



Anekant Education Society's

Tuljaram Chaturchand College, Baramati

(Autonomous)

Two Year Degree Program in Geography

(Faculty of Science & Technology)

CBCS Syllabus

M.A. /M.Sc. (Geography) Part-I Semester -II

For Department of Geography

Tuljaram Chaturchand College, Baramati

Choice Based Credit System Syllabus (2023 Pattern)

(As Per NEP 2020)

To be implemented from Academic Year 2023-2024

Title of the Programme: M.A. /M.Sc. (Geography)**Preamble**

AES's Tuljaram Chaturchand College has decided to change the syllabus of various faculties from June, 2023 by taking into consideration the guidelines and provisions given in the National Education Policy (NEP), 2020. The NEP envisions making education more holistic and effective and to lay emphasis on the integration of general (academic) education, vocational education and experiential learning. The NEP introduces holistic and multidisciplinary education that would help to develop intellectual, scientific, social, physical, emotional, ethical and moral capacities of the students. The NEP 2020 envisages flexible curricular structures and learning based outcomes for the development of the students. The credit structure and the courses framework provided in the NEP are nationally accepted and internationally comparable.

The rapid changes in science and technology and new approaches in different areas of Geography and related subjects, Board of Studies in Geography of Tuljaram Chaturchand College, Baramati - Pune has prepared the syllabus of M. A. /M.Sc.-I Geography Semester - I under the Choice Based Credit System (CBCS) by following the guidelines of NEP 2020, NCER, NHEQF, Prof. R.D. Kulkarni's Report, GR of Gov. of Maharashtra dated 20th April and 16th May 2023 and Circular of SPPU, Pune dated 31st May 2023.

A Master degree in geography will provide students, the knowledge and skills to begin a variety of rewarding careers. Geographers work as urban planners, GIS technicians and analysts, disaster preparedness planners, teachers, environmental scientists, remote sensing analysts, transportation planners, demographers, hydrologists and in a variety of other areas. Students who complete Master degree in Geography, courses will examine the spatial organization of physical features and human activities at a variety of spatial scales from local to global. Students will be able to locate features on the surface of the earth, explain why they are located where they are, and describe how places are similar and/or different. Students will also examine human interactions with the environment and describe how physical and cultural landscapes change through time. Students completing physical geography courses will be able to describe the processes that drive earth's climate, create landforms, and govern the distribution of plants and animals.

Programme Specific Outcomes (PSOs)

1. Ability of Problem Analysis: Student will be able to analyse the problems of physical as well as cultural environments of both rural and urban areas. Moreover, they will try to find out the possible measures to solve those problems.
2. Conduct Social Survey Project: They will be eligible for conducting social survey project, which is necessity for the assessment of development status of a particular group or section of the society.
3. Individual and teamwork: Works effectively as an individual and as a member or leader in diverse teams and in multidisciplinary settings.
4. Application of modern instruments: Students will be able to apply various modern instruments for data collection and field survey.
5. Application of GIS and modern Geographical Map Making Techniques: Students will learn how to prepare map based on GIS by using the modern geographical map-making techniques.
6. Critical Thinking: Students will able to understand and solve the critical problems of physical and cultural environment.
7. Development of Observation Power: As a student of Geography, they will be capable to develop their observation power through field experience and in future, they will be able to identify the socio-environmental problems of a locality.
8. Development of Communication Skill and Interaction Power: After the completion of the course, they will be efficient in their communication skill as well as power of social interaction.
9. Effective Citizenship: Demonstrate empathetic social concern and equity centred national development and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
10. Enhancement of the ability of Management: Demonstrate knowledge and understanding of the management principles and apply these to their own work, as a member and leader in a team, to manage projects. They will perform effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
11. Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions and accept responsibility for them.
12. Understand Environmental Ethics and Sustainability: Understand the impact of the acquired knowledge in societal and environmental contexts and demonstrate the knowledge of need for sustainable development.
13. Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-long learning in the broadest context social, environmental and technological changes.

Presentation Skill: Students are being able to understand and write effective reports and design credentials, make effective demonstrations, give and receive clear instruction

Anekant Education Society's
Tuljaram Chaturchand College, Baramati
(Autonomous)

Board of Studies (BOS) in Geography

From 2022-23 to 2024-25

Sr.No.	Name	Designation
1.	Dr. Arun S. Magar	Chairman
2.	Dr. Asaram S. Jadhav	Member
3.	Mr. Vinayak D. Chavan	Member
4.	Ms. Sayali B.Pawar	Member
5.	Ms. Aysha A. Mulani	Member
6.	Ms. Aisha S. Tamboli	Member
6.	Dr. Santosh Lagad	Vice-Chancellor Nominee
7.	Dr. Pravin Kokane	Expert from other University
8.	Dr.T. P. Shinde	Expert from other University
9.	Dr. Babaji Maskare	Industry Expert
10.	Mr. Ganesh Ghanawat	Meritorious Alumni
11.	Ms. Komal Pote	Student Representative
12.	Mr. Sagar Lokhande	Student Representative

Anekant Education Society's
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(Autonomous)

Credit Distribution Structure for (M. A./M.Sc. Geography) Part-I (2023 Pattern)

Year	Level	Sem.	Major		Research Methodology (RM)	OJT/FP	RP	Cum. Cr.
			Mandatory	Electives				
I	6.0	Sem-I	PAGGMT111: Principles of Geomorphology (Credit 04)	PAGGET115 (A): Fluvial Geomorphology (Credit04) OR PAGGET115 (B): Geography of Rural Settlement (Credit 04)	PAGGRM116: Research Methodology in Geography (Credit 04)	--	--	20
			PAGGMT112: Principles of Population Geography (Credit 04)					
			PAGGMP113: Practical in Geomorphology (Credit 02)					
			PAGGMP114: Practical in Population Geography (Credit 02)					
		Sem- II	PAGGMT121: Principles of Climatology (Credit 04)	PAGGET125 (A): Coastal Geomorphology (Credit04) OR PAGGET125 (B): Components of Population Geography (Credit04)	--	Credit 04	--	20
			PAGGMT122: Principles of Economic Geography (Credit 04)					
			PAGGMP123: Practical in Climatology (Credit 02)					
			PAGGMP124: Practical in Economic Geography (Credit 02)					
Cum. Cr.			24	8	4	4	--	40

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Course Structure for (M. A. /M.Sc. Geography) Part-I (2023 Pattern)

Sem	Course Type	Course Code	Course Title	Theory/ Practical	No. of Credits
I	Major (Mandatory)	GEO-501-MJM	Principles of Geomorphology	Theory	04
	Major (Mandatory)	GEO-502-MJM	Principles of Population Geography	Theory	04
	Major (Mandatory)	GEO-503-MJM	Practical in Geomorphology	Practical	02
	Major (Mandatory)	GEO-504-MJM	Practical in Population Geography	Practical	02
	Major (Elective)	GEO-511-MJE (A)	Fluvial Geomorphology	Theory	04
		GEO-511-MJE (B)	Geography of Rural Settlement	Theory	04
	RM	GEO-521-RM	Research Methodology in Geography	Theory	04
II	Major (Mandatory)	GEO-551-MJM	Principles of Climatology	Theory	04
	Major (Mandatory)	GEO-551-MJM	Principles of Economic Geography	Theory	04
	Major (Mandatory)	GEO-553-MJM	Practical in Climatology	Practical	02
	Major (Mandatory)	GEO-554-MJM	Practical in Economic Geography	Practical	02
	Major (Elective)	GEO-564-MJE (A)	Coastal Geomorphology	Theory	04
	Major (Elective)	GEO-564-MJE (B)	Components of Population Geography	Theory	04
	OJT	GEO-581- OJT/FT	On Job Training	Theory	04

**CBCS Syllabus as per NEP 2020 for M.A / M.Sc. I
(2023 Pattern)**

Name of the Programme	: M.A / M.Sc. Geography
Programme Code	: PAGEO
Class	: M.A / M.Sc. I
Semester	: II
Course Type	: Major Mandatory (Theory)
Course Code	: GEO-551-MJM
Course Title	: Principles of Climatology
No. of Credits	: 04
No. of Lectures	: 60

Course Objectives:

1. To make students well aware of the basic concept of climatology
2. To understand theories of evolution of earth and atmosphere.
3. To understand the laws of radiation and interaction with atmosphere.
4. To understand composition and structure of atmosphere.
5. To recognize factors affecting solar radiation and temperature.
6. To study global wind circulation and wind pattern.
7. To understand the types of air masses and fronts.

Course Outcomes:

By the end of the course, students will be able to:

CO 1. Understand the various concepts of climatology.

CO 2. Understand how the atmosphere and earth has evolved over a time.

CO 3. Aware about the laws of radiation and how solar radiation does interacts with atmosphere.

CO4. Understand by which component atmosphere are composed and different layers of atmosphere.

CO5. Understand which factor affects the solar radiation distribution on earth surface.

CO6. Understand the global wind circulation and wind pattern.

CO7. Identify ideal source region of air masses and front and weather conditions associated with fronts.

Topics and Learning points

Unit 1: Introduction to Climatology	Teaching Hours
1.1 Definition and Meaning	12
1.2 Nature and Scope	
1.3 Branches of Climatology	
1.4 Weather and Climate, Elements of weather and Climate	
1.5 Composition and Structure of Atmosphere	
Unit 2: Solar Radiation	12
2.1 Solar Radiation and Terrestrial Radiation	
2.2 Effect of atmosphere on solar radiation	
2.3 factor Affecting distribution of temperature	
2.4 Heat budget of the earth	
2.5 Mechanism of heat transfer	
Unit 3: Atmospheric Pressure and Wind System	12
3.1 Relation between pressure and temperature	
3.3 Factors affecting pressure distribution	
3.4 Formation and shifting of pressure belts and their relation with wind	
3.5 Types of wind (Planetary wind, Periodic wind, Local wind)	
Unit 4: Atmospheric Moisture and Precipitation	12
4.1 Hydrological Cycle	
4.2 Humidity and its types	
4.3 Precipitation: Processes, Forms and Types	
4.4 Cloud and its classification	

4.5 Cyclone, Anticyclone and associated weather

Unit 5: Air masses and Fronts**12**

5.1 Meaning, Concept and Definition

5.2 Source region of air masses;

5.3 Classification of air masses

5.4 Types of Fronts

5.5 Weather associated with front

Reference:

1. **Critchfield, H.J. (Rep. 2010):** General Climatology. Prentice Hall, New Delhi.
2. **Lal, D.S. (1998):** Climatology, Chaitanya Publishing House, Allahabad.
3. **Lutgens, Frederic K. & Tarbuck, Edward J. (2010):** The Atmosphere: An Introduction to Meteorology, Pearson Prentice Hall, New Jersey.
4. **Oliver, John E. & Hidore, John J. (2003):** Climatology: An Atmospheric Science, Pearson Education, Delhi
5. **Savindra Singh (2005):** Climatology, Prayag Pustak Bhawan, Allahabad.
6. **Trewartha:** Introduction to Weather and Climate.
7. **More, Pagar, Thorat (2014):** (Marathi), Elements of Climatology & Oceanography, Atharv Publication, Pune.
8. **Dr. Shirkant Karlkekar (2014) :** (Marathi), Elements of Climatology & Oceanography, Diomand Publication, Pune.

**CBCS Syllabus as per NEP 2020 for M.A / M.Sc. I
(2023 Pattern)**

Name of the Programme	: M.A / M.Sc. Geography
Programme Code	: PAGEO
Class	: M.A / M.Sc. I
Semester	: II
Course Type	: Major Mandatory (Theory)
Course Code	: GEO-552-MJM
Course Title	: Principles of Economic Geography
No. of Credits	: 04
No. of Lectures	: 60

Course Objectives:

1. To make students well aware of the basic concepts of economic geography.
2. To understand theories related to economic geography.
3. To acquaint the knowledge of types labours.
4. To understand economic sector available in India.
5. To recognize factors affecting location of industries.
6. To study major types of industries in India.
7. To understand the types and factors affecting agriculture and recognize the problems of Indian agriculture.

Course Outcomes:

By the end of the course, students will be able to:

- CO1.** Demonstrate an understanding of the asset, cost, benefit, analysis, tax, policy, impacts and other economic aspects.
- CO2.** Understand the demand of population and availability of raw material.
- CO3.** Understand the labour types, cost, importance and role also in industrial zone
- CO4.** Understand the value of land it proper use.

CO5. Aware about factors affecting on transport and role of transport in economy of the nation

CO6. Recognize factors affecting location of industries.

CO7. Identify major types of industries in India.

Topics and Learning points

Unit 1: Introduction to Economic Geography **12**

1.1 Concepts and Definition of economic geography

1.2 Nature and scope

1.3 Approaches: traditional and modern

1.4 Recent trends in Economic Geography

Unit 2: Economic Activities **12**

2.1 Definition and classification of economic activities

2.2 Factors of location of economic activities: physical, social, economic and technical

2.3 Location of economic activities: Weber's and Von-Thune's model

Unit 3: Resources **12**

3.1 Definition and classification of resources

3.2 Significance of natural and human resources in economic development

3.3 Importance of non-conventional energy resources for sustainable development

Unit 4: Economic Development **12**

4.1 Definition and concept of economic development

4.2 Measures of economic development

4.3 Classification of countries on the basis of economic development

4.4 Rostov's and Myrdal's model

4.5 Green revolution in India

Unit 5: Trade Transport and Communication**12**

- 5.1 Definition and types of trade
- 5.2 Factors affecting on international trade
- 5.3 Problems and prospects of international trade with reference to India
- 5.4 Various modes of transport
- 5.5 Geographical factors and transportation
- 5.6 Various means of communication

Reference:

1. **Alexander, J.W. (1977):** Economic Geography, Prentice Hall of India Pvt. Ltd., New.
2. **Chorley, R.J. and Haggett, P. (1970):** Socio Economic Models in Geography, Concept publishing Company Pvt. Ltd., New Delhi.
3. **Garnier, B.J. and Delobez, A. (1979):** Geography of Marketing, Longman.
4. **Hartshorne, T.A. and Alexander, J.W. (2010):** Economic Geography, PHI Learning, New Delhi
5. **Kanan Chatterjee (2015):** Basics of Economic Geography.
6. **Knox, P., Agnew, J. and Mc Carthy, L. (2008):** The Geography of the World Economy, Hodder Arnold, London.
7. **Lloyd, P. and Dicken, B. (1972):** Location in Space: A Theoretical Approach to Economic Geography, Harper and Row, New York Methuen.
8. **Mitra, A. (2002):** Resource Studies, Sreedhar publishers, Kolkata.
9. **Patil, S.G., Suryawanshi, R.S., Pacharne, S. and Choudhar, A.H. (2014):** Economic Geography, Atharav Prakashan, Pune.
10. **Ray, P.K. (1997):** Economic Geography, New Central Book Agency (P) Ltd., Calcutta.
11. **Saptarshi, P.G., More, J.C. Ugale, V.R. and Musmade, A.H. (2009):** India A Geographical Analysis Diamond, Pune.
12. **Saxena, H.M. (2013):** Economic Geography, Rawat publication, Jaipur.

**CBCS Syllabus as per NEP 2020 for M.A / M.Sc. I
(2023 Pattern)**

Name of the Programme	: M.A / M.Sc. Geography
Programme Code	: PAGEO
Class	: M.A / M.Sc. I
Semester	: II
Course Type	: Major Mandatory (Practical)
Course Code	: GEO-553-MJM
Course Title	: Practical in Climatology
No. of Credits	: 02
No. of Lectures	: 30

Course Objectives:

1. To make students well aware about representation of weather data.
2. To understand collection of data about wind direction and velocity and plotting of wind data.
3. To differentiate the representation methods of simple and compound wind rose diagram.
4. To understand suitable weather conditions in region of by plotting climograph
5. To recognize humidity comfort by plotting hythergraph.
6. To study importance of water budget diagram in agriculture.
7. To understand the calculation and representation method of water budget.

Course Outcomes:

By the end of the course, students will be able to:

CO1. Aware about collection and representation of weather data..

CO2. Understand collection of data about wind direction and velocity and plotting of wind data and can interpret the wind condition.

CO3. Understand the methods of simple and compound wind rose diagram and its important in weather forecasting.

CO4. Identify the human comfort to humidity by plotting of climograph.

CO5. Able to identify the water requirement of soil in different region for various crops

CO6. Understand the calculation of water budget and can predict water requirement.

CO7. Able to forecast the weather conditions and can manage the agriculture water requirement.

Topics and Learning points

Unit 1: Climatic Element Diagrams Wind	Teaching Hours
1.1 Definition and Meaning wind rose	08
1.2 Simple wind rose diagram	
1.3 Compound wind rose diagram	
1.4 Interpretation of wind rose diagram	
 Unit 2: Preparation of Climatograph, Climograph and Hythergraph	 12
2.1 Definition and Meaning	
2.2 Construction of Climatograph and interpretation	
2.3 Construction of Climaograph and interpretation	
2.4 Construction of Hythergraph and interpretation	
 Unit 3: Computation of Water Budget	 10
3.1 Definition and Meaning	
3.2 Rules for representation of temperature and rainfall data	
3.3 Construction of water budget diagram	
3.5 Interpretation of water budget diagram	

Reference:

1. **King, C. A.M (1966):** Techniques in Geomorphology, Edward Arnold, London
2. **Monkhouse, F. J. and Wilkinson, H. R. (1976).** Maps and Diagrams, Methuen & Co.
3. **Savindra Singh (2002):** Geomorphology, Prayag Pustak Bhawan, Allahabad
4. **Miller, Austin (1953):** The skin of the Earth, Methuen & Co. Ltd. London
5. **Strahler:** Physical Geography
6. **ROBINSON Elements of Cartography 6/e Rep. (2010)**

**CBCS Syllabus as per NEP 2020 for M.A / M.Sc. I
(2023 Pattern)**

Name of the Programme	: M.A / M.Sc. Geography
Programme Code	: PAGEO
Class	: M.A. / M.Sc. I
Semester	: II
Course Type	: Major Mandatory (Practical)
Course Code	: GEO-554- MJM
Course Title	: Practical in Economic Geography
No. of Credits	: 02
No. of Lectures	: 30

Course Objectives:

1. To make students well aware of the basic calculation related to agriculture.
2. To understand techniques in industrial economic geography.
3. To acquaint the knowledge of techniques in Trade and Transportation Geography
4. To understand economic sector available in India.
5. To recognize factors affecting location of industries.
6. To understand knowledge about network structure.
7. To understand gravitation of trade in India.
8. To aware techniques of crop combination and diversification in a particular area.

Course Outcomes:

By the end of the course, students will be able to:

- CO1.** Acquired the techniques in Agricultural Geography
- CO2.** Attained the techniques in Industrial a Geography
- CO3.** Accomplishing the techniques in Trade and Transportation Geography
- CO4.** Trained in Cartographic Techniques in Economic Geography
- CO5.** Able to survey Industrial Visit and prepared a systematic project on it.
- CO6.** Able to calculate crop combination methods

Topics and Learning points

Unit 1: Techniques in Agricultural Geography **20**

- 1.1 Weaver's method of crop combination
- 1.2 Jasbir Singh method of crop concentration
- 1.3 Crop Diversification: Bhatia method

Unit 2: Techniques in Trade and Transportation Geography **20**

- 2.1 Measures in Network Structure: Ratio Measure, Alpha, Beta, Gamma, Associate Number
- 2.2 Law of Retail Trade Gravitation

Unit 3: Techniques in Industrial Geography **20**

- 3.1 Lorenz Curve: Calculation and Plotting
- 3.2 Location Quotient: Calculation and Plotting
- 3.3 Gini's Co-efficient Significance

Reference:

1. C. P. Lo and Albert, K. W. Yeung (2002): Concepts and Techniques of Geographic Information System, 2002 Prentice –Hall, India.
2. Kansky, N. T. (1965): Structure of Transport Network
3. Liendsor, J. M. (1997): Techniques in Human Geography, Routledge
4. Lloyd, P. and B. Dicken (1972): Location in Space - A theoretical approach to economic geography. Harper and Row, New York.
5. Majid Hussein, "Agricultural Geography", Rawat Publication. M.A./M. Sc. [II] Geography Savitribai Phule Pune University 27
6. Monkhouse, F. J. and Wilkison, H. R. (1976): Map and Diagrams, Methuen and Co.
7. P. A. Burrough and R. A. McDonnell, (2000): Principles of Geographical Information System, Oxford University Press.
8. Paul A. Lonfley, Michel F. Goodchild, D J. Maguire and D.W. Rhind (2002): Introduction to Geographic Information Systems and Science, John Wiley and Sons Ltd.
9. Singh & Kanujia : Map work and Practical Geography
10. Singh. J. and Dhillon S.S. (1994): Agricultural Geography. Tata McGraw Hill, Publishing Co. Ltd.

**CBCS Syllabus as per NEP 2020 for M.A / M.Sc. I
(2023 Pattern)**

Name of the Programme	: M.A / M.Sc. Geography
Programme Code	: PAGEO
Class	: M.A / M.Sc. I
Semester	: II
Course Type	: Major Elective
Course Code	: GEO-561-MJE (A)
Course Title	: Coastal Geomorphology
No. of Credits	: 04
No. of Lectures	: 60

Course Objectives:

1. To understand the basic knowledge of coastal geomorphology.
2. To study coastal geomorphology by focusing on how coastal regions are formed.
3. To study processes of waves, tides, and streams go through to create boulders, coral reefs, and Sandy beaches.
4. To know the importance of coastal zone with future resources approach.
5. To understand the shape, processes and evolution of coastal landforms.
6. To explain the factors influencing the formation of ocean currents.
7. To integrate knowledge of coastal geomorphology and understanding of coastal process

Course Outcomes:

By the end of the course, students will be able to:

CO1. Understand the knowledge of oceanography

CO2. Describe the principles involved in the generation of waves and tides and evaluate their effects on coastal processes and marine ecosystems.

CO3. Understand coastal processes that act along the coastline as well as the coastal landforms.

CO4. Identify the consequences of a rise in sea-level on the coastal zone.

CO5. Acquire an understanding of the dynamism of the coastal zone.

CO6. Acquire practical skill and knowledge to quantify processes and change in the coastal environment.

CO7. Understand how geomorphology can contribute to managing coastal environments

Topics and Learning Points

UNIT 1: Coasts and Coastal Systems and Shore Zone	Teaching Hours
1.1 The coastal environment: littoral, shore, coastal zones	12
1.2 Components of coastal systems processes, sediment transport, morphology	
1.3 Spatial and temporal scales in Coastal Geomorphology	
1.4 Coastal classification: genetic and morphological	
 UNIT 2: Coastal Processes	 12
2.1 Characteristics of Waves	
2.2 Types of waves	
2.3 Recording Tide and its types	
2.4 Equilibrium theory of tides	
2.5 Currents and types of currents	
 UNIT 3: Sea level	 12
3.1 Sea level and its types	
3.2 Causes and consequences of sea level change	
3.3 Quaternary sea level changes	
3.4 Future sea level changes	
3.5 Indicators of former sea levels: Fossil beach ridges, beach rocks, abandoned cliffs, caves, raised features, marine terraces	
 UNIT 4: Coastal sediments	 12
4.1 Properties of coastal sediments	
4.2 Types: Clastic and biogenic sediments	
4.3 Sources of sediments: coastline erosion and sea floor	

4.4 Pathways of sediments transport

4.5 Factors affecting transport, sediments traps and sinks

UNIT 5: Coastal environments

12

5.1 Meaning and concept of Delta

5.2 Types of Delta

A. Fluvial dominated

B. Tide - dominated

C. Wave-dominated

5.3 Biotic environment

A. Mangrove, swamp, sand salt marshes,

B. Corals and coral reefs Wave-dominated

References:

1. Bird, E.C. (2000): Coastal Geomorphology: An Introduction, John Wiley and Sons, Chichester.
2. Bloom, A.L. (2002): Geomorphology: A Systematic Analysis of Late Cenozoic, Landforms, Prentice-Hall of India, NewDelhi.
3. Davis, J.L. (1980): Geographical variation in coastal development, Longman, New York
4. Goudie, A.S. (Eds.) (2004): Encyclopaedia of Geomorphology, Routledge,London.
5. Ivan, V. (2006): Global Coastal Change, Blackwell publishing, Oxford.
6. Karlekar Shrikant (2009): Coastal processes and landforms, Diamond Publication, Pune
7. King, C.A.M. (1972): Beaches and Coasts, Edward Arnold,London.
8. Masselink, G. Hughes, M. and Knight, J. (2011): Introduction to Coastal Processes and Geomorphology Hodder Education,London.
9. Pethick, J. (1984): An Introduction to Coastal Geomorphology, Arnold-Heinemann, London.
10. Tooley,M.M.andShennan,I.(1987):Sealevelchanges,BasilBlackwell,Oxford,U. K. 8.

**CBCS Syllabus as per NEP 2020 for M.A / M.Sc. I
(2023 Pattern)**

Name of the Programme	: M.A / M.Sc. Geography
Programme Code	: PAGEO
Class	: M.A. / M.Sc. I
Semester	: II
Course Type	: Major Elective
Course Code	: GEO-554 -MJE (B)
Course Title	: Components of Population Geography
No. of Credits	: 04
No. of Lectures	: 60

Course Objectives:

1. This paper intends to acquaint the students with various dimensions of Population Geography, and its challenges.
2. To acquaint the students with the utility and application of Population Geography in different regions and environment.
3. To make the students aware of the need and importance of population dynamics.
4. To aware knowledge about population components in different region.
5. To give information about regional disparity of population components among society.
6. This course gives an idea about life expectancy.
7. To notify the students about balance between population and resources of a particular area .

Course Outcomes:

By the end of the course, students will be able to:

CO1. Understand about basic concepts in population geography.

CO2. Knows the various components in population geography

CO3. Understand the dynamics of population and its role in population policies

CO4. Realize the world-wide phenomena of population.

CO5. Understand about population characteristics of different countries, they can also predict

future population scenario of the country.

CO6. Understand relationship between population and resources of a particular region.

CO7. Apply knowledge of population geography in development planning.

Topics and Learning points

Unit 1: Fertility	Teaching Hours
1.1 Concept of fertility, fecundity, cohort, Family size, Birth order, Parity, Conception, Natural fertility	12
1.2 Concept and types of sterility	
1.3 Social and Cultural factors affecting fertility	
1.4 Rates: Crude birth, General birth, Age specific birth, Total fertility	
1.5 Methods of Conception control for male and female	
1.6 Levels and trends in fertility- world and India	
Unit2: Mortality	12
2.1 Concept of mortality and morbidity	
2.2 Measures of mortality	
2.3 Sex and age pattern of mortality	
2.4 Causes of death	
2.5 Level and trend in mortality in India	
2.6 Mortality differentials (rural-urban, occupational, educational and marital status)	
Unit 3: Nuptiality	12
3.1 Concept of nuptiality	
3.2 Factors affecting age at marriage.	
3.3 Measures of nuptiality, mean age at marriage	
3.4 Nuptiality levels and trend in India	
Unit 4: Migration	12
4.1 Concept of Migration, immigration, emigration, in-migration, out-migration, movement, migrants.	
4.2 Methods of measuring internal migration- i) Direct measures ii) Indirect method	
4.3 Types of Migration	
4.4 Differential migration (age, sex, marital status and educational attainments)	
4.5 Internal migration in India	

Unit 5: Population and Resources**12**

5.1 Optimum population

5.2 Over population

5.3 Under population

5.4 Population and development planning (manpower, education need, housing need, health services and infrastructure development)

Reference Books & Websites:

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