



MES Abasaheb Garware College (Autonomous), Karve Road, Pune

Department of Geography T.Y.B.A. Geography

Choice Based Credit System Syllabus Third Year B.A. Degree Programme

To be implemented from the academic year 2026-27

MES Abasaheb Garware College (Autonomous)

Karve Road, Pune-4

Department of Geography

Credit Distribution for T.Y.B.A Degree Course in Geography

Year	Level	Semester	Major		Minor	VSC	FP/ OJT	Cum. Credits
			Mandatory	Electives				
TYBA	5.0	Sem V	12	4	2	2	2	22
		Sem VI	12	4	0	2	4	22
Total Credits			24	8	2	4	6	44

Structure of the program

Sr. No.	Semester	Course Code	Course title	Lectures	Credits
1	V	GEO-304-MJ	Political Geography	60	4
2		GEO-305-MJP	Map Analysis and Field Work	120	4
3		GEO-306-MJ	Urban Geography	60	4
4		GEO-316-MJE	Climatology	30	2
5		GEO-317-MJEP	Weather Instruments & Weather Map Reading	60	2
6		GEO-322-VSC	Introduction to Remote Sensing & GIS	30	2
7		GEO-332-FP	Socio-Economic Field Survey	60	2
8		GEO-342-MN	Physical Geography of India	30	2

Sr. No.	Semester	Course Code	Course title	Lectures	Credits
1	VI	GEO-354-MJ	Tourism Geography- India	60	4
2		GEO-355-MJP	Practicals in Statistical Geography	120	4
3		GEO-356-MJ	Regional Planning and Development	60	4
4		GEO-366-MJE	Geography of Soils	30	2
5		GEO-367-MJEP	Practical's in Geoinformatics	60	2
6		GEO-371-VSC	Land Surveying	60	2
7		GEO-381-OJT	OJT	120	4

SEMESTER V

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Department of Geography

Name of the Programme	: B.A.
Class	: T.Y.B.A.
Semester	: V
Name of Vertical Group	: Major
Course Code	: GEO-304-MJ
Course Title	: Political Geography
Type of course	: Theory
Total Credits	: 04
Workload	: (15 hours/credit) 4 credits x 15 hours = 60 hours in semester

Objectives of the Course-

1. To introduce students to the foundational concepts, development, and scope of political geography.
2. Examine the spatial aspects of political organization, focusing the concepts of state, nation, and nation-state.
3. Explore traditional and contemporary geopolitical theories to understand global power dynamics and international relations.

Topic and Learning Points

Topic No.	Topic	Sub topics	No. of Hours
1	Introduction to Political Geography	a) Definition, nature and scope of Political Geography b) Trends and developments in Political Geography c) Concepts of federalism and Colonialism d) Relevance of Political Geography in international relations	15
2	Concepts in Political Geography	a) Territory and territoriality b) Concept of nation, state and nation-state c) Frontiers and Boundaries- Genetic, functional and morphological classification of boundaries d) Buffer zones, Types of states	15
3	Global Strategic Views	a) Heartland and Rimland theory b) Geopolitics and geopolitical significance of the Indian ocean and north east India c) Major regional organisations of cooperation	15
4	Contemporary Issues Related to India	a) International relations: China, Pakistan and Bangladesh b) Interstate and international water disputes of India c) Emergence of new states in India	15

Course Outcome-

By the end of this course, student will be able to:

CO 1: Explain the foundational concepts, scope, and approaches of Political Geography.

CO 2: Differentiate between state, nation, frontiers, and boundaries, and analyse how these elements shape political landscapes.

CO 3: Apply major geopolitical theories (such as the Heartland and Rimland theories) to evaluate past and current global political strategies

References

- 1) Agnew, J. A., Mitchell, K., & Toal, G. (Eds.). (2003). *A companion to political geography*. Blackwell Publishing.
- 2) Cox, K. R. (2002). *Political geography: Territory, state and society*. Blackwell Publishing.
- 3) Dikshit, R. D., 1997: *Developments in Political Geography: A Century of Progress*, Sage
- 4) Dikshit, R. D. (1999). *Political geography: The spatiality of politics* (3rd ed.). Tata McGraw-Hill.
- 5) Glassner, M. I., & Fahrer, C. (2003). *Political geography* (3rd ed.). John Wiley & Sons.
- 6) Jones, M., Jones, R., Woods, M., Whitehead, M., Dixon, D., & Hannah, M. (2014). *An introduction to political geography: Space, place and politics* (2nd ed.). Routledge.
- 7) Painter, J., & Jeffrey, A. (2009). *Political geography: An introduction to space and power* (2nd ed.). SAGE P
- 8) Taylor, P.J., 2000: *Political Geography: World Economy, Nation-State and Locality*,
- 9) Verma, M.K. (2004) *Development, Displacement and Resettlement*. Delhi: Rawat Publications

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Name of the Programme	:	B.A.
Class	:	T.Y.B.A.
Semester	:	V
Name of Vertical Group	:	Major
Course Code	:	GEO-305-MJP
Course Title	:	Map Analysis and Field Work
Type of course	:	Practical
Total Credits	:	04
Workload	:	(30 hours/credit) 4 credits x 30 hours = 120 hours in semester

Objectives of the Course-

1. To introduce the students with SOI toposheets and to acquire the knowledge of toposheet interpretation.
2. To familiarize the students with the relief representation techniques their applications in Geography.
3. To train the students in elementary map reading techniques as an essential part of geography.

Topic No	Topic Name	Sub Topic	No. of practical's
1.	Topographical Maps	a) Introduction to Survey of India (SOI) toposheets, Marginal information, Grid reference, Description and drawing of conventional signs and symbols b) Indexing of (SOI) toposheets	8
2	Methods of Relief Representation	a) Qualitative Methods- Hachures, Hill shading, Colour Shading or Layer Tinting. b) Quantitative Methods- Spot height, Bench Mark, Trigulation Point, Form Lines, Relative Height (r) and Contours.	5
3	Representation of Relief by Contours	a) Relief representation by Contours- i) Methods of slope expression by contours: - Gentle and steep slope, even and uneven slope, concave and convex slope, terraced slope ii) Representation of land forms by contours: - Conical hill, Plateau, Ridge, Spur, Cliff, River valley, Gorge, Pass, Saddle b) Identification of landform using Google earth	6
4	Profile	a) Drawing and description of cross profile with a vertical exaggeration b) Determination of intervisibility from the terrain c) Drawing and description of longitudinal profile of a road or a river d) Preparation of cross profile using Digital Elevation Model (DEM)	5

5	Toposheet reading	a) Reading SOI toposheets of plain, plateau and mountainous region b) One day field excursion for orientation of toposheet, observation and identification of geographical features/landforms and preparation of a brief report	6
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Course Outcome-

By the end of this course, student will be able to:

CO 1: Students will be able to understand Survey of India (SOI) toposheets.

CO 2: Students will understand the inter relationship between the subject and the society.

Note-

1. Use of Map stencils, calculator, computer, statistical tables are allowed at the time of examination.
2. Journal should be completed and duly certified by practical In-charge and Head of the department.
3. Candidate should not be allowed for examination without certified journal and brief field excursion report.
4. Each of the practical batches needs a separate question paper.

Workload- Eight periods (2 practical's) per week of per batch consisting 12 students. Last batch should have more than six students.

References-

- 1) Ahirrao, D. Y. and Karanjkhale, E.K., 2002. *Pratyakshik Bhugol*, Sudarshan Publication, Nashik.
- 2) Singh, G., (2005). *Map Work and Practical Geography*, Vikas Publishing House Pvt. Ltd., New Delhi.
- 3) Singh, L.R. and Singh, R., (1973). *Map Work and Practical Geography*, Central Book Depot, Allahabad.
- 4) Singh, R.L., (2005). *Elements of Practical Geography*. Kalyani Publishers, New Delhi.
- 5) Singh R. L. and Singh R. P. B., (1999), *Elements of Practical Geography*, Kalyani Publishers.
- 6) Singh, R.L., and Dutt, P.K., (1968). *Elements of Practical Geography*, Students' Friends, Allahabad.
- 7) Tyner J. A., (2010), *Principles of Map Design*, Guilford Press.
- 8) अहिरराव, वाय., करंजखेले, इ. के. (२००२). *प्रात्यक्षिक भूगोल*, सुदर्शन पब्लिकेशन, नाशिक.
- 9) कार्लेकर, श्री. आणि शितोळे, तु. (२०२२), *प्रात्यक्षिक भूगोल*, डायमंड पब्लिकेशन, पुणे.
- 10) कार्लेकर, एस. आणि शेंडे के. (२००६), *प्रात्यक्षिक भूगोल*, डायमंड पब्लिकेशन, पुणे.
- 11) कुंभारे, अ. (१९९५), *प्रात्यक्षिक भूगोल*, सुमेरू प्रकाशन, डोंबिवली.

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Name of the Programme	:	B.A.
Class	:	T.Y.B.A.
Semester	:	V
Name of Vertical Group	:	Major
Course Code	:	GEO-306-MJ
Course Title	:	Urban Geography
Type of course	:	Theory
Total Credits	:	04
Workload	:	(15 hours/credit) 4 credits x 15 hours = 60 hours in semester

Objectives of the Course-

1. To familiarize students with the basic concepts and historical evolution of Urban Geography.
2. To examine the processes, spatial patterns, and global/regional trends of urbanization with a specific focus on India.
3. To critically assess contemporary urban problems and introduce the principles of sustainable urban planning and management.

Topic and Learning Points

Topic No.	Topic	Sub topics	No. of Hours
1	Introduction to Urban Geography	a) Meaning, nature, and scope of Urban Geography b) Concepts of urban site, situation, and location. c) Dichotomy between urban and rural settlements	15
2	Urbanization Processes and Trends	a) Concept of urban and urbanization, Rural-urban fringe b) Urban hierarchies: Central Place Theory, Rank-Size Rule, Primate City, City region c) Urbanization in India: Trends and contemporary characteristics	15
3	Urban Structure and Morphology	a) Functional classification of towns and cities b) Concentric Zone Theory c) Multiple Nuclei Model d) Futuristic cities: Concept of New urbanism and futuristic cities: sustainable city, compact city, virtual city, network city and global city	15
4	Urban Issues and Sustainable Planning	a) Urban sprawl, suburbanization, heat islands: environmental consequences b) Infrastructural challenges in cities: Housing, water supply and urban transportation c) Socio-economic challenges: slums, urban poverty and spatial inequality d) Urban development plans, Master Plan, Structure plans and Strategy Plan; Techniques of urban renewal and redevelopment, smart city,	15

Course Outcome-

By the end of this course, student will be able to:

- CO 1:** Articulate the meaning and scope of Urban Geography and trace the historical development of urban settlements.
- CO 2:** Interpret demographic data to understand urbanization trends and explain concepts like urban hierarchy and the Rank-Size Rule.
- CO 3:** Identify pressing urban issues (such as sprawl, slums, and environmental degradation)

References-

- 1) Carter H.: The Study of Urban Geography, Edward Arnold, London, 1972.
- 2) Chandna, R.C.: Geography of Population: Concepts, Determinants and Patterns, Kalyani Publishers, New Delhi, 2000
- 3) Deshpande, C.D.: शहरे, Continental Prakashan, Pune, 1983 (Marathi).
- 4) Hall, T., & Barrett, H. (2012). *Urban geography* (4th ed.). Routledge.
- 5) Husain, M. (1995): Models in Geography. Rawat Pub. Jaipur
- 6) Kaplan, D. H., Wheeler, J. O., & Holloway, S. R. (2014). *Urban geography* (3rd ed.). John Wiley & Sons.
- 7) Pacione, M. (2009). *Urban geography: A global perspective* (3rd ed.). Routledge.
- 8) Ramachandran, R. (1989). *Urbanization and urban systems in India*. Oxford University Press.
- 9) Singh L.R. (2009). Fundamentals of Human Geography, Sharda Pustak Bhavan, Allahabad
- 10) Singh, R. Y. (2001). *Geography of settlements*. Rawat Publications.
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Name of the Programme	: B.A.
Class	: T.Y.B.A.
Semester	: V
Name of Vertical Group	: Major Elective
Course Code	: GEO-316-MJE
Course Title	: Climatology
Type of course	: Theory
Total Credits	: 02
Workload	: (15 hours/credit) 2 credits x 15 hours = 30 hours in semester

Objectives of the Course-

1. To introduce students to the composition, physical structure, and fundamental dynamics of the Earth's atmosphere.
2. To examine the processes of solar radiation (insolation), temperature distribution, and the formation of atmospheric pressure belts.

Topic and Learning Points

Topic No.	Topic	Sub topics	No. of Hours
1	Atmosphere	a) Concept of Weather and Climate b) Composition and structure of atmosphere	06
2	Elements of Climate	a) Temperature- Insolation, Horizontal distribution of temperature b) Air Pressure- Concept and air pressure belts c) Wind- Planetary, Jet Stream and Monsoon d) Humidity- Absolute and Relative humidity e) Precipitation- Forms and types of precipitation	14
3	Airmass	a) Airmass b) Types of Airmasses c) Cyclones and anticyclone	10

Course Outcome-

By the end of this course, student will be able to:

CO1: Describe atmospheric layers and composition of the atmosphere.

CO2: Explain how temperature and pressure variations drive global and local wind systems.

References

- 1) Lal D. (1997), Climatology. Shraddha Pustak Bhavan, Allahabad.
- 2) Savindra S. (2022) Climatology, Pravalika Publications, Prayagraj, Uttar Pradesh
- 3) भागवत अ. आणि कार्लेकर, एस. (१९८६), प्राकृतिक भूविज्ञान-, नरेन्द्र प्रकाशन, पुणे.
- 4) केचे के आणि .सवदी ए. (1978), प्राकृतिक भूविज्ञान-, कोहिनूर प्रिंटिंग प्रेस.

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Name of the Programme	: B.A.
Class	: T.Y.B.A.
Semester	: V
Name of Vertical Group	: Major Elective
Course Code	: GEO-317-MJEP
Course Title	: Weather Instruments & Weather Map Reading
Type of course	: Practical
Total Credits	: 02
Workload	: (30 hours/credit) 2 credits x 30 hours = 60 hours in semester

Objectives of the Course-

1. To familiarize the students with the weather instruments and their applications.
2. To acquaint the students with IMD weather maps and to gain the knowledge of weather map interpretation.

Topic and Learning Points

Topic No.	Topic	Sub topics	No. of Hours
1	Weather Instruments (Mechanism, functions, and usages)	a) Measurement of Temperature i) Thermometer ii) Maximum and minimum thermometers iii) Thermograph b) Measurement of humidity i) Dry and Wet bulb thermometer, ii) Hygograph c) Measurement of precipitation i) Rain gauge d) Measurement of air pressure i) Aneroid barometer, ii) Barograph e) Measurement of wind direction and velocity i) Wind vane, ii) Cup anemometer	12
2	Indian Weather Report	a) Introduction to Weather Maps b) Symbols in Daily Weather Report used by Indian Meteorological Department (IMD) c) Isobaric Patterns- Cyclones, Anti cyclones, V shaped, Col	12
3	Indian Weather Report	a) Interpretation of Indian weather Charts (three different seasons) b) One day visit to nearby weather station/IMD	06

Course Outcome-

By the end of this course, student will be able to:

CO 1: Learn important various weather instruments and its use.

CO 2: Interpret the weather maps by understanding weather phenomena.

References

- 1) Monkhouse, F. J. and Wilkinson, H. R. (1964). *Maps and Diagrams*, Methuen and Co. Ltd., London

- 2) Sarkar A., (2015), *Practical Geography: A Systematic Approach*, Orient Black Swan Private Ltd., New Delhi.
- 3) Singh, R.L., (2005). *Elements of Practical Geography*. Kalyani Publishers, New Delhi.
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- 5) अहिरराव, वाय., करंजखेले, इ. के. (२००२). *प्रात्यक्षिक भूगोल*, सुदर्शन पब्लिकेशन, नाशिक.
- 6) कार्लेकर, श्री. आणि शितोळे, तु. (२०२२), *प्रात्यक्षिक भूगोल*, डायमंड पब्लिकेशन्स, पुणे.
- 7) कुंभारे, अ. (१९९५), *प्रात्यक्षिक भूगोल*, सुमेरू प्रकाशन, डोंबिवली.
- 8) शर्मा, जे.पी., (२०१०), *प्रायोगिक भूगोल*, रस्तोगी पब्लिकेशन्स, मीरत.
- 9) सिंग, आर.एल. और दत्ता, पी.के. (२०१२), *प्रयोगात्मक भूगोल*, सेन्ट्रल बुक डेपो, अलाहाबाद.

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Name of the Programme	: B.A.
Class	: T.Y.B.A.
Semester	: V
Name of Vertical Group	: VSC
Course Code	: GEO-322-VSC
Course Title	: Introduction to Remote Sensing & GIS
Type of course	: Theory
Total Credits	: 02
Workload	: (15 hours/credit) 2 credits x 15 hours = 30 hours in semester

Objectives of the Course-

1. To introduce to the students the basic principles of remote sensing.
2. To introduce the methods of visual & digital interpretations of satellite images & Aerial photography.
3. To acquaint with contemporary technology in Geography.

Topic and Learning Points

Topic No.	Topic	Sub topics	No. of Hours
1	Introduction to Remote Sensing	a) Fundamentals of remote sensing- concept, definition, history & development in India b) Electromagnetic Radiation (EMR) and Interaction with atmosphere c) Active and passive remote sensing	4
2	Aerial photography	a) Introduction to Aerial photography i) Types of aerial photographs ii) Geometric characteristics of aerial photographs- Air Base, Fiducial marks, Principal point, Overlap, Side-lap, Crab, Gap, Flying altitude, Tilt, Tip, Photo nadir, relief displacement b) Concept of photogrammetry	8
3	Satellite Remote Sensing	a) Types of platforms, sensors and satellite orbits b) Earth Resource Satellite and Meteorological Satellite- LANDSAT, IRS, INSAT, GOES c) Types of resolution d) Visual image interpretation keys	8
4	Introduction to GIS	a) Definition and Components of GIS b) GIS Data Types i) Spatial and non-spatial ii) Raster and Vector data	10

Course Outcome-

By the end of this course, student will be able to:

CO 1: acquaint the basic concept in remote sensing

CO 2: acquire knowledge of interpretation of satellite and aerial photographs

CO 3: get the elementary knowledge about the mapping the geographical entities.

References-

1. Ahmed, E. L., Rabbany (2002). *Introduction to Global Positioning System*, Artech House, Boston
2. Anji Reddy, M. (2008). *Textbook of Remote Sensing and Geographic Information System*, B.S. Publication, Hyderabad.
3. Bao, J., Tsui, Y. (2005). *Fundamentals of Global Positioning System Receivers*, John Wiley Sons, Inc., Hoboken
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5. Chang, K. T. (2008). *Introduction to Geographic Information Systems*, Avenue of the Americas, McGraw-Hill, New York
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7. Jensen, J. R. (2005). *Introductory Digital Image Processing*, Prentice Hall, New Jersey.
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9. Kresse, W. and Danko, D. (2002). *Springer Handbook of Geographic Information*, Springer Drecht, London
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11. Lo, C. P., Yeung, A. W. (2002). *Concepts Techniques of Geographical Information Systems*, Prentice-Hall of India, New Delhi
12. Panda B.C. (2008). *Remote Sensing, Principals and Application*, Viva books private limited, New Delhi
13. Sabins, F. F. (1996). *Remote Sensing: Principles and Interpretation*, W.H. Freeman and Company, San Francisco.
14. कार्लेकर, एस. (२००६), *दूरसंवेदन*, डायमंड पब्लिकेशन्स, पुणे.
15. कार्लेकर, एस. (२००६), *भौगोलिक माहिती प्रणाली*, डायमंड पब्लिकेशन्स, पुणे.

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Name of the Programme	: B.A.
Class	: T.Y.B.A.
Semester	: V
Name of Vertical Group	: FP
Course Code	: GEO-332-FP
Course Title	: Socio-Economic Field Survey
Type of course	: Practical
Total Credits	: 02
Workload	: (30 hours/credit) 2 credits x 30hours = 60 hours in semester

Objectives of the Course-

1. To make the students research oriented.
2. To acquaint the students with the methods and techniques in Geographical surveys.
3. To enable and encourage the students to undertake independent research or dissertation of a selected area.

Topic and Learning Points

Topic No.	Topic	Sub topics	No. of Practical
1	Introduction of Socio-Economic Survey	a) Concept of socio-economic survey b) Significance of Socio-economic surveys in Geography	2
2	Data and its representation	a) Collection and sources of data- primary and secondary b) Sampling methods- c) Designing a questionnaire, interviewing and observation techniques for collection of households, demographic and socio-economic data d) Data processing, editing, tabulation and representation techniques	3
3	Report Writing	a) Organization of a survey report b) Basic format of report writing	2
4	Field survey	Select and visit village/town/block/watershed/slum/market place/agricultural exhibition/traffic for survey and prepare critical field-survey/socio-economic survey report.	8

By the end of this course, student will be able to:

Course Outcome-

- CO 1:** Students will be able to independently source and classify data, select appropriate sampling methods, and construct testable hypotheses for geographical studies.
- CO 2:** Students will be able to develop a complete research design, which includes defining a problem, creating structured questionnaires, and synthesizing literature surveys.
- CO 3:** Students will be able to author, format, and present well-organized scientific reports and theses, adhering to standard conventions for style, abstracts, and bibliographies.

References-

- 1) Ade N.D., Shelar A.N., Kurade S.S. & Medhekar A.R. (2019). Elementary Statistical Techniques, Nirali Prakashan, Pune
- 2) Basil Gomez and John Paul Jones, (2010): Research Methods in Geography: A Critical Introduction (Critical Introductions to Geography), Wiley-Blackwell.
- 3) Davies Wayne K.D. (ed.), (1972): The Conceptual Revolution in Geography, University of London Press Ltd., London.
- 4) Har Prasad, (1992): Research Methods and Techniques in Geography, Rawat Publications.
- 5) Harvey D., (1973): Explanation in Geography, Edward Arnold, London.
- 6) Iain Hay, (2010): Qualitative Research Methods in Human Geography, Oxford University Press, USA.
- 7) Keith Hoggart, Loretta Lees and Anna Davies, (2002): Researching Human Geography, Oxford University Press, USA.
- 8) Kothari C.R. (1990) Research Methodology- Methods and Techniques, Wishwa Prakashan, New Delhi
- 9) Misra R. P., (1989): Research Methodology: A Handbook, Concept Publishing Company, New Delhi.
- 10) Murthy, K.L. Narasimha (1999): Geographical Research, Concept Publishing company
- 11) Nicholas Clifford, Shaun French and Gill Valentine, (2010): Key Methods in Geography, Sage Publications Ltd.
- 12) Robert Kitchin and Nick Tate, (1999): Conducting Research in Human Geography: theory, methodology and practice, Benjamin Cummings.

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Name of the Programme	: B.A.
Class	: T.Y.B.A.
Semester	: V
Name of Vertical Group	: Minor
Course Code	: GEO-342-MN
Course Title	: Physical Geography of India
Type of course	: Theory
Total Credits	: 02
Workload	: (15 hours/credit) 2 credits x 15hours = 30 hours in semester

Objectives of the Course-

1. To acquaint the students with physical Geography of India.
2. To help the students to understand the drainage system and climatic phenomena.

Topic and Learning Points

Topic No.	Topic	Sub topics	No. of Hours
1	Physical set up of India	a) Geographical location and extent b) Geological setup of India	6
2	Physiography	a) Major physiographic divisions of India i) The Northern Mountains, ii) The North Indian Plains iii) The Peninsular Plateau iv) The Coastal lowlands and Islands	10
3	Drainage system	a) Drainage Systems of India i) East flowing rivers- Ganga, Brahmaputra, Godavari ii) West flowing rivers- Sindhu, Tapi, Narmada	8
4	Climate	a) Various seasons and associated weather b) Mechanism of Indian monsoon. i) Effect of El Nino and La Nina on monsoon	6

Course Outcome-

By the end of this course, student will be able to:

- CO 1:** aware of the magnitude of physiography of India.
CO 2: understand physical characteristics of India.

References-

- 1) Aher A.B., Chaudhari A.P. & Chaudhari A. (2015) *Regional Geography of India*, Prashant Publication, Jalgaon.
- 2) Deshpande C.D. (1992). *India - A Regional Interpretation*, Northern Book Centre, New Delhi.
- 3) Khullar D. R. (2025). *India- A Comprehensive Geography*, Kalayni Publishers, New Delhi
- 4) Musmade A.H., More J.C., (2015), *Geography of India*, Diamond Publications, Pune. (Marathi)
- 5) Shafi, M. (2000), *Geography of South Asia*, McMillan & Co., Calcutta.
- 6) Singh, J. (2003): *India: A Comprehensive Systematic Geography*. Gyanodaya Prakashan, Gorakhpur

- 7) Singh, R.L. (ed.) (1971), *India: A Regional Geography*, National Geographical Society. India, Varanasi.
- 8) Saptarshi, P.G., More, J. C., Ugale, V.R. & Musmade, A.H. (2009), *A Geographical Region of India*, Diamond Publication (Marathi)
- 9) Tiwari, R.C. (2007): *Geography of India*, Prayag Pustak Bhawan, Allahabad.

SEMESTER VI

MES Abasaheb Garware College (Autonomous), Pune

B.A. (Geography) as per NEP 2020

Name of the Programme	:	B.A (Geography)
Class	:	T.Y.B.A.
Semester	:	VI
Name of Vertical Group	:	Major
Course Code	:	GEO-354-MJ
Course Title	:	Tourism Geography-India
Type of course	:	Theory
Total Credits	:	04
Workload	:	(15 hours/credit) 4 credits x 15 hours = 60 hours in semester

Objectives of the Course-

- 1) To introduce the fundamental concepts, nature, and scope of Tourism Geography.
- 2) To examine the physical and cultural geographical factors that influence tourism development.
- 3) To explore the diverse tourism resources, major tourist destinations, and circuits within

Topics and Learning Points

Topic No	Topic	Sub Topic	No. of Hours
1.	Introduction to Tourism Geography	a) Meaning, nature, and scope of Tourism Geography b) Concepts of leisure, recreation, travel, tourist, itinerary c) Typology of tourism: Domestic, international, and mass tourism d) Geography and tourism: The role of location, climate, landscape, and accessibility in shaping tourist flows.	15
2	Tourism Resources and Infrastructure	a) Physical resources: Mountains, coastal regions, islands, national parks, and wildlife sanctuaries b) Cultural resources: Historical monuments, archaeological sites, religious centres, fairs and festivals. c) Role of transport- Air, Rail, Road and Water d) Tourism infrastructure: Accommodation, travel agencies, tour operators, tour guides and local amenities	15
3.	Tourism in India	a) The geographical diversity of India as a foundation for tourism development b) Major physical tourist circuits: Himalayan tourism, desert tourism in Rajasthan, and coastal/beach tourism. c) Major cultural and religious circuits: The Golden Triangle, Buddhist circuit, and prominent pilgrimage destinations. d) Tourism promotion and administration: Role of the Ministry of Tourism, state tourism boards, and campaigns	15
4.	Impacts of tourism and Tourism policies	a) Economic and socio-cultural impacts of tourism b) Environmental impacts: Pollution, resource depletion, carrying capacity, changes in physical landscape. c) Tourism marketing and tourism policies in India	15

		d) National and International co-operation in tourism IATA, PATA, IUOTO, ICAO, TIES, UFTA, TAAI	
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Course Outcome-

By the end of this course, student will be able to:

- CO 1:** Explain the basic concepts, types, and spatial dimensions of tourism geography.
- CO 2:** Identify and analyse the geographical elements that act as an attraction for domestic and international tourism.
- CO 3:** Map and describe the major physical and cultural tourist destinations across India.

References-

- 1) Anand, M. (1976). *Tourism and Hotel Industry in India – Studies in Management*, New Delhi: Prentice Hall, India Pvt. Ltd.
- 2) Bhatia, A.K. (2003). *Tourism Development, Principles and Practices*, New Delhi: Sterling Publishers Pvt., Ltd.
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- 6) Hudman L.E., *Geography of Travel and Tourism*
- 7) Maneet, Kumar., *Tourism Today: An Indian Perspectives*
- 8) Mathieson A. and Wall, C., *Tourism: Economic Physical and Social Impact*, Logman, U.K.
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- 11) Seth P.N., (1985). *Successful Tourism Management*, Sterling Publisher Ltd., New Delhi.
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- 13) Sharma, K.K. (1991) *Tourism in India*, Classic Publishing House, Chaura Rasta, Jaipur,
- 14) Singh, S. N.. (1985). *Geography of Tourism and Recreation*
- 15) Sinha, S. (2012). *Modern Tourism in 21st Century*, Delhi: Randam Publication.
- 16) Smith S.L.J., *Tourism Analysis*
- 17) शिंदे, एस.बी., पर्यटन भूगोल, फडके प्रकाशन, कोल्हापूर.
- 18) सूर्यवंशी, आर., पाटील, एस. आणि पाचारणे, पर्यटन भूगोल, अथर्व प्रकाशन, पुणे.

MES Abasaheb Garware College (Autonomous), Pune

B.A. (Geography) as per NEP 2020

Name of the Programme	:	B.A (Geography)
Class	:	T.Y.B.A.
Semester	:	VI
Name of Vertical Group	:	Major
Course Code	:	GEO-355-MJP
Course Title	:	Practicals in Statistical Geography
Type of course	:	Practical
Total Credits	:	04
Workload	:	(30 hours/credit) 4 credits x 30 hours = 120 hours in semester

Objectives of the Course-

1. To introduce the student with basic statistical techniques in geography and its applications.
2. To train the students in elementary statistics as an essential part of geography.

Topics and Learning Points

Topic No	Topic Name	Sub Topic	No. of Practical
1	Geographical data & Frequency distribution	1) Types of Data- a) Spatial and Temporal data b) Discrete and Continuous series c) Grouped and Ungrouped data 2) Frequency Distribution- a) Tally marks and frequency table b) Histogram, Frequency polygon and Frequency curve c) Cumulative frequency and Ogive curves	8
2	Measures of Central tendency	a) Meaning and description of central tendencies- Mean, Mode, Median b) Calculation of Mean, Mode, Median for ungrouped and grouped data (two examples each)	4
3	Measures of dispersion	a) Mean deviation, Variance and Standard deviation for ungrouped and grouped data (two examples each)	4
4	Testing of hypothesis	a) Meaning and definition i) Null and Alternative hypothesis ii) Level of significance (Rejection level) iii) Degrees of freedom iv) Parametric and non-parametric tests b) Application of Tests i) Chi-square test (One-sample case only)	4

5	Correlation and Regression	a) Concept of bivariate correlation and regression b) Meaning of coefficient of correlation c) Calculation of Pearson's Product-Method Correlation Coefficient (Two examples) d) Calculation of Spearman Rank order Coefficient (Two examples) e) Calculation, plotting and interpretation of simple regression equation (two examples).	4
6	Field Excursion /Village Survey Report	One short tour of two days duration or one long tour of more than five days duration anywhere in the country and preparation of tour report/Village survey and preparation of report	6

Course Outcome-

By the end of this course, student will be able to:

CO 1: Students will be able to understand the basic concept of Statistical Geography.

CO 2: Students will understand the inter relationship between the subject and the society.

Note-

1. Use of Map stencils, log tables, calculator, computer, statistical tables are allowed at the time of Examination.
2. Journal should be completed and duly certified by practical In-charge and Head of the department.
3. Candidate should not be allowed for examination without certified journal and study tour/village report
4. Each of the practical batches needs a separate question paper.

Workload- Eight periods (2 practical's) per week of per batch consisting 12 students. Last batch should have more than six students.

References-

- 1) Ade N.D., Shelar A.N., Kurade S.S. & Medhekar A.R. (2019). Elementary Statistical Techniques, Nirali Prakashan, Pune
- 2) Alvi Z, (1995), Statistical Geography- Methods and Application Rawat publications, Jaipur
- 3) Elhance D, Elhance V & Aggarwal B (2008), Fundamentals of Statistics, Kitab Mahal,
- 4) Saptarshi P.G. and Jog S.R. (1991) Statistical Methods (Marathi).
- 5) Singh, G., (2005). Map Work and Practical Geography, Vikas Publishing House Pvt. Ltd., New Delhi.
- 6) Singh, L.R. and Singh, R., (1973). Map Work and Practical Geography, Central Book Depot, Allahabad.
- 7) Singh, R.L., (2005). Elements of Practical Geography. Kalyani Publishers, New Delhi.
- 8) Singh, R.L., and Dutt, P.K., (1968). Elements of Practical Geography, Students' Friends, Allahabad.
- 9) अहिराव, वाय., करंजखेले, इ. के. (२००२). प्रात्याक्षिक भूगोल, सुदर्शन पब्लिकेशन्स, नाशिक.
- 10) कार्लेकर, श्री. आणि शितोळे, तु. (२०२२), प्रात्याक्षिक भूगोल, डायमंड पब्लिकेशन्स, पुणे.
- 11) कुंभारे, अ. (१९९५), प्रात्याक्षिक भूगोल, सुमेरू प्रकाशन, डोंबिवली.

MES Abasaheb Garware College (Autonomous), Pune

B.A. (Geography) as per NEP 2020

Name of the Programme	:	B.A (Geography)
Class	:	T.Y.B.A.
Semester	:	VI
Name of Vertical Group	:	Major
Course Code	:	GEO-356-MJ
Course Title	:	Regional Development and Planning
Type of course	:	Theory
Total Credits	:	04
Workload	:	(15 hours/credit) 4 credits x 15 hours = 60 hours in semester

Objectives of the Course-

- 1) To understand the concept of region in geography.
- 2) To identify the issues relating to the development of the region.
- 3) To identify the causes of regional disparities in development, and policies.

Topics and Learning Points

Topic No	Topic Name	Sub Topic	No. of Hours
1.	Introduction to Region	a) Region- concept and types of regions- formal and functional region b) Need and significance of regional planning c) Techniques of delineation of regions	12
2	Geography and Regional Planning	a) Definition, content, Scope, Geography and regional planning b) Types and hierarchy of planning- Multilevel planning, State, District and Block level planning c) Need and relevance of micro, meso & macro planning	15
3	Regional development	a) Concept of development b) Indicators of development c) Theories of development- Rostow's model, Growth pole model, Myrdal's theory of cumulative causation	15
4	Development Planning in India	a) Regional imbalances and inequalities in India: Causes, effects and prospect b) Five-Year plans in India, history and objectives c) Special Area Development Programmes: Policy and Implementation- Hill areas, DPAP, IADP, WGDP, Command areas and River basins	18

Course Outcome-

By the end of this course, student will be able to:

CO 1: Students will understand the inter relationship between the human and environment.

CO 2: Students will be able to understand environmental challenges.

References-

- 1) Bhat, L.S., (1976). *Micro-Level Planning: A Case Study of Karnal Area, Haryana*, K.B. Publications, New Delhi.
- 2) Bhat, L.S., (1973). *Regional Planning in India*, Statistical Publishing Society, Calcutta.
- 3) Chand, Mahesh and Puri, Vinay Kumar., (1983). *Regional Planning in India*, Allied Publishers Pvt. Ltd., New Delhi.
- 4) Chandana, R.C. (2000). *Regional Planning – A Comprehensive Text*, Kalyani Publishers, Ludhiana.
- 5) Gosal, G.S. and Krishan, G., (1984). *Regional Disparities in Levels of Socio-Economic Development in Punjab*, Vishal Publications, Kurukshetra.
- 6) Government of India, (1961). Planning Commission: Third Five Year Plan, Chapter on Regional Imbalances in Development, New Delhi.
- 7) Kundu, A. and Raza, Moonis., (1982). *Indian Economy- The Regional Dimension*, Spectrum Publishers, New Delhi.
- 8) Misra, R.P. and Others (eds.) (1974). *Regional Development Planning in India-A Strategy*, Institute of Development Studies, Mysore.
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- 10) Raza Moonis (ed.) (1988). *Regional Development*, Heritage Publishers Delhi.
- 11) Sundaram, K.V. (ed.) (1985). *Geography and Planning, Essays in Honour of V.L.S. Prakasa Rao*, Concept Publishing Co., New Delhi.

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B.A. (Geography) as per NEP 2020

Name of the Programme	:	B.A (Geography)
Class	:	T.Y.B.A.
Semester	:	VI
Name of Vertical Group	:	Major Elective
Course Code	:	GEO-366-MJE
Course Title	:	Geography of Soils
Type of course	:	Theory
Total Credits	:	02
Workload	:	(15 hours/credit) 2 credits x 15 hours = 30 hours in semester

Objectives of the Course-

1. To understand the concepts and process of soil formation.
2. To introduce students physical and chemical properties of Soils and its significance for the plant growth.

Topics and Learning Points

Topic No	Topic Name	Sub Topic	No. of Hours
1	Introduction to Soil Geography	a) Nature and scope of soil geography, significance of soil studies b) Soil as a natural body- pedological and edaphological concepts of soil. c) Weathering and Pedogenesis	8
2	Factors of soil formation and soil formation process	a) Factors responsible for soil formation- i. Parent rock ii. topography/ relief iii. Climate (Precipitation and temperature) iv. living organisms (plant, animals, and microorganism) v. time b) Process of soil formation- weathering and Pedogenesis process	10
3.	Soil horizons and properties of soil	a) Soil profile: Definition and horizons- fundamental processes affecting soil profile differentiation, Leaching, Podzolization, Laterization, Salinization, Alkalization b) Physical properties of Soil: soil-texture, porosity, and soil color c) Soil pH	12

Course Outcome-

By the end of this course, student will be able to:

CO 1: be acquainted with origin and soil forming processes.

CO 2: understand the importance and significance of soil forming processes.

References-

- 1) Biswas, T.D., and Mukherjee, S.K. (1987). Textbook of soil science. New York: McGraw Hill.

- 2) Bridges, E. M., & Davidson, D. A. (1982). Principles and Applications of Soil Geography. London: Longman Group.
- 3) Daji, J. A. (1970). A Textbook of Soil Science. New York: Asia Publication House.
- 4) De, N.K. and Sarkar, H.K. (1993): Soil Geography, Sribhumi Publishing Company, Calcutta.
- 5) Pitty, A. F. (1978). Geography and Soil Properties, London: Methuen and Co.

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B.A. (Geography) as per NEP 2020

Name of the Programme	:	B.A (Geography)
Class	:	T.Y.B.A.
Semester	:	VI
Name of Vertical Group	:	Major Elective
Course Code	:	GEO-367-MJEP
Course Title	:	Practicals in Geoinformatics
Type of course	:	Practical
Total Credits	:	02
Workload	:	(15 hours/credit) 2 credits x 30 hours = 60 hours in semester

Objectives of the Course-

1. To acquaint with contemporary spatial technology in Geography.
2. To acquaint the students with computer cartography.

Topics and Learning Points

Topic No	Topic Name	Sub Topic	No. of Practical
1	Introduction to Geoinformatics	a. Overview of remote sensing, GIS, and GPS technology b. Open-source GIS: basic concepts, introduction to open-source software c. Introduction and interface of the software- QGIS, Global Mapper and Arc GIS, d. Introduction to Google Earth Engine	03
2	Processing of Vector and Raster data	a. Georeferencing of map, Coordinate systems, datum conversions, map projections, types, storing-viewing projection information b. Working with vector data - generation of vector layers (Point, Line and Polygon), vector analysis, spatial and attribute queries c. Working with raster data – Basic symbology, terrain analysis, raster analysis	06
3	Digitization	a. Basic elements of digitization- Geo-referencing of scanned raster image, generation of various thematic data b. Digitization of minimum 3 layers (vectorization), attribute data linking, labelling features and map creation.	06

Course Outcome-

By the end of this course, student will be able to:

CO 1: understand the applications of remote sensing technology and computer cartography.

CO 2: get the elementary knowledge about the mapping the geographical entities.

References-

1. Ahmed, E. L., Rabbany (2002). Introduction to Global Positioning System, Artech House, Boston
2. Bao, J., Tsui, Y. (2005). Fundamentals of Global Positioning System Receivers, John Wiley Sons, Inc., Hoboken
3. Chang, K. T. (2008). Introduction to Geographic Information Systems, Avenue of the Americas, McGraw-Hill, New York
4. Environmental Systems Research Institute, Inc. (1998). Understanding GIS: The ARC/INFO Method, ESRI Press, Redland
5. Joseph, G. (2004). Fundamentals of Remote Sensing, Universities Press, Hyderabad, India
6. Kresse, W. and Danko, D. (2002). Springer Handbook of Geographic Information, Springer Drecht, London
7. Lillesand, T. M., Kiefer, R. W. and Chipman, J. W. (2008). Remote Sensing and Image Interpretation, John Wiley & Sons, New Delhi
8. Lo, C. P., Yeung, A. W. (2002). Concepts Techniques of Geographical Information Systems, Prentice Hall of India, New Delhi

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B.A. (Geography) as per NEP 2020

Name of the Programme	:	B.A (Geography)
Class	:	T.Y.B.A.
Semester	:	VI
Name of Vertical Group	:	VSC
Course Code	:	GEO-371-VSC
Course Title	:	Land Surveying
Type of course	:	Practical
Total Credits	:	02
Workload	:	(30 hours/credit) 2 credits x 30 hours = 60 hours in semester

Objectives of the Course-

1. To understand basic measurement techniques in land surveying.
2. To acquaint the students with idea of emerging surveying technology.

Topics and Learning Points

Topic No	Topic Name	Sub Topic	No. of Practical
1	Measurement of Land	a) Introduction and history of land surveying: i) Units of land measurement ii) Measurement of an area- circle, square, rectangle, triangle, uneven shape iii) Conversion of area- hector to acer, square km to square meter, square meter to square feet iv) Calculation of land parcel on ground and Google earth	04
2	Surveying	a) Plane & Geodetic surveying b) Triangulation point, Bench mark, Temporary bench mark, Spot heights, reduced levels, interpolation and contouring	03
3	Transit Theodolite	The instruments and its use- a) Various components and least count of instrument b) Methods of surveying- c) Preparation of at least two contour maps using- i) Intersection method ii) Tacheometry method	06
4	DGPS and Drone	a) Introduction to Differential Global Positioning System (DGPS) b) Introduction, types, classifications and significance of drone surveying	02

Course Outcome

By the end of this course, student will be able to:

CO 1: Understand the land measurement and surveying techniques.

CO 2: Acquaint with the idea of advances in surveying.

References

- 1) Davis R. E., & Foote F. S. (1940). Surveying-theory and practice. McGraw-Hill Book Co., NewYork
- 2) Deshpande G. B. (1991). Surveying. Everest Publishing House,Pune.
- 3) Kanetakar T.P. & Kulkarni S.V. (1986). Surveying & Leveling, Pune Vidyarthi Griha Prakashan, Pune
- 4) Singh & Kanauj Map work and Practical Geography
- 5) Singh, L.R. and Singh, R., 1973. Map Work and Practical Geography, Central Book Depot, Allahabad.
- 6) Singh, R.L., 2005. Elements of Practical Geography. Kalyani Publishers, New Delhi.
- 7) Singh, R.L., and Dutt, P.K., 1968. Elements of Practical Geography, Students' Friends, Allahabad.
- 8) V.Natrajan P., Adler ron K. Advanced Surveying, B.I. Publications, Bombay

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B.A. (Geography) as per NEP 2020

Name of the Programme	:	B.A (Geography)
Class	:	T.Y.B.A.
Semester	:	VI
Name of Vertical Group	:	OJT
Course Code	:	GEO-381-OJT
Course Title	:	On Job Training
Type of course	:	Practical
Total Credits	:	04
Workload	:	(30 hours/credit) 4 credits x 30 hours = 120 hours in semester

Objectives of the Course-

1. To provide the students on job training (internship) in any organization.
2. To understand nature and different job procedures of job in organizations/industries.

Course Outcome-

By the end of this course, student will be able to:

- CO 1: Understand theoretical classrooms understanding with practical experience in the field.
CO 2: Demonstrate the applied practical skills required in the field of geography.

Structure of OJT-

1. Students should complete the 120-hour OJT with any Organisation/ Industry, NGO, Rehabilitation centres, old age Homes, special and regular schools, wellbeing centres, etc.
2. This will be like an internship where the student will have active participation in the work of the organisation in the form of volunteering, helping to run routine activities for the organisation.
3. Apart from this, students are encouraged to apply applied knowledge of geography during internship (if applicable).
4. The student must maintain a notebook of the work done, and signature of higher authority will be taken at the end of the OJT.
5. At the end of the OJT, student must obtain the completion certificate stating that the student has completed the 60-hour internship with that Organization.
6. The student must submit a report of the work done for the final assessment.

The report must contain: -

- a. Basic information of the organization
- b. Goal of internship
- c. Attaching the notebook and summary of work done
- d. Discussion and outcomes – students' learning out of the internship.
- e. Conclusion
- f. References

General Instructions:

1. Each batch of OJT will consist of maximum 12 students.
2. A separate batch will be formed if this number exceeds even by one.
3. Workload for each batch will be equivalent to 8 lecture periods.
4. Students are instructed to maintain a notebook for this course and obtain the completion certificate from the Agency Supervisor, Teacher in-charge and certified by H.O.D. Without this certificate, the students will not be allowed to appear for the Internal and external Examination as per the rules of credit system and National Education Policy (NEP) 2020.
