

Anekant Education Society's
TULJARAM CHATURCHAND COLLEGE
(Arts, Science and Commerce) Baramati
Autonomous College

Revised Structure of Syllabus for M.A./M.Sc Geography part I to be effective from 2019-20

Semester I			
Subject Code	Subject Title	Credits	Periods
Gg111	Fundamentals of Geomorphology	4	64
Gg112	Fundamentals of Climatology	4	64
Gg113	Fundamentals of Economic Geography	4	64
Gg114	Fundamentals of Population and Settlement Geography	4	64
Gg115	Practicals in Physical Geography	2	32
Gg116	Practicals in Human Geography	2	32

Semester II			
Subject Code	Subject Title	Credits	Periods
Any one of the following Special course			
Gg211	Coastal Geomorphology	3	48
Gg214	Population Geography	3	48
Any one of the following Special course			
Gg231	Fluvial Geomorphology	3	48
Gg234	Settlement Geography	3	48
Any one of the following Special course			
Gg 221	Coastal Geomorphology : Practical	2	32
Gg224	Population Geography : Practical	2	32
Any one of the following Special course			
Gg 241	Fluvial Geomorphology: Practical	2	32
Gg244	Settlement Geography : Practical	2	32
Compulsory Courses			
Gg 251	Surveying : Concepts and Methods	3	48
Gg 252	Statistical Methods in Geography	4	64
Gg 253	Remote Sensing : Concepts and Methods	3	48

Semester I

❖ **Learning Objective:**

This course allows students to develop a strong footing in the fundamentals and specialize in the disciplines of his/her liking and abilities.

❖ **Learning Outcome:**

The students pursuing this course would have to develop in depth understanding of various aspects of the subject. The working principles, design guidelines and experimental skills associated with different fields of Geography such as Geomorphology, Climatology, Economic Geography, Population Geography, Settlement Geography, Remote Sensing and GIS

(Geoinformatics), etc.

Gg: 211 Fundamentals of Geomorphology

❖ Topics and Learning Points:	Lectures
Unit – 1: Introduction to Geomorphology	5
1.1 Basic Concepts	
1.2 Approaches	
1.3 Paradigms and Geological Time Scale	
Unit – 2: Interior of the Earth	24
2.1 Inferred Knowledge (Density, Temperature, Pressure)	
2.2 Surface Expressions, (Seismic Wave Evidences)	
2.3 Holme’s Convection Current Theory	
2.4 Theory of Isostasy	
2.5 Wegener’s Continental Drift Theory	
2.6 Concept of Palaeomagnetism	
2.7 theory of Seafloor Spreading	
2.8 Plate Tectonic Theory	
Unit – 3: Endogenetic Forces	7
3.1 Diastrophism and Catastrophism	
3.2 Folds and its types	
3.3 Faults and its types	
Unit – 4 Denudation	12
4.1 Weathering	
4.2 Mass Movement	
4.3 Hill slopes	
Unit – 5: Erosional and Depositional Agents	16
5.1 Fluvial Processes and Landforms	
5.2 Coastal Processes and Landforms	
5.3 Deserts Landforms: Work of Water and Wind	
5.4 Glacial Processes and Landforms	
5.5 Karst Processes and Landforms	

Reference Books:

1. Kale, V. S. and Gupta, A. (2010): Introduction to Geomorphology, Universities Press, Hyderabad
2. Ollier, C. D. (1981): Tectonics and Landforms, Longman, London
3. Singh, S. (2002): Geomorphology, Prayag Pustak Bhawan, Allahabad
4. Strahler, A. H. and Strahler, A. N. (1992): Modern Physical Geography, John Wileyand Sons, New Jersey
5. Tarbuck, E. J. and Lutgens, F. K. (2009): Earth Science, Prentice Hall, New Jersey

Gg: 212 Fundamentals of Climatology

❖ Topics and Learning Points:	Lectures
Unit – 1: Introduction to Meteorology and Climatology	6
1.1 The Atmospheric Sciences: Meteorology and Climatology	
1.2 Nature and Scope of Climatology	
1.3 Development of Climatology	
Unit – 2: Earth`s atmosphere	10
2.1 Evolution	
2.2 Structure and Chemical Composition of Atmosphere	
2.3 Ionosphere	
2.4 The Ozone Issue	
2.5 Acid Precipitation	
Unit – 3: Insolation and Heat Balance	10
3.1 Solar and Terrestrial Radiation, Electromagnetic Spectrum	
3.2 Latitudinal and Seasonal Variation	
3.3 Effect of Atmosphere	
3.4 Green House Effect	
3.5 Heat Budget	
3.6 Mechanisms of Heat Transfer	
Unit – 4: Temperature and Wind system	6
4.1 Temperature Measurements and Controls	
4.2 Lapse Rate	
4.3 Temperature Inversion and types of Inversion	
Unit – 5: Atmospheric Pressure and Winds	10
5.1 Pressure Measurement and Distribution	
5.2 Wind Observation and Measurement	
5.3 Factors Affecting Wind; Geostrophic Wind, Gradient Wind and Local Winds	
5.4 Models of General	
5.5 Circulation of the Atmosphere	
5.6 Jet Stream	
5.7 Cyclones and Anticyclones	
Unit – 6: Atmospheric Moisture and Air masses	10
6.1 Hydrological Cycle	
6.2 Forms of Condensation	
6.3 Precipitation and its types	
6.4 Measurement of Humidity	
6.5 Air Masses and Fronts	
Unit – 7: Climate Change	6
7.1 The Climate System,	
7.2 Detection of Climate Change	
7.3 Natural Causes, Anthropogenic Causes	
Unit – 8: Classification of Climates	6
8.1 Thornthwaite`s Classification	
8.2 Koppen`s Classification	

Reference Books:

1. Lal, D. S.(1998): 'Climatology', Chaitanya Publishing House, Allahabad
2. Lutgens, Frederic K. & Tarbuck, Edward J. (2010): 'The Atmosphere: An Introduction to Meteorology', Pearson Prentice Hall, New Jersey
3. Oliver, John E. & Hidore, John J. (2003): „Climatology: An Atmospheric Science“, Pearson Education, Delhi
4. Savindra Singh (2005): Climatology , Prayag Pustak Bhawan, Allahabad

Gg 113 Fundamentals of Economic Geography

❖ Topics and Learning Points:	Lectures
Unit – 1: Introduction to Economic Geography	14
1.1 Definition of Economic Geography	
1.2 Nature and Scope of Economic Geography	
1.3 Approaches to the Study of Economic Geography	
1.4 Concepts and Principles in Economic Geography	
Unit – 2: Economic Landscape	26
2.1 Economic Landscape and Economic Systems	
2.2 Evolution of World Economy	
2.3 Factors of Production (Industrial Location)	
2.4 Models of Industrial Location	
2.5 Industrial Regions	
Unit – 3: Transport and Trade	12
3.1 Modes of Transport	
3.2 Cost of Transport	
3.3 Trade Theories	
Unit – 4: Economic Development	12
4.1 Measurement of Development	
4.2 Economic Geographies of the Contemporary World	
4.3 Economic Geography and Policy Challenges	

Reference Books:

1. Hartshorne, T. A. and Alexander, J. W. (2010): Economic Geography, PHI Learning, New Delhi
2. Knox, P., Agnew, J. and McCarthy, L. (2008): The Geography of the World Economy, Hodder Arnold, London
3. Lloyd, P. and Dicken, B. (1972): Location in Space: A Theoretical Approach to Economic Geography, Harper and Row, New York
4. Siddhartha, K. (2000): Economic Geography: Theories, Process and Patterns, Kosalaya Publications, New Delhi
5. Smith, D. M. (1971): Industrial Location: An Economic Geographical Analysis, John Wiley and Sons, New York.

Gg 114 Fundamentals of Population and Settlement Geography

❖ Topics and Learning Points:

Lectures

Part A

Unit – 1: Introduction to Human Geography **16**

- 1.1 Concepts and branches of Human Geography
- 1.2 Definition of Population Geography
- 1.3 Scope and Nature
- 1.4 Relation with Other Branches
- 1.5 Growth and Distribution of Population
- 1.6 Study of Branches in Population Geography

Unit – 2: Models and Recent Trend in Population Geography **16**

- 2.1 Basic Models in Population Geography
- 2.2 Recent Trends in Population Geography

Part B

Unit – 3: Introduction to Settlement Geography **16**

- 3.1 Definition
- 3.2 Scope and Nature
- 3.3 Relation with Other Branches
- 3.4 Classification of Settlement
- 3.5 Site and Situation
- 3.6 Branches in Settlement Geography

Unit – 4: Models and Recent Trend in Settlement Geography **16**

- 4.1 Basic Models in Settlement Geography
- 4.2 Development and Recent Trends in Population and Settlement Geography in Less Developed Countries and More Developed Countries

Reference Books:

1. Bhende, A. and Kanitkar, T. (2008): Principles of Population Studies, Himalaya Publishing House, Mumbai
2. Chandana, R. C. and Sidhu, M. S. (1980): Introduction to Population Geography, Kalyani, New Delhi
3. Clarke, J. F. (1965): Population Geography, Pergamon Press, Oxford
4. Garnier, B. (1966): Geography of Population, Longman, London
5. Hussain, M. (1999): Human Geography, Rawat Publication, Jaipur
6. Mandal, R. B. (1979): Introduction to Rural Settlement, Concept Publishing Company, New Delhi
7. Sawant, S. B. (1994): Population Geography, Mehta Publishing House, Pune
8. Shivramkrishanan, K. C. et al (2005): Handbook of Urbanization in India, Oxford, Delhi
9. Singh, L. R. (2012): Fundamentals of Human Geography, Sharda Pustak Bhavan, Allahabad
10. Singh, R. Y. (1994): Geography of Settlement, Rawat Publication, Jaipur

Code: Gg 115 Practicals in Physical Geography		
No. of Credits: 02		No. of Practicals: 32
Sr. No.	Topic	Practicals
Section A: Geomorphology		
1	Profile Analysis: Longitudinal, Superimposed, Projected and Composite, Intervisibility of Terrains	6
2	Slope and Aspect Maps	5
3	Hypsometric Curve and Integral	5
Section B: Climatology		
4	Wind Rose Diagram	2
5	Climographs	2
6	Circular Graphs: Climatograph	2
7	Water Budget Diagram	7
8	Modified Köppen - Geiger Climatic Classification	3

- Note: a) For 2 credits 2 hours practical per week.
b) The concerned teacher may add some points related to the subject.
c) 1 Batch includes 12 Students.

Reference Books:

1. King, C. A. M. (1966): Techniques in Geomorphology, Edward Arnold Ltd., London
2. Lutgens, F. K. and Tarbuck, E. J. (2010): The Atmosphere: An Introduction to Meteorology, Pearson Prentice Hall, New Jersey
3. Miller, A. A. (1953): The Skin of the Earth, Methuen and Co. Ltd., London
4. Monkhouse, F. J. and Wilkinson, H. R. (1964): Maps and Diagrams: Their Compilation and Construction, Methuen and Co. Ltd., London
5. Singh, S. (1998): Geomorphology, Prayag Pustak Bhawan, Allahabad
6. Strahler, A. N. (1964): Quantitative Geomorphology of Drainage Basins and Channel Networks, In: Handbook of Applied Hydrology, Ven Te Chow, Ed., Section 4-II, McGraw-Hill Book Company, New York

Code: Gg 116 Practicals in Human Geography		
No. of Credits: 02		No. of Practicals: 32
Sr. No.	Topic	Practicals
Section A		
1	Methods of Representing and Mapping of Population Data	6
2	Methods of Field Study : Preparation of Questionnaire /Interview Schedules	5
3	Application of Models Using Data	5
Section B		
4	Methods of Representing and Mapping of Economic Data	6
5	Measures of Transport Network	6
6	Methods of Field Study : Preparation of Questionnaire for Land Use	4

- Note: a) For 2 credits 2 hours practical per week.
b) The concerned teacher may add some points related to the subject.
c) 1 Batch includes 12 Students

Reference Books:

1. Chorley, R. J. and Hagget, P. (1972) Socio-economic Models in Geography, Methuen and Co., London
 2. Liendsor, J. M. (1997): Techniques in Human Geography, Routledge, London
 3. Lloyd P. and Dicken, B. (1972): Location in Space: A Theoretical Approach to Economic Geography, Harper and Row, New York
 4. Monkhouse, F. J. and Wilkinson, H. R. (1971): Maps and Diagrams, Methuen and Co., London
- Wood, A. and Roberts, S. (2011):