BAGALKOT UNIVERSITY

JAMKHANDI

THE COURSE STRUCTURE & SYLLABUS OF B.A. /B.Sc.

GEOGRAPHY

I and II Semester

Academic Year 2024-25 Onwards

PROGRAM STRUCTURE

Syllabus and Credits Structure under Choice Based Credit System [CBCS] General Degree for the Three Years **B.A./B.Sc. GEOGRAPHY** Undergraduate Programme with effect from 2024-25.

First Semester B.A./B.Sc. GEOGRAPHY

SEMESTER-I											
Category	**Course code**	**Title of the Paper**	**Marks**			**Teaching hours/ week**			**Credits**	**Duration of Exam** (Hrs)	**Teaching Department**
			IA	**SEE**	**Total**	**L**	**T**	**P**			
L1	----------	Language 1	20	80	100	4	-	-	3	3	-
L2	----------	Language 2	20	80	100	4	-	-	3	3	-
Major	2B1GEOM01T	**Principles of Geomorphology**	20	80	100	4	-	-	3	3	**GEOGRAPHY**
	2B1GEOM01L	**Interpretation of SOI Topo sheet**	10	40	50	-	-	4	2	3	**GEOGRAPHY**
Major	----------	Major Subject 2	20	80	100	4	-	-	3	3	---
	----------	Practical	10	40	50	-	-	4	2	3	---
Major	----------	Major Subject 3	20	80	100	4	-	-	3	3	---
	----------	Practical	10	40	50	-	-	4	2	3	---
Common	2S1XXXC01T	Constitutional Values	10	40	50	2	-	-	2	2	Constitutional Values: Political Science
	2S1XXXC02T	Environmental studies									Environmental Studies,: Chemistry/ Geography / Botany
Total Marks					**700**	**Semester Credits**			**23**		

Second Semester B.A./B.Sc. **GEOGRAPHY**

	SEMESTER-II										
Category	**Course code**	**Title of the Paper**	**Marks**			**Teaching hours/ week**			**Credits**	**Duration of exams (Hrs)**	**Teaching Department**
			IA	**SEE**	**Total**	**L**	**T**	**P**			
L3	----------	Language 3	20	80	100	4	-	-	3	3	-
L4	----------	Language 4	20	80	100	4	-	-	3	3	-
Major	2B2GEOM02T	**Fundamentals of Climatology**	20	80	100	4	-	-	3	3	**GEOGRAPHY**
	2B2GEOM02L	**Interpretation of IMD Weather Maps**	10	40	50	-	-	4	2	3	**GEOGRAPHY**
Major	----------	Major Subject 2	20	80	100	4	-	-	3	3	---
	----------	Practical	10	40	50	-	-	4	2	3	---
Major	----------	Major Subject 3	20	80	100	4	-	-	3	3	---
	----------	Practical	10	40	50	-	-	4	2	3	---
Common	2S1XXXC01T	Constitutional Values	10	40	50	2	-	-	2	2	Constitutional Values: Political Science
	2S1XXXC02T	Environmental Studies									Environmental Studies: Chemistry/Geography / Botany
Total Marks					**700**	**Semester Credits**			**23**		

Year	I	Course Code: : 2B1GEOM01T	Credits	03
Sem.	1	Paper Title : **PRINCIPLES OF GEOMORPHOLOGY**	Hours	52

Internal Assessment Marks: 20	External Assessment Marks: 80	Duration of Exam: 03hrs.

Objectives: The objective of the course is to familiarize the students with the need to understand of geomorphology about certain fundamental concepts, focusing on the unity of Geomorphology in the earth's materials and the processes with or without an element of time. The process of component of Geomorphology is segmented into the internal and external processes of landscape evolution.

Unit No.	Course content :	Hours
Unit I	**Introduction to Geomorphology**: Meaning, definition, nature, scope, significance and Modern Techniques in Geomorphology.	10 Hours
Unit II	**Earth's Interior**- Internal structure of the Earth- Earth Movements- Orogenic movements and Epeirogenic movements- Tectonic Features-Faults and Folds, Types, formation processes, and related landforms.	12 Hours
Unit III	**Theories:** Wegener's Theory of Continental Drift. Plate Tectonic Theory. Weathering and its types. Rocks- Origin and Types, distribution and economic significance. Rock Cycle	15 Hours
Unit IV	**Endogenic and Exogenic Forces**; Endogenetic Forces-Internal processes shaping the Earth's surface. Earthquakes-Causes, effects, distribution of earthquakes in India. Volcanoes-Types, causes, effects, and distribution. Exogenetic Forces. Erosion and Weathering- Processes, factors, and resultant landforms **Mass Wasting:** -Types and processes. Tsunamis- Causes, effects, and mitigation measures. **Agents of denudation:** Meaning and Process- **Rivers**- Fluvial processes, landforms, and drainage patterns. **Wind**- Aeolian processes, desert landforms. **Glaciers**- Glacial processes and its landforms. **Underground Water**- Topography and landforms **Sea Waves**- Coastal processes and landforms, Human Impact on Geomorphological Processes-Anthropogenic activities and their effects on geomorphology	15 Hours

Year	I	Course Code: 2B1GEOM01L	Credits	02
Sem.	1	Course Title: **INTERPRETATION OF SOI TOPO SHEETS**	Hours	50

Internal Assessment Marks: 10	External Assessment Marks: 40	Duration of Exam: 03hrs.

Unit No.	Course content	Hours
Unit I	**Meaning and Types of Maps:** Importance of SOI Topographical Maps, Interpretation of color conventional symbols of topographical maps.	15 Hours
Unit II	**Grid Reference**- Locating features with the help of a four-figures and a six-figures. **Contour diagrams**: steep slope, gentle slope, hill, valley, ridge/water divide, escarpment. **Symbols**: triangulated height, spot height, benchmark, and relative height/ depth. Measuring distances and calculating area using the scale. **Locational Points**: eight cardinal points. **Identification of drainage:** direction of flow and pattern and settlement patterns and Cross Section with the calculation of Vertical Exaggeration.	15 Hours
Unit III	Interpretation of SOI Topo sheets with reference to Physical Features: a) Relief b) Drainage system c) Natural Vegetation	10 Hours
Unit IV	Interpretation of SOI Topo sheets with reference to Cultural Features: a) Settlement and its patterns b) Transportation and Communication c) Agriculture and Irrigation Viva	10 Hours

Recommended Learning Resources

Reference:

1. Savindra Singh: Physical Geography
2. Strahler & Strahler: Physical Geography
3. R. N. Tikka: Physical Geography
4. Majid Hussain: Physical Geography
5. Das Gupta & Kapoor: Physical Geography
6. Triwartha. G. T: An Introduction to Climate
7. Savindra Singh: Climatology
8. Prof. S. S. Nanjannavar (2019): Physical Geography (Kannada Version)
9. Dr. Ranganath (2020): Physical Geography (Kannada Version)
2. Dr. S.S. Hanagaragi (2007): Climatology and Biogeography (Kannada Version)

Year	I	Course Code: : 2B2GEOM02T	Credits	03
Sem.	II	Paper Title : **FUNDAMENTALS OF CLIMATOLOGY**	Hours	52

Internal Assessment Marks: 20	External Assessment Marks: 80	Duration of Exam: 03hrs.

Objectives: This course aims to provide an understanding of Climate and weather phenomena, the dynamics of global climate, and the interaction between living organisms with climate and physical environment.

Unit No.	Course content :	Hours
Unit I	**Introduction to Climatology**: Definition, nature, scope and significance. Weather and. Climate- and its interrelationships. Elements of Weather and Climate-Temperature, humidity, precipitation, wind, pressure. Controlling Factors-Latitude, altitude, distance from the sea, ocean currents, topography.	10 Hours
Unit II	**Structure and Composition of the Atmosphere**: Structure of the atmosphere. Composition of atmosphere and its significance. Atmospheric Temperature-Heat Balance (Budget). Factors Influencing Temperature Distribution- Latitude, altitude, land-water contrast, ocean currents, and seasonal variations. Temperature Distribution- Vertical, horizontal and inversion of temperature.	12 Hours
Unit III	**Atmospheric Pressure and Winds**: Atmospheric Pressure - Measurement of Pressure- Barometers and other instruments. Global Pressure Belts. Winds and its types -- Planetary Winds, Trade winds, westerlies, and polar easterlies. Seasonal Winds-Monsoons, mechanism and impact. Local Winds-Land and sea breezes, mountain and valley breezes. Jet Streams-Characteristics, formation, and its effects. Air Masses: Definition, nature, characteristics of air masses. Source Regions and Classification. Fronts and its types.	15 Hours
Unit IV	**Atmospheric Disturbances:** Cyclones and Anticyclones- Global patterns and regional variations. Tropical Cyclones-Formation, characteristics and effects. Temperate Cyclones-Formation and its effects. Climate Change and Cyclones **Precipitation:** Hydrological Cycle- Processes and significance. Humidity- Measurement and its types. Factors Influencing Humidity. Clouds- Formation and its types. Process of Condensation Types of rainfall-- Convectional, Orographic and Cyclonic rainfall, global distribution of rainfall patterns and influencing factors	15 Hours

Year	I	Course Code: 2B2GEOM02L	Credits	02
Sem.	II	Course Title: **INTERPRETATION OF IMD WEATHER MAPS**	Hours	50

Internal Assessment Marks: 10	External Assessment Marks: 40	Duration of Exam: 03hrs.

Unit No.	Course content	Hours
Unit I	**Introduction to Weather Maps:** Meaning, Understanding the significance of IMD weather maps in meteorological analysis and forecasting for various sectors including agriculture, transportation, and disaster management. T**ypes of** synoptic weather maps, satellite imagery, and radar data used by the Indian Meteorological Department and Significance of Weather maps	15 Hours
Unit II	**Weather Instruments and Measurement**: Detailed study of the working principles and usage of common weather instruments used in meteorological observations. In-depth understanding of thermometers (Fahrenheit, Centigrade, Six's maximum and minimum), wet and dry bulb thermometer, mercurial and aneroid barometers, rain gauge, and wind vane.	15 Hours
Unit III	**Indian Daily Weather Report:** Weather signs and symbols, weather reports and forecasts, Station model- Comprehensive of the components. General Information of IMD Weather Maps- Familiarization with the format, content, and updates of the Indian Daily Weather Report by IMD	10 Hours
Unit IV	**Interpretation of Indian Weather Maps:** Seasonal Weather Patterns- Analysis of weather maps for four seasons (One map for each season). Spatial and Temporal Variability- Understanding spatial variations and temporal changes in weather map. Viva	10 Hours

Recommended Learning Resources

Reference:

R. L. Singh: Elements of Practical Geography

Gopal Singh: Practical Geography

Dr. Ranganath: Practical Geography (Kannada Version)

Singh and Kanoj: Practical Geography

R. P. Misra and Ramesh: Fundamental of Cartography

M. F. Karennavar & S. S. Nanjannavar: Practical Geography

M .F. Karennavar & S. S. Nanjannavar: Practical Geography (Kannada Version)

Pijushkanti Saha & Partha Basu: Advanced Practical Geography

https://mausam.imd.gov.in/

Prof. S. S. Nanjannavar (2021): Practical Geography (Kannada Version)