



BAGALKOT UNIVERSITY

Mudhol Road, Jamkhandi-587301 Dist: Bagalkot

PROGRAM /COURSE STRUCTURE AND SYLLABUS FOR **GEOGRAPHY**

as per the Choice Based Credit System (CBCS) designed in accordance with
Learning Outcomes-Based Curriculum Framework (LOCF)

For
Bachelor of Arts
(GEOGRAPHY)
(General Degree)
I and II Semester

w.e.f.

Academic Year 2024-25



BAGALKOT UNIVERSITY

JAMAKHANDI

**B. A / B. Sc. Semester wise Geography Course
Scheme under Choice Based Credit System (CBCS)
Academic year 2024-25 Onwards**

Sem.	Title of the Paper	Paper Code	Teaching Hours/ Week	Duration of Exam	Evaluation Pattern			Credits
					I A	Sem. End Exam	Total	
I	<u>Theory – 1.1</u> Principles of Geomorphology	DSC1.1	4	3	20	80	100	4
	<u>Practical – 1.2</u> Interpretation of SOI Topo sheet	DSC- 1.2	4	4	10	40	50	2
II	<u>Theory – 2.1</u> Fundamentals of Climatology	DSC- 2.1	4	3	20	80	100	4
	<u>Practical – 2.2</u> Interpretation and Analysis of IMD Weather Maps	DSC- 2.2	4	4	10	40	50	2

Note: DSC: Discipline Specific Course Papers [All DSC Papers are Compulsory for I sem to II sem]

B. A / B. Sc. Semester wise Geography Course Structure
Scheme under Choice Based Credit System (CBCS)
2024-2025 Onwards

REGULATION AND SCHEME OF INSTRUCTIONS

Regulations governing three-year Semester wise, Bachelor Degree Program of Bagalkot University, Jamakhandi (framed under Section 44 (1) (c) of the K.S.U. Act 2000) with effect from 2024-25 onwards.

I. Goals & Objectives:

The following aims have been kept in view while designing the syllabus of the Bachelor's Degree Program (B.A/B.Sc.) in Geography as one of the optional subjects.

The aims are to enable students to:

- To bring the geographical awareness among the students.
- To provide fundamental spatial information on the earth's surface.
- To train and teach geography effectively at various levels in educational institutions.
- To train and provide information related to spatial and regional levels of planning.
- To organize professional tours every year to cultivate research culture among the students.
- To provide adequate geographic knowledge and skills as needed for the competitive examination.

II. Admission Criteria:

A candidate who has passed PUC-II year/10+2/Three Diploma is eligible to choose Geography as one of the optional subjects in Under Graduate Course. The candidate should have obtained at least 40 per cent of aggregate marks. Relaxation in respect of SC/ST etc., will be followed as per the prevailing rules of the University. Other rules for admissions are as per the University notification from time to time.

III. Medium of Instruction:

The medium of instruction shall be English, however, the students are allowed to write the examination in Kannada Medium also.

IV. Attendance:

A minimum 75% of attendance in each semester (both theory and practical) is compulsory.

V. Scheme of Instruction:

1. The M. A/M. Sc. Master's Degree holders in Geography only teach the subject at UG Level. However, NET/SLET/Ph.D. is compulsory.
2. Geography as an optional subject at Under Graduate (UG) Level, which consists of six semesters, it includes eight theory papers (DSC) and eight practical papers (DSC). There will be **one theory** paper and **one practical** paper in each semester **i.e. I and II** semesters, with each paper theory **100 and practical 50 marks** respectively. The duration of teaching hours for the theory and practical paper will be together **Eight (04+04) hours per week** for the **I and II** semesters. Each theory and practical paper will have 5 modules/units (divided into chapters/units). The duration of each semester is being 16 weeks excluding the examination period.
3. The Practical classes are to be conducted in separate batches. Each batch consists of 15 students with one teacher.

VI. Scheme of Theory Examinations:

1. The Theory course shall carry 100 marks of which 80 marks allotted for the semester-end examination and 20 marks for internal assessment (IA) that will be carried out as per the University norms.
2. Each theory course will have a question paper of 3 hours duration and a maximum of 80 marks. The minimum mark to pass in each paper on theory is 40 per cent.
3. There shall be three sections in every theory question paper viz. A. B. & C. **Section A** shall have 12 questions of each 2 marks and the candidate must attempt 10 questions only (10X2=20 marks). **Section B** shall have 8 questions of each 5 marks and the candidate must attempt 6 questions only (6X5=30 marks). **Section C** shall have 6 questions of each 10 marks and the candidate attempt 3 questions (3X10=30 marks).

VII. Scheme of Practical Examination:

1. Each practical course shall carry 50 marks of which **10 marks** are allotted for IA marks (out of which **06 marks** are kept for practical records journals/ assignments/dissertations and **04 marks** are allotted for attendance and lab work). The **40 marks** examination will be conducted at the end of each semester, out of which **5 marks** will be allotted for viva and **35 marks** for written examination as per the instructions given by the

University.

2. Each practical course will have a question paper of 4 hours duration and a maximum of 40 marks.
3. The practical examination is to be conducted in batches and each batch consists of a minimum of 15 candidates.
4. There will be one internal examiner and one external examiner to conduct the practical examination for each batch in each semester.
5. Minimum marks to pass in each paper of practical are 40 per cent.
6. Each candidate shall complete the laboratory work of the journal/practical records, it shall be certified and signed by both the concerned course teacher and the Head of the Department of Geography of the concerned college compulsory to certify that the candidate has satisfactorily completed the prescribed course in practical and same should be produced at the time of practical examination. No students shall be allowed for the examination without completed journal/ practical records.
7. There is no provision for revaluation or seeking improvement in practical paper examination and internal assessment marks.

B. A. /B. Sc. SYLLABUS IN GEOGRAPHY

I SEMESTER - THEORY PAPER- 1.1: PRINCIPLES OF GEOMORPHOLOGY

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.

Course structure: One theory and One Practical

Teaching Theory: 04 hours per week

Practical: 04 hours per week

Examination: One Theory paper of 80 Marks and 20 Marks for internal assessment (IA), one Practical of 40 Marks and 10 Marks for internal assessment (IA) Out of 10 IA marks 6 marks are for practical records/journals and 4 marks for attendance and lab work.

Units	Topic	Teaching Hours
I	Introduction to Geomorphology: Meaning and definition, nature and scope significance and Modern Techniques in Geomorphology.	04
II	Earth's Interior and Tectonics: Interior Structure of the Earth-Core, mantle, crust, and their compositions Earth Movements- Orogenic Movements-Mountain-building processes. Epeirogenic Movements- Continental uplift and subsidence. Tectonic Features-Faults and Folds, Types, formation processes, and related landforms. Seismic Waves-Types, propagation. Isostasy- Concepts and theories of isostatic adjustment.	10
III	Theories and Rock Cycles: Wegener's Theory of Continental Drift-Evidence and Implications. Plate Tectonic Theory-Mechanisms of plate movements, boundaries, and resultant landforms. Weathering-Physical, chemical, and biological weathering processes. Rocks-Origin and Types, Igneous, sedimentary, and metamorphic rocks. Distribution and Economic Significance- Global distribution patterns and their importance. Rock Cycle-Processes and transitions among rock types. Geomorphological Mapping-Techniques and importance of geomorphological maps.	12
IV	Endogenic and Exogenic Forces; Endogenetic Forces-Internal processes shaping the Earth's surface. Earthquakes-Causes, effects, distribution, and specific case studies of earthquakes in India. Volcanoes-Types, causes, effects, and distribution. Exogenetic Forces- External processes affecting the Earth's surface. Erosion and Weathering- Processes, factors, and resultant landforms. Mass	12

	Wasting:-Types and processes. Tsunamis- Causes, effects, and mitigation measures. Geological Time Scale- Understanding the major events in Earth's history.	
V	Denudation and Work of Agents: Meaning and Process of Denudation. Agents of Denudation- Rivers- Fluvial processes, landforms, river terraces, and drainage patterns. Wind- Aeolian processes, desert landforms, and dune dynamics. Glaciers- Glacial processes, landforms, and impacts of glaciation. Underground Water-Karst topography, landforms, and speleogenesis. Ocean/Sea Waves- Coastal processes, landforms, and coastal erosion. Human Impact on Geomorphological Processes-Anthropogenic activities and their effects on geomorphology.	14
	Total	52 hours

Assignment Reference: 1 . D a y	a) Students should visit nearby localities and observe the types and characteristics of Landforms and submit a brief report by analyzing their characteristics and formation processes. . b) Collect various types of rocks found near your native place, documenting their geological significance. c) Make a report on seismic events in India, evaluate damages, and propose measures for earthquake preparedness.
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al, P. (1996): A Text book of Geomorphology. Shukla Book depot, Patna
2. Dury, G.H. (1980): The Face of the Earth, Penguins
3. Ernst, W.G. (2000): Earth systems - Process and Issues. Cambridge University Press
4. ICSSR (1983): A Survey of Research in Physical Geography. Concept, New Delhi
5. Kale V. and Gupta, A. (2001): Element of Geomorphology, Oxford University Press, Calcutta
6. Monkhouse, F.J. (1960): Principles of Physical Geography. Hodder and Stoughton, London.
7. Pitty. A. (1974): Introduction to Geomorphology, Methuen, London
8. Sharma, H.S. (1987): Tropical Geomorphology, Concept, New Delhi
9. Singh,S. (1998): Geomorphology, Prayag Pustakalaya, Allahabad
10. Small, R.J. (1985): The Study of Landforms, Mc.Graw Hill, New York

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B. A. /B. Sc. SYLLABUS IN GEOGRAPHY

I SEMESTER PRACTICAL- I

PAPER – 1.2 INTERPRETATION OF SOI TOPOSHEETS

PRACTICAL

Units	Topic	Teaching Hours
I	Meaning and Types of Maps: Importance of SOI Topographical Maps, Interpretation of color tints and conventional symbols used on a topographical survey of India map.	04
II	The Grid Reference- Locating features with the help of a four-figure and a six-figure grid reference. Identification of simple landforms marked by contours (steep slope, gentle slope, hill, valley, ridge/water divide, escarpment), triangulated height, spot height, benchmark, and relative height/ depth. Identification and definition of types of scale given on the map. Measuring distances and calculating area using the scale given therein. Marking directions between different locations, using eight cardinal points. Identification of drainage (direction of flow and pattern) and settlement patterns. Cross Section with the calculation of Vertical Exaggeration.	18
III	Interpretation of SOI Topo sheets with reference to Physical Features: a) Relief b) Drainage system c) Natural Vegetation	14
IV	Interpretation of SOI Topo sheets with reference to Cultural Features: a) Settlement and its patterns b) Transportation and Communication c) Agriculture and Irrigation	12
V	Viva	
	Total	48 hours

Reference:

1. R. L. Singh: Elements of Practical Geography
2. Gopal Singh: Map Work & Practical Geography
3. Dr. Ranganath: Practical Geography (Kannada)

4. Singh and Kanayia: Practical Geography
5. D. R. Khullar: Essentials of Practical Geography
6. Robinson. H: Elements of Practical Geography
7. Pijushkanti Saha and Partha Basu- Advanced Practical Geography
8. <https://www.surveyofindia.gov.in/pages/educational-map-series>

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B. A. /B. Sc. SYLLABUS IN GEOGRAPHY
II SEMESTER THEORY PAPER – 2.1
FUNDAMENTALS OF CLIMATOLOGY

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

Course structure: One Theory and One Practical

Teaching Theory: 04 hours per week (assignment/seminar/ discussion)

Practical: 04 hours per week

Examination: One Theory paper of 80 Marks and 20 Marks for internal assessment (IA) One Practical of 40 Marks and 10 Marks for internal assessment (IA) (out of 10 IA marks 6 marks for practical record and journal and 4 marks for attendance).

Units	Topic	Teaching Hours
I	Introduction to Climatology: Definition and Nature-Understanding Climatology. Scope and Significance- Importance of Climatology in environmental and societal contexts. Weather vs. Climate- Distinctions and interrelationships. Elements of Weather and Climate-Temperature, humidity, precipitation, wind, pressure. Controlling Factors-Latitude, altitude, distance from the sea, ocean currents, topography.	06
II	Structure and Composition of the Atmosphere: Atmosphere Structure-Layers of the atmosphere - Troposphere, Stratosphere, Mesosphere, Thermosphere, Exosphere. Atmospheric Composition- Gases, particulates, and their 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. Isothermal Maps-Understanding and interpreting temperature patterns.	12
III	Atmospheric Pressure and Winds: Atmospheric Pressure - Measurement of Pressure-Barometers and other instruments. World Pressure Belts- Isobaric Maps, Understanding and interpreting pressure patterns. World wind belts-- Planetary Winds, Trade winds, westerlies, and polar easterlies. Seasonal Winds- Monsoons, mechanism and impact. Local Winds-Land and sea breezes, mountain and valley winds. Jet Streams-Characteristics, formation, and effects on weather. Air Masses and Fronts-- Definition and Nature, Characteristics of air masses. Source Regions and Classification-Continental and maritime, polar and tropical air masses. Fronts-Types of fronts - warm, cold, occluded, and stationary fronts.	12
IV	Atmospheric Disturbances: Cyclones and Anticyclones- Characteristics and Mechanisms, Formation, structure, and impact. Distribution- Global patterns and regional variations. Tropical Cyclones-Characteristics, stages, and effects. Temperate Cyclones-Formation, stages, and impacts. Climate Change and Cyclones-Impact of global warming on cyclone patterns and intensity.	12

V	<p>Atmospheric Moisture and Precipitation: Hydrological Cycle- Processes and significance.</p> <p>Humidity- Measurement and Types, Absolute, relative, and specific humidity.</p> <p>Factors Influencing Humidity-Temperature, air movement, and proximity to water bodies. Clouds- Formation and Types: Cirrus, cumulus, stratus, nimbus, and their subtypes. Condensation- Processes leading to dew, frost, fog, and clouds.</p> <p>Types of Rainfall-- Convective, Orographic, and Cyclonic Rainfall: Mechanisms and examples. Global Distribution- Patterns and influencing factors.</p>	10
Total		52 hours

Assignment	<p>a) Explore urban heat island effects in your area by observing temperature differences in built-up areas, green spaces, and water bodies. Present findings in a report with recommendations for mitigation</p> <p>b) Prepare a detailed report on climate change effects on ecosystems and species distribution, with case studies illustrating ecological consequences and adaptation strategies.</p> <p>c) Prepare a report on climate change effects on ecosystems and species distribution, with case studies illustrating ecological consequences and adaptation strategies.</p> <p>d) Research and report on climate change effects on ecosystems and species distribution, with case studies illustrating ecological consequences and adaptation strategies.</p>
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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

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PRACTICAL

Units	Topic	Teaching Hours
I	Introduction to IMD Weather Maps: Meaning, Understanding the significance of IMD weather maps in meteorological analysis and forecasting for various sectors including agriculture, transportation, and disaster management. Types of Weather Maps- Introduction to synoptic weather maps, satellite imagery, and radar data used by the India Meteorological Department (IMD). and Significance of IMD Weather maps	09
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.	12
III	Indian Daily Weather Report: Weather signs and symbols- Interpretation of weather signs and symbols used in IMD weather reports and forecasts, including cloud types, wind direction, and atmospheric pressure. Station model- Comprehensive understanding of the components and layout of the station model used for representing weather observations in synoptic charts. General Information of IMD Weather Maps-Familiarization with the format, content, and updates of the Indian Daily Weather Report issued by IMD.	12
IV	Interpretation of Indian Weather Maps: Seasonal Weather Patterns- Analysis of weather maps for different seasons, focusing on temperature, pressure systems, wind patterns, and precipitation. (One map for each season). Spatial and Temporal Variability- Understanding spatial variations and temporal changes in weather conditions depicted on IMD weather maps.	15
V	Viva	
	TOTAL	48 Hours

Reference:

1. R. L. Singh: Elements of Practical Geography
2. Gopal Singh: Practical Geography
3. Dr. Ranganat: Practical Geography (Kannada Version)
4. Singh and Kanoj: Practical Geography
5. R. P. Misra and Ramesh: Fundamental of Cartography
6. M. F. Karenavar & S. S. Nanjannavar: Practical Geography
7. M.F. Karenavar & S. S. Nanjannavar: Practical Geography (Kannada Version)
8. Pijushkanti Saha & Partha Basu: Advanced Practical Geography
9. <https://mausam.imd.gov.in/>

MODEL QUESTION PAPER

Marks-80

SECTION-A

I Answer any **TEN** of the following question (At least 2 questions from each unit)

3x10=30

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.

SECTION-B

II Answer any **FOUR** of the following questions. (At least 1 questions from each unit)

5x4=20

- 13.
- 14.
- 15.
- 16.
- 17.
- 18.

SECTION-C

III Answer any **THREE** of the following questions (At least 1 question from each unit)

10x3 =30

- 21.
- 22.
- 23.
- 24.
- 25.

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