

**DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY,
CHHATRAPATI SAMBHAJINAGAR.**



Circular / Acad Sec./ PG /NEP PG-II Yr Curri./Affi. Col./ 2024.

It is hereby inform to all concerned that, on the recommendation of Dean of Faculty of Humanities; **the Academic Council at it's Meeting held on 08th April, 2024 has accepted the "following Subject wise revised Curriculum at PG Level as per National Education Policy-2020" for all concerned affiliated colleges** under the Faculty of Humanities.

Sr. No.	UG/PG Course Curriculum Name	Semester
01.	M. A. <u>Second</u> Year as per NEP [Marathi] for Colleges	IIIrd & IVth
02.	M. A. <u>Second</u> Year as per NEP [Hindi] for Colleges	IIIrd & IVth
03.	M. A. <u>Second</u> Year as per NEP [English] for Colleges	IIIrd & IVth
04.	M. A. <u>Second</u> Year as per NEP [Urdu] for Colleges	IIIrd & IVth
05.	M. A. <u>Second</u> Year as per NEP [Arabic] for Colleges	IIIrd & IVth
06.	M. A. <u>Second</u> Year as per NEP [History] for Colleges	IIIrd & IVth
07.	M. A. <u>Second</u> Year as per NEP [Political Science] for Colleges	IIIrd & IVth
08.	M. A. <u>Second</u> Year as per NEP [Public Administration] for Colleges	IIIrd & IVth
09.	M. A. <u>Second</u> Year as per NEP [Economics] for Colleges	IIIrd & IVth
✓ 10.	M. A. <u>Second</u> Year as per NEP [Geography] for Colleges	IIIrd & IVth
11.	M. A. <u>Second</u> Year as per NEP [Psychology] for Colleges	IIIrd & IVth

This is effective from the Academic Year 2024-25 and Onwards as per appended herewith.

All concerned are requested to note the contents of this circular and bring notice to the students, teachers and staff for their information and necessary action.

University campus,
Chhatrapati Sambhajinagar-431 004.
Ref. No. SU/PG-II Yr/ Affi.Colleges
/ NEP Curri/ 2024/ 25772-81

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**Deputy Registrar,
Academic.**

Date: 21.05.2024.

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Copy forwarded with compliments to:-

- 1] **The Principal, all concerned affiliated colleges,**
Dr. Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajinagar.
- 2] **The Director, University Network & Information Centre, UNIC,**
with **a request to upload this Circular on University Website.**

Copy to :-

- 1] **The Director, Board of Examinations & Evaluation,**
- 2] **The Sec. Officer, [Concerned Unit] Exam. Branch,**
- 3] The Section Officer, [Eligibility Unit],
- 4] The Programmer [Computer Unit-1] Examinations,
- 5] The Programmer [Computer Unit-2] Examinations,
- 6] The In-charge, [E-Suvidha Kendra],
- 7] The Public Relation Officer,
- 8] The Record Keeper,
Dr. Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajinagar.

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DrK*210524/-



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**DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY,
CHHATRAPATI SAMBHAJINAGAR, (MS)**

**Academic Curriculum
FACULTY OF HUMANITIES
SUBJECT: - GEOGRAPHY**

As per the Curriculum of National Education Policy 2020
Curriculum Structure and Scheme of Evaluation for
M.A. GEOGRAPHY Second Year (Level 6.5) Semester III/IV

OUTCOME BASED EDUCATION CURRICULUM
As Per U.G.C. Guidelines

With effect From Academic Year 2024-2025

Prepared by

Board of Studies in Geography

DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, CHHATRAPATI SAMBHAJINAGAR

डॉ. ए.आय. कुलकर्णी

अध्यक्ष

भूगोल अभ्यासमंडळ

डॉ. बाबासाहेब आंबेडकर मराठवाडा विद्यापीठ,
औरंगाबाद.

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DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, CHHATRAPATI SAMBHAJINAGAR, (MS)

Academic Curriculum

FACULTY OF HUMANITIES

SUBJECT: - GEOGRAPHY

Programme at a Glance

Sr. No.	Name of the program (Degree)	M.A Geography
01	Name of the program (Degree)	M.A Geography
02	Name of the Faculty	Humanities
03	Duration of the Program	Two years (four semesters)
04	Medium of Instruction and Examination	Marathi/English
05	Exam Pattern	60: 40 (60 marks University exam and 40 marks continuous internal assessment)
06	Passing standards	40% in each exam separately (Separate head of passing)
07	Evaluation mode	CGPA
08	Total Credits of the program	88
		(48 core subject credits, 06 Major Activity (Practical), 16 credits of the elective subject, 04 credits for Research methodology, 04 credits for On Job Training or Internship and 10 credits for Research Project



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DR. BABASAHEB AMBEDKAR MARATHIWADA UNIVERSITY, CHHATRAPATI SAMBHAJINAGAR, (MS)
Academic Curriculum
FACULTY OF HUMANITIES
SUBJECT: - GEOGRAPHY

Summary of Distribution of Credits under the NEP 2020 Scheme for M. A Geography

Sr. No.	Type of Course	Semester I			Semester II			Semester III			Semester IV			Total Course Types Credits
		Theory	Pra.	Total Credits	Theory	Pra.	Total Credits	Theory	Pra.	Total Credits	Theory	Pra.	Total Credits	
01	Major (Core) Mandatory-03	12	--	12	12	--	12	12	--	12	12	--	12	48
02	Major Activity (Practical)-01	--	02	02	--	02	02	--	02	02	--	--	--	06
03	Major Elective-01	04	--	04	04	--	04	04	--	04	04	--	04	16
04	Research Methodology-01	--	04	04	--	--	--	--	--	--	--	--	--	04
05	On Job Training/Field Project	--		--	--	04	04	--	--	--	--	--	--	04
06	Research Project	--	--	--	--	--	--	--	04	04	--	06	06	10
Total Credits/Semester		16	06	22	16	06	22	16	06	22	16	06	22	88
		Total Credits First Year (PG Diploma)												
		Total Credits Second Year												
		Total Credits PG Degree												88

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DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, CHHATRAPATI SAMBHAJINAGAR, (MS)

As per the Curriculum of National Education Policy 2020

With effect from Academic Year 2024-2025

Curriculum Structure and Scheme of Evaluation for M.A. Geography Second Year (Level 6.5) Semester III
OUTCOME BASED EDUCATION

Sr. No.	Types of Paper	Paper No.	Name of the Subject	Total Credits	Hours/ Semester	Teaching Scheme(hrs./Week)		Evaluation Scheme	
						Theory	Practical	Continuous Internal Evaluation (CIE) (CA)	End Semester Evaluation (ESE) (UA)
01	Mandatory Theory	GMT-07	Oceanography	04	60	04	--	40	60
02		GMT-08	Political Geography	04	60	04	--	40	60
03		GMT-09	Geography of Economic Activities	04	60	04	--	40	60
04	Mandatory Practical	GMP-03	Practical-03 (Laboratory Course)	02	60	--	04	20	30
05	Elective (Select any one form Basket)	GET-09	Urban Geography	04	60	04	--	40	60
06		GET-10	Biogeography						
07	Research Project	GRP-01	Research Project in Geography	04	120		08	40	60
	Total			22	420	16	12	220	330

Important points:

1. For theory courses one credit is equivalent to 15 lectures of 60 minutes each
2. For practical courses one credit is equivalent to 30 lectures of 60 minutes each.
3. Total weeks for teaching and internal evaluation are 15.
4. Out of the 15 weeks, 12 weeks for teaching and 03 weeks for internal evaluation
5. Credit for Research Project -02 Credit For field visits & Data Collection, 1.5 Credit for final draft of Project Proposal and 0.5 credit for Project Presentation.
6. Practical batch – one batch of 12 student

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DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, CHHATRAPATI SAMBHAJINAGAR, (MS)

As per the Curriculum of National Education Policy 2020

With effect from Academic Year 2024-2025

Curriculum Structure and Scheme of Evaluation for M.A. Geography Second Year (Level 6.5) Semester IV

OUTCOME BASED EDUCATION

Sr. No.	Types of Paper	Paper No.	Name of the Subject	Total Credits	Hours/ Semester	Teaching		Evaluation Scheme	
						Scheme(hrs./Week)		Continuous Internal Evaluation (CIE) (CA)	End Semester Evaluation (ESE) (UA)
01	Mandatory Theory	GMT-10	Geography of Environment	04	60	04	--	40	60
02		GMT-11	Agriculture Geography	04	60	04	--	40	60
03		GMT-12	Regional Planning and Development	04	60	04	--	40	60
05	Elective (Select any one form Basket)	GET-11	Rural Geography	04	60	04	--	40	60
06		GET-12	Principal of GIS Application						
07	Research Project	GRP-02	Research Project in Geography	06	180	--	12	50	100
	Total			22	420	16	12	210	340

Important points:

1. For theory courses one credit is equivalent to 15 lectures of 60 minutes each
2. For practical courses one credit is equivalent to 30 lectures of 60 minutes each.
3. Total weeks for teaching and internal evaluation are 15.
4. Out of the 15 weeks, 12 weeks for teaching and 03 weeks for internal evaluation
5. Credit for Research Project -02 Credit For field visits & Data Collection,03 Credit for final draft of Project Proposal and 01 credit for Project Presentation
6. Practical batch – one batch of 12 student



Dr. P. Anil Kumar

अध्यक्ष

भूगोल अभ्यासमंडळ

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DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, CHHA. SAMBHAJINAGAR

As per the Curriculum of National Education Policy 2020

Name of the Program: M.A. Geography Second Year (III Semester)

Semester III Theory Paper	Name of the Course GMT-07 Oceanography	Credits: 04 Total Marks:100
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Course Objectives:

The objectives of the course are to introduce students to the many facets of Oceans, such as the evolution of the oceans, physical and chemical properties of seawater, atmospheric and oceanographic circulation, the fascinating world of marine life, and the characteristics of marine environment and the impact of man on the marine environment.

Course Outcomes:

1. Define the major concepts in oceanography.
2. Describe the oceanic floor.
3. Interpret the properties of seawater.
4. Examine the waves in the oceanic region.
5. Appraise the tides.

Course Contents:

Unit	Teaching / Learning Points	Periods	Marks
I	Introduction to Oceanography: • Meaning of Oceanography: Definition, nature and scope • Historical background and development of oceanography A) Golden B) Dark C) Modern • Distribution of Sea and Ocean	10	12
II	The Morphology of the Ocean Bottom: • Continental Margin: Shelf, Slope and Rise. • Oceanic Ridges • Oceanic Landforms: Abyssal Plains, Seamounts and Guyots. • Oceanic Deep and Trenches	10	12
III	Properties of Ocean Water: • Temperature: 1) Source of Heat 2) Distribution of Temperature: Horizontal and Vertical 3) Factor affecting on ocean temperature • Density: 1) Distribution of Density of sea water 2) Controlling factors of Density of Seawater • Salinity: 1) Composition of sea water 2) Sources of Oceanic Salinity 3) Distribution of Salinity 4) Controlling factors of Salinity • Relationship between Density, Temperature and Salinity.	15	12

IV	Ocean Movements: • Wave: 1) Formation of Sea Wave 2) Characteristics of Wave: Height, Length, Period, Frequency, Velocity and Steepness. • Tide: 1) Origin of Tide 2) Types of Tide 3) Equilibrium Theory 4) Tidal Effect in Coastal Areas • Current: 1) Origin of Ocean Current 2) Types of Ocean Current 3) Distribution of Ocean Current 4) Indian Monsoon: El Nino, La Nina.	15	12
V	Ocean Deposits • Sources and Types of Marine Deposits 1) Terrigenous 2) Volcanic Matter 3) Biotic 4) Abiotic • Classification of Ocean Deposits • Coral Reefs 1) Condition of Coral Growth 2) Types of Coral Reefs 3) Distribution of Coral Reefs.	10	12
Total		60	60

❖ **Reference Books:**

1. Basu S.K. (2003) (ed): Handbook of Oceanography, Global Vision, Delhi
2. Davis Richard A. (1972): Oceanography, Addition Wesley Publishing Co.
3. Garrison Tom (1999): Oceanography, Brooks/ Cole Wadsworth, New York
4. Garrison Tom (2004): Essentials of Oceanography. Thompson, Australia
5. Grant Gross M. (1982): Oceanography, Prentice hall, Ince, New Jersey
6. King Cuchlain A. M (1962): Oceanography for Geographers (ED) Edward Arnold
7. Sharma & Vatal (1962): Oceanography for Geographers. Chaitanya Publishing House, Allahabad
8. Thurman Harold V. (1985): Introductory Oceanography. Bell & Howell Co. London
9. Weisberg J. and Howard P. (1974): Introductory Oceanography. McGraw Hill, Kogakusha, Tokyo.

❖ **Web Resources:**

1. www.wikipedia.org
2. www.encyclopedia.com
3. <http://jgesnet.com>

DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, CHHA. SAMBHAJINAGAR As per the Curriculum of National Education Policy 2020 Name of the Program: M.A. Geography Second Year (III Semester)		
Semester III Theory Paper	Name of the Course GMT-08 Political Geography	Credits: 04 Total Marks:100

Course Objectives:

1. To explore and understand the contemporary developments and emerging trends in the field of political geography. This includes examining the impact of globalization, technology, environmental changes, and shifting geopolitical dynamics on political structures and processes.
2. To provide students with a comprehensive understanding of the concepts of frontiers and boundaries in political geography.
3. To provide students with an in-depth understanding of electoral geography, which examines the spatial aspects of electoral systems, voting behavior, and political representation.

Course Outcomes:

1. Gain a comprehensive understanding of the fundamental concepts, theories, and scope of political geography.
2. Apply various theoretical approaches to the study of political geography, such as Whittlesey's law of landscape approach and Hartshorne's functional approach.
3. Critically assess the strengths and limitations of different theoretical perspectives in explaining political phenomena.

Course Contents:

Unit	Teaching / Learning Points	Periods	Marks
I	a) Introduction to Political Geography: Nature, scope and significance. Recent trend in Political Geography b) Different Approaches to study the subject: Whittlesey's law of Landscape approach Hartshorn's Functional approach	15	12
II	State as a politico-territorial phenomenon: Territoriality, The State, The Nation, Spatial Factors of the state- Locations, Size, Shape Frontiers – North-West Frontier of India Boundaries Distinction between Frontier and Boundaries	15	12
III	Electoral Geography Trend in Electoral Geography Geography of Voter Participation Regional Stability Regional Realignments	10	12

IV	Global strategic views: Mahan's Sea Power Concept Mackinder's Heartland Theory Spykman's Rimland Theory	10	12
V	Political Associations Regional Multinational Political Systems World Organization Intercontinental Associations Political Regions	10	12
Total		60	60

Reference Books:

1. Bhagwati, J.N. (ed.): New International Economic Order - The North-South Debate, M.I.T. Press, London, 1976.
2. Dikshit, R.D.: Political Geography: A Contemporary Perspective, Tata McGraw-Hill Publishing Co., New Delhi, 1982 (also latest edition).
3. Glassner M.I.: Political Geography, John Wiley, New York, 1993.
4. Panikkar, K.M. Geographical factors in Indian History. Bharatiya Vidya Bhavan, Bombay 1956.
5. Pounds N.T.: Political Geography Mc Graw Hill, New York, 1972.
6. Prescott, J.R.V.: Political Geography, Methuen & Co., London, 1972.
7. Schwartzberg, J.E.: A Historical Atlas of South Asia, University of Chicago Press, U.S.A. 1993.
8. Short, J.R. : An Introduction to Political Geography, Routledge and Kegan Paul, London, 1982.
9. Taylor P.J (ed.): Political Geography of the 20th Century - A Global Analysis. New York, 1993.
10. Taylor, Peter: Political Geography, Longman, London, 1985.
11. William C.H. (ed.): Political Geography of the New World Order Halsted Ben, New York, 1993.

Web Resources:

4. www.wikipedia.org
5. www.encyclopedia.com
6. <http://jgesnet.com>

DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, CHHA. SAMBHAJINAGAR

As per the Curriculum of National Education Policy 2020

Name of the Program: M.A. Geography Second Year (III Semester)

Semester: III Theory Paper	Name of the Course GMT-09 Geography of Economic Activities	Credits: 04 Total Marks:100
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Course Objectives:

1. Introduce the students to the geographical mode of thinking in application to various economic phenomena.
2. Understand the genesis, development, and evolution of Economic Geography as a subfield
3. Obtain an understanding of major forms of economic activity and processes
4. Learn to critically analyze economic issues from a geographical perspective.
5. Understand the concept of economic activity, and factors affecting the location of economic activity. Gain knowledge about different types of Economic activities

Course Outcomes:

1. Explain the importance of environmental, cultural, and other factors in determining economic activities.
2. Explain the concepts of locational analysis, spatial diffusion, and spatial interaction.
3. Explain the alternative paradigms of economic geography.
4. Apply the concepts, methods, and theories to local, regional, and global economic issues.
5. Analyse the location and viability of economic activities in local, regional, and global systems.
6. Evaluate the main global issues confronting the world economy.

Course Contents:

Unit	Teaching / Learning Points	Periods	Marks
I	A) Economic Geography: Definition, nature, and scope Recent trends in Economic Geography B) Basic Economic processes: Production, exchange & Consumption Classification of economic Activities and their characteristics Location of Economic activities	10	12
II	Resources: Classification of Resources - Renewable & Non-renewable Resources and Environment - Scarcity and Sustainability Conservation of resources and their need	15	12
III	Industries: Classification of Industries, Principles of Industrial Location Profit maximization - Least cost location Location theories – Weber & Losch.	10	12
IV	Trade and Transport: Major Transport Routes - Land, Water, and Air Routes Models of transportation and transport cost Accessibility and connectivity	10	12

	Trade - National and International		
V	A) Economic Development: Spatial and Temporal aspects Measures of economic development – Rostow's and Myrdal's models B) Economic Development in India: Regional disparity in economic Development Impact of Green Revolution, Privatization	15	12
Grand Total		60	60

Reference Books:

1. Alexander J.W. (1976): Economic Geography. Prentice Hall of India. New Delhi.
2. Hartshorne, T.A. and J.W. Alexander (1988) –Economic Geography, Prentice Hall.
3. Berry, Conkling & Ray (1988): Economic Geography Prentice Hall of India New Jersey.
4. Hurst Elliott (1986): Geography of Economic Behaviour. Unwin, London.
5. Johnson R.J. & Taylor D.J. (1989): A world in crisis. Basil-Blackwell, Oxford.
6. Losch (1954): Economics of Location. Yale University Press New York.
7. Redcliff M. (1987): Development & the environmental crisis. Methuen. London.
8. Sinha B.N. (1971): Industrial geography of India
9. Watts H.D. (1987): Industrial Geography, Longman Scientific and Technical New York.
10. Haggett, Peter: Modern Synthesis in Geography.
11. Robinson H & Bamford C. G. (1978): Geography of Transport, Macdonald & Evans USA.
12. Jones & Darkenwald : Economic geography.
13. Fairbridge, R. W. (1968): Encyclopedia of Geomorphology, Reinholdts, New York.

DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, CHHA. SAMBHAJINAGAR

As per the Curriculum of National Education Policy 2020

Name of the Program: M.A. Geography Second Year (III Semester)

Semester III Practical Paper	Name of the Course GMP-03 Practical-3 (Laboratory Course)	Credits: 04 Total Marks:50
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Course Objectives:**Course Outcomes:****Course Contents:**

Unit	Teaching / Learning Points	Periods	Marks
I	Nature and Scope of Cartography Cartography Techniques: History and Development Concept and types of Scales Signification and types of Map	12	06
II	Cartographic Representation of Statistical Data: Rain fall, Dispersion diagram, Hypsometric Curve, Water balance graph, Locational Quotient, coefficient of localization and localization curve.	18	10
III	Aerial Photo interpretation .	12	06
IV	Computer: Components and Characteristics, MS office and MS Excel, digital cartography and map making, Enlargement and Reduction of map 2D and 3D diagram	18	08
V	Practical record book and Viva-voce		20
Total		60	50

DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, CHHA. SAMBHAJINAGAR As per the Curriculum of National Education Policy 2020 Name of the Program: M.A. Geography Second Year (III Semester)		
Semester III Theory Paper	Name of the Course GET-09 Urban Geography	Credits: 04 Total Marks:100

Course Objectives:

1. Understand the process of urbanization and origin, growth and classification of urban settlements with relevant theories and models.
2. Examine the changing economic base and structure of the contemporary cities.
3. Relate urbanization process and the evolution of urban system.
4. Examine the contemporary urban issues and suggest new urban planning and urban policy perspectives.

Course Outcomes:

6. Define the basic concepts of urban geography.
7. Describe the urban morphological models.
8. Discuss about urban classification.
9. Examine the rural-urban fringe.
10. Investigate the central place and urban hierarchy.

Course Contents:

Unit	Teaching / Learning Points	Periods	Marks
I	Urbanization - Basic Concepts: Urban Geography, Urbanization Nature and Scope of Urban Geography Meaning of Urban Settlement Demographical Concept of Urbanization Contemporary factors of Urbanization	10	12
II	Urban Morphology - Models: Park and Burgess Model Homer Hoyet Model Harris and Ullman Model Characteristics and Demarcation of CBD	10	12
III	Urban Classification: Various Approaches to Classification Urban Functions and its Classification Functional Classification of Towns and Cities by C.D. Harris and H.J. Nelson	10	12
IV	Rural-Urban Fringe: Meaning of Rural-Urban Fringe Characteristics of Rural-Urban Fringe Methods of Demarcation of Suburban areas Concepts: Conurbation, Megalopolis, Urban Sprawl	15	12
V	Central Place and Urban Hierarchy: Concept - Central Place Christaller's Central Place Theory Rank-size Relationships and Rules Concept – Urban Hierarchy Hierarchy of Urban Settlements	15	12
Total		60	60

References:

1. Carter, H., (1972): The study of Urban Geography, Edward Arnold, London.
2. Fyfe, N. R. and Kenny, J. T., (2005): The Urban Geography Reader, Routledge.
3. Graham, S. and Marvin, S., (2001): Splintering Urbanism: Networked Infrastructures, Technological Mobilities and the Urban Condition, Routledge.
4. Hall, T., (2006): Urban Geography, Taylor and Francis.
5. Kaplan, D. H., Wheeler, J. O. and Holloway, S. R., (2008): Urban Geography, John Wiley.
6. Knox, P. L., and McCarthy, L., (2005): Urbanization: An Introduction to Urban Geography, Pearson Prentice Hall New York.
7. Knox, P. L., and Pinch, S., (2006): Urban Social Geography: An Introduction, Prentice-Hall.
8. Pacione, M., (2009): Urban Geography: A Global Perspective, Taylor and Francis.
9. Ramachandran, R., (1989): Urbanisation and Urban Systems of India, Oxford University Press, New Delhi
10. Ramachandran, R., (1992): The Study of Urbanisation, Oxford University Press, Delhi

Web Resources:

7. www.wikipedia.org
8. www.encyclopedia.com
9. <http://jgesnet.com>

DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, CHHA. SAMBHAJINAGAR

As per the Curriculum of National Education Policy 2020

Name of the Program: M.A. Geography Second Year (III Semester)

Semester III Theory Paper	Name of the Course GET-10 Bio-Geography	Credits: 04 Total Marks:100
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Course Objectives:

1. To provide students with a foundational understanding of the principles, processes, and patterns in bio-geography.
2. To familiarize students with the historical development of bio-geography and key contributors to the field.
3. To explore the ecological and evolutionary processes influencing the distribution of organisms.
4. To analyze the classification and characteristics of major biogeographical regions and understand the factors shaping their biodiversity.

Course Outcomes:

1. Analyse and evaluate the role of ecological and evolutionary processes in shaping biogeographical patterns.
2. Classify and characterize major biogeographical regions and explain the factors influencing their biodiversity.
3. Assess the impact of human activities on biogeographical patterns and propose conservation strategies.
4. Apply theoretical knowledge to real-world scenarios through case studies and practical exercises.

Course Contents:

Unit	Teaching / Learning Points	Periods	Marks
I	Introduction to Bio-geography Definition and scope of biogeography Historical development of biogeography Branches of biogeography: ecological, historical, and evolutionary Importance of biogeographical studies	10	12
II	Ecological Biogeography Abiotic factors: climate, soil, water, and topography Biotic factors: competition, predation, mutualism, and parasitism Concepts of ecological niches and habitat selection Species range and distribution patterns	15	12
III	Biogeographical Regions Classification and characteristics of major biogeographical regions Factors influencing regional patterns: climate, topography, geology Analysis of biodiversity hotspots and their conservation significance Human impact on biogeographical regions and its consequences	10	12

IV	Freshwater and Marine Biogeography	15	12
	Unique features of freshwater ecosystems and their biogeography		
	Marine biogeography and ocean currents		
	Coral reefs, estuaries, and their biodiversity		
V	Human Impact on Bio-geography	10	12
	Anthropogenic influences on biodiversity and ecosystems		
	Climate change and its effects on biogeographical patterns		
	Habitat destruction, fragmentation, and invasive species		
Grand Total		60	60

Reference Books:

1. "Biogeography: An Ecological and Evolutionary Approach" by C. Barry Cox and Peter D. Moore
2. "Island Biogeography: Ecology, Evolution, and Conservation" by Robert J. Whittaker and James H. Brown
3. "Biogeography: A Global Synthesis" by Mark V. Lomolino, Brett R. Riddle, and Robert J. Whittaker
4. "Principles of Terrestrial Ecosystem Ecology" by F. Stuart Chapin III, Pamela A. Matson, and Peter M. Vitousek
5. "Conservation Biogeography" by Richard J. Ladle and Robert J. Whittaker
6. "Global Biogeography" by J.C. Briggs and J.A. Veevers
7. "Biogeography: Introduction to Space, Time, and Life" by Glen M. MacDonald
8. "Biogeography and Evolution in New Zealand" by M. K. Oliver and R. A. F. Seppelt
9. "Biogeography: Space, Time, and Life" by Peter Hovenkamp and Peter J. M. Maas
10. "The Diversity and Biogeography of Mammals" by R. M. Nowak
11. "Biogeography of the Quaternary Molluscs of the Southwestern Atlantic Ocean" by Sergio M. Dillenburg and Fernando L. Dillenburg
12. "Biogeography of the West Indies: Patterns and Perspectives" by Charles A. Woods and Florence E. Sergile
13. "The Biogeography of Host-Parasite Interactions" by Serge Morand and Boris R. Krasnov

DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, CHHA. SAMBHAJINAGAR As per the Curriculum of National Education Policy 2020 Name of the Program: M.A. Geography Second Year (III Semester)		
Semester III Research Project	Name of the Course GRP-01 Research Project in Geography	Credits: 04 Total Marks:100

Report writing- 80 Marks

Presentation- 20 Marks

Candidates will be required to prepare a project report on any one topic. Candidate can also take up a project of his/her choice in consultation with teachers of the department of geography, but the selection of the project must be related to the geographical or environmental topic issues.

Topics Issues for project:

Report Writing should be as per the following guidelines

- 1) Suitable title of the project.
- 2) Introduction
- 3) Study area
- 4) Signification of the project
- 5) Objectives of the project
- 6) Project methodology. (Collection of primary / secondary data, relevant statistical techniques, preparation of questionnaire, schedule maps, graphs, diagrams & photos analysis, interpretation and report writing)
- 7) Chapter scheme. (Minimum 5 chapters)
- 8) Bibliography

Notes:

- Each student will prepare an individual project report applying the project methodology.
- A group of maximum five students may work on same topic under the guidance of a teacher.
- The actual work of the project should be carried out throughout the year. Topic must be select after the admission to the course.
- Project report should he checked certified by guiding teacher before final submission.
- Student should submit two had copy (bind) and softcopy (CD) of Project report to department of geography before one month of commencement of university examinations.
- The project report will have Preliminary pages such as Cover Page, Declaration by Candidate, Certificate by Guide, Acknowledgement, Contents, List of tables, maps, graphs diagrams, photos etc.

- The soft copy (CD) of the project work should be prepared in Microsoft Word 2007, For English – font times New Roman, font size 14, line spacing 1.5, Margins left 1.5", right-1 top -1", bottom 1"-page numbers in footer For Marathi language use APS/ISM software.
- The page count of the project report should be about 75 to 100 pages including figures, Labels maps, photographs, reference appendices, bibliography etc.
- The assessment of the project and viva-voce will be conducted in the presence of external examiner appointed by the university and the internal examiner.
- Marking scheme- Report Writing 80 Marks (Project Content- 50 marks, follow-up of research methodology - 30 marks), Viva-voce- 20 Marks, Total Marks - 100,

Suggested Readings:

- Creswell, J. (1998). Qualitative inquiry and research design: Choosing among five traditions. Thousand Oaks, California Sage Publications.
- Franklin, M.I. (2012). Understanding Research: Coping with the Quantitative-Qualitative Divide. London and New York: Routledge.
- Dikshit, RD. 2003. The Art and Science of Geography: Integrated Readings. Prentice Hall of India, New Delhi.
- Wolcott, H. 1995. The Art of Fieldwork. Alta Mira Press, Walnut Creek, CA
- Aslan Mahmood Statistical Method's in Geographical Studies, Rajesh Publications, New Delhi, 1993.
- C. B. Gupta : An Introduction to Statistical Methods, Vikas Publishing House, Delhi, 1974.
- S. Gregory: Statistical Methods and the Geographers, Longman, London, 1964.
- Reza Hoshmand second edition), Statistical Methods for Environmental and Agricultural Sciences, CRC Press, New York, 1998
- Elements of Practical Geography - Singh R.L.
- Statistical Geography - Zamir Alvi
- Statistical Geography- Negi B.S.
- Practical Geography Dr. Jaykumar Magar Marathi Version}
- Practical Geography Dr. Kumbhar (Marathi Version)
- Practical Geography- Dr. Nagtode Marathi Version)

DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, CHHA. SAMBHAJINAGAR As per the Curriculum of National Education Policy 2020 Name of the Program: M.A. Geography Second Year (IV Semester)		
Semester: IV Theory Paper	Name of the Course GMT-10 Geography of Environment	Credits: 04 Total Marks:100

Course Objectives:

1. Students will learn how human, physical and environmental components of the world interact.
2. Able to conduct basic analysis of how environmental change is occurring at different geographic scales.
3. Able to explain the relationships between biosphere, lithosphere, hydrosphere, and atmospheric systems.
4. Students will learn the regional geography of the world, particularly from the perspective of how human, physical and environmental components of the world interact.

Course Outcomes:

1. To educate students in the contents and methods of Geography of Environment as an academic and professional discipline.
2. To understand elements of the environment and acquire knowledge about biodiversity
3. To get knowledge about natural hazards and management
4. To understand the various environmental issues and policies.

Course Contents:

Unit	Teaching / Learning Points	Periods	Marks
I	Introduction: Meaning and Scope of environment Geography Basic principles Composition and types of the environment; Ecological principles; Man – environment relationship.	10	12
II	Ecosystem Concept and components, Trophic levels, Food chains, and food webs Energy flow in the ecosystem, Circulation of matter in the ecosystem, Biogeochemical cycle, Ecosystem productivity, Ecosystem stability	10	12
III	Environmental degradation Extreme events- hazards and disasters (earthquakes, volcanoes, cyclones, floods) Environmental pollution- (air, water, solid waste, soil, and noise Environmental pollution in India Environmental Problems – global warming, ozone depletion, land degradation, and reduction in biodiversity.	10	12
IV	Environmental Approaches Concept and approaches Environmental dimension in planning – sustainable development Environmental consciousness, Environmental policy, environmental legislation, Environmental impact assessment, Disaster management	15	12

V	Environmental management Management of forest, soil, wildlife, energy and mineral resources, Environmental education, monitoring, and mapping, conservation of natural resources.	15	12
Total		60	60

Reference Books:

1. Batel, B.(ed): Management of Environment, Wiby eastern Ltd. New Delhi, 1980.
2. Brij Gopal: Elements of Ecology Centre for Science & Environment: The State of India Environment: A citizen's Report, 1982, 1985, New Delhi.
3. Desh Bandhu (ed.): Environmental Management, Indian Environment Society, New Delhi.
Gupta & Gurjar: sustainable Development, Rawat, Jaipur.
4. Kaswan, N.R. : Man and Environment (Hindi), Malik & Co. Jaipur, 1999.
Mathur, H.S.: Biogeography
5. Park, C.C: Ecology and Environmental Management, Butterworths, London, 1980.
6. P.D. Sharma: Ecology and Environment, Rastogi, Meerut, 2010.
7. Peter Cotgreave & Irwin Forseth: Introductory Ecology, Blackwell, 2002.
8. Savinder Singh: Geography of Environment, Allahabad
9. Singh & Singh (ed.): Geography of Environment, Concept, New Delhi
10. Strahler, A.N.: Geography and Man's Environment, John Wiley, New York, 1976.
11. V.K. Srivastava: Paryavaran Bhoogolevm Paristhitiki, Vasundhara, Gorakhpur.

DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, CHHA. SAMBHAJINAGAR As per the Curriculum of National Education Policy 2020 Name of the Program: M.A. Geography Second Year (IV Semester)		
Semester: IV Theory Paper	Name of the Course GMT-11 Agriculture Geography	Credits: 04 Total Marks:100

Course Objectives:

1. To familiarize the students with the concept, origin, and development of agriculture.
2. To examine the role of agricultural determinants towards changing cropping patterns, intensity, productivity, diversification and specialization. The course further aims to familiarize the students with the application of various theories, models and classification schemes of cropping patterns and productivity.
3. Its objectives are also to discuss environmental, technological and social issues in agricultural sector with special reference to India.

Course Outcomes:

1. Define the basic concepts of agriculture geography.
2. Describe the Land Classification in India.
3. Examine the Agricultural Patterns.
4. Investigate the Problems & Prospects of Agriculture.
5. Interpreter Agricultural Regionalization and Methods.

Course Contents:

Unit	Teaching / Learning Points	Periods	Marks
I	A) Introduction to Agricultural Geography: Nature, scope and significance. Different Approaches to study the subject B) Land use: General and Agricultural Land use Land use surveys Land Classification in India	10	12
II	Determinants of Agricultural Patterns: Relief, climate, soil Land holding, marketing, transport Irrigation Mechanization. Biochemical inputs	10	12
III	Agricultural Types: Shifting cultivation Intensive subsistent farming. Mixed farming Plantation agriculture Commercial grain farming	15	12

IV	Problems & Prospects of Agriculture: Definition and characteristics of arid and semi-arid regions. Droughts and famines Role of irrigation and dry farming.	10	12
V	Agricultural Regionalization (Methods): Classification of Agriculture regions by Derwent Whittlesey Agricultural regions of India. Theory of Agriculture Location by Von Thunen	15	12
Total		60	60

Reference Books:

1. Aiyer, A.K.Y.N.(1949) – Agricultural and Allied Arts in Vedic India.
2. Grigg. D.G. (1974) – The Agricultural Systems of the world An Evolutionary Approach.
3. Grigg. D.G.(1964) – An Introduction to Agricultural Geography Hutchinson & Co.Ltd.,
4. Illbery, B.W. (1985) – Agricultural Geography, Social & Economic Analysis, Oxford University Press.
5. Morgan. W.B. & S.C. Monton (1971) – Agricultural Geography Methuen, London.
6. Randhawa, M.S. (1980) – An History of Agriculture in India Vols. I, II, III,IV ICAR, New Delhi.
7. Singh. J. and Dhillon S.S. (1994) – Agricultural Geography. Tata McGraw Hill, Publishing Co. Ltd.
8. Symons, Leslie (1970) – Agricultural Geography, G. Belt and Sons Ltd., London.
9. Tarrent, J.R. (1970) – Agricultural Geography, David and Charles, Newton Abbot.
10. Majjid Hussain (2021)- Agriculture Geography, second Edition.

Web Resources:

10. www.wikipedia.org
11. www.encyclopedia.com
12. <http://jgesnet.com>

DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, CHHA. SAMBHAJINAGAR As per the Curriculum of National Education Policy 2020 Name of the Program: M.A. Geography Second Year (IV Semester)		
Semester: IV Theory Paper	Name of the Course GMT-12 Regional Planning and Development	Credits: 04 Total Marks:100

Course Objectives:

1. To understand and evaluate the concept of region in geography and its role and relevance in regional planning;
2. To identify the issues relating to the development of the region through the process of spatial organization of various attributes and their inter relationship.
3. To identify the causes of regional disparities in development, perspectives and policy imperatives.

Course Outcomes:

11. Define the major concepts of regional planning and development. .
12. Classify theories and models of regional planning and development.
13. Solve the regional imbalances in India.
14. Examine the regional planning in India.
15. Investigate the geographical need and feasibility.

❖ **Course Contents:**

Unit	Teaching / Learning Points	Periods	Marks
I	Basic Concepts: Concept of Region, Types and hierarchy of regions Concept of Planning, Types of planning Concept of Approach, Different Approaches to Regional planning Concept of Geographical Indication, its relation with Planning Concept of Growth and Development. Indicators of development Measures of regional development	10	12
II	Theories and Models: a) Models of economic growth: Rastows stages of economic growth Gunnar Myrdal's concept of internal growth b) Theoretical frame work for regional planning: Central Place Theory Growth Pole Theory	15	12

III	Regional imbalances in India Industrial Imbalances Agricultural Imbalances Rural-Urban ratio Imbalances Infrastructural Development and its Imbalances	10	12
IV	Regional Development in India Metropolitan planning Rural development planning Tribal area development planning	10	12
V	Geographical Need and Feasibility a) Geographical Factors affecting on Planning and Development b) Urgent Needs for Planning and Development Watersheds Solid and Liquid Domestic Wastes Disaster and Hazard Drinking Water and Health Services	15	12
Total		60	60

Reference Books:

1. Bhandari S (1992): Transport and Regional Development, Concept Publication, New Delhi
2. Bhat, L. S. (1973): Regional Planning in India, Statistical Publishing Society, Kolkata
3. Chandana, R. C. (2000): Regional Planning - A Comprehensive Text, Kalyani Publishers, Ludhiana
4. Dube K. N. (ed) (1990): Planning and Development in India, Asia Publishing House, New Delhi
5. Friedmann, J Alanso W (1967): Regional Development and planning - A Reader, MIT Press Mass
6. Govt. of India (1986), Regional Plan 2001 - National Capital Region, NCRPB, Ministry of Urban Development, New Delhi
7. Hall P. (1992) Urban and Regional Planning, Routledge, London
8. Mishra R. P (Ed.) (1992): Regional Planning, Concepts, Techniques, Policies and Case Studies, Concept Pub. New Delhi.
9. Vaidya B C (eds)(1998): Reading in Transport Geography: A Regional Perspective, Devika Publications, New Delhi

Web Resources:

13. www.wikipedia.org
14. www.encyclopedia.com
15. <http://jgesnet.com>

DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, CHHA. SAMBHAJINAGAR

As per the Curriculum of National Education Policy 2020

Name of the Program: M.A. Geography Second Year (IV Semester)

Semester: IV Theory Paper	Name of the Course GET-11 Rural Geography	Credits: 04 Total Marks:100
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Course Objectives:

1. Understand the growth and evolution of rural settlements.
2. Recognize and analyze the distributions, patterns, morphology and functions of rural settlements.
3. Analyze and suggest rural settlement planning in India.
4. Examine the prevailing social and environmental issues in rural areas of India.

Course Outcomes:

16. Define the basic concepts of rural geography.
17. Describe the types and patterns of rural settlement.
18. Compare the rural morphology and its models
19. Examine the rural landscape and settlements.
20. Investigate of rural central places.

Course Contents:

Unit	Teaching / Learning Points	Periods	Marks
I	Urbanization - Basic Concepts: Rural Geography: Rural Population and Settlement Nature and Scope of Rural Geography Site, Situation and Location of Rural Settlements Settlement Size and Shape Evolution of Settlement Rural-Urban Dichotomy Need for Rural Development Transformation of Villages	15	12
II	Types and Patterns of Rural Settlements: Difference between Type and Pattern Types of Settlement: Clustered, Compact and Nucleated Basic Village / Settlement Forms Patterns of Rural Settlement: Rectangular, Circular, Star, Linear Classification of Settlement Functional Classification of Villages	15	12
III	Rural Morphology - Models: Morphological Changes Factors Responsible for Dispersion Socio-Spatial Structure, Caste and Segregation of Settlements Rural Economic Base: Panchayati Raj System, Agriculture and Allied Sectors, Index of Dispersion of Settlement by Albert Demangeon	10	12

	Nearest Neighbour Analysis		
IV	Rural Landscape and Settlements: Meaning of Village and Surrounding Farmland Von Thunen's Agriculture Landuse Model Economic Rent and Farming Patterns Rural Dwelling: Rural house types, Building material, Size etc	10	12
V	Rural Central Places: Concept – Rural Central Place Rural Market Centers Factors affecting on Rural Market Centers Periodic Markets: types, functions, periodicity etc Problems of Rural Market System Inter-Dependence of Urban and Rural Sectors of the Economy	10	12
Grand Total		60	60

References:

1. Anand, Subhash.,(2013): Dynamics of Rural Development, Research India Press, Delhi
2. Gilg, A. W., (1985): An Introduction to Rural Geography, Edwin Arnold, London.
3. Krishnamurthy, J.,(2000): Rural Development - Problems and Prospects, RawatPubls., Jaipur
4. Lee, D. A. and Chaudhri, D. P., (eds.)(1983): Rural Development and State, Methuen, London.
5. Misra, R. P., and Sundaram, K. V., (eds.)(1979): Rural Area Development: Perspectives and Approaches, Sterling, New Delhi.
6. Misra, R. P., (ed.), (1985): Rural Development: Capitalist and Socialist Paths, Vol. I, Concept, New Delhi. Palione, M., (1984): Rural Geography, Harper and Row, London.
7. Ramachandran, H., and Guimaraes, J.P.C., (1991): Integrated Rural Development in Asia– Learning fromRecent Experience, Concept Publishing, New Delhi.
8. Robb, P.,(1983): Rural South Asia: Linkages, Change and Development, Curzon Press.
9. Singh, R.B., (1985): Geography of Rural Development, Inter India, New Delhi.
10. UNAPDI (1986):Local Level Planning and Rural Development: Alternative Strategies. (United Nations Asian & Pacific Development Institute, Bangkok), Concept Publs. Co., New Delhi.
11. Wanmali, S., (1992): Rural Infrastructure Settlement Systems and Development of the
1. RegionalEconomy in South India, International Food Policy Research Institute, Washington, D.C.
12. Yugandhar, B. N. and Mukherjee, Neela., (eds.) (1991): Studies in Village India: Issues in Rural Development, Concept Publications. Co., New Delhi.

DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, CHHA. SAMBHAJINAGAR, As per the Curriculum of National Education Policy 2020 Name of the Program: M.A. Geography Second Year (IV Semester)		
Semester: IV Theory Paper	Name of the Course GET-12 Principle of GIS Applications	Credits: 04 Total Marks:100

Course Objectives:

1. Gain a comprehensive understanding of the principles and concepts underlying Geographic Information Systems (GIS).
2. Foster spatial thinking skills to analyze and interpret spatial patterns and relationships.
3. Explore various sources of spatial data including remote sensing, GPS, and survey
4. Acquire skills in collecting, managing, and processing spatial data with an emphasis on accuracy and reliability.

Course Outcomes:

1. Use GIS software proficiently for spatial analysis, mapping, and data visualization.
2. Apply GIS techniques to address real-world problems and make informed spatial decisions.
3. Design and create effective maps that communicate spatial information clearly and accurately.
4. Evaluate the quality and accuracy of spatial data and make data-driven decisions.
5. Integrate spatial thinking into decision-making processes across various domains.

Course Contents:

Unit	Teaching / Learning Points	Periods	Marks
I	Introduction to GIS Overview of GIS concepts and its applications. Understanding spatial data and the importance of spatial thinking. Key components of GIS, including hardware, software, data, and people. Introduction to spatial data types and coordinate systems.	15	12
II	Data Sources and Acquisition: Types of spatial data sources (remote sensing, GPS, surveys, Data acquisition methods and techniques. Data quality and accuracy considerations. Spatial data storage formats (vector, raster) and their characteristics.	15	12
III	Spatial Analysis and Modelling: Basic spatial analysis operations (overlay, buffer, spatial querying).	10	12

	Introduction to spatial modelling concepts. Applications of spatial analysis in different domains (environmental, urban planning, etc.).		
IV	Cartography and Map Design: Principles of map design and cartographic representation. Use of color, symbols, and scales in map production. Cartographic design considerations for different purposes (navigation, analysis, communication). Digital mapping techniques and tools.	10	12
V	GIS Applications in Various Fields: Applications of GIS in environmental science and natural resource management. GIS in urban planning and infrastructure development. Health GIS: Disease mapping and analysis. GIS in business, marketing, and location-based services.	10	12
Grand Total		60	60

References:

1. "Geographical Information Systems" by P.C. Sinha
2. "Geoinformatics: A Practical Guide" by T. R. Anil Kumar
3. "Principles of Geographical Information Systems" by N. Sridhar Rao
4. "Remote Sensing and GIS" by Basudeb Bhatta
5. "Geographical Information Systems: Applications in Natural Resource Management" by G. C. Mishra
6. "Introduction to Geographic Information Systems" by Kang-Tsung Chang
7. "Geographic Information Systems: Concepts, Methodologies, Tools, and Applications" edited by Information Resources Management Association
8. "GIS Applications in Agriculture: Nutrient Management for Energy Efficiency" by Surya Prakash Tiwari
9. "Urban and Regional Planning with GIS" by Donald P. Albert
10. "Geographical Information Systems and Science" by Paul A. Longley, Michael F. Goodchild, David J. Maguire, and David W. Rhind

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As per the Curriculum of National Education Policy 2020

Name of the Program: M.A. Geography Second Year (IV Semester)

Semester III Research Project	Name of the Course GRP-02 Research Project in Geography	Credits: 06 Total Marks:150
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Report writing-100 Marks

Presentation-50 Marks

Candidates will be required to prepare a project report on any one topic. Candidate can also take up a project of his/her choice in consultation with teachers of the department of geography, but the selection of the project must be related to the geographical or environmental topic issues.

Report Writing should be as per the following guidelines

- 9) Suitable title of the project.
- 10) Introduction
- 11) Study area
- 12) Signification of the project
- 13) Objectives of the project
- 14) Project methodology. (Collection of primary / secondary data, relevant statistical techniques, preparation of questionnaire, schedule maps, graphs, diagrams & photos analysis, interpretation and report writing)
- 15) Chapter scheme. (Minimum 5 chapters)
- 16) Bibliography

Notes:

- Each student will prepare an individual project report applying the project methodology.
- A group of maximum five students may work on same topic under the guidance of a teacher.
- The actual work of the project should be carried out throughout the year. Topic must be select after the admission to the course.
- Project report should he checked certified by guiding teacher before final submission.
- Student should submit two had copy (bind) and softcopy (CD) of Project report to department of geography before one month of commencement of university examinations.
- The project report will have Preliminary pages such as Cover Page, Declaration by Candidate, Certificate by Guide, Acknowledgement, Contents, List of tables, maps, graphs diagrams, photos etc.
- The soft copy (CD) pf the project work should be prepared in Microsoft Word 2007, For English – font times New Roman, font size 14, line spacing 1.5, Margins left 1.5", right-1 top -1", bottom 1"-page numbers in footer For Marathi language use APS/ISM software.

- The page count of the project report should be about 75 to 100 pages including figures, Labels maps, photographs, reference appendices, bibliography etc.
- The assessment of the project and viva-voce will be conducted in the presence of external examiner appointed by the university and the internal examiner.
- Marking scheme- Report Writing 80 Marks (Project Content- 50 marks, follow-up of research methodology - 30 marks), Viva-voce- 20 Marks, Total Marks - 100,

Suggested Readings:

- Creswell, J. (1998). Qualitative inquiry and research design: Choosing among five traditions. Thousand Oaks, California Sage Publications.
- Franklin, M.I. (2012). Understanding Research: Coping with the Quantitative-Qualitative Divide. London and New York: Routledge.
- Dikshit, RD. 2003. The Art and Science of Geography: Integrated Readings. Prentice Hall of India, New Delhi.
- Wolcott, H. 1995. The Art of Fieldwork. Alta Mira Press, Walnut Creek, CA
- Aslan Mahmood Statistical Method's in Geographical Studies, Rajesh Publications, New Delhi, 1993.
- C. B. Gupta : An Introduction to Statistical Methods, Vikas Publishing House, Delhi, 1974.
- S. Gregory: Statistical Methods and the Geographers, Longman, London, 1964.
- Reza Hoshmand second edition), Statistical Methods for Environmental and Agricultural Sciences, CRC Press, New York, 1998
- Elements of Practical Geography - Singh R.L.
- Statistical Geography - Zamir Alvi
- Statistical Geography- Negi B.S.
- Practical Geography Dr. Jaykumar Magar Marathi Version}
- Practical Ge0graphy Dr. Kumbhar (Marathi Version)
- Practical Geography- Dr. Nagtode Marathi Version)

On Job Training (Credits-4)

Course Objectives:

1. To give hands-on experience and practical training to students in different sectors related to geography
2. To develop marketable skills among students
3. To expose students to different industrial, educational and research institutes and future employers
4. To apply their knowledge in real situations
5. To gain experience in writing technical reports Guidelines

- For on-job training, the students will be attached with the local institutions and employing establishments, which have laboratory/workshop, other related facilities and where adequate supervision by qualified personnel will be available.
- A student is expected to spend not less than 60 working hours on On-job training and related activities.
- On-job training will be carried in the summer vacation after the students complete their second semester examinations.
- Students need to provide the confirmation letter from the organization or the institute where they have joined for on-job training.
- The continuous evaluation of the students' performance in the on job-Training will be carried out with the assistance of the personnel of training institutions/employing establishments where this training will be imparted.
- The proof of completion of on-job training (work experience certificate and field report) should be submitted during examination to the parent institution, duly issued and signed by the concerned training authority.

Course Outcomes:

By the end of the course, the student will:

1. embrace different pathways of learning, including experiential learning
2. understand the social, economic and administrative considerations that influence the working environment of different organizations
3. learn new strategies like time management, multi-tasking and new skills
4. get an opportunity to meet new people and learn networking skills

INTERNSHIP (Mandatory) (Credit 2)

In Summer Break All students will also undergo internships / Apprenticeships during the summer term under a mentor Students will be provided with opportunities for internships

1. Research Institute, Science Laboratory
2. One-month training program
3. Work with govt. registered local industry, business organizations, health services
4. Work with local governments (such as panchayats, municipalities, town committee, municipal committee),
5. Work with any Govt. sponsored project
6. Work with media organizations, artists, crafts persons etc.
7. Community engagement and service with Govt. Reg. NGO
8. Field-based Work with Researcher



डॉ. ए.आय.खान

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भूगोल अभ्यासमंडळ

डॉ.बाबासाहेब आंबेडकर मराठवाडा विद्यापीठ,
औरंगाबाद.

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