



Anekant Education Society's

Tuljaram Chaturchand College, Baramati

(Autonomous)

Three years degree programme in Geography

(Faculty of Science and Technology)

Revised Syllabus for

S.Y.B.A. Geography (Semester III)

For Tuljaram Chaturchand College, Baramati

Choice Based Credit System Syllabus (2022 Pattern)

To be implemented from Academic Year 2023-2024

Title of the Course: B.A. (Geography)

Preamble

Introduction:

Tuljaram Chaturchand College has decided to change the syllabus of various faculties from June, 2022. Taking into consideration the rapid changes in science and technology and new approaches in different areas of Geography and related subjects, Board of Studies in Geography of Tuljaram Chaturchand College, Baramati - Pune has prepared the syllabus of B. A. Geography Semester - III under the Choice Based Credit System (CBCS). The model curriculum as developed by U.G.C. is used as a guideline for the present syllabus.

A bachelor degree in geography will provide you the knowledge and skills you need to begin a variety of rewarding careers. Geographers work as urban planners, GIS technicians and analysts, disaster preparedness planners, teachers, environmental scientists, remote sensing analysts, transportation planners, demographers, hydrologists and in a variety of other areas. Students who complete bachelor degree in Geography, courses will examine the spatial organization of physical features and human activities at a variety of spatial scales from local to global. Students will be able to locate features on the surface of the earth, explain why they are located where they are, and describe how places are similar and/or different. Students will also examine human interactions with the environment and describe how physical and cultural landscapes change through time. Students completing physical geography courses will be able to describe the processes that drive earth's climate, create landforms, and govern the distribution of plants and animals. Students completing human geography will analyze and describe cultural phenomenon such as population, development, agriculture, language, and religion.

❖ Aims and Objectives of the new curriculum of the SYBA:

1. To maintain updated curriculum.
2. To take care of fast development in the knowledge of Geography.
3. To enhance the quality and standards of Geography Education.
4. To provide a broad common frame work, for exchange, mobility and free dialogue across the Indian Geography and associated community.
5. To create and aptitude for Geography in those students who show a promise for higher studies and creative work in Geography.
6. To create confidence in others, for equipping themselves with that part of

Programme outcomes (Pos) (B.A. Geography):

1. Student will learn a basic narrative of geographical features in a various region of the world.
2. Students are enhancing the ability to use Geographical instruments for the advanced study of geography.
3. Student will understand & evaluate different geographical theories, principles, various arguments and point of view.
4. Development of observation and survey skills through study tours, field visits and village survey among students.
5. Students enhance the basic skill about advanced Geo-spatial techniques regarding GIS, RS, GPS, DGPS, Total Station and Drone Survey.
6. Student will be able to correlate the knowledge of physical geography with the human geography. They will be able to acquire the knowledge of Human Geography and will correlate it with their practical life.
7. Student will be able to analyze the problems of physical as well as cultural environments of both rural and urban areas. Along with they will try to find out the possible measures to solve those problems.
8. They will be able for conducting social survey project which is needed for measuring the status of development of a particular area or section of the society.
9. Students will be able to handling and application of various modern instruments so that they can be collect data.
10. They will learn preparation of map based on Geo-spatial technology by using the modern geographical map making techniques, such as Satellite images of different bands, Google Maps, Google Earth etc.
11. As a student of Geography, they will be able to develop their observation power through field experience and in future they will be able to identify the socioenvironmental and socioeconomic problems of society.
12. After the completion of the project, they will be efficient in their communication skill as well as skill to interact with society.
13. This syllabus design according to competitive exam like MPSC and UPSC.

14. Anekant Education Society's

Tuljaram Chaturchand College, Baramati**(Autonomous)*****Board of Studies in Geography*****From 2022-23 To 2024-25**

Sr. No.	Name	Designation
1.	Dr. Arun S. Magar	Chairman
2.	Dr. Asaram S. Jadhav	Member
3.	Mr. Vinayak D. Chavan	Member
4.	Mr. Sachin C. Memane	Member
5.	Ms Akshata S. Raje	Member
6.	Dr. Santosh Lagad	Vice-Chancellor Nominee
7.	Dr. Pravin Kokane	Expert from other University
8.	Dr. T. P. Shinde	Expert from other University
9.	Dr. Babaji Maskare	Industry Expert
10.	Mr. Ganesh Ghanawat	Meritorious Alumni
11.	Kadam Radhika	Student
12.	Saste Harshada	Student

Choice Based Credit System Syllabus (2022 Pattern)**To be implemented from Academic Year 2022-2023****GEOGRAPHY****Course Structure**

Class	Semester	Paper Code	Subject
FYBA	I	UAGG111	Physical Geography
	II	UAGG121	Human Geography
SYBA	III	UAGG231	Geography of Disaster Management-I
		UAGG232	Physical Geography of Maharashtra
		UAGG233	Practical in Elements of Map and Surveying
		UAGGSEC-1	Fundamentals of Google Earth
	IV	UAGG241	Geography of Disaster Management-II
		UAGG242	Human Geography of Maharashtra
		UAGG243	Statistical Techniques in Geography
		UAGGSEC-2	Applications of Google Earth
TYBA	V	UAGG351	Physical Geography of India
		UAGG352	Introduction to Remote Sensing
		UAGG353	Practical in Remote Sensing
		UAGGSEC-3	Fundamentals of Google map
	VI	UAGG361	Human Geography of India
		UAGG362	Introduction to GIS
		UAGG363	Practical In GIS
			UAGGSEC-4

B.A. PROGRAMME CREDIT DISTRIBUTION PATTERN (128 Credit)

Class	Semester	Core Course	Elective Course			Ability Enhancement Compulsory Courses (AECC)		Total Credit
			Discipline Specific Elective	Dissertation Project	Generic Elective Course	Ability Enhancement Compulsory Courses	Skill Enhancement Courses	
FYBA	I	4 papers 4 x 3 = 12 Credits	-	-		Comp.English 3 Credits Mar/Hin/Sanskrit = 3 Credits		18
	II	4 papers 4 x 3 = 12 Credits	-	-	Democracy 2 Credit Phy.Edu. 2 Credit	Comp.English 3 Credits Mar/Hin/Sanskrit = 3 Credits		22
SYBA	III	3 papers 3 x 3= 9 Credits	2 Special papers 2 x 3= 6 Credits	-	Env.Sci. 2 Credit	Comp.English 3 Credits	Special papers 1 x 2= 2 Credits	22
	IV	3 papers 3 x 3= 9 Credits	2 Special papers 2 x 3= 6 Credits	-		Certificate Course Not Related to subject 2 Credit	Special papers 1 x 2= 2 Credits	22
TYBA	V	3 papers 3 x 3= 9 Credits	2 Special papers 2 x 3= 6 Credits Certificate Course Related to subject 2 Credit	-	-	Comp.English 3 Credits	Special papers 1 x 2= 2 Credits	22
	VI	3 papers 3 x 3= 9 Credits	2 Special papers 2 x 3= 6 Credits	1 Project related to subject 2 Credit	-	Comp.English 3 Credits	Special papers 1 x 2= 2 Credits	22
		60	26	2	6	26	8	128

**Mandatory 8 additional / add on credits for
Undergraduate Programmes**

- Note:**
- 1. 6 credits from Group-1 are compulsory**
 - 2. Choose minimum 2 credits from Group-2 to Group-7**

Group-1	(a)	Physical Education (at F.Y.B.A. Sem. II)	02 credits
	(b)	Democracy Course (FYBA Sem. II)	02 credit
	(c)	Environmental Awareness (S.Y.B.A. Sem. III)	02 Credit
Group-2	(a)	Certificate Course Not Related to Subject (S.Y. B.A. Sem. IV)	02 Credit
Group-3	(a)	Representation in Sports at University Level	02 credits
	(b)	Representation in Sports at State Level / National level	02 credits
	(c)	Representation in Sports at International (overseas) Level	04 credits
Group-4	(a)	National Social Service Scheme (participation in college camp)	02 credits
	(b)	National Social Service Scheme (participation in university camp)	02 credits
	(c)	NCC (participation in annual camp)	02 credits
	(d)	NCC (with B certificate/ C certificate award)	02 credits
	(e)	NSS / NCC participation in Republic day parade	04 credits
	(f)	Selection in AVISHKAR at University Level	02 credits
Group-5	(a)	Research paper publication at National level	02 credits
	(b)	Research paper publication at International (overseas) level	02 credits
Group-6	(a)	Participation in Summer School/ Internship programme / Short term course (not less than 2 weeks duration)	02 credits
	(b)	Participation in cultural and co curricular activities/ extracurricular activities/competitions at University level / State Level	02 credit
Group-7	(a)	Participation in cultural and co curricular activities/ extracurricular activities/competitions at University level / State Level	02 credit
	(b)	Participation in cultural and cocurricular activities / extracurricular activities/ competitions at International (overseas) level	02 credits

- Note :
- 1) One Credit = 15/16 Lectures.
 - 2) The Project should be initiated at on the onset of V Semester and submitted during VI Semester.
 - 3) FY/SY/TY --> 4 Lectures per week.
 - 4) Theory paper be covered with 70% actual teaching (3 actual lectures per week) and 30% component (1 lecture per week) of self study should be further evaluated through Group discussion / Seminar / Open Book Test / MCQ / Essay writing / Assignment etc.

S.Y.B.A. Geography, Syllabus for Semester III**Paper: UAGG231: Geography of Disaster Management****No. of Credits: 03****No. of Periods: 48**

Course Objectives:

1. To introduce students to the fundamental concepts of geography in relation to disaster management.
2. Students will learn about the nature of disasters, their causes, and impacts.
3. The course will also explore the role of geography in disaster management, including hazard mapping, risk assessment, and emergency response planning.
4. Students will learn about the impacts of disasters on people and the environment, and how geospatial technologies can be used to mitigate these impacts.
5. The course will also cover the role of government agencies, NGOs, and communities in disaster management.
6. To learn global warming and climate change.
7. To understand importance of disaster management in India.

Course Outcomes:

- CO1. Understand the basic concepts of geography related to disaster management.
- CO2. Analyze the relationship between physical geography and natural disasters.
- CO3. Explore the impact of human activities on natural disasters.
- CO4. Learn about local disaster and risk assessment.
- CO5. Understand the role of geospatial technologies in disaster management.
- CO6. Understand the role of government agencies, NGOs, and communities in disaster management.
- CO7. Know the effects of global warming and climate change.

Topics and Learning points

<p>Unit 1: Introduction to Disaster Management and Geography</p> <p>1.1. Definition of hazard and disaster, Types of Disasters</p> <p>1.2. Introduction to Disaster Management Cycle</p> <p>1.3. Role of geography in disaster management</p> <p>1.4. Global and regional trends in disasters</p>	<p>Lectures</p> <p>12</p>
<p>Unit 2: Natural and Manmade Disasters</p> <p>1.1. Tectonic hazards: earthquake</p> <p>1.2. Climatic hazards: Cyclone, floods and droughts</p> <p>1.3. Geomorphic hazards: landslides and avalanches</p> <p>1.4. Human-induced hazards: industrial accidents, oil spills, and nuclear disasters</p> <p>1.5. Global warming and Climate change</p>	<p>12</p>
<p>Unit 3: Government Agencies, NGOs, and Communities in Disaster Management</p> <p>1.1. Role of government agencies in disaster management</p> <p>1.2. Role of NGOs in disaster management</p> <p>1.3. Role of communities in disaster management</p> <p>1.4. Role of Students in Disaster management</p>	<p>12</p>
<p>Unit 4: Disaster Management using Geospatial Technologies</p> <p>1.1. Remote sensing and GIS in disaster management</p> <p>1.2. Disaster monitoring and early warning systems: Cyclone and Flood</p> <p>1.3. Geospatial analysis of any recent disaster</p> <p>1.4. A case study of any local disaster event from the area of students</p>	<p>12</p>

Reference:

1. "Geography and Disasters" by Susan L. Cutter, David A. Johnston, and Christopher T. Emrich.
2. "Disaster Management: Enabling Resilience" by Anne K. Zerger and Edward A. Thomas.
3. "Disaster Risk Reduction: Cases from Urban Africa" edited by Kennedy Mbekeani and Eunice M. M. Musvoto.
4. "Disaster Risk Management in Asia and the Pacific" edited by Rajib Shaw, Fuad Mallick, and Anshu Sharma.
5. "Geography, Environment and Disaster Risk Reduction" edited by Susan L. Cutter, Isabelle Ruin, and Jörn Birkmann.
6. Saptarshi P. G., More J. C., Ugale V. R. (2009), "Geography and Natural Hazard"
Diamond, Pune.
7. Savindra Singh, (2000): Environmental Geography. Prayag Pustak Bhavan, Allahabad
8. Singh, S., 1998. Geomorphology, Prayag Pustak Bhavan, Allahabad.
9. A.H.Choudhar ,P.N.Salve, S.M.Kadam.R.H.Choudhar,V.C.Ithape (2010),
"Contemporary Issues and Geography",Atharva ,Pune.

Mapping of Programme Outcomes with Course Outcomes:

Weightage: (0 = Not relevant, 1 = Slightly relevant, 2 = Moderately relevant, 3 = Highly relevant):

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	2	1	1	3	2	2	2	2
CO2	2	2	1	3	2	2	3	3
CO3	2	3	2	2	2	2	3	3
CO4	3	2	2	3	3	2	2	3
CO5	3	1	1	3	3	3	2	2

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO6	2	3	3	2	3	2	1	2
CO7	2	2	1	2	1	3	3	2

Justification of Ratings:

- CO1 (Basic concepts of geography): Moderately relevant across most POs with a focus on disciplinary knowledge (PO4).
- CO2 (Physical geography and disasters): Moderately to highly relevant, especially in disciplinary knowledge, environment and sustainability, and critical thinking (PO4, PO7, PO8).
- CO3 (Human impact on disasters): Moderately to highly relevant, particularly in effective citizenship, environment and sustainability, and critical thinking (PO2, PO7, PO8).
- CO4 (Local disaster and risk assessment): Generally highly relevant, especially in research-related skills, disciplinary knowledge, and problem-solving (PO1, PO4, PO8).
- CO5 (Role of geospatial technologies): Highly relevant in research-related skills, disciplinary knowledge, personal/professional competence, and self-directed learning (PO1, PO4, PO5, PO6).
- CO6 (Role of agencies in disaster management): Moderately to highly relevant, particularly in effective citizenship, social competence, and personal/professional competence (PO2, PO3, PO5).
- CO7 (Effects of global warming): Moderately relevant in most areas, highly relevant in self-directed and life-long learning, and environment and sustainability (PO6, PO7).

S.Y.B.A. Geography, Syllabus for Semester III**Paper: UAGG232: Physical Geography of Maharashtra****No. of Credits: 03****No. of Periods: 48**
-----**Course Objectives:**

1. This course is designed to provide students with an in-depth understanding of the physical geography of Maharashtra.
2. Students will be introduced to the various physical features of the state, including its landforms, climate and water resources.
3. The course will also cover the impact of human activities on the physical environment and the ways in which they can be managed sustainably.
4. Explore strategies for sustainable management of natural resources in Maharashtra.
5. Understand the problems of drought prone areas.
6. Study resource management of Maharashtra
7. Identify flood prone areas of Maharashtra

Course Outcomes:

- CO1. To understand the physical geography of Maharashtra.
- CO2. To identify and describe the landforms, climate, and water resources of Maharashtra.
- CO3. To identify and describe the flood and drought prone areas of Maharashtra.
- CO4. To examine the impact of human activities on the physical environment of Maharashtra.
- CO5. To explore strategies for sustainable management of natural resources in Maharashtra.
- CO6. To understand the problems of drought prone areas.
- CO7. To study resource management of Maharashtra.

Topics and Learning points

<p>Unit 1: Introduction:</p> <ol style="list-style-type: none"> 1. Historical and Political Background of the state 2. Geographical location of State 3. Adjoining States 4. Physical and Administrative Divisions 	<p>Lectures</p> <p>12</p>
<p>Unit 2: Physical Setting of Maharashtra</p> <ol style="list-style-type: none"> 1. Geological Structure of Maharashtra. 2. Physical Structure (Mountain, plateau, Plains) 3. Drainage Pattern (East and West flowing rivers) 4. Major Soil Types and Distribution 	<p>12</p>
<p>Unit 3: Climate of Maharashtra</p> <ol style="list-style-type: none"> 1. Climatic Regions of Maharashtra 2. Distribution of Rainfall 3. Draught prone areas- Problems and Management 4. Flood areas - Problems and Management 	<p>12</p>
<p>Unit 4: Resources of Maharashtra</p> <ol style="list-style-type: none"> 1. Water: Problems in utilization and conservation 2. Forest : Types and Conservation 3. Mineral; Iron ore, Manganese and Bauxite 4. Power : Hydraulic, Thermal, Atomic, Wind. 	<p>12</p>

Reference:

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 Programme Outcomes with Course Outcomes:

Weightage: (0 = Not relevant, 1 = Slightly relevant, 2 = Moderately relevant, 3 = Highly relevant):

Not relevant, 1 = Slightly relevant, 2 = Moderately relevant, 3 = Highly relevant):

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	2	1	1	3	2	2	2	2
CO2	2	1	1	3	2	2	3	2
CO3	2	2	1	3	2	2	3	3
CO4	2	3	2	3	2	2	3	3
CO5	3	2	2	3	3	2	3	3
CO6	1	3	2	2	2	2	2	2
CO7	2	2	2	3	3	2	3	3

Justification of Ratings:

- CO1 (Physical geography of Maharashtra): Moderately relevant across most POs, with a strong focus on disciplinary knowledge (PO4).

- CO2 (Landforms, climate, water resources): Similar to CO1, with a strong emphasis on disciplinary knowledge (PO4) and environment and sustainability (PO7).
- CO3 (Flood and drought areas): Moderately to highly relevant, especially in environment and sustainability and critical thinking (PO7, PO8).
- CO4 (Impact of human activities): Moderately to highly relevant across various POs, particularly in effective citizenship and ethics, environment and sustainability (PO2, PO7).
- CO5 (Sustainable management of resources): Highly relevant in research skills, environment and sustainability, and problem-solving (PO1, PO7, PO8).
- CO6 (Problems of drought-prone areas): Mostly relevant in terms of effective citizenship and ethics, and environment and sustainability (PO2, PO7).
- CO7 (Resource management): Moderately to highly relevant in most POs, especially in disciplinary knowledge and environment and sustainability (PO4, PO7).

S.Y.B.A. Geography, Syllabus for Semester III**Paper: UAGG233: Elements of Map and Surveying****No. of Credits: 04****No. of Periods: 64**
-----**Course Objectives:**

1. Students will understand definitions, elements, classification and use of maps.
2. Students will well aware about types of map scale.
3. Students will able to convert a map scale from one scale to another in metric and British measurement systems.
4. To enable the students to use various Projections and Cartographic Techniques.
5. To acquaint the students with basic of Statistical data.
6. To acquaint the students with the principles of surveying, its importance and utility in the geographical study.

Course Outcomes:

After completion of this course students will be able to

- CO1. Identify any map scale and projection.
- CO2. They can also know which projection is suitable for given region.
- CO3. Learn about scale conversion.
- CO4. Students can able to survey in the actual field. Ex. Elevation of land, area, height from the sea level and coordinates of the fields etc.
- CO5. To enable the students to use various Projections and Cartographic Techniques.
- CO6. To acquaint the students with basic of Statistical data.
- CO7. To acquaint the students with the principles of surveying, its importance and utility in the geographical study.

Notes:

- 12 students per batch. Each batch has 6 periods in a week.
- Use of stencils, log tables, computer and calculator is allowed.
- Journal should be completed and duly certified by practical in-charge and Head of the Department.
- Int. and Ext examiner should set jointly the question paper for each batch

Topics and Learning points

<p>Unit – 1: Maps and Scales</p> <ol style="list-style-type: none"> 1. Map : Meaning, Definition and Types. 2. Map Scale : Definition and Types 3. Conversion of Verbal scale to numeric and vice- versa (in British and Metric Systems) <ol style="list-style-type: none"> i) Construction of simple graphical scale (Two examples) ii) Construction of comparative scale (Two examples) 	<p>Lectures</p> <p>12</p>
<p>Unit – 2: Map Projection</p> <ol style="list-style-type: none"> 1. Mercator’s Projection 2. Mollweide’s Projection 3. UTM Projection 	<p>12</p>
<p>Unit – 3: Data Representation techniques using MS Office</p> <ol style="list-style-type: none"> 1. Simple Line Graph 2. Polygraph 3. Simple Bar Diagram 4. Compound Bar Diagram 5. Pie Diagram (Chart) 	<p>12</p>
<p>Unit – 4: Surveying (without coordinate system)</p> <ol style="list-style-type: none"> 1. Dumpy Level Survey Plotting <ol style="list-style-type: none"> i. Rise and Fall Method ii. Collimation Plane Method 2. Total Station Survey 	<p>12</p>
<p>Unit – 5: Surveying (with coordinate system)</p> <ol style="list-style-type: none"> 1. GPS Survey & Plotting 2. GNSS (using of DGPS) Survey 3. Drone Survey 	<p>16</p>

Reference Books & Websites:

Singh Lehraj, (1973) : Map Work and Practical Geography, Central Book Depot Allahabad

D. Y. Ahirrao and E. K. Karanjkehe, (2002) : Pratyakshik Bhugol, Sudarshan –Nashik

P. G. Saptarshi and S. R. Jog, Statistical Methods

S. N. Karlekar, (2008) : Statistical Methods, Diamond – Pune

T. P. Kanetkar and S. V. Kulkarni, (1986) : Surveying and Leveling, Pune Vidyrthi Griha Prakashan– Pune

Arjun Kumbhare, Practical Geography

Pijushkanti Saha & Partha Basu. (2007), ‘Advanced Practical Geography’, Books and Allied (P) Ltd, Kolkata

Mapping of Programme Outcomes with Course Outcomes:

Weightage: (0 = Not relevant, 1 = Slightly relevant, 2 = Moderately relevant, 3 = Highly relevant):

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	2	0	1	3	2	2	1	2
CO2	2	0	1	3	2	2	1	2
CO3	1	0	1	3	2	2	1	2
CO4	3	1	2	3	3	2	2	3
CO5	2	0	1	3	2	2	1	2
CO6	2	0	1	2	2	2	1	2
CO7	3	1	2	3	3	2	2	3

Explanation of Ratings:

- CO1 (Map scale and projection): Strong in disciplinary knowledge (PO4), with some relevance to research skills (PO1) and self-directed learning (PO6).
- CO2 (Suitable projection for a region): Similar to CO1, with emphasis on disciplinary knowledge (PO4).
- CO3 (Scale conversion): Mostly relevant to disciplinary knowledge (PO4) and personal/professional competence (PO5).
- CO4 (Field surveying): Highly relevant to research skills, disciplinary knowledge, personal and professional competence, and critical thinking/problem-solving (PO1, PO4, PO5, PO8).
- CO5 (Use of projections and techniques): Strong in disciplinary knowledge (PO4), with relevance to research skills and lifelong learning (PO1, PO6).
- CO6 (Basics of statistical data): Moderately relevant across several POs, especially in disciplinary knowledge (PO4).
- CO7 (Principles of surveying): Highly relevant in research skills, disciplinary knowledge, personal/professional competence, and critical thinking/problem-solving (PO1, PO4, PO5, PO8).