



Tuljaram Chaturchand College, Baramati

Autonomous College

Three years degree programme in Geography
(Faculty of Science and Technology)

Revised Syllabus for

S.Y.B.A. Geography Sem. III

For Tuljaram Chaturchand College, Baramati

Choice Based Credit System Syllabus

To be implemented from Academic Year 2019-2020

T. C. College, Baramati

Choice Based Credit System Syllabus**To be implemented from Academic Year 2020-2021****S. Y. B. A. GEOGRAPHY**

Semester	Paper Code	Paper	Subject
III	GEO:2301	G2	Environmental Geography I
	GEO:2302	S1	Geography of Maharashtra - I
	GEO:2303	S2	Practical Geography – I (Scale and Map Projections)
IV	GEO:2401	G2	Environmental Geography II
	GEO:2402	S1	Geography of Maharashtra – II
	GEO:2403	S2	Practical Geography – II (Cartographic Techniques, Surveying and Excursion / Village / Project Report)

S.Y.B.A. Geography (G2) Syllabus for Semester III

Paper: GEO 2301: Environment Geography- I**No. of Credits: 03****No. of Periods: 48****Course Objectives:**

1. To create the awareness about dynamic environment among the student.
2. To acquaint the students with fundamental concepts of environment geography for development in different areas.
3. To integrate various factors of Environment and dynamic aspect of Environmental geography.
4. To make aware the students about the problems of environment , their utilization and conservation in the view of sustainable development
5. To evaluate environmental issues, apply analytical skills, and propose viable solutions considering geographical contexts.
6. To understand the various forms of environmental pollution.
7. To explore the concept of biodiversity.

Course Outcomes:

By the end of this course, students should be able to:

1. Analyze different types of environments, demonstrating an understanding of their varied characteristics and significance.
2. Acquaint the students with fundamental concepts of environment
3. Understand various factors of Environment and dynamic aspect of Environmental geography.
4. Aware about the problems of environment, their utilization and conservation in the view of sustainable development.
5. Evaluate environmental issues, apply analytical skills, and propose viable solutions considering geographical contexts.

6. Understand the various forms of environmental pollution.
7. Explore the concept of biodiversity.

Topics and Learning points

Unit – 1: Introduction to Environmental Geography	Lectures
1.1 Definition, Nature and scope of Environmental Geography.	12
1.2 Types of Environment	
1.3 Importance of Environmental Geography	
1.4 Approaches to study of environmental Geography	
Unit – 2: Ecosystem	12
2.1 Meaning, concept and definition of ecosystem.	
2.2 Structure (Biotic and Abiotic factors) and food chain, Tropic Level, food Web, energy flow	
2.3 Types of ecosystem a) Equatorial Forest b) Pond Ecosystem	
Unit – 3: Biodiversity and its conservation	12
3.1 Concept of biodiversity	
3.2 Economic value and potential of biodiversity	
3.3 Loss of biodiversity and hotspots in India	
3.4 Conservation of biodiversity	
Unit – 4: Environmental Pollution	12
4.1 Concept of Pollution	
4.2 Air pollution-Causes, effects and control measures	
4.3 Water pollution-Causes, effects and control measures	
4.4 Soil pollution-Causes, effects and control measures	

Reference Book:

1. Miller G.T., 2004, Environmental Science Working with the Earth, Thomson Books Cole, Singapore
2. Saxena H.M., 2017, Environmental Geography(Ed III), Rawat Publications, Jaipur
3. Odum E.P. et al.2005, Fundamentals of Ecology, Ceneage Learning, India
4. Sharma P.D.2015, Ecology and Environment, Rastogi Publications, Meerut
5. Kormondy, Edward J, 2012, Concept of Ecology, PHI Learning Pvt.Ltd, NewDelhi
6. Singh R.B.(Eds) 2009, Biogeography and Biodiversity, Rawat Publications, Jaipur
7. Singh S,Prayag, 1997, Environment Geography, Pustak Bhawan, Allahabad
8. Chandana R.C.2002, Environmental Geography, Kalyani Publication, Ludhiana
9. Goudie A, 2001, The Nature of The Environment, Blackwell, Oxford
10. Gholap T. N., 2000, Environment Science, Nishikant Publications, Pune.(Marathi)
11. Choudhar A.H., &et. al., 2014, Disaster Management, Atharva Publication, Pune. (Marathi)
12. Musmade A. H., More J. C. 2014, Geography of Disaster Management, Diamond Publication, Pune.(Marathi)
13. Saptarshi P. G., More J. C., Ugale V. R., 2009, Geography and Natural Hazads, Diamond Publishing, Pune.(Marathi)

Mapping of Program Outcomes with Course Outcomes

Class: SYBA (Sem. III)**Subject:** Geography**Course:** Environmental Geography-I**Course Code:** GEO: 2301**Weightage:** 1= Weak or low relation , 2= Moderate or partial relation, 3= Strong or direct relation

Program Outcomes (POs)								
Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1				2			3	2
CO 2							3	
CO 3							3	
CO 4				2			3	
CO 5							3	
CO 6	2						3	
CO 7							3	2

Justification for the Mapping

PO 1: Research Related Skill:

Course outcomes 1 Research focuses on pollutants like particulate matter, nitrogen oxides, sulphur dioxide, carbon monoxide, and volatile organic compounds emitted from vehicles, industries, and natural sources. Studying air pollution helps comprehend its health impacts, such as respiratory diseases, cardiovascular issues, and its contribution to climate change.

PO 4: Disciplinary Knowledge:

Course outcomes 1 and 4 make an understanding ecosystem, biodiversity, and the interdependence of organisms within environments help in assessing the impact of human activities and formulating conservation strategies.

PO 7: Environment and Sustainability:

All course outcomes studying the environment and sustainability is pivotal for comprehending diverse ecosystems, dynamic factors impacting geography, and the criticality of balancing utilization and conservation. It empowers analytical skills to tackle environmental problems, including pollution, while emphasizing the preservation of biodiversity, fostering planetary health, and fulfilling ethical responsibilities for a sustainable future.

6 and 7 outcomes of this course contribute their caring role in the environment and suitability. Students will exhibit a strong commitment to environmental care and sustainability, utilizing their knowledge to foster positive impacts.

PO 8: Critical Thinking and Problem solving:

Course outcome 1 and 7 applied to diverse environments involves recognizing their distinct features, vulnerabilities, and ecological importance. Similarly, exploring biodiversity demands problem-solving skills to assess complex ecosystems, identify threats, and devise strategic conservation measures, essential for safeguarding the planet's ecological balance through thoughtful, informed actions.

S.Y.B.A. Geography (S1) Syllabus for Semester III

Paper: GEO 2302: Geography of Maharashtra- I

No. of Credits: 03

No. of Periods: 48

Course Objectives:

1. To acquaint students with Geography of our State.
2. To make students aware of the magnitude of problems and prospects in Maharashtra.
3. To help students understand the inter relationship between the subject and the society.
4. To help students understand the recent trends in regional studies.
5. To provide students with an in depth understanding of the physical geography of Maharashtra.
6. To introduce students the various physical features of the state, including its landforms, climate and water resources.
7. To cover the impact of human activities on the physical environment and the ways in which they can be managed sustainably.

Course Objectives:

By the end of this course, students should be able to:

1. Understand the physical geography of Maharashtra.
2. Identify and describe the landforms, climate and water resources of Maharashtra.
3. Identify and describe the flood and drought prone areas of Maharashtra.
4. Examine the impact of human activities on the physical environment of Maharashtra.
5. Explore strategies for sustainable management of natural resources in Maharashtra.
6. Understand the impact of human activities on the physical environment and the ways in which they can be managed sustainably.

7. Understand the recent trends in regional studies.

Topics and Learning points

Unit – 1: Administrative Set up of Maharashtra	Lectures
1.1 Historical and Political Background of the state	12
1.2 Geographical location of State	
1.3 Adjoining States	
1.4 Administrative Divisions	
Unit – 2: Physical settings	12
2.1 Geological structure of Maharashtra	
2.2 Physical Structure (Mountain, plateau, Plains)	
2.3 Drainage Pattern (East and West flowing rivers)	
2.4 Major Soil types and Distribution	
Unit – 3: Climate	12
3.1 Climatic Regions of Maharashtra	
3.2 Distribution of Rainfall	
3.3 Draught prone areas- Problems and Management	
3.4 Flood areas – Problems and Management	
Unit – 4: Resources	12
4.1 Water: Problems in Utilization and conservation	
4.2 Forest: Types and Conservation	
4.3 Mineral; Iron ore, Manganese and Bauxite	

4.4 Power: Hydro, Thermal, Atomic

Reference Book:

1. Dikshit K.R ., Maharashtra in Maps,
2. Deshpande C. D. ,Maharashtra
3. Sadhu Arun, Maharashtra, National Book Trust
4. Savadi A. B., Geography of Maharashtra: Nirali Prakashan, Pune.
5. Dastane S., Maharashtra, Ramchandra and company, Pune
6. Sawadi A. B., the Mega State Series: Nirali Publication, Pune.
7. Maharashtra state Agricultural Atlas
8. Karve I., Maharashtra its Land and people,
9. More J. C., 2014, Geography & Agriculture For MPSC Examination, Atharv Publication, Pune(Marathi)

Mapping of Program Outcomes with Course Outcomes

Class: SYBA (Sem. III)**Subject:** Geography**Course:** Geography of Maharashtra-I**Course Code:** GEO: 2302**Weightage:** 1= Weak or low relation , 2= Moderate or partial relation, 3= Strong or direct relation

Program Outcomes (POs)								
Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1		2		2				
CO 2				2		2		
CO 3	2	3						
CO 4		3						2
CO 5	2						3	
CO 6				2				2
CO 7	2		2	3				

Justification for the Mapping

PO 1: Research Related Skill:

CO 3, CO 5 and CO 7 Understanding recent trends in regional studies is pivotal for students' research-related skills when identifying flood and drought-prone areas and devising sustainable natural resource management strategies in Maharashtra

PO 2: Effective Citizenship and Ethics:

CO1, CO3, and CO4 make a meaningful contribution to enhancing students; develop a deeper sense of ethical responsibility towards their environment and communities. They're better equipped to engage as informed and responsible citizens, contributing positively to environmental stewardship and ethical decision-making in the context of Maharashtra's physical geography.

PO 3: Social Competence:

CO7-Understanding recent trends in regional studies equips students with the social competence needed to engage meaningfully in diverse settings, contribute positively to communities, and become socially aware global citizens.

PO 4: Disciplinary Knowledge:

Course outcome 1, 2, 6 and 7 contribute to gaining disciplinary knowledge in these areas equips students with a well-rounded understanding of Maharashtra's physical environment, human-environment interactions, and recent regional dynamics. This knowledge base empowers them to contribute thoughtfully towards sustainable management practices, environmental conservation, and informed decision-making in their academic and professional endeavours.

PO 6: Self-directed and Life-long learning:

CO2-Understanding Maharashtra's geographical aspects not only enrich students' academic knowledge but also instill a lifelong passion for exploration, learning, and adaptation, preparing them for continual growth and engagement in the world around them.

PO 7: Environment and Sustainability:

Course outcome 5 focusing on exploring strategies for sustainable management of natural resources in Maharashtra contributes significantly to student development in terms of environment and sustainability.

PO 8: Critical Thinking and Problem solving:

Course outcome 4 and 6 understanding the impact of human activities and exploring sustainable management practices in Maharashtra's geography not only enhances critical thinking and problem-solving skills but also nurtures ethical decision-making and innovation. These skills are invaluable, preparing students to address multifaceted environmental challenges with analytical rigor and creative solutions.

S.Y.B.A. Geography (S2) Syllabus for Semester III

Paper: GEO 2303: Practical Geography – I (Scale and Map Projections)

No. of Credits: 04

No. of Periods: 72

Course Objectives:

1. To enable the students to use various scale and projections used to create maps.
2. To acquaint the students with basic of statistical data.
3. To understand definitions, elements, classification and use maps.
4. To aware about types of map scale.
5. To convert a map scale from one scale to another in metric and british measurement systems.
6. To enable the students to use various projections and cartographic techniques.
7. To acquaint the student with basic of statistical data.

Course Outcome:

By the end of this course, students should be able to:

1. Identify any map scale and projection. They can also know which projection is suitable for given region.
2. Use various scale and projections used to create maps.
3. Understand definitions, elements, and classification and use maps.
4. Aware about types of map scale.
5. Convert a map scale from one scale to another in metric and british measurement systems.
6. Use various projections and cartographic techniques.
7. Acquaint the student with basic of statistical data.

Topics and Learning points

Unit – 1: Maps and Scales	Lectures
1.1 Map: Meaning, Definition and Types.	16
1.2 Map Scale : Definition and Types	
1.3 Conversion of Verbal scale to numeric and vice- versa (in British and Metric Systems)	
1.4 Definition and types of scale	
1.5 Construction simple graphical scale	
1.6 Construction comparative graphical scale	
Unit – 2: Map Projections	06
2.1 Definition and need of Map Projection	
2.2 Basic Concepts of Projection: Latitude, Longitude, Parallel of latitude, Meridian of longitude, Prime meridian, Equator, Direction, Calculation of time basis on meridian and GMT (Calculation of minimum two examples)	
2.3 Classification of map projection based on method of construction developable surfaces used	
Unit – 3: Zenithal Polar projection	12
Construction, Properties and Uses of	
3.1 Zenithal Polar Gnomonic Projection	
3.2 Zenithal Polar Stereographic Projection	
Unit – 4: Conical Projection	12
Construction, Properties and Uses of	
4.1 Projection with one standard parallel	
4.2 Bonne’s Projection	

Unit – 5: Cylindrical projection **12**

Construction, Properties and Uses of

5.1 Cylindrical equal area Projection.

5.2 Mercator's Projection

Unit – 6: Conventional Map Projections **14**

Construction, Properties and Uses of

6.1 Mollweide's Projection

6.2 Universe Transverse Mercator projection

- Note:**
1. Use of stencils, log tables, computer and calculator is allowed.
 2. Journal should be completed and duly certified by practical in-charge and Head of the Department.
 3. Int. and Ext examiner should set jointly the question paper for each batch

Reference Books:

1. Singh Lehraj, (1973) : Map Work and Practical Geography, Central Book Depot – Allahabad
2. D. Y. Ahirrao and E. K. Karanj khele, (2002) : Pratyakshik Bhugol, Sudarshan Nashik
3. P. G. Saptarshi and S. R. Jog, Statistical Methods
4. S. N. Karlekar, (2008) : Statistical Methods, Diamond –Pune
5. T. P. Kanetkar and S. V. Kulkarni, (1986) : Surveying and Leveling, Pune Vidyarthi Griha Prakashan– Pune
6. Arjun Kumbhare, Practical Geography
7. Pijushkanti Saha& Partha Basu.(2007), 'Advanced Practical Geography', Books and Allied(P)Ltd, Kolkata

Mapping of Program Outcomes with Course Outcomes

Class: SYBA (Sem. III)**Subject:** Geography**Course:** Practical Geography – I (Scale and Map Projections)**Course Code:** GEO: 2303**Weightage:** 1= Weak or low relation , 2= Moderate or partial relation, 3= Strong or direct relation

Program Outcomes (POs)								
Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8
CO 1				2				
CO 2						3		
CO 3				2				2
CO 4		2						
CO 5				2				2
CO 6						2		
CO 7						2		

Justification for the Mapping

PO 2: Effective Citizenship and Ethics:

CO4- Studying map scales in Practical Geography contributes to Effective Citizenship and Ethics in various ways, fostering student development.

PO 4: Disciplinary Knowledge:

Course outcomes 1, 3, and 5- map scales, projections, classifications, and conversions empowers students with valuable disciplinary knowledge, critical skills, and ethical considerations necessary for their academic and professional growth across multiple fields.

PO 6: Self-directed and Life-long learning:

CO2- Understanding various map scales and projections relates directly to real-world applications. Students can explore how these concepts apply in fields such as navigation, urban planning, and environmental management.

CO6- Understanding various projections and cartographic techniques goes beyond foundational knowledge; it fosters a mindset geared toward continuous learning, exploration, and adaptation. It equips students with the skills to seek deeper knowledge independently and innovate in the field of cartography and geography throughout their lives.

CO 7 - Acquainting students with the basics of statistical data holds immense value for fostering self-directed and lifelong learning

PO 8: Critical Thinking and Problem solving:

CO 3- Knowledge of map elements enables students to critically analyze geographical contexts. They develop the ability to assess diverse landscapes, ecosystems, and socio-economic features for effective problem-solving.

CO 5- Mastering map scale conversions between metric and British systems not only enriches students geographical understanding but also sharpens their critical thinking, problem-solving, and mathematical reasoning abilities. These skills are transferable and beneficial across various academic and professional domains.