiversity conservation methods.
CO6	To formulate the role of soils in biogeographic processes

PARUL UNIVERSITY - FACULTY OF ARTS

Department of Geography

BA (GEOGRAPHY) Programme- SEM-1 SYLLABUS

Physical Geography (Minor)

Type of Course:

- B.A Geography

Prerequisite:

Students should have a basic understanding of geographic concepts, general science principles, especially in Earth science, and foundational knowledge of physical geography, geology, and environmental science.

Rationale:

This course introduces geography, emphasizing its scope, multidisciplinary nature, and branches, particularly physical geography. Students will explore concepts such as the origin and evolution of the Earth, tectonic theories, geomorphic processes, climatology, Oceanography, Biogeography, Environmental Geography and hazardous situation. This knowledge will aid in analyzing and interpreting the physical environment, supporting decision-making in environmental management, urban planning, and disaster mitigation.

Course outcome:

- CO 1 – To understand the definition, scope, and multidisciplinary nature of geography, and its branches.
- CO 2 - To gain knowledge of physical geography, its components, and geomorphology, including contributions from key figures.
- CO 3 - To comprehend theories of Geomorphology.
- CO 4 – To explore about climate of earth and biospheric interaction with earth's atmosphere.
- CO 5 – To analyse oceanic processes and circulations of oceanic waters.
- CO 6 – To formulate interrelation of biotic and abiotic components of environment.

Teaching Scheme			Credit	Examination Scheme					Total
				External		Internal			
Lect Hrs/ Week	Tut Hrs/ Week	Lab Hrs/ Week		T	P	T	CE	P	
4	0	0	4	60	-	20	20		100

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE-** Continuous evaluation, **T** - Theory, **P** - Practical

Unit	Topic	Weightage %	Teaching Hrs.
1	**General Introduction of Geography** • Definition and meaning of Geography • Scope and multidisciplinary approach of Geography • Branches of Geography	24	06
2	**Introduction to Physical Geography** • Definition and meaning of Physical Geography • Components of Physical Geography • Meaning, scope and approaches of Geomorphology, • Contribution of G. K. Gilbert and J. Tricart in Geomorphology	20	12
3	**Basics of Geomorphology** • Origin and Evolution of Earth's internal structure • Endogenetic and Exogenetic forces • Factors controlling landform development • Tetrahedral, continental drift and isostacy theories	16	12
4	**Fundamentals of Climatology** • Composition and structure of Earth's atmosphere • Koppen, Thronwait and Trewarth's climate classification system • Pressure system and Energy budget of Earth • Atmospheric circulations and climatological hazards	16	12
5	**Principles of Oceanography** • Location and Topography of oceans • Ocean currents, tides and waves • Temperature and salinity of Oceans • Sea level rise, coral reef bleaching and Oceanic pollution	10	12
6	**Biogeography & Environmental Geography** • Soil profile, Classification, Genesis and distribution of soil • Soil erosion, degradation and conservation • Definition and principles of Ecology • Environmental degradation and management.	14	06
	Total	100%	60 Hrs.

Evaluation Method:

It consists of Assignments/Seminars/Presentations/Quizzes/Surprise Tests (Summative/MCQ) etc.

Essential reading:

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

Reference Books:

1. Kale V. S. and Gupta A., 2001: Introduction to Geomorphology, Orient Longman, Hyderabad.

2. Knighton A. D., 1984: Fluvial Forms and Processes, Edward Arnold Publishers, London.

3. Richards K. S., 1982: Rivers: Form and Processes in Alluvial Channels, Methuen, London.

4. Selby, M.J., (2005), Earth's Changing Surface, Indian Edition, OUP

5. Skinner, Brian J. and Stephen C. Porter (2000), The Dynamic Earth: An Introduction to physical Geology,4th Edition, John Wiley and Sons

6. Thornbury W. D., 1968: Principles of Geomorphology, Wiley.

7. Gautam, A (2010): Bhautik Bhugol, Rastogi Punlications, Meerut

8. Tikkaa, R N (1989): Bhautik Bhugol ka Swaroop, Kedarnath Ram Nath, Meerut

9. Singh, S (2009):Bhautik Bhugol ka Swaroop, Prayag Pustak,Allahabad