Progressive Education Society's

Modern College of Arts, Science and Commerce (Autonomous), Shivajinagar, Pune 05

S.Y.B.Sc. Geography NEP 2023 Pattern

Syllabus

To be implemented from Academic Year 2024-25

Semester	Paper	Subject code	Title of Paper	No. of credits
Semester III				
S.Y.B.Sc. Sem III	Minor (Paper II) (Theory + Practical)	23ScGeoU3301	Fundamentals of Geomorphology (T + P)	4
	OE	23ScGeoU3401	Geography of Tourism I	2
Semester IV				
S.Y.B.Sc. Sem IV	Minor (Paper III) Practical	23ScGeoU4301	Fundamentals of Climatology (T + P)	4
	OE	23ScGeoU4401	Geography of Tourism II	2

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Modern College of Arts, Science and Commerce (Autonomous), Shivajinagar, Pune 05

Second Year B.Sc. Geography

(2023 course under NEP 2020)

Course Code: 23ScGeoU3301

Section-I (Theory)

Title of the Course: Fundamentals of Geomorphology (T+P)

Credits: 02 **Total Lectures: 30**

Exam scheme: CIA-20 Marks **ESE-30marks**

Course Objectives:

1. To study the basic concepts in Geomorphology.
2. To learn the utility and applications of Geomorphology in different areas and environment.
3. To understand the dynamic nature of the Earth's surface, various processes, and landforms.

	Semester – III	Lectures
Unit 1	**Introduction to Geomorphology**	**07**
	A. Definition, Nature and Scope B. Geological time scale and Geological Evolution of Earth C. Applied Geomorphology	
Unit 2	**Interior of the Earth**	**06**
	A. Composition & Structure B. Theory of Isostacy C. Wegener's Continental Drift Theory D. Crustal movements: Folding and faulting and their types	
Unit 3	**Plate Tectonics**	**07**
	A. Theory of Plate tectonics B. Plates, Plate boundaries and associated landforms C. Earthquakes and Volcanism, their types, causes and effects	
Unit 4	**Geomorphic Processes**	**10**
	A. Rocks: Meanings, differences and classification of rocks B. Weathering: Definition and types C. Mass movement: Meaning and types	

Course Outcomes:

Students will be able to:

1. Define the field of Geomorphology and its essential principles.
2. Get acquainted with geological time scale and familiarize themselves with the applicability of geomorphologic knowledge.
3. Understand the functioning of Earth systems in real time and analyze the mechanisms that control these processes.
4. Assess the roles of structure, stage and time in shaping the landforms.

5. Analyze the importance of plate movements and landforms formed due to it.
6. Classify the rocks on the basis of origin and minerals.
7. Relate the mass movement process and landforms formed by it,

Reference Books:

1. Conserva, H. T. (2004). *Illustrated Dictionary of Physical Geography*, Author House, USA.
2. Christopherson, R.W. 2000, Geo-systems, Prentice Hall, INC, USA.
3. Gabler, R.E., Petersen, J.F.& Trapasso, L.M. (2006). *Essentials of Physical Geography* (8th Edition), Brooks/Cole Pub. Co., USA.
4. Garrette, N., 2000: Advance Geography, Oxford University Press.
5. Goudie, A., 1984: The Nature of Environment: An Advanced Physical Geography, Basil Blackwell Publishers, Oxford.
6. Hamblin, W. K. 1989. The Earth's Dynamic Systems, Macmillan Publishing Company, New Yark.
7. Husain, M. (2001). *Fundamentals of Physical Geography*, Rawat Publication, Jaipur.
8. Kale, V. S., & Gupta, A. (2010). *Introduction to Geomorphology*. Universities Press. Hyderabad.
9. Monkhouse, F.J. (1996). *Principles of Physical Geography*, Hodder and Stoughton, London.
10. Robinson, H. (1969). *Morphology and Landscape*, University Tutorial Press Ltd, London.
11. Siddhartha, K. (2001). *The Earth's Dynamic Surface*, Kisalaya Publications Pvt. Ltd, NewDelhi.
12. Strahler, A. A., & Strahler, A. N., 2002: *Physical Geography*: Science and Systems of the Human Environment, John Wiley and Sons, New Yark.

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S. Y. B. Sc Geography

(2023 course under NEP 2020)

Course Code: 23ScGeoU3301

Section-II (Practical)

Title of the Course: Lab course on Geomorphology

Credits: 02 **Total Practical: 15**

Exam scheme: CIE-20 Marks **ESE-30 marks**

Exam scheme: CIE-20 Marks **ESE-30marks**

Note:

1. Each practical batch should not have more than 12 students.
2. A separate question paper should be set for each batch.
3. Four hours of one practical should be allotted.

Course objectives:

1. To acquaint the students with the role of geomorphic techniques in geography as the scientific method for understanding landforms.
2. To introduce the student with the study of linear aspects of profile analysis.
3. To apply geomorphic techniques to produce new insight in geomorphology.

	Semester – III	No. of Practical
Unit 1	**Measurement and Conversion of area**	**02**
	A. Example on measurement of area (Circle, Square, Rectangle, Triangle, Uneven shape: area by Grid Square Method) B. Conversion of area (hector into Acer, Square km into square meter)	
Unit 2	**Gradient and Profile**	**05**
	A. Introduction to Gradient, Methods of representing gradient (By fraction, percentage and degrees) B. Introduction to Profile i. Cross Profile: Drawing and description of a regional cross profile with proper vertical exaggeration ii. Longitudinal Profile: Drawing and description of longitudinal profile of a river	
Unit 3	**Drainage Basin and Drainage network analysis**	**06**
	A. Introduction to watershed/drainage basin, types of drainage pattern B. Delineation of Watershed/Drainage basin i. 3rd to 5th order basin delineation from Toposheet C. Measurement of basin perimeter, shape and area	

	D. Linear aspects of profile analysis i. Stream ordering and Numbering using Strahler's method ii. Calculation of drainage density, stream frequency and bifurcation ratio iii. Measurement and calculation of Stream length, Stream length ratio	
Unit 4	**Excursion/Field visit-report writing**	**02**
	A. Visit to any geographically significant location anywhere in the ntry for all the students together B. Location Mapping using GPS	

Learning outcomes:

By the completion of the course, students will be able to

1. Acquire the skills of measuring the area and its conversion into various units
2. Learn the various methods of gradient representation
3. draw, interpret and compare the cross and longitudinal profile
4. Get conceptual Understanding of watershed/ drainage basin and drainage network
5. Learn the techniques of watershed delineation, stream ordering and GPS mapping
6. Measure various parameters of drainage basin such as perimeter, area, stream length, drainage density etc.

Note:

- Use of map stencils, log tables, statistical tables and calculators are allowed at the time of examination.
- Completion of journal and certification by Practical-in-charge and Head of the Department is must.
- Candidate without certified journal should not be allowed for the practical examination.

Reference Books:

1. Aackombe, R. V. and Gardiner, V. (1983): Geomorphological Field Manual

2. Chorley, R. J., Schumm, S. A. and Sugden, D.E. (1984): Geomorphology, Methuen, London

3. Goudie, A. (1990): Geomorphological Techniques, Unwin Hyman, London

4. Hart, M. G. (1986): Geomorphology, Pune and Applied George Allen and Unwin

5. Kale, V. S. and Gupta, A. (2001): Introduction to Geomorphology, Orient Longman, Calcutta

6. King, C.A.M. (1966): Techniques in Geomorphology, Edward Arnold, London6

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S.Y.B.Sc. Geography

(2023 Course under NEP-2020)

Course Code: 235cGeoU3401

Title of the Course: Geography of Tourism-1

Credits: 02 **Total Lectures: 30**

Exam scheme: CIE-20 Marks **ESE-30 marks**

Objectives:

1) To introduce the students with the different aspects of Tourism Geography
2) To acquaint the student with basic concepts, significance and classification of Tourism
3) To aware the students with the utility and application of Tourism

	Semester III	**Lectures**
Unit 1	**Introduction to tourism geography**	**10**
	A. Definition of Tourism Geography, Tourists and Tourism B. Nature of Tourism Geography: Uniqueness, Diversity, Recreational, Dynamic, Interdisciplinary, Non-Productive, Seasonal C. Scope of Tourism Geography i. Tourism as a Basic Need of Mankind ii. Tourism and Transportation iii. Natural environment and Tourism iv. Culture and Tourism v. Religion and tourism D. Importance of Tourism	
Unit 2	**Concepts in Tourism**	**10**
	A. **Basic concepts in Tourism:** Geo-Tourism, Agro-Tourism, Heritage Tourism, Adventure Tourism, Religious Tourism, Health Tourism, Sport Tourism, Eco-tourism	
Unit 3	**Classification in Tourism**	**10**
	Classification Based on: A. **Nationality:** International and National B. **Travel Time:** Long Haul and Short Haul C. **Travel Distance:** Global, National, Regional and Local D. **Number of Tourists:** Groups, Family Members and Individual E. **Purpose:** Religious, Recreation, Heritage, Adventure, Nature, Health, Sports	

Learning Outcomes:

Students will able to

1. Define the field of tourism geography, tourist and tourism
2. Gain the knowledge of nature, and scope of Tourism Geography
3. Understand the basic concepts, and significance of tourism
4. Learn the various classification of tourism
5. Analyze the significance and the influence of Geography on tourism

Reference Books:

1. Bhatia, A. K. (Ed.). (2002). Tourism Development: Principles and Practices. Sterling Publisher Ltd.
2. Das, M. (1983). India: A Tourist Paradise, Facet Books International
3. Dixit, N. K. (2010). Tourism Geography. Vista International Publication Delhi.
4. Gitanjali, & Chaudhary, G. P. R. (2010). Tourism Geography. Centurian Press.
5. Gupta, V. K. (2013). Tourism of India,
6. Hudman, L. E. (2003). Geography of Travel and Tourism.
7. Kaul, R. N. (Ed.). (1985). Dynamics of Tourism. Sterling Publisher Ltd.
8. Kumar, M. (1952). Tourism Today: An Indian Perspective.
9. Mathiseson, A., & Wall, C. (1982), Tourism: Economic, Physical, and Social Impact. Logman.
10. Pearce, D. (1987). Tourism Today: A Geographical Analysis.
11. Robinson, H. (1996). A Geography of Tourism.
12. Seth, P. N. (1985). Successful Tourism Management. Sterling Publisher Ltd.
13. Sharma, A. (2008). Tourism Development. RBSA Publishers.
14. Singh, S. N. (1985). Geography of Tourism and Recreation.
15. Smith, S. L. J. (1989). Tourism Analysis, Longman and New York.
16. Suryawanshi, R. (2012). Assessment of Potentials for Eco-tourism. Lambart Publication.
17. Thakur, M. T. (2008). Ecotourism and Sustainable Tourism. Omega Publication

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Second Year B.Sc. Geography (2023 Course under NEP-2020)

Course Code:- 235cGeoU4301

Section-I (Theory)

Title of the Course: Introduction to Climatology

Credits: 02 **Total Lectures: 30**

Exam scheme: CIE-20 Marks **ESE-30 marks**

Course Objectives:

1. To Study the basic concepts in Climatology.
2. To learn the applications of Climatology in different areas and environment.
3. To understand the dynamic nature of the Earth's atmosphere, various processes, and associated phenomena.

	Semester-IV	Lectures
Unit 1	**Introduction to Climatology**	**5**
	A. Definition, Nature and Scope B. Weather and Climate, elements of weather and climate C. Applied Geomorphology	
Unit 2	**Earth's Atmosphere and Insolation**	**8**
	A. Evolution of atmosphere B. Structure and Composition C. Ionosphere and Ozone issue	
Unit 3	**Insolation**	**8**
	A. Definition and mechanisms of heat transfer: conduction, convection and radiation B. Heat budget of the Earth C. Factors affecting on horizontal distribution of temperature D. Vertical distribution of temperature- lapse rate and inversion of temperature	
Unit 4	**Atmospheric Pressure and Wind System**	**9**
	A. Pressure measurement and distribution B. Pressure Belts C. Vertical and horizontal distribution of pressure D. Factors affecting Wind E. Types of Winds: Planetary, Seasonal, Local Winds, etc	

Course Outcomes:

Students will be able to

1. Define the field of Climatology and its essential principles.
2. Distinguish between weather and climate familiarize themselves with the applicability of climatological knowledge.
3. Understand the functioning of atmospheric systems in real time and analyze the mechanisms that control these processes.
4. Critically analyze the role of ionosphere and ozonosphere for the survival of life on earth.
5. Perceive the mechanism of heat transfer and factors affecting horizontal and vertical distribution of temperature.
6. Analyze the role of atmospheric pressure belts in the pattern of wind movement.
7. Distinguish between different types of winds.

Reference Books:

1. Conserva H.T., 2004. Illustrated dictionary of Physical Geography, Author House, USA.
2. Critchfield, H.J., 1997. General Climatology, Prentice Hall of India Pvt. Ltd, New Delhi. Dasgupta, A. and Kapoor, A.N., Principles of Physical Geography. Grald, S., General Oceanography.
3. Gabler R.E., Petersen J.F. and Trapasso L.M., 2007. Essentials of Physical Geography (8th edition), Thompson, Brooks/Cole, USA.
4. Garrett N. 2000. Advanced Geography, Oxford University Press.
5. Goudie A., 1984. The nature of the enviromnentl: an advanced physical geography, Basil Blackwell Publishers, Oxford.
6. Hamblin W.K., 1995. Earth's Dynamic System, Prentice Hall, N J.
7. Hussain M., 2002. Fundamentals of Physical Geography, Ravat Publication, Jaipur.
8. Lutgens, F.K. and Tarbuck, E.J., 2007. The Atmosphere, Pearson Prentice Hall, New Jersey.
   Pirie, R.G., Oceanography (Contemporary).
9. Monkhouse F.J. 2009. Principals of Physical Geography, Platinum Publishers, Kolkatta.
10. Singh S., 2005. Climatology, Prayag Pustak Bhawan, Allahabad.
11. Strahler, A.A. and Strahler, A. N., 2002. Physical Geography: Science and Systems of the Human Environment, John Wiley and Sons, INC.
12. Strahler, A.H. and Strahler, A. N., 1992. Modern Physical Geography, John Wiley and Sons, INC.
13. Strahler A.N., Strahler A.H. 2008. Mpdern Physical Geography. John Wiley and Sons, New York.
14. Trewartha G. T., 1980. An Introduction to Climate, McGraw Hill Company, New York.

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S. Y. B. Sc Geography

(2023 course under NEP 2020)

Course Code: 23ScGeoU4301

Section-II (Practical)

Title of the Course: Lab Course on Climatology

Credits: 02 **Total Practical: 15**

Exam scheme: CIE-20 Marks **ESE-30 marks**

Note:

1. Each practical batch should not have more than 12 students.
2. A separate question paper should be set for each batch.
3. Four hours of one practical should be allotted.

Course objectives:

1. To acquaint the students with scientific method of understanding the weather and climatic elements.
2. To introduce the student with the study of mechanism, functions and usages of different weather instruments.
3. To enhance the understanding related to of various climatic diagrams and the concept of weather maps and associated sign and symbols.

	Semester-IV	**No. of Practical**
Unit 1	**Measurements of Weather Elements**	**05**
	A. Scientific notation & the metric system of unit B. Calculation of temperature conversions in Fahrenheit, Celsius, and Kelvin scales C. Calculation of relative humidity. D. Calculation of temperature lapse rate and drawing of temperature profile.	
Unit 2	**Weather Instruments**	**04**
	(Mechanism, Functions and Usages) A. Maximum and Minimum Thermometer B. Aneroid Barometer C. Rain Gauge D. Wind Vane and Cup Anemometer	
Unit 3	**Climatic Diagrams**	**02**
	A. Preparation of climatic diagrams i. Climatograph, ii. Simple Windrose	
Unit 4	**Weather Map**	**04**
	A. Introduction to weather maps. B. Drawing of isobaric patterns and associated weather-cyclone, anticyclone, ridge, trough, wedge, secondary depression, col. C. Meteorological Department (IMD) weather sign and symbols D. One day visit to nearby weather station of IMD	

Learning outcomes:

By the completion of the course, students will be able to

1. Understand the Scientific notation & learn conversion of temperature scale.
2. Acquire the skills of measurement of air temperature and relative humidity
3. Acquainted with the mechanism, function and uses of weather instruments
4. Learn the skill of diagrammatic representing climatic data
5. Get familiarize with the weather maps and its applicability.

Reference Books:

1) Singh, G., 2005. Map work and practical geography. Vikas Publishing House Pvt. Ltd., New Delhi.
2) Monkhouse, F.J. and Wilkinson, H.R., 1971. Maps and Diagrams. Methuen and Co. Ltd., London. UK
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 Dutt, P.K., 1968. Elements of Practical Geography, Students' Friends, Allahabad.
6) Various websites of internet.

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S.Y.B.Sc. Geography

(2023 Course under NEP-2020)

Course Code: 23ScGeoU4401

Title of the Course: Geography of Tourism-II

No. of Credits: 02 **Total Lectures: 30**

Exam scheme: CIE-20 Marks **ESE-30 marks**

Objectives:

1) To familiarize the students with those aspects of tourism which have a relation with the subject matter of Geography
2) To introduce the students with the principles of Tourism development
3) To acquaint the students with the role of infrastructure and accommodations in tourism development
4) To orient the students to the logistics of tourism industry and the role of tourism in regional development.
5) To aware the students with the utility and application of Tourism

	Semester IV	Lectures
Unit 1	**Determinants of Tourism Development**	**10**
	A. Physical: Relief, Climate and Forest B. Socio-Cultural: Religious, Historical and Sports C. Political: Policies, Safety of Tourists and Accessibility	
Unit 2	**Role of Infrastructure in Tourism Development**	**10**
	A. **Mode of Transportation:** Road, Railways, Waterways and Airways B. **Communication:** i. Role of Guide in tourism development ii. Internet/Telephone/Mobile/TV iii. Electronic and Printing Media C. Travel and Tourism Agencies	
Unit 3	**Accommodation**	**10**
	A. Private: Hotels, motels, Inn B. Govt. accommodation: Tourist home, Guest House, Rest house, Youth Hostel, Tents, Caravans and Bed & Breakfast C. Rail Yatri bhavan D. House boats E. Dharamshala	

Learning Outcomes:

Students will able to

1. Identify the various factors affecting the Tourism development.
2. Understand the significance of various mode of transportation in the growth of tourism.
3. Analyze the role of guide, travel and tourism agencies in tourism development
4. Explain the various types and characteristics of accommodation in tourism sector
5. Evaluate the role of communication and marketing strategies in tourism promotions at local, regional and national level.

Reference Books:

1. Bhatia, A. K. (Ed.). (2002). Tourism Development: Principles and Practices. Sterling Publisher Ltd.
2. Das, M. (1983). India: A Tourist Paradise, Facet Books International
3. Dixit, N. K. (2010). Tourism Geography. Vista International Publication Delhi.
4. Gitanjali, & Chaudhary, G. P. R. (2010). Tourism Geography. Centurian Press.
5. Gupta, V. K. (2013). Tourism of India.
6. Hudman, L. E. (2003). Geography of Travel and Tourism.
7. Kaul, R. N. (Ed.). (1985). Dynamics of Tourism. Sterling Publisher Ltd.
8. Kumar, M. (1952). Tourism Today: An Indian Perspective.
9. Mathiseson, A., & Wall, C. (1982). Tourism: Economic, Physical, and Social Impact. Logman.
10. Pearce, D. (1987). Tourism Today: A Geographical Analysis.
11. Robinson, H. (1996). A Geography of Tourism.
12. Seth, P. N. (1985). Successful Tourism Management. Sterling Publisher Ltd.
13. Sharma, A. (2008). Tourism Development. RBSA Publishers.
14. Singh, S. N. (1985). Geography of Tourism and Recreation.
15. Smith, S. L. J. (1989). Tourism Analysis, Longman and New York.
16. Suryawanshi, R. (2012). Assessment of Potentials for Eco-tourism. Lambart Publication.
17. Thakur, M. T. (2008). Ecotourism and Sustainable Tourism. Omega Publications.