

Savitribai Phule Pune University

(Formerly University of Pune)



Bachelor of Arts (B.A.) in Geography

(Faculty of Science & Technology)

New Syllabus of F.Y. B. A. Geography

(As Per National Education Policy (NEP) 2020)

For Colleges Affiliated to Savitribai Phule Pune University

To be implemented from Academic Year 2024-2025

Approved by

Board of Studies (BOS) in Geography,

Savitribai Phule Pune University, Pune

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Abbreviation Used

NEP

- National Education Policy

DSE

- Discipline Specific Courses

T

- Theory Courses

P

- Practical Courses

GE/OE

- Generic Elective/Open Elective

SEC

- Skill Enhancement Courses

IKS

- Indian Knowledge System

AEC

- Ability Enhancement Courses

VEC

- Value Education Courses

CC

- Co-curricular Courses

OJT

- On Job Training

CEP

- Community Engagement Programme

FP

- Field Projects

RM

- Research Methodology

RP

- Research Projects

VSC

- Vocational Skill Courses

Introduction to Undergraduate Degree in Geography

As per the recommendations of UGC and Savitribai Phule Pune University guidelines, the undergraduate(UG) degree course in Geography is a 6-semester course for 3-academic years or 8-semester course for 4-academic years. The curriculum framework design is as per UGC, Savitribai Phule Pune University, NEP 2020 guidelines with the approach of student-centric Teaching-Learning Process (TLP). B.A. Geography course involves theory, practical's, vocational and skill-based verticals. The expected programme specific outcomes outline with graduate attributes. The vision of NEP followed to enable the interdisciplinary and multidisciplinary approach within the syllabus structure. Students have appropriate flexibility in pursuing various courses and multiple entry/exit at UG level.

Award of UG Certificate/ UG Diploma/ Bachelor's Degree in Geography

Sr. No.	Type of Award	Stage of Exit OR Continue with Major and Minor
1	UG Certificate in Geography	Exit Option: After successful completion of first year; Award of UG Certificate with 44 credits and an additional 4 credits Course NSQF courses/Internship Continue Option: From the DSE courses Students will select Geography subject among the (Subject-1, Subject-2 and Subject-3) as a major and another as minor and third subject will be dropped.
2	UG Diploma in Geography	After successful completion of Second year; Award of UG Diploma in Major and Minor with 88 credits and an additional 4 credits Course NSQF courses/Internship OR Continue with Major and Minor
3	Bachelor of Arts in Geography	After successful completion of Third year; Award of UG Degree in Major with 132 credits and an additional 4 credits Course NSQF courses/Internship OR Continue with Major and Minor
4	Bachelor of Arts in Geography (Honors)	After successful completion of Semester Fourth year Award of UG Degree (Honours) in Major with 176 credits and an additional 4 credits Course NSQF courses/Internship

Objectives of the B.A. Geography Programme

1. To familiarize students with fundamentals concepts and principles of Geography
2. To guide students in an identification and analysis of various facets of geographical features and processes.
3. To enhance students ability in spatial analysis, relationship between people, places and environment.
4. To develop critical thinking and problem-solving skills, analytical and scientific reasoning, reflective thinking, moral & reflective awareness amongst the students.
5. To facilitate the students to learn skills of cartographic techniques, data analysis and interpretation, carrying out field work, use of Geoinformatics techniques, research projects, applications and applied studies.

Programme Specific Outcomes: B.A. Geography

Sr. No.	PSO Statement : After completing the B.A. in Geography, Students will be able to	Knowledge and Skills
PSO 1	Illustrate the geographical concepts and theories, practicals, regional approach focus on global, continental, countrywide and statewide	Disciplinary knowledge
PSO 2	Understanding the ethical consideration in geographic research and environment values in developing sustainable resolves	Moral & ethical awareness
PSO 3	Interpret the spatial relationships between places, people and environment	Spatial analysis skills
PSO 4	Apply geographic knowledge and skills to solve real-world problems and issues	Critical thinking & Problem Solving Ability
PSO 5	Analyze and interpret spatial data using GIS, Remote sensing and cartographic techniques	Analytical reasoning / digitally literacy
PSO 6	Appraise geographic issues and regional to global perspectives in the context of sustainability	Scientific reasoning
PSO 7	Capability to design, conduct and present field work/survey projects and research projects	Research related skills/self-relative learning
PSO 8	Develop team work and leadership qualities through seminars, outdoor practicals, field work and study tours	Team work /leadership qualities
PSO 9	Evaluate human impacts on environment and develop sustainable resolves	Reflective thinking/
PSO 10	Creating skills for professional careers in the field of environmental management, rural development, urban planning, geospatial technologies, cartography, field survey techniques, disaster management, tourism sector etc	Preparation for livelihoods/lifelong learnings

Structure of the Programme

The detailed framework of Undergraduate (B.A.) Degree Programme in Geography

Level	Se m	DSE Subject- 1	DSE Subject -2	DSE Subject -3	GE/OE	SEC	IKS	A E C	V E C	C C	Total
4.5/ 100	I	GEO-101-T Introduction to Physical Geography [2 T]	2(T) + 2(P)	2(T) + 2(P)	OE-101-GEO Geography of Tourism [2 T]	SEC-101-GEO Introduction to Water analysis [2 T]	2 (T) Generic	2 T	2	-	22
	II	GEO-151-T Introduction to Human Geography [2 T]	2(T) + 2(P)	2(T) + 2(P)	OE-151-GEO Practicals in Tourism Geography [2 P]	SEC-151-GEO Practicals in Water Analysis [2 P]	-	2 T	2	2	22

Exit option: Award of UG Certificate in Major with 44 credits and an additional 4 credits Course NSQF courses/Internship OR Continue with Major and Minor

Continue Option: Students will select one subject among the (subject-1, subject-2 and subject-3) as a major and another as minor and third subject will be dropped.

Important instructions:

- a. For the practical courses teaching batch size: 15 students per batch

Structure of the Programme

The detailed framework of Undergraduate (B.A.) Degree Programme in Geography

Continued

Level	Sem	Credits Related to Major				Minor	GE/OE	SEC	IKS	A E C	V E C	C C	Total
		Major Core	Major Elective	VSC	FP/OJT/CEP								
5.0/ 200	III	GEO-201-MJ Introduction to Population and Settlement Geography [4T] GEO-202-MJP Practicals in Population and Settlement Geography [2P]		(Select any one of the following) GEO-221-VSC Introduction to Cartography [2T] OR GEO-222-VSC Land Measurement and Surveying [2T]	GEO-231-FP Field Visit and Report Writing [2FP]	GEO 241 MN Geography of India [2T] GEO 242 MNP Practicals in Map Reading [2P]	GEO-201-OE Political Geography [2T]		GEO-201-IKS Development of Indian Geographical Knowledge [2T]	2 T	-	2	22
	IV	GEO-251-MJ Introduction to Geomorphology [4 T] GEO-252-MJP Practicals in Geomorphology [2 P]		(Select any one of the following) GEO 271 VSC Practicals in Cartography [2 P] OR GEO 272 VSC Practicals in Land Measurement and Surveying [2P]	GEO-281-CEP Community Engagement Programme [2 CEP]	GEO-291-MN Geography of Maharashtra [2 T] GEO-292-MNP Practical in Statistical analysis [2P]	GEO-251-OE Applications of GPS [2P] GEO-251-SEC Practicals in Weather Reports [2P]		-	2 T	-	2	22

Exit option: Award of UG Diploma in Major and Minor with 88 credits and an additional 4 credits Course NSQF courses/Internship OR Continue with Major and Minor

Structure of the Programme

The detailed framework of Undergraduate (B.A.) Degree Programme in Geography

Continued ...

Level	Sem.	Credits Related to Major				Minor	D SE 2 & 3	GE/ OE	S E C	I K S	A E C	V E C	C C	Total
		Major Core	Major Elective	VSC	FP/OJT/ CEP									
5.5 / 30 0	V	GEO-301-MJ Geography of India [4T] GEO-302-MJ Soil Geography [4 T] GEO-303-MJP Practicals in Map Projections and Statistical Analysis [4 P]	(Select any one of the following) GEO-310-MJ Climatology [2 T] OR GEO-311-MJ Introduction to GIS [2 T] (Select any one of the following) GEO-312-MJP Practicals in Climatology [2 P] OR GEO(A) 313 MJP Practicals in GIS [2 P]	(Select any one of the following) GEO-321-VSC Introduction to GPS [2 T] OR GEO-322-VSC Tourism Geography [2 T]	GEO-331-FP/CEP Field visit and report writing [2 FP]	GEO-341-MN Environmental Geography [2 T]								22
	VI	GEO-351-MJ Watershed Management [4T] GEO-352-MJ Agriculture Geography [4 T] GEO-353-MJP Practicals in Spatial Analysis [4 P]	(Select any one of the following) GEO-360-MJ Geography of Disaster Management [2 T] OR GEO-361-MJ Introduction to Remote Sensing [2 T] (Select any one of the following) GEO-362-MJP Practicals in Watershed Management [2 P] OR GEO-363-MJP Practicals in Remote Sensing [2 P]	(Select any one of the following) GEO-371-VSC Practicals in Advanced Surveying [2 P] OR GEO-372-VSC Practical's in Tour Planning [2 P]	GEO-381-OJT [4 OJT]									22
Total 3 Year		44	8	8	10	18	8	8	6	4	8	4	6	132
Exit option: Award of UG Degree in Major with 132 credits and an additional 4 credits Course NSQF courses/Internship OR Continue with Major and Minor														

Assessment and examination pattern

Examination Pattern:

2 Credits Course Examination Pattern:			
Evaluation Details	Total Marks	Internal Examination (Continuous Internal Evaluation)	External Examination (End Semester University Examinations)
Total Marks	50	15	35
Marks for passing	20	06	14
Examination Evaluation Pattern		<ul style="list-style-type: none"> ▪ Class test/examination - Short Questions, Quizzes, MCQs :Marks – 10 ▪ Home assignment /Oral examination/ Students seminar/ presentation/field visit/survey/project work :Marks – 05 	<p>Q.1 Answer the following question in 20 words (any five) Marks – 10</p> <p>Q.2 Answer the following question in 50 words (any two) Marks – 10</p> <p>Q.3 Answer the following question in 100 words (any two) Marks – 15</p>
4 Credits Course Examination Pattern:			
Evaluation Details	Total Marks	Internal Examination (Continuous Internal Evaluation)	External Examination (End Semester University Examinations)
Total Marks	100	30	70
Marks for passing	40	12	28
		<ul style="list-style-type: none"> ▪ Tutorial/examination Short Questions, Quizzes, MCQs :Marks – 20 ▪ Home assignment /Oral examination/ Students seminar/ presentation/field visit/survey/project work :Marks – 10 	<p>Q.1 Answer the following question in 20 words (any eight) Marks – 16</p> <p>Q.2 Answer the following question in 50 words (any four) Marks – 16</p> <p>Q.3 Answer the following question in 100 words (any two) Marks – 18</p> <p>Q.4 Answer the following question in 300 words (any one) Marks – 20</p>

Important instructions:

- a. It is mandatory to have a certified journal during the practical examination for practical courses.
- b. Both practical & theory courses have internal and external examination and evaluation pattern
- c. Practical course external examination pattern (Skelton) will be provided by BOS Geography before the end semester examination
- d. For the practical courses batch size: 15 students per batch.

Savitribai Phule Pune University, Pune
B.A. (Geography) as per NEP 2020

Name of the Programme	:	B.A (Geography)
Class	:	F.Y.B.A
Semester	:	I
Name of Vertical Group	:	Main Subject
Course Code	:	GEO-101-T
Course Title	:	Introduction to Physical Geography
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 acquaint students with basic principles of Physical Geography
2. To introduce the processes and patterns in the atmosphere, hydrosphere and lithosphere.
3. To develop scientific insights into dynamics of the earth system.

Topics and Learning Points

Topic No	Topic Name	Sub Topic	No. of Hours
1.	Introduction to Physical Geography	i. Introduction, definition and branches of Geography ii. Definition and Branches of Physical Geography iii. Nature, Scope and importance of Physical Geography	08
2	Lithosphere	i. Interior of the Earth - Structure and Composition ii. Wegener's Continental Drift Theory	06
3.	Atmosphere	i. Concept of weather and climate. ii. Composition and structure of the atmosphere iii. Factors affecting horizontal distribution of the temperature	08
4.	Hydrosphere	i. General structure of ocean floor ii. Movements of ocean water a. Tides- meaning, causes and types	08

Course Outcome:

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

- CO 1** : Understand fundamental concepts, theories and approaches of Physical Geography
- CO 2** : Recognize functions of complex interactive earth systems.
- CO 3** : Demonstrate scientific explanation of physical processes of the atmosphere, hydrosphere and lithosphere.
- CO 4** : Describe diverse human activities in changing natural environment.

References:

1. Dayal P., (1996), Text Book of Geomorphology, Shukla Book Depot, Patna.
2. Kale V.S. and Gupta A., (2015), Introduction of Geomorphology, University Press, Kolkata.
3. Lal, D. S., (1998), Climatology, Chaitanya Publishing House, Allahabad.
4. Kale V.S. and Gupta A., (2001), Elements of Geomorphology, Oxford Univ. Press.
5. Monkhouse F.J., (1951), Principles of Physical Geography, McGraw Hill Pub - New York.
6. Singh Savindra., (2000), Physical Geography, Prayag Pustak Bhavan, Allahabad.
7. Singh Savindra., (2000), Oceanography, Prayag Pustak Bhavan, Allahabad.
8. Husain, M., (2001), Fundamentals of Physical Geography, Rawat Publication, Jaipur.
9. Siddhartha, K., (2001), The Earth's Dynamic Surface, Kisalaya Publications Pvt. Ltd, New Delhi.
10. Lutgens, F.K. and Tarbuck, E.J., (2007), The Atmosphere, Pearson Prentice Hall, New Jersey.
11. Bergwan, Edward E., (1995), Human Geography: Culture, Connections and Landscape, Prentice-Hall, New Jersey.
12. Fellman, J.L., (1997), Human Geography-Landscapes of Human Activities. Brown and Benchman Pub., U.S.A.
13. Johnston, R.J., (1994), Dictionary of Human Geography, Blackwell, Oxford.
14. Chandna, R.C., (2000), Geography of Population: Concepts, Determinants and Patterns, Kalyani Publishers, New Delhi.
15. वाणी, बी.के. आणि पाटील एन.एम., (२०२०), प्राकृतिक व मानवी भूगोल, अथर्व प्रकाशन, जळगाव.

Savitribai Phule Pune University, Pune
B.A. (Geography) as per NEP 2020

Name of the Programme	:	B.A. (Geography)
Class	:	F.Y.B.A.
Semester	:	I
Name of Vertical Group	:	Main Subject
Course Code	:	GEO-102-P
Course Title	:	Practicals in Physical Geography
Type of course	:	Practical
Total Credits	:	02
Workload	:	2 credits x 30 hours = 60 hours in semester

Objectives of the Course:

1. To acquaint students with methods of relief representation
2. To develop skills of students in interpreting contour maps, landforms and other relief features

Topics and Learning Points

Topic No	Topic Name	Sub Topic	No. of Hours
01	Qualitative Methods of Relief Representation	Methods of Relief Representation Qualitative Methods a. Hachures b. Hill shading c. Color shading or tinting	20
02	Quantitative Methods of Relief Representation	Methods of Relief Representation Quantitative Methods a. Spot Height b. Bench Mark c. Triangulation Method d. Contours e. Form lines	20
03	Representation of slope and landforms by contours	Representation of slope by contours a. Gentle and steep slope b. Even and uneven slope c. Concave and convex slope Representation of landforms by contours a. Conical hill b. Cliff c. V shaped valley d. Ridge e. Plateau f. Pass	20

Course Outcome:

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

- CO 1 : Identify different methods of relief representation
- CO 2 : Apply both qualitative and quantitative methods in representing and interpreting geographical features

References:

1. Ahirrao, D. Y. And Karanjkehele, E.K., (2002), Pratyakshik Bhugol, Sudarshan Publication, Nashik.
2. Chandana, R. C., (2015), Geography of Population, Kalyani Publisher, New Delhi.
3. Hans Raj, (1978), Fundamentals of Demography: (population Studies with Special Reference to India), Surjeet Publication, Delhi.
4. Jadhav, S., Chaudhari, A. and Chaudhari, A., (2020), Pratyakshik Bhugol, Prashant Publication, Jalgaon.
5. Nagtode P. M., and Lanjewar H.D., (2009), Nakashashtra, Pimplapure Publication, Nagpur
6. Sarkar Ashis, (2015), Practical Geography: A Systematic Approach, Orient Blackswan Pvt Ltd, Hydrabad
7. Singh, G., (2005), Map Work and Practical Geography, Vikas Publishing House Pvt. Ltd., New Delhi.
8. Singh, R.L., (2005), Elements of Practical Geography. Kalyani Publishers, New Delhi.
9. Singh, J. and Dhillon, S., (1994), Agricultural Geography. McGraw Hill Education India Pvt Ltd, New Delhi.

Savitribai Phule Pune University, Pune
B.A. (Geography) as per NEP 2020

Name of the Programme	:	B.A. (Geography)
Class	:	F.Y.B.A.
Semester	:	I
Name of Vertical Group	:	OE
Course Code	:	OE-101-GEO
Course Title	:	Geography of Tourism
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 diverse nature and broad scope of Tourism Geography.
2. To provide students with a broad understanding of recent and emerging types of tourism.
3. To gain insights into specialized forms of tourism and understand their characteristics and sustainability considerations associated with them.
4. To explore the socio-cultural determinants of tourism.
5. To classify and analyse diverse tourism trends, enabling the students the dynamic nature of the tourism industry.

Topics and Learning Points

Topic No	Topic Name	Sub Topic	No. of Hours
1	Introduction to Tourism Geography	i. Definition, Nature and Scope of Tourism Geography ii. Concept of Tourist and Tourism iii. Importance of Tourism in Geography	10
2	Determinants of Tourism Development	i. Physical a. Relief b. Climate c. Forest d. Water ii. Socio-Cultural a. Religious b. Historical c. Cultural iii. Political a. Policies iv. Other a. Accessibility b. Safety of Tourists	10
3	Classification and recent types of Tourism	i. Classification of Tourism based on a. Nationality b. Travel Period c. Purpose of Tourism	10

Topic No	Topic Name	Sub Topic	No. of Hours
		ii. Recent types of Tourism a. Agro Tourism b. Ecotourism c. Wildlife Tourism d. Health Tourism e. Sports Tourism	

Course Outcome:

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

- CO 1** : Understand of the definition, nature, and scope of tourism.
- CO 2** : Recognize and articulate the economic, social, and cultural importance of tourism.
- CO 3** : Categorize tourism based on nationality, understanding the distinctions between domestic and international tourism.
- CO 4** : Analyze the impact of physical determinants such as relief, climate, forests, and water bodies on tourism development and experiences.
- CO 5** : Identify and evaluate the influence of religious, historical, and cultural factors on tourist attractions and destination choices.

References:

- Cooper, C. and Hall, M., (2008). *Tourism and Leisure: Issues and Challenges*. Channel View Publications, Bristol.
- Goeldner, C. R. and Ritchie, J. R. B., (2017). *Tourism: Principles, Practices, Philosophies*. John Wiley & Sons, Hoboken.
- Singh, V. and Joshi, S., (2012). *Tourism Planning and Development: Concepts and Issues*. Sterling Publishers, New Delhi.
- Page, S. and Connell, J., (2009). *Tourism: A Modern Synthesis*. Cengage Learning, Hampshire.
- Seth P.N., (1985), *Successful Tourism Management*, Sterling Publisher Ltd., New Delhi.
- Mhatre, S., (2015), *Tourism Geography: An Integrated Approach*. Himalaya Publishing House, Mumbai.
- Kulkarni, A., and Shah, N. (2018), *Tourism in Nashik: A Comprehensive Guide*. Notion Press, Chennai.
- Deshmukh, P., (2019), *Tourism in Ahmednagar: Trends and Challenges*. Udyog Sahayadri, Ahmednagar.
- Patil, N. and Chavan, S., (2017), *Tourism in Pune: Exploring the Cultural Capital*. Sahyadri Books, Pune.
- Sharma, S. and Gupta, M., (2013), *Tourism Development in India: A Case Study Approach*. PHI Learning Pvt. Ltd., New Delhi.

Savitribai Phule Pune University, Pune
B.A. (Geography) as per NEP 2020

Name of the Programme	:	B.A. (Geography)
Class	:	F.Y.B.A
Semester	:	I
Name of Vertical Group	:	V 1
Course Code	:	SEC-101-GEO
Course Title	:	Introduction to Water Analysis
Type of course	:	Theory
Total Credits	:	02
Workload	:	Total Workload: -2 credits x 15 hours = 30 hours in semester

Objectives of the Course:

1. To understand water quality parameters.
2. To learn various types and sources of water
3. To learn various quality indices useful for drinking and irrigation water analysis.

Topics and Learning Points

Topic No	Topic Name	Sub Topic	No. of Hours
1	Parameters of water quality	i. Parameters of water quality: <ol style="list-style-type: none"> a. Physical, b. Chemical, c. Biological, ii. Significance of water analysis	10
2	Types of water sources and pollutions	i. Types of water sources, occurrence, and importance ii. Water pollution: source, types, and management	06
3	Standards of water quality	i. BIS (Bureau of Indian Standards) ii. WHO (World Health Organization)	04
4	Characteristics of Water quality indices	i. Indices for drinking water <ol style="list-style-type: none"> a. WQI ii. Indices for irrigation water <ol style="list-style-type: none"> a. Sodium Adsorption Ratio (SAR) (Richards 1954), b. Residual Sodium Carbonate (RSC) (Eaton 1950), c. Sodium Percentage (SP) (Wilcox 1955), d. Kelly's ratio (Kelly 1963) 	10

Course Outcome:

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

- CO 1** : Comprehensive understanding of various water quality parameters useful for assessment of water resources.
- CO 2** : Understand water quality standards of BIS and WHO.
- CO 3** : Understand the characteristics of water quality indices for drinking water and irrigation.

References:

1. Standard Methods for the Examination of Water and Wastewater - American Public Health Association, American Water Works Association, Water Environment Federation.
2. Water Quality Assessments: A Guide to the Use of Biota, Sediments and Water in Environmental Monitoring - Deborah V. Chapman (Editor).
3. Water Quality: Guidelines, Standards and Health - Lorna Fewtrell and Jamie Bartram.
4. Environmental Engineering: Water, Wastewater, Soil and Groundwater Treatment and Remediation - Nelson L. Nemerow and Franklin J. Agardy.
5. BIS 10500:2012 - Drinking Water Specification
6. BIS 2296:1982 - Specifications for Packaged Natural Mineral Water
7. BIS 3025:1983 - Methods of Sampling and Test (Physical and Chemical) for Water and Waste Water
8. BIS 3589:2001 - Methods of Sampling and Test (Physical and Chemical) for Water and Waste Water (Revision of IS 3025)
9. BIS 1622:2008 - Drinking Water - Specification
10. BIS 3025:1964 - Methods of Sampling and Test (Physical and Chemical) for Water and Waste Water

Savitribai Phule Pune University, Pune
B.A. (Geography) as per NEP 2020

Name of the Programme	:	B.A. (Geography)
Class	:	F.Y.B.A.
Semester	:	II
Name of Vertical Group	:	Main Subject
Course Code	:	GEO-151-T
Course Title	:	Introduction to Human Geography
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 create awareness amongst students regarding the fundamental concepts of Human Geography, including its meaning, nature and scope.
2. To understand the branches of Human geography i.e. Population Geography, Settlement Geography and Agriculture Geography.
3. To explore different types and patterns of settlement.
4. To understand the types of agriculture with problems.

Topics and Learning Points

Topic No.	Topic Name	Sub Topics	No. of Hours
1.	Introduction to Human Geography	i. Meaning and definition of Human Geography ii. Nature and scope of Human Geography iii. Branches and Importance of Human Geography	08
2.	Population and Settlement	i. Factors affecting on distribution of population ii. Composition of Indian Population: Gender and Literacy iii. Theory of Demographic Transition iv. Types and patterns of rural settlement	12
3.	Agriculture	i. Types of agriculture (Intensive, Subsistence) ii. Factors affecting Indian agriculture iii. Problems of Indian agriculture	12

Course Outcome:

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

- CO 1** : Define and explain the meaning, nature and scope of Human Geography.
CO 2 : Discuss the different branches of Human Geography
CO 3 : Appreciate the growth, distribution and composition of population in India
CO 4 : Analyse the types and patterns of rural settlements

References:

1. Chandna, R.C. (2010) Population Geography, Kalyani Publisher.
2. Daniel, P.A. and Hopkinson, M.F. (1989) The Geography of Settlement, Oliver and Boyd, London.
3. Hassan, M.I. (2005) Population Geography, Rawat Publications, Jaipur
4. Johnston R; Gregory D, Pratt G. et al. (2008) The Dictionary of Human Geography, Blackwell Publication.
5. Jordan-Bychkov et al. (2006) The Human Mosaic: A Thematic Introduction to Cultural Geography. W. H. Freeman and Company, New York.
6. Jyotiram More and Musmade Arjun (2015) Regional Geography of India Diamond Publication Pune.
7. Kaushik, S.D. (2010) Manavi Bhugol, Rastogi Publication, Meerut.
8. Maurya, S.D. (2012) Manav Bhugol, Sharda Pustak Bhawan. Allahabad.
9. Musmade Arjun, Sonawane Amit and Jyotiram More, Population & Settlement Geography, (2015), Diamond Publication Pune.
10. Sudepta Adhikari (2016) Orient Blackswan PVT, New Delhi.

Savitribai Phule Pune University, Pune
B.A. (Geography) as per NEP 2020

Name of the Programme	:	B.A. (Geography)
Class	:	F.Y.B.A.
Semester	:	II
Name of Vertical Group	:	Main Subject
Course Code	:	GEO-152-P
Course Title	:	Practicals in Human Geography
Type of course	:	Practical
Total Credits	:	02
Workload	:	Total Workload: -2 credits x 30 hours = 60 hours in semester

Objectives of the Course:

1. To understand and interpret various population indices.
2. To analyse settlement patterns using various measures of nucleation and dispersion.
3. To develop their skills in utilizing techniques in Agricultural Geography.

Topics and Learning Points

Topic No	Topic Name	Sub Topic	No. of Hours
1	Population	Population Indices i. Age Sex Pyramid ii. Dependency Ratio iii. Infant Mortality Ratio iv. Population Growth Rate	16
2	Settlement	Measures of Nucleation and Dispersion of Settlement i. Rank Size Rule ii. Nearest Neighbour analysis	20
3	Agriculture	i. Crop Combination method: Weaver's method ii. Crop diversification method: Bhatia's method	24

Course Outcome:

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

- CO 1** : Identify different methods of representation of population indices.
- CO 2** : Identify patterns of nucleation and dispersion in human settlements
- CO 3** : Calculate and interpret crop combination methods to analyze spatial patterns and trends in agricultural land use

References:

1. **Carter Harold** (1977): The study of Urban Geography
2. **Hans Raj** (1978): Fundamentals of Demography
3. **Hudson F.S.** (1976): Geography of Settlements
4. **Michael E. and E. Hurse**: Transportation Geography
5. **Pollard A. H. and Farhat Yusu**: Demographic Techniques
6. **Singh, R. L.** Reading in Rural Settlement Geography
7. **Yeats, M. H.** (1974). An introduction to Quantitative Analysis in Human Geography
8. **Singh, J. and Dhillon** (1984): Agricultural Geography.
9. **Liendsor, J. M.** (1997): Techniques in Human Geography, Routledge.

Savitribai Phule Pune University, Pune
B.A. (Geography) as per NEP 2020

Name of the Programme	:	B.A. (Geography)
Class	:	F.Y.B.A.
Semester	:	II
Name of Vertical Group	:	V4 VSC
Course Code	:	OE-151-GEO
Course Title	:	Practicals in Tourism Geography
Type of course	:	Practical
Total Credits	:	02
Workload	:	2 Credits x 30 hours = 60 hours in semester

Objectives of the Course:

1. To provide students with practical knowledge and skills related to tour planning and management.
2. To familiarize students with the information about the necessary documentation for tour planning
3. To train the students with the essential online booking process
4. To recognize the importance of tour planning in the tourism industry.

Topics and Learning Points

Topic No	Topic Name	Sub Topic	No. of Hours
1	Introduction of Tour planning	i. Meaning of Tour planning ii. Elements of Tour planning iii. Classification of Tour planning: individual, family, group and mass level iv. Importance of tour planning.	16
2	Techniques of Tour Planning	i. Preparation of Tour Planning: Leaflet of tour planning, Passenger documentation, Insurance calculation, Currency exchange, Time exchange and calculation, Distance measurement. ii. Tourist Guide iii. Computer application for tour planning. iv. Procedure of passport & visa application. v. Booking and cancellation system: Transportation (Air, Rail, Road) and hospitality (accommodation)	24
3	Planning and visit to tourist place	Preparation of one short or long international/ national/ local tour plan.	20

Course Outcome:

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

- CO 1** : Identify and describe the essential elements of tour planning.
- CO 2** : Prepare tour planning materials, including documentation and booking and cancellation systems for transport and accommodation.
- CO 3** : Develop skills required to plan and manage tours effectively.

References:

1. Bhatt H (2007) Tourism Planning and Development, Commonwealth Publishers, New Delhi
2. Bhatia AK (2002), Tourism Development: Principles and Practices, Revised edition Sterling Publishers Private Limited, New Delhi.
3. Chand, M (2002) Travel Agency Management, Anmol Publication
4. Ghosh Bishwanth (2000), Tourism & Travel Management, Second Revised Edition Vikas Publishing House Pvt Ltd, New Delhi.
5. Seth, P.N. (1998). An Introduction to Travel and Tourism, Sterling Publishers Pvt. Ltd., New Delhi.
6. Muluk, Doke, Musmade, More (2021), Geography of Tourism – II, Nirali Publication, Pune
7. Sinha, P (1998). Tourism Planning. Anmol Publication Pvt. Ltd., New Delhi.
8. Pacharne, Patil, Suryavanshi, Chaudhar (2014) Tourism Geography, Atharv Publication, Pune.

Savitribai Phule Pune University, Pune
B.A. (Geography) as per NEP 2020

Name of the Programme	:	B.A. (Geography)
Class	:	F.Y.B.A.
Semester	:	II
Name of Vertical Group	:	SEC
Course Code	:	SEC-151-GEO
Course Title	:	Practicals in water analysis
Type of course	:	Practical
Total Credits	:	02
Workload	:	Total Workload: -2 credits x 30 hours = 60 hours in semester

Objectives of the Course:

1. To identify and explain key water quality parameters.
2. To learn various quality indices useful for drinking and irrigation water analysis.
3. To train the students for the interpretation of water quality data with the comparison of regulatory standards.

Topics and Learning Points

Topic No	Topic Name	Sub Topic	No. of Hours
1	Introduction to water quality	i. Definition ii. Water quality parameters: Physical, Chemical iii. Standards of water quality assessment: BIS (Bureau of Indian Standards) and WHO (World Health Organization) iv. Classification of water qualities	16
2	Water quality analysis for drinking water	iii. Calculation of WQI using weighted parameters iv. Gibbs Analysis	20
3	Water quality analysis for irrigation	i. Calculate, and compare WHO standards and interpret two examples of each following indices a. Sodium Adsorption Ratio (SAR) (Richards 1954), b. Residual Sodium Carbonate (RSC) (Eaton 1950), c. Sodium Percentage (SP) (Wilcox 1955), d. Kelly's ratio (Kelly 1963),	24

Course Outcome:

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

- CO 1 : Comprehensive understanding of various quality indices useful for assessment of water resources.
- CO 2 : Select and calculate appropriate water quality indices based on specific objectives and available data.
- CO 3 : Interpret the overall water qualities with a comparison of BIS and WHO standards.

References:

1. Standard Methods for the Examination of Water and Wastewater - American Public Health Association, American Water Works Association, Water Environment Federation.
2. Water Quality Assessments: A Guide to the Use of Biota, Sediments and Water in Environmental Monitoring - Deborah V. Chapman (Editor).
3. Water Quality: Guidelines, Standards and Health - Lorna Fewtrell and Jamie Bartram.
4. Environmental Engineering: Water, Wastewater, Soil and Groundwater Treatment and Remediation - Nelson L. Nemerow and Franklin J. Agardy.
5. BIS 10500:2012 - Drinking Water Specification
6. BIS 2296:1982 - Specifications for Packaged Natural Mineral Water
7. BIS 3025:1983 - Methods of Sampling and Test (Physical and Chemical) for Water and Waste Water
8. BIS 3589:2001 - Methods of Sampling and Test (Physical and Chemical) for Water and Waste Water (Revision of IS 3025)
9. BIS 1622:2008 - Drinking Water - Specification
10. BIS 3025:1964 - Methods of Sampling and Test (Physical and Chemical) for Water and Waste Water
