

# As Per NEP 2020

## University of Mumbai



### Title of the program

- A- U.G. Certificate in **Geography**
- B- U.G. Diploma in **Geography**
- C- B.A. (**Geography**)
- D- B.A. ( Hons.) in **Geography**
- E- B.A. (Hons. with Research) in **Geography**

### Syllabus for

### Semester – Sem I & II

Ref: GR dated 20<sup>th</sup> April, 2023 for Credit Structure of UG

(With effect from the academic year 2024-25  
Progressively)

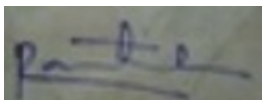
# University of Mumbai



(As per NEP 2020)

Sr. No.	Heading	Particulars	
<b>1</b>	<b>Title of program</b> O: _____ <b>A</b>	<b>A</b>	<b>U.G. Certificate in Geography</b>
	O: _____ <b>B</b>	<b>B</b>	<b>U.G. Diploma in Geography</b>
	O: _____ <b>C</b>	<b>C</b>	<b>B.A. (Geography)</b>
	O: _____ <b>D</b>	<b>D</b>	<b>B.A. (Hons.) in Geography</b>
	O: _____ <b>E</b>	<b>E</b>	<b>B.A. (Hons. with Research) in Geography</b>
<b>2</b>	<b>Eligibility</b> O: _____ <b>A</b>	<b>A</b>	HSC equivalent OR Passed Equivalent Academic Level 4.0
	O: _____ <b>B</b>	<b>B</b>	Under Graduate Certificate in <b>Geography</b> Academic Level 4.5
	O: _____ <b>C</b>	<b>C</b>	Under Graduate Diploma in <b>Geography</b> Academic Level 5.0
	O: _____ <b>D</b>	<b>D</b>	Bachelors of <b>Geography</b> with minimum CGPA of 7.5 Academic Level 5.5
	O: _____ <b>E</b>	<b>E</b>	Bachelors of <b>Geography</b> with minimum CGPA of 7.5 Academic Level 5.5
<b>3</b>	<b>Duration of program</b> R: Three Years	<b>A</b>	One Year
		<b>B</b>	Two Years
		<b>C</b>	Three Years
		<b>D</b>	Four Years
		<b>E</b>	Four Years
<b>4</b>	<b>Intake Capacity</b> R: _____	<b>120</b>	

5	<b>Scheme of Examination</b> R: _____	NEP 40% Internal 60% External, Semester End Examination Individual Passing in Internal and External Examination	
6	R: _____ <b>Standards of Passing</b>	40%	
7	<b>Credit Structure</b> Sem. I - R: _____ <b>A</b> Sem. II - R: _____ <b>B</b>	Attached herewith	
	<b>Credit Structure</b> Sem. III - R: _____ <b>C</b> Sem. IV - R: _____ <b>D</b>		
	<b>Credit Structure</b> Sem. V - R: _____ <b>E</b> Sem. VI - R: _____ <b>F</b>		
8	<b>Semesters</b>	A	Sem I & II
		B	Sem III & IV
		C	Sem V & VI
		D	Sem VII & VIII
		E	Sem VII & VIII
9	<b>Program Academic Level</b>	A	4.5
		B	5.0
		C	5.5
		D	6.0
		E	6.0
10	<b>Pattern</b>	Semester	
11	<b>Status</b>	New	
12	<b>To be implemented from Academic Year Progressively</b>	From Academic Year: 2024-25	



Sign of the BOS  
Chairman  
Name of the Chairman  
Name of the BOS

Sign of the  
Offg. Associate Dean  
Name of the Associate Dean  
Name of the Faculty

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Offg. Dean  
Name of the Offg. Dean  
Name of the Faculty

# Preamble

## 1) Introduction

The world is changing and so is the need of people. The increased levels of stress, changing global economy and environmental dynamism have made the role of psychologists, economists and geographers very crucial in the process of maintaining the global balance. Therefore, the College offers a Bachelors of Arts degree in the most contemporary subjects of Psychology, Economics and Geography so that the College can create graduates who can cater to the needs of the world and at the same time make them independent by inculcating the knowledge and skills required by their respective industries. The course is designed in such a way that the learners will be able to demonstrate a high level of knowledge, and advanced reading, writing and composition skills and they will apply basic research methods. Finally, the course will help to develop ethical value systems, awareness about gender issues, holistic health and environmental sustainability.

This Bachelor's Degree Programme will provide students the right blend of knowledge and skills along with practical exposure

## 2) Aims and Objectives

This program of BA is structured to provide graduates with practical skills required in fields like Ethical Value Systems, Health Industry and Environmental Sustainability. The main objectives of BA are:-

- To provide intensive theoretical & practical knowledge
- To provide a high level of knowledge, advanced reading, writing and composition skills and they will apply basic research methods.
- To train students with knowledge in the field of Geography
- To develop students' geographical competencies respectively to become employable or to start their entrepreneurial journey.

## 3) Learning Outcomes

After completing three years of the Bachelor of Arts (B.A.) program, the learners will:

PO – 1: demonstrate detailed knowledge of the discipline of Geography and be able to pursue higher education in this discipline

PO – 2: be able to have advanced reading, writing, speaking and composition skills in two languages (English and Hindi)

PO – 3: be eligible for employment in diverse areas such as corporate sector, government, Education, tourism and NGOs

PO – 4: be able to understand and apply basic research methods including data analysis and interpretation

PO -5: develop ethical value systems, awareness about gender issues, holistic health and environmental sustainability

### PSO- Geography

**PSO- 1:** Acquiring knowledge of Physical Geography and Human Geography

**-PSO- 2:** Understanding population, regional disparities, socio-cultural diversities and identifying economic and tourism opportunities

**PSO- 3:** Handling statistical data and application of GIS and modern Geographical Map Making Techniques

**PSO- 4:** Creating awareness about the hazards and disasters to which the subcontinent is vulnerable; and their management.

## 4) Any other point (if any)

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**5) Credit Structure of the Program (Sem I, II, III, IV, V & VI)**

**Under Graduate Certificate in Geography  
Credit Structure (Sem. I & II)**

R: _____ A										
Level	Semester	Major		Minor	OE	VSC, SEC (VSEC)	AEC, VEC,IKS	OJT, FP, CEP, CC,RP	Cum. Cr. / Sem.	Degree/ Cum. Cr.
		Mandatory	Electives							
4.5	I	6		-	2+2	VSC:2, SEC:2  VSC: Tools and Techniques of Spatial Analysis in Geography I (2)  SEC: Tools and Techniques of Weather Data Analysis (2)	AEC:2, VEC:2,IKS:2	CC:2	22	UG Certificate 44
		1) Introduction to Human Geography (4)  2) Geography of Maharashtra (2)								
	R: _____ B									
	II	6		2	2+2	VSC:2, SEC:2  VSC: Tools and Techniques of Spatial Analysis in Geography II (2)  SEC: Tools and Techniques of Thematic Mapping (2)	AEC:2, VEC:2	CC:2	22	
	<b>Cum Cr.</b>	12	-	2	8	4+4	4+4+2	4	44	
<p><b>Exit option: Award of UG Certificate in Major with 40-44 credits and an additional 4 credits core NSQF course/ Internship OR Continue with Major and Minor</b></p>										

**Under Graduate Diploma in Geography  
Credit Structure (Sem. III & IV)**

R: _____ A											
Level	Semester	Major		Minor	OE	VSC, SEC (VSEC)	AEC, VEC, IKS	OJT, FP, CEP, CC,RP	Cum. Cr. / Sem.	Degree/ Cum. Cr.	
		Mandatory	Electives								
5.0	III	8 7) Geography of Rural Settlement (2) 8) Agricultural Geography (2) 9) Social Geography (2) 10) Tools and Techniques of Spatial Analysis in Geography III (2)			2	3) Tourism Survey and Planning (2)  (No SEC in Sem 3)		FP:2	22	UG Certificate 44	
	R: _____ B										
	IV	8 11) Geography of Urban Settlement (2) 12) Industrial Geography (2) 13) Environmenta l Geography (2) 14) Tools and Techniques of Spatial Analysis in Geography IV (2)		4	2	SEC:2  3) Techniques of Topographical Maps Interpretation (2)  (No VSC in Sem IV)		CEP: 2	22		
	<b>Cum Cr.</b>	28		10	12	6+6	8+4+2	8 + 4	88		

**Exit option: Award of UG Certificate in Major with 40-44 credits and an additional 4 credits core NSQF course/ Internship OR Continue with Major and Minor**

## B.A. (Geography)

### Credit Structure (Sem. V & VI)

R: _____ A										
Level	Semester	Major		Minor	OE	VSC, SEC (VSEC)	AEC, VEC, IKS	OJT, FP, CEP, CC,RP	Cum. Cr. / Sem.	Degree/ Cum. Cr.
		Mandatory	Electives							
5.5	V	10 15) Introduction to Geomorphology (2) 16) Political Geography (2) 17) Introduction to Remote Sensing Technology (2) 18) Geography of Transport 18) Field Techniques in Geography (2) 19) Remote Sensing Technology (2)	4 1) Applications of Remote Sensing Technology (2) 2) Research Methodology in Geography (2)	4		VSC: 2		FP/CEP: 2	22	UG Degree 132
	R: _____ B									
	VI	20) Introduction to Climatology (2) 21) Introduction to Oceanography (2) 22) Geography of Trade & Marketing (2) 23) Introduction to GIS and GPS (2) 24) Statistical Techniques in Geography (2)	4 3) Applications of GIS and GPS (2) 4) An Introduction to Digital Cartography	4 (2)		SEC: 2		OJT:4		
	<b>Cum Cr.</b>	48	8	18	12	8+6	8+4+2	8+6+4	132	

**Exit option: Award of UG Certificate in Major with 40-44 credits and an additional 4 credits core NSQF course/ Internship OR Continue with Major and Minor**

**Semester – I**  
**Syllabus – GEOGRAPHY**



# University of Mumbai

As per NEP 2020

## Major Theory I (Mandatory) Semester I F.Y.B.A. / B.Sc. Geography (From academic Year 2024-2025)

Title: - INTRODUCTION TO HUMAN GEOGRAPHY

Course Credits: 04

Course Code:

### Pre-requisites:

Basic knowledge and understanding of World Geography

### Course Objectives:

1. To understand the basics of Human Geography as a branch of Geography
2. To know the nature of the human-environment relationship historically and philosophically
3. To comprehend the adaptive and interfering nature of human interaction with the environment
4. To know the trends of world population growth and patterns of its distribution
5. To understand the factors affecting population distribution
6. To study the concept, types, causes, and consequences of migration
7. To learn the concept of settlement and its site and situation
8. To understand the types and patterns of rural and urban settlements

### Course Outcomes:

On successful completion of this course, students will be able to:

1. Describe the meaning, nature, scope, and branches of human geography
2. Develop an understanding of various approaches to human geography
3. Interpret the nature of the human-environment relationship
4. Analyse the growth trends and distribution patterns of the world population and the factors affecting them
5. Recognize different types of migrations
6. Interpret the causes and consequences of migration with suitable examples
7. Distinguish between rural and urban settlements
8. Describe types and patterns of settlements

### Course Content:

Unit	Topics	Hours
<b>I</b>	<b>Introduction to Human Geography</b>	14
1.1	Meaning and Nature of Geography	
1.2	Human Geography: Meaning, Nature, and Scope	
1.3	Approaches to Human Geography	
1.4	Branches of Human Geography	
<b>II</b>	<b>Human-Environment Relationship</b>	16
2.1	Changing Human-Environment Relationships: A Historical Perspective	
2.2	Thoughts on Human-Environment Relationship: Determinism, Possibilism, and Probabilism	
2.3	Human Adaptation to Environment: Case Study of Tropical Rainforests and Hot Deserts	
2.4	Human Interference in the Environment and Resultant Environmental Issues	
<b>III</b>	<b>Population and Migration</b>	14

3.1	World Population Growth and Patterns of Distribution	
3.2	Factors Affecting World Population Distribution	
3.3	Concepts and Types of Migration	
3.4	Causes and Consequences of Migration in the Contemporary World Examples	
<b>IV</b>	<b>Human Settlements</b>	
4.1	Meaning of Settlement and Concepts of Rural and Urban Settlements	
4.2	Site and Situation of Settlements	16
4.3	Types and Patterns of Rural Settlements	
4.4	Classification of Urban Settlements	
		<b>60</b>

#### References:

1. Chandana, R. *Geography of Population: Concepts, Determinants, and Patterns*. Ludhiana: Kalyani Publishers. 2016.
2. Dikshit, R. *Geographical Thought: A Contextual History of Ideas*. Delhi: PHL Learning Pvt. Ltd. 2018.
3. Gautam, A. *Environmental Geography*. Allahabad: Sharda Pustak Bhawan. 2010.
4. Goh Cheng Leong. *Certificate Physical and Human Geography*. New Delhi: Oxford University Press. 2016.
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16. ठाकूर शि., रा. पाटील आणि इतर .मानवी भूगोल कोकण जिऑग्राफिकल असोसिएशन ऑफ :कणकवली .  
.२०१६ .इंडिया
17. ठाकूर शि., रा. पाटील आणि इतर .वस्ती भूगोल कोकण जिऑग्राफिकल असोसिएशन ऑफ :कणकवली .  
.२०१६ .इंडिया
18. भागवत, अ .कार्लेकर .आणि श्री .मानवी भूगोल .२००९ .डायमंड पब्लिकेशन्स :पुणे .

# University of Mumbai

As per NEP 2020

## Major Theory II (Mandatory) Semester I F.Y.B.A. / B.Sc. Geography (From academic Year 2024-2025)

Title: - GEOGRAPHY OF MAHARASHTRA

Course Credits: 02

Course Code:

### Pre-requisites:

Basic high school-level knowledge and understanding of Indian geography

### Course Objectives:

1. To understand the location and extent of Maharashtra and its significance
2. To comprehend the physiographic divisions, rivers, and climatic characteristics of Maharashtra
3. To study the geographical distribution of soil, natural vegetation, and minerals and their conservation in Maharashtra
4. To learn the growth trends and distribution of the population of Maharashtra
5. To study the distribution of crops, livestock, and fisheries in Maharashtra
6. To learn about types of industries and industrial regions in Maharashtra
7. To study patterns of transport networks and tourism attractions in Maharashtra

### Course Outcomes:

On successful completion of this course, students will be able to:

1. Describe the significance of Maharashtra's location and extent
2. Develop an understanding of physiographic divisions, major rivers, and climatic features of Maharashtra
3. Interpret the patterns of distribution of soil, natural vegetation, and minerals in Maharashtra
4. Describe the methods of conservation of soil, natural vegetation, and minerals
5. Interpret the trends of population growth and patterns of distribution of population in Maharashtra
5. Analyse the distribution patterns of crops, livestock, and fisheries in Maharashtra
6. Describe types of industries and industrial regions in Maharashtra
7. Interpret the patterns of transport networks in Maharashtra
8. Recognize tourist attractions in Maharashtra

### Course Content:

Unit	Topics	Hours
<b>I</b>	<b>Physical Geography of Maharashtra – I</b>	7
1.1	Location, Extent, and Significance	
1.2	Physiography and Rivers	
1.3	Characteristics of Climate	
<b>II</b>	<b>Physical Geography of Maharashtra – II</b>	8
2.1	Types and Distribution of Soil	
2.2	Types and Distribution of Natural Vegetation	
2.3	Conservation of Soils and, Natural Vegetation	
<b>III</b>	<b>Human Geography of Maharashtra – I</b>	7
3.1	Growth and Distribution of Population	
3.2	Types of Agriculture	
3.3	Types and Distribution of Fisheries	
<b>IV</b>	<b>Human Geography of Maharashtra – II</b>	

4.1	Industrial Regions	
4.2	Patterns of Transport Network – Road and Water	8
4.3	Patterns of Transport Network – Railway and Air	
		30

### References:

1. Amrute, V. (2008): 'मुलांचा चित्रमय महाराष्ट्र (Children's Atlas of Maharashtra)', Manan Prakashan, Mumbai
2. Deshpande, C. D. (1948): 'Western India: A Regional Interpretation', Students Own Book Depot, Dharwar
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5. Dikhsit, K. R. (1986): 'Maharashtra in Maps', Maharashtra State Board for Literature and Culture, Bombay
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# University of Mumbai

As per NEP 2020

## Vocational Skill Course (VSC)

F.Y.B.A. / B.Sc. Geography (From academic Year 2024-2025)

### SEMESTER- I

**Title: - TOOLS AND TECHNIQUES OF SPATIAL ANALYSIS – I (Practical)**

**Course Credits: 02**

**Course Code:**

#### Pre-requisite:

Students are aware of the use of maps in day-to-day life.

#### Course Objectives:

Learners will be able to:

1. Acknowledge the importance and use of maps.
1. Understand and prepare different kinds of maps.
2. Recognize basic themes of map-making.
3. Development of observation and reading skills.

#### Course Outcomes:

After completion of this course the learner will be able to:

1. Recognize the importance and use of maps in day-to-day life.
2. Develop skills to prepare different kinds of maps.
3. Reevaluate the uses of multiple techniques for multiple themes of map-making.
4. Develop the observation, compilation, analysis and reading skills.

#### Course Content:

Unit	Topics	Hours
<b>I</b>	<b>Introduction to Maps</b>	<b>07</b>
1.1	Meaning and Elements of Map	
1.2	Types of Maps	
1.3	Calculation of Distance	
<b>II</b>	<b>Map Basics</b>	<b>07</b>
2.1	Direction and Bearing	
2.2	Map projections: Concept and Importance	
2.3	Classification of Projections	
<b>III</b>	<b>Map Scale</b>	<b>08</b>
3.1	Scale: Definition and Importance	
3.2	Types of Scale	
3.3	Conversion of Scale	
<b>IV</b>	<b>Contours</b>	<b>08</b>
4.1	Meaning and Types of Contours	
4.2	Cross Section of Contours	
4.3	Intervisibility	
		<b>30</b>

#### References:

1. Monkhouse F.J. - Maps & Diagrams, Methuen and Co., London, 1971 (3rd Edition, Revised).
2. Peter A. Rogerson - Statistical Methods for Geography, Sege Publishers -2001

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13. अर्जुन कुंभार सुमेरू प्रकाशन - प्रात्यक् षिक भूगोल ; डोंबिवली, ठाणे (2003)

# University of Mumbai

As per NEP 2020

## Skill Enhancement Course (SEC)

F.Y.B.A. / B.Sc. Geography (From Academic Year 2024-2025)

### SEMESTER- I

**Title: - Tools and Techniques of Weather Data Collection & Analysis (Practical)**

**Course Credits: 02**

**Course Code:**

#### Pre-requisites:

Basic knowledge and understanding of weather and climate

#### Course Objectives:

1. Equip students with a foundational understanding of weather elements and proficiency in using basic data collection tools.
2. Provide students with insights into the geographical implications of weather and skills in mapping and interpreting weather data to identify significant patterns and events.

#### Course Outcomes:

After the completion of the Course, the students will be able to:

1. Remember the fundamentals of weather and climate.
2. Understand the conceptual framework of weather and climate.
3. Apply graphical techniques for weather data analysis.
4. Analyse local weather data.

#### Course Content:

Unit	Topics	Hours
<b>I</b>	<b>Weather and Climate – I</b>	<b>07</b>
1.1	Concept of Weather and Climate	
1.2	Temperature, Humidity and Precipitation: Concept and Types	
1.3	Temperature, Humidity and Precipitation: Factors Affecting	
<b>II</b>	<b>Weather and Climate – II</b>	<b>07</b>
2.1	Concept of Atmospheric Pressure	
2.2	Factors Affecting Atmospheric Pressure	
2.3	Concept and Types of Winds	
<b>III</b>	<b>Weather Data Collection &amp; Analysis</b>	<b>08</b>
3.1	Weather Instruments	
3.2	Use of Websites and Mobile Applications for Temperature, Humidity and Precipitation Data Collection	
3.3	Graphical Representation of Temperature, Humidity and Precipitation Data	
<b>IV</b>	<b>IMD Weather Maps</b>	<b>08</b>
4.1	Introduction to Weather Maps	
4.2	Signs and Symbols of Weather Maps	
4.3	Reading of Weather Maps	

**References:**

1. Ahrens, C.D. (2012): Essentials of Meteorology: An Invitation to the Atmosphere; Cengage Learning, Boston
2. Ahrens, C.D., Jackson, P.L., Jackson, C.E.J. and Jackson, C.E.O. (2012): Meteorology Today: An Introduction to Weather, Climate and the Environment; Cengage Learning; Boston
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13. Subrahmanyam, V.P. (ed) (1983): Contributions to Indian Geography a) Vol III- General Climatology



**Semester – II**  
**Syllabus – GEOGRAPHY**

# University of Mumbai

As per NEP 2020

## Major Theory III (Mandatory) Semester II F.Y.B.A. / B.Sc. Geography (From academic Year 2024-2025)

Title: - POPULATION GEOGRAPHY

Course Credits: 04

Course Code:

### Pre-requisite:

Knowledge and understanding of basic concepts of the human race, gender and mobility.

### Course Objectives:

1. To understand the concept and evolution of Population Geography
2. To analyse the aspect of population growth, distribution and density
3. To explain the causes, effects and types of migration
4. To conceptualize the problems related to the population of India

### Course Outcomes:

1. Learners will be able to understand the concept and evolution of Population Geography
2. Learners will be able to analyse the aspects of population growth, distribution and density
3. Learners will be able to explain the causes, effects and types of migration
4. Learners will be able to conceptualize the problems related to the population of India

### Course Content:

Unit	Topics	Hours
<b>I</b>	<b>Unit I: Population Geography</b>	<b>14</b>
1.1	Concept and Definition of Population Geography	
1.2	Nature, Scope and Importance of Population Geography	
1.3	Historical Development of Population Geography	
1.4	Relationship between Population Geography and other Social Sciences	
<b>II</b>	<b>Unit II: Growth, Distribution and Density</b>	<b>16</b>
2.1	Causes and Effects of Population Growth	
2.2	Factors Affecting the Distribution of Population	
2.3	Demographic Transition Theory	
2.4	Population Density Zones in the World	
<b>III</b>	<b>Unit III: Migration</b>	<b>14</b>
3.1	Definition and Types of Migration	
3.2	Causes and Effects of Migration	
3.3	Recent Trends of Migration of Population	
3.4	Recent Trends of International Migration of Population	
<b>IV</b>	<b>Unit IV: Population of India</b>	<b>16</b>
4.1	Growth and Distribution of Population in India	
4.2	Demographic characteristics	
4.3	Population explosion and related issues in India	
4.4	Population Policy of India	
		<b>60</b>

## References:

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2. Beaujeu-Garnier, J., Geography of Population, (Translated by Beaver, S.H.) Longmans, London, 1966
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# University of Mumbai

## As per NEP 2020 Major Theory IV (Mandatory) Semester II F.Y.B.A. / B.Sc. Geography (From academic Year 2024-2025)

**Title: - GEOGRAPHY OF INDIA**

**Course Credits: 02**

**Course Code:**

### Pre-requisite:

Knowledge and understanding of basic concepts of India's Physiography and human activities

### Course Objectives:

1. To identify the location and administrative environment of India
2. To explain the distribution of soil, minerals and vegetation in India
3. To understand the types and distribution of agriculture, livestock and fishing in India
4. To analyse the importance, distribution and development of resources in India

### Course Outcomes:

1. Learners will be able to identify the location and administrative environment of India
2. Learners will be able to explain the distribution of soil, minerals and vegetation in India
3. Learners will be able to understand the types and distribution of agriculture, livestock and fishing in India
4. Learners will be able to analyse the importance, distribution and development of resources in India

### Course Content:

Unit	Topics	Hours
<b>I</b>	<b>Physical Geography of India – I</b>	7
1.1	Location, Extent, and Significance	
1.2	Physiography and Rivers	
1.3	Characteristics of Climate	
<b>II</b>	<b>Physical Geography of India – II</b>	8
2.1	Types and Distribution of Soil	
2.2	Types and Distribution of Natural Vegetation	
2.3	Conservation of Soils and, Natural Vegetation	
<b>III</b>	<b>Human Geography of India – I</b>	7
3.1	Growth and Distribution of Population	
3.2	Types of Agriculture	
3.3	Types and Distribution of Fisheries	
<b>IV</b>	<b>Human Geography of India – II</b>	8
4.1	Industrial Regions	
4.2	Patterns of Transport Network – Road and Water	
4.3	Patterns of Transport Network – Railway and Air	
		30

### References:

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2. Bharucha, F.R. (1983): A textbook of the plant geography of India, Oxford University Press, Bombay.

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# University of Mumbai

As per NEP 2020

## Vocational Skill Course (VSC)

F.Y.B.A. / B.Sc. Geography (From academic Year 2024-2025)

### SEMESTER- II

**Title: - TOOLS AND TECHNIQUES OF SPATIAL ANALYSIS – II (Practical)**

**Course Credits: 02**

**Course Code:**

#### Pre-requisite:

Students are aware of the use of data and information in day-to-day life.

#### Course Objectives:

Learners will be able to:

1. Acknowledge the importance and use of data.
2. Understand and compile the different types of data.
3. Use of data collection, representation and interpretation of different data.
4. Develop the observation, demonstration, compilation and representation skills.

#### Course Outcomes:

After completion of this course the learner will be able to:

1. Recognize the importance and use of data in day-to-day life.
2. Develop skills in data collection, representation and interpretation.
3. Reevaluate the uses of multiple techniques for data presentation in decision-making.
4. Develop the observation, compilation, analysis and reading skills.

#### Course Content:

Unit	Topics	Hours
<b>I</b>	<b>Geographical Data: Types and Collection</b>	<b>07</b>
1.1	Meaning and Types of Geographic Data	
1.2	Sources of Data	
1.3	Methods of Primary Data Collection: Questionnaire	
<b>II</b>	<b>Data Processing</b>	<b>07</b>
2.1	Data processing: Classification and Tabulation	
2.2	Frequency Distribution: Frequency Tally, Histogram	
2.3	Frequency Polygon and Ogive Curve	
<b>III</b>	<b>Techniques of Data Representation</b>	<b>08</b>
3.1	Simple Line graph, Multiple Line graph	
3.2	Simple bar graph, Multiple bar graph	
3.3	Proportionate circles, Divided Circles	
<b>IV</b>	<b>Techniques of Data Representation</b>	<b>08</b>
4.1	Band Graph	
4.2	Divided Bar Graph	
4.3	Proportionate Squares	
		<b>30</b>

## References:

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# University of Mumbai

As per NEP 2020

## Skill Enhancement Course (SEC)

F.Y.B.A. / B.Sc. Geography (From academic Year 2024-2025)

### SEMESTER- II

## Title: - Tools and Techniques of Thematic Mapping (Practical)

Course Credits: 02

Course Code:

#### Pre-requisite:

Knowledge and understanding of basic concepts of maps

#### Course Objectives:

1. To train the learners concerning the Cartographic Principles.
2. To provide a foundation for thematic map design and spatial analysis techniques.
3. To interpret and communicate spatial and non-spatial data.

#### Course Outcomes:

After the completion of the course, the students will be able to:

1. Remember the fundamentals of Maps and Thematic Maps.
2. Understand the elements of maps.
3. Apply Spatial Statistical Techniques in Thematic Mapping
4. Analyse the different types of thematic maps.
5. Evaluate the infographics provided through thematic maps.
6. Create his/her thematic map using spatial-statistical techniques.

#### Course Content:

Unit	Topics	Hours
<b>I</b>	<b>Introduction to Thematic Maps</b>	<b>07</b>
1.1	Map: Meaning and Types	
1.2	Basic Elements of Maps	
1.3	Concept and Types of Thematic Maps	
<b>II</b>	<b>Reading and Interpretation of Thematic Maps – I</b>	<b>08</b>
21.1	Choropleth Map	
2.2	Isopleth Map	
2.3	Dot Map	
<b>III</b>	<b>Reading and Interpretation of Thematic Maps – II</b>	<b>07</b>
3.1	Located Bars, Located Proportional Circles,	
3.2	Pictogram	
3.3	Flow Maps	
<b>IV</b>	<b>Techniques &amp; Themes of Thematic Maps – III</b>	<b>08</b>
4.1	Population Maps	
4.2	Linguistic Maps	
4.3	Land Use Land Cover (LULC) Maps	
		<b>30</b>



**References:**

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## QUESTION PAPER PATTERN (Geography)

(External and Internal)

### EXAMINATION PATTERN FOR THEORY PAPER (SEMESTER I and II)

<u>A) Continuous Internal Assessment (40 Marks)</u>		
<b>Sr. No.</b>	<b>Particular</b>	<b>Marks</b>
1	One Assignment/Project work/Case study /Presentation /Seminar /Field visit report/Book review etc. to be conducted in the given semester before the Semester end examination.	20
2	One online/ offline class test	10
3	Active participation in regular class instructional deliveries and fieldwork.	05
4	Overall conduct as a responsible learner, mannerism and articulation and exhibit of leadership qualities in organizing environment-related activities	05
<b>B) Semester End Examination (60 Marks):</b>		
1. These examinations shall be of 2 Hours duration. Maximum marks 60.		
2. There shall be four questions each of 15 marks. On each unit, there will be one question as per the directive of BOS.		
3. All questions shall be compulsory with internal choice within the questions. (Each question will be of 15 marks with options.)		

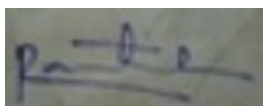
### EXAMINATION PATTERN FOR PRACTICAL PAPER (SEMESTER I and II)

<u>A) Continuous Internal Assessment (40 Marks)</u>		
<b>Sr.No.</b>	<b>Particular</b>	<b>Marks</b>
1	Journal and Viva	20
2	One online/ offline class test	10
3	Active participation in regular class instructional deliveries and fieldwork.	05
4	Overall conduct as a responsible learner, mannerism and articulation and exhibit of leadership qualities in organizing environment-related activities	05
<b>B) Semester End Examination (60 Marks):</b>		

1. These examinations shall be of 2 Hours duration. Maximum marks 60.
2. There shall be four questions each of 15 marks. On each unit, there will be one question as per the directive of BOS.
3. All questions shall be compulsory with internal choice within the questions. (Each question will be of 15 marks with options.)

**Letter Grades and Grade Points:**

Semester GPA/ Programme CGPA Semester/ Programme	% of Marks	Alpha-Sign/ Letter Grade Result	Grading Point
9.00 - 10.00	90.0 - 100	O (Outstanding)	10
8.00 - < 9.00	80.0 - < 90.0	A+ (Excellent)	9
7.00 - < 8.00	70.0 - < 80.0	A (Very Good)	8
6.00 - < 7.00	60.0 - < 70.0	B+ (Good)	7
5.50 - < 6.00	55.0 - < 60.0	B (Above Average)	6
5.00 - < 5.50	50.0 - < 55.0	C (Average)	5
4.00 - < 5.00	40.0 - < 50.0	P (Pass)	4
Below 4.00	Below 40.0	F (Fail)	0
Ab (Absent)	-	Ab (Absent)	0



**Sign of the BOS  
Chairman**  
Name of the Chairman  
Name of the BOS

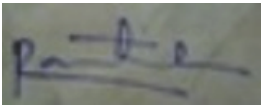
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Offg. Associate Dean**  
Name of the Associate Dean  
Name of the Faculty

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Offg. Dean**  
Name of the Offg. Dean  
Name of the Faculty

### Justification for B.A. (Geography)

1.	Necessity for starting the course:	<p>The world is changing and so is the need of people. The increased levels of stress, changing global economy and environmental dynamism have made the role of geographers very crucial in the process of maintaining the global balance. Therefore, the College offers a Bachelor of Arts degree in the most contemporary subject of Geography so that the College can create graduates who can cater to the needs of the world and at the same time make them independent by inculcating the knowledge and skills required by their respective industries. The course is designed in such a way that the learners will be able to demonstrate a high level of knowledge, and advanced reading, writing and composition skills and they will apply basic research methods. Finally, the course will help to develop ethical value systems, awareness about gender issues, holistic health and environmental sustainability. This Bachelor's Degree Programme will provide students the right blend of knowledge and skills along with practical exposure</p>
2.	Whether the UGC has recommended the course:	Yes
3.	Whether all the courses have commenced from the academic year 2023-24	Yes
4.	The courses started by the University are self-financed, whether an adequate number of eligible permanent faculties are available?:	Yes
5.	To give details regarding the duration of the Course and is it possible to compress the course?:	3 year course No

6.	The intake capacity of each course and no. of admissions given in the current academic year:	Intake Capacity – 120
7.	Opportunities of Employability / Employment available after undertaking these courses:	It prepares individuals for advanced positions in geography, urban planning, and GIS, statistical analysis, research and training, education; careers in environmental consultancy, sustainability, and policy development; fosters innovative business opportunities in eco-friendly products, green technology, and conservation services. ventures in mining, renewable energy, farming, and biotech industries



**Sign of the BOS  
Chairman**  
Name of the Chairman  
Name of the BOS

**Sign of the  
Offg. Associate Dean**  
Name of the Associate Dean  
Name of the Faculty

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Offg. Dean**  
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Name of the Faculty