Anekant Education Society'

Tuljaram Chaturchand College of Arts, Science and Commerce, Baramati

(Empowered Autonomous)

Four Year B.A. Degree Program in Geography

(Faculty of Science & Technology)

CBCS Syllabus

TYBA (Geography) Semester: VI

For Department of Geography

Tuljaram Chaturchand College of Arts, Science and Commerce, Baramati

Choice Based Credit System Syllabus (2023 Pattern)

(As Per NEP 2020)

To be implemented from Academic Year 2025-2026

Title of the Programme: BA (Geography)

Preamble

AES's Tuljaram Chaturchand College has made the decision to change the syllabus of across various faculties from June, 2023 by incorporating the guidelines and provisions outlined in the National Education Policy (NEP), 2020. The NEP envisions making education more holistic and effective and to lay emphasis on the integration of general (academic) education, vocational education and experiential learning. The NEP introduces holistic and multidisciplinary education that would help to develop intellectual, scientific, social, physical, emotional, ethical and moral capacities of the students. The NEP 2020 envisages flexible curricular structures and learning based outcome approach for the development of the students. By establishing a nationally accepted and internationally comparable credit structure and courses framework, the NEP 2020 aims to promote educational excellence, facilitate seamless academic mobility, and enhance the global competitiveness of Indian students. It fosters a system where educational achievements can be recognized and valued not only within the country but also in the international arena, expanding opportunities and opening doors for students to pursue their aspirations on a global scale.

In response to the rapid advancements in science and technology and the evolving approaches in various domains of Geography and related subjects, the Board of Studies in Geography at Tuljaram Chaturchand College, Baramati - Pune, has developed the curriculum for the Geography, which goes beyond traditional academic boundaries. The syllabus is aligned with the NEP 2020 guidelines to ensure that students receive an education that prepares them for the challenges and opportunities of the 21st century. This syllabus has been designed under the framework of the Choice Based Credit System (CBCS), taking into consideration the guidelines set forth by the National Education Policy (NEP) 2020, LOCF (UGC), NCrF, NHEQF, Prof. R.D. Kulkarni's Report, Government of Maharashtra's General Resolution dated 20th April and 16th May 2023, and the Circular issued by SPPU, Pune on 31st May 2023.

A Geography degree equips students with the knowledge and skills necessary for a diverse range of fulfilling career paths. Graduates in Geography find opportunities in various fields, including urban planning, GIS analysis, disaster preparedness, teaching, environmentalscience, remote sensing analysis, transportation planning, demography, hydrology, and many other

domains. Throughout their three-year degree program, students explore the spatial organization of both natural and human phenomena across different scales, from local to global. They learn to identify and analyze features on the Earth's surface, understand their spatial patterns, and compare similarities and differences between different places. The curriculum also delves into the intricate relationship between humans and the environment, examining how physical and cultural landscapes evolve over time. Students specializing in physical geography gain an understanding of the processes that shape Earth's climate, create landforms, and influence the distribution of plant and animal life. By acquiring these comprehensive skills and knowledge, graduates are well-prepared to embark on rewarding careers that contribute to a better understanding of our world and address the challenges ofour ever-changing planet.

Overall, revising the geography syllabus in accordance with the NEP 2020 ensures that students receive an education that is relevant, comprehensive, and prepares them to navigate the dynamic and interconnected world of today. It equips them with the knowledge, skills, and competencies needed to contribute meaningfully to society and pursue their academic and professional goals in a rapidly changing global landscape.

Programme Specific Outcomes (PSOs)

1. Ability of Problem Analysis: Student will be able to analyse the problems of physical as well as cultural environments of both rural and urban areas. Moreover, they will try to find out the possible measures to solve those problems.
2. Conduct Social Survey Project: They will be eligible for conducting social survey project, which is necessity for the assessment of development status of a particular group or section of the society.
3. Individual and teamwork: Works effectively as an individual and as a member or leader in diverse teams and in multidisciplinary settings.
4. Application of modern instruments: Students will be able to apply various modern instruments for data collection and field survey.
5. Application of GIS and modern Geographical Map Making Techniques: Students will learn how to prepare map based on GIS by using the modern geographical map-making techniques.
6. Critical Thinking: Students will able to understand and solve the critical problems of physical and cultural environment.
7. Development of Observation Power: As a student of Geography, they will be capable to develop their observation power through field experience and in future, they will be able to identify the socio-environmental problems of a locality.
8. Development of Communication Skill and Interaction Power: After the completion of the course, they will be efficient in their communication skill as well as power of social interaction.
9. Effective Citizenship: Demonstrate empathetic social concern and equity centred national development and the ability to act with an informed awareness of issues and

participate in civic life through volunteering.

10. Enhancement of the ability of Management: Demonstrate knowledge and understanding of the management principles and apply these to their own work, as a member and leader in a team, to manage projects. They will perform effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
11. Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions and accept responsibility for them.
12. Understand Environmental Ethics and Sustainability: Understand the impact of the acquired knowledge in societal and environmental contexts and demonstrate the knowledge of need for sustainable development.
13. Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-long learning in the broadest context social, environmental and technological changes.
14. Presentation Skill: Students are being able to understand and write effective reports and design credentials, make effective demonstrations, give and receive clear instruction

Anekant Education Society's

Tuljaram Chaturchand College, Baramati

(Empowered Autonomous)

Board of Studies (BOS) in Geography

2025-26

Sr. No.	Name of Member	Designation
1.	**Dr. Arun S. Magar,** Head & Associate Professor, Department of Geography, T. C. College, Baramati.	Chairman
2.	**Dr. Asaram S. Jadhav** Associate Professor, Department of Geography, T. C. College, Baramati	Internal Member
3.	**Mr. Vinayak D. Chavan** Assistant Professor, Department of Geography, T. C. College, Baramati	Internal Member
4.	**Ms. Sayali Pawar** Assistant Professor, Department of Geography, T. C. College, Baramati	Internal Member
5.	**Ms. Priyanka Pawar** Assistant Professor, Department of Geography, T. C. College, Baramati	Internal Member
6.	**Dr. Savita Kulkarni** Head & Associate Professor, Department of Geography, Annasaheb Magar College, Hadapsar, Pune	Vice-Chancellor Nominee, Subject Expert, SPPU Pune
7.	**Dr. Tukaram P. Shinde** Head & Associate Professor, Department of Geography, Mudhoji College, Phaltan	Subject Expert from Outside the Parent University
8.	**Dr. Prashant Patil** Associate Professor, Department of Geography, Shivaji University, Kolhapur	Subject Expert from Outside the Parent University
9.	**Dr. Shrikant Gabale** Managing Director, Graphias Solutions Pvt. Ltd., Pune	Representative from Corporate Sector
10.	**Ms. Akshata Raje**, GIS Expert	Member of the College Alumni
11.	**Ms. Pranita Kale,** Class: TYBA	UG Student
12.	**Ms. Rucha Tilekar**, Class: M.A./M.Sc. -II	PG Student

Credit Distribution Structure for F.Y.B.A.-2023-2024 (Geography)

Level	Semester	Major		Minor	OE	VSC, SEC, (VSEC)	AEC, VEC, IKS	OJT, FP, CEP, CC, RP	Cum. Cr/Sem	Degree/ Cum.Cr.
		Mandatory	Elect.							
4.5	I	GEO-101-MJM: Physical Geography (4 credits)	--	--	GEO-116-OE: Principles of Remote Sensing-I (2 credits)	GEO-121-VSC: Land Surveying &Measurement (2 credits)	ENG-131-AEC Functional English-I (2 credit)	CC1 (2 credit)	22	UG 44 credits
		GEO-102-MJM: Practicalin Physical Geography (2 credits)			GEO-117-OE: Principles of Geoinformatics -I (2 credits)	GEO-126-SEC: Fundamentals of Google Earth (2 credits)	GEO-135-VEC: Environmental Pollution and Value Education (2 credits) GEO-137-IKS: Ancient Indian Geographical Thoughts (2 credits)			
	II	GEO-151-MJM: Human Geography (4 credits)	--	GEO-161-MN: Fundamentals of Geography (2 credits)	GEO-166-OE: Principles of Remote Sensing-II (2 credits)	GEO-171-VSC: Map Making inGIS (2 credits)	ENG-181-AEC Functional English-II (2 credit)	CC2 (2 credit)	22	
		GEO-152-MJM: Practical in Human Geography (2 credits)			GEO-167-OE: Principles of Geoinformatics -II (2 credits)	GEO-176-SEC Fundamentals of Google Map (2 credits)	GEO-185-VEC: Save The Earth (2 credits)			
	Cum Cr.	**12**	--	2	8	8	10	4	44	

Credit Distribution Structure for S.Y.B.A.-2024-2025 (Geography)

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	III	**GEO 201 MJM** Fundamentals of Geomorphology [2 T]	--	**GEO-211-MM** Geography of India [2 T]	**GEO-216-OE** Disaster nagement[2 T]	**GEO-221-VSC** Fundamentals of ote Sensing[2 T]	AEC-[2 T]	CC1 (2 credit)	24	UG 44 credits
		GEO 202 MJM Fundamentals of Oceanography [2 T]								
		GEO 203 MJM Disaster Management [2 T]		**GEO 212 MM** Cartographic Techniques for data representation [2 P]			neric IKS(2 T)	FP (2 credit)		
		GEO 204 MJM Practical in Scale & Projection [2 P]								
		GEO 251 MJM	--	**GEO 261 MN**	**GEO 266 OE**	**GEO 276**	AEC-	CC2 (2		

	IV	Fundamentals of Population Geography [2 T] **GEO 252 MJM** Fundamentals of SettlementGeography [2 T] **GEO 253 MJM** Tourism Geography [2 T]		Geography of Maharashtra[2 T] **GEO 262 MN** Land Measurement	Practical in Disaster Management [2 P]	**SEC** Practical in Remote Sensing [2 P]	(2 credit)	credit) CEP (2 Cradit)	22	
		GEO 254 MJM Statistical Techniques[2 P]		Techniques[2 P]						
	Cum Cr.	**16**	--	8	4	4	6	8	46	

Credit Distribution Structure for T.Y.B.A.-2025-2026 (Geography)

Level	Sem	Major		Minor	VSC, SEC, (VSEC)	AEC, VEC, IKS	OJT, FP, CEP, CC, RP	Cum. Cr/Sem	Degree/Cum.Cr.
		Mandatory	**Electives**						
4.5	V	**GEO 301 MJM** Physical Geography of India [2 T]	**GEO 306 MJE(A)** Fundamentals of Climatology [2 T]	**GEO 311 MN** Tourism Geography [2 T]	**GEO 321 VSC** Application of DGPS and Drone Survey [2 P]		FP (2 credit)	22	UG 44 credits
		GEO 302 MJM Physical Geography of Maharashtra [2 T]	**GEO 306 MJE(B)** Watershed Management [2 T]						
		GEO 303 MJM Fundamentals of Economic Geography [2 T]	**GEO 307 MJE(A)** Practical in Climatology [2 P]	**GEO 312 MM** Practical in Tour Planning [2 P]					
		GEO 304 MJM Practical in Map Reading [2P]	**GEO-307-MJE** (B) Practical in Watershed Management [2 P]						
		GEO 305 MJM							

		Practical in Surveying [2P]							
	VI	**GEO 351 MJM** Human Geography of India [2 T]	**GEO-356-MJE (A)** Geography of Soil	**GEO 361 MN** Disaster Management [2 T]			OJT [4 P]	22	
		GEO 352 MJM Human Geography of Maharashtra [2 T]	**GEO-356-MJE (B)** Geography of Rural Development						
		GEO 353 MJM Agricultural Geography [2 T]	**GEO 357 MJE (A)** Practical in Soil Geography	**GEO 362 MN** Practical in Disaster Management [2 P]					
		GEO 354 MJM Practical in GIS [2 P]	**GEO 357 MJE (B)** Practical in Rural Development						
		GEO-355-MJM Practical in Cartographic Techniques [2 P]							
	Cum Cr.	**20**	08	08	02		06	44	**134**

Course Structure for F.Y.B.A. Geography (2023 Pattern)

Sem	Course Type	Course Code	Course Name	Theory / Practical	Credits
I	Major Mandatory	GEO-101-MJM	Physical Geography	Theory	04
	Major Mandatory	GEO-102-MJM	Practical in Physical Geography	Practical	02
	Open Elective (OE)	GEO-116-OE	Principles of Remote Sensing-I	Theory	02
	Open Elective (OE)	GEO-117-OE	Principles of Geoinformatics-I	Theory	02
	Vocational Skill Course (VSC)	GEO-121-VSC	Land Surveying and Measurement	Theory	02
	Skill Enhancement Course (SEC)	GEO-126-SEC	Fundamentals of Google Earth	Theory	02
	Ability Enhancement Course (AEC)	ENG-131-AEC	Functional English-I	Theory	02
	Value Education Course (VEC)	GEO-135-VEC	Environmental Pollution and Value Education	Theory	02
	Indian Knowledge System (IKS)	GEO-137-IKS	Ancient Indian Geographical Thoughts	Theory	02
	Co-curricular Course (CC)	--	To be selected from the Basket	Theory	02
				Total Credits Semester-I	**22**
II	Major Mandatory	GEO-151-MJM	Human Geography	Theory	04
	Major Mandatory	GEO-152-MJM	Practical in Human Geography	Practical	02
	Minor	GEO-161-MN	Fundamentals of Geography	Theory	02
	Open Elective (OE)	GEO-166-OE	Principles of Remote Sensing-II	Theory	02
	Open Elective (OE)	GEO-167-OE	Principles of Geoinformatics-II	Theory	02
	Vocational Skill Course (VSC)	GEO-171-VSC	Map Making in GIS	Theory	02
	Skill Enhancement Course (SEC)	GEO-176-SEC	Fundamentals of Google Map	Theory	02
	Ability Enhancement Course (AEC)	ENG-181-AEC	Functional English-II	Theory	02
	Value Education Course (VEC)	GEO-185-VEC	Save The Earth	Theory	02
	Co-curricular Course (CC)	--	To be selected from the Basket	Theory	02
				Total Credits Semester II	22
				Cumulative Credits Semester I and II	**44**

Course Structure for S.Y.B.A. Geography (2023 Pattern)

Sem	Course Type	Course Code	Course Name	Theory / Practical	Credits
III	Major Mandatory	GEO-201-MJM	Fundamentals of Geomorphology	Theory	02
	Major Mandatory	GEO-202-MJM	Fundamentals of Oceanography	Theory	02
	Major Mandatory	GEO-203-MJM	Disaster Management	Theory	02
	Major Mandatory	GEO-204-MJM	Practical in Scale & Projection	Practical	02
	Minor (MN)	GEO-211-MN	Geography of India	Theory	02
	Minor (MN)	GEO-212-MN	Cartographic Techniques for data Representation	Practical	02
	Open Elective (OE)	GEO-216-OE	Disaster Management	Theory	02
	Vocational Skill Course (VSC)	GEO-221-VSC	Fundamentals of Remote Sensing	Theory	02
	Ability Enhancement Course (AEC)	MAR-23- AEC	भाषिक उपयोजन व लेखन कौशल्य	Theory	02
		HIN-231-AEC	हहिंदी भािा: सजन कौशल्य		
		SAN-231-AEC	प्राथमिक सिंभािण कौशल्यम्		
	Field Project (FP)	GEO-235-FP	Project	Practical	02
	Co-curricular Course (CC)	YOG/PES/CUL/NSS/NCC-239-CC	To be selected from the Basket	Theory	02
	Generic IKS	GEN-245-IKS	IKS	Theory	02
	Total Credits Sem-III				**24**
IV	Major Mandatory	GEO-251-MJM	Fundamentals of Population Geography	Theory	02
	Major Mandatory	GEO-252-MJM	Fundamentals of Settlement Geography	Theory	02
	Major Mandatory	GEO-253-MJM	Tourism Geography	Theory	02
	Major Mandatory	GEO-254-MJM	Statistical Techniques in Geography	Practical	02
	Minor	GEO-261-MN	Geography of Maharashtra	Theory	02
	Minor	GEO-262-MN	Land Measurement Techniques	Practical	02
	Open Elective (OE)	GEO-266-OE	Practical in Disaster Management	Practical	02
	Skill Enhancement Course (SEC)	GEO-276-SEC	Practical in Remote Sensing	Practical	02
	Ability Enhancement Course (AEC)	MAR-281-AEC	लेखन मनमिती व परीक्षण कौशल्ये	Theory	02
		HIN-281-AEC	हहिंदी भािा: सिंप्रेिण कौशल		
		SAN-281-AEC	प्रगत सिंभािण कौशल्यम्		
	Community Engagement Project (CEP)	GEO-285-CEP	Project	Practical	02
	Co-curricular Course (CC)	YOG/PES/CUL/NSS/NCC-289-CC	To be selected from the Basket	Theory	02
	Total Credits Sem-IV				22
	Grand Total Sem III + Sem IV				**46**

Course Structure for T.Y.B.A. Geography (2023 Pattern

Sem	Course Type	Course Code	Course Name	Theory / Practical	Credits
V	Major Mandatory	GEO-301-MJM	Physical Geography of India	Theory	02
	Major Mandatory	GEO-302- MJM	Physical Geography of Maharashtra	Theory	02
	Major Mandatory	GEO-303-MJM	Fundamentals of Economic Geography	Theory	02
	Major Mandatory	GEO-304-MJM	Practical in Map Reading	Practical	02
	Major Mandatory	GEO-305-MJM	Practical in Surveying	Practical	02
	Major Elective	GEO-306-MJE (A)	Fundamentals of Climatology	Theory	02
	Major Elective	GEO-306-MJE (B)	Watershed Management		
	Major Elective	GEO-307-MJE (A)	Practical in Climatology	Practical	02
	Major Elective	GEO-307-MJE (B)	Practical in Watershed Management		
	Minor (MN)	GEO-311-MN	Tourism Geography	Theory	02
	Minor (MN)	GEO-312-MN	Practical in Tour Planning	Practical	02
	Vocational Skill Course (VSC)	GEO-321-VSC	Application of DGPS and Drone Survey	Theory	02
	Field Project (FP)	GEO-335-FP	Field Project	Practical	02
	Total Credits Sem-v				**22**
VI	Major Mandatory	GEO-351-MJM	Human Geography of India	Theory	02
	Major Mandatory	GEO-352-MJM	Human Geography of Maharashtra	Theory	02
	Major Mandatory	GEO-353-MJM	Agricultural Geography	Theory	02
	Major Mandatory	GEO-354-MJM	Practical in GIS	Practical	02
	Major Mandatory	GEO-355-MJM	Practical in Cartographic Techniques	Practical	02
	Major Elective	GEO-356 -MJE(A)	Geography of Soil	Theory	02
	Major Elective	GEO-356- MJE(B)	Geography of Rural Development		
	Major Elective	GEO-357-MJE (A)	Practical in Soil Geography	Practical	02
	Major Elective	GEO-357 -MJE(B)	Practical in Rural Development		
	Minor	GEO-361-MN	Disaster Management	Theory	02
	Minor	GEO-362-MN	Practical in Disaster Management	Practical	02
	On Job Training (OJT)	GEO-385-OJT	On Job Training	Practical	04
	Total Credits Sem-VI				22
	Grand Total Sem V + Sem VI				**44**
	Grand Total Sem I + II + III + IV + V + VI				**134**

CBCS Syllabus as per NEP 2020 for T.Y.B.A Geography (2023 Pattern)

Name of the Programme : B.A. Geography
Programme Code : UAGEO
Class : T.Y.B.A.
Semester : VI
Course Type : Major Mandatory (Theory)
Course Code : GEO-351-MJM
Course Title : Human Geography of India
No. of Credits :02
No. of Teaching Hours :30

Course Objectives:

1. To understand the sources, growth, distribution, and dynamics of population in India.
2. To analyse population composition and characteristics, including age, sex, literacy, and occupational patterns.
3. To study types and patterns of rural settlements and urban development in India.
4. To understand the hierarchy of settlements, slum problems, and the concept of smart cities.
5. To examine the significance of agriculture in the Indian economy and the factors affecting agricultural productivity.
6. To understand livestock resources and the impact of Green, White, and Blue Revolutions on agriculture.
7. To analyse the importance of industries in India, including agro-based, mineral-based, fertilizers, and automobile industries.

Course Outcomes:

By the end of the course, students will be able to:

CO1: Demonstrate knowledge of population sources, growth, distribution, and dynamics (fertility, mortality, migration) in India.

CO2: Analyze population composition and characteristics, including age, sex, literacy, rural/urban, and occupational patterns.

CO3: Identify and classify types and patterns of rural settlements and urban development in India.

CO4: Explain settlement hierarchy, urban challenges, slum problems, and the concept of smart cities.

CO5: Evaluate the significance of agriculture in India and the factors affecting agricultural productivity.

CO6: Demonstrate understanding of livestock resources and the impact of Green, White, and Blue Revolutions.

CO7: Analyze the role and distribution of industries in India, including agro-based, mineral-based, fertilizer, and automobile industries**.**

Topics and Learning Points

Unit 1: Population and Demography **Teaching Hours**

1.1 Sources of Population Data **10**

1.2 Population Growth and Distribution

1.3 Population Dynamics: Fertility, Mortality, Migration

1.4 Population Composition and Characteristics

Unit 2: Settlements and Urbanization **10**

2.1 Types and Patterns of Rural Settlement:

2.2 Urban Development of Indian Cities

2.3 Settlement Hierarchy and Slums

2.4 Smart Cities and Urban Challenges

Unit 3: Agriculture and Industries **10**

3.1 Significance of Agriculture in Indian Economy

3.2 Factor affecting on agriculture

3.3 Livestock, White and Blue Revolutions

3.4 Importance of Industries in Indian Economy

3.5 Industries in India: Argo-Based, Mineral-Based, Fertilizers, Automobile Industries

References:

1. Bhende, A., & Kanitkar, T. (2000). *Principles of Population Studies*. Mumbai: Himalaya Publishing.
2. Jones, H. R. (2000). *Population Geography* (3rd ed.). London: Paul Chapman.
3. Maurya, S. D. (2009). *Jansankya Bhugol*. Allahabad: Sharda Pustak Bhawan.
4. Singh, R. L. (Ed.). (1971). *India: A Regional Geography*. Varanasi: National Geographical Society of India.
5. Patil, S. G., Suryawanshi, R. S., Pacharne, S., & Choudhar, A. H. (2014). *Economic Geography* (Marathi). Pune: Atharav Prakashan.
6. Aher, A. B., & Arekar, R. (2013). *Commercial Geography* (Marathi). Pune: Atharav Prakashan.
7. Datt, R., & Sundharam, K. P. M. (2014). *Indian Economy*. New Delhi: S. Chand & Company.
8. Dubey, R. N. (Year not specified). *Economic Geography of India*. Publisher not specified.
9. Tirtha, R. (1996). *Geography of India*. Jaipur: Rawat Publications.
10. Saha, P., & Basu, P. (2007). *Advanced Practical Geography*. Kolkata: Books and Allied (P) Ltd.
11. Heywood, I., Cornelius, S., & Carver, S. (2011). *An Introduction to Geographical Information Systems* (4th ed.). London: Prentice Hall.
12. Majid, H. (2013). *Geography of India*. New Delhi: Tata McGraw Hill Education (India) Pvt. Ltd.

Mapping of Program Outcomes with Course Outcomes

Weightage: 0 = No Relation, 1 = Weak Relation, 2 = Moderate Relation, 3 = Strong Relation

CO\PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	1	1	2	2	2	1	1	1	2
CO2	2	2	2	2	2	2	1	1	1	2
CO3	2	2	1	2	2	2	2	1	1	2
CO4	2	2	1	2	2	2	2	1	1	2
CO5	3	1	1	2	3	3	1	2	2	2
CO6	3	1	1	2	3	3	1	2	2	2
CO7	3	2	1	2	3	3	2	2	2	2

Justification

PO1: Critical and Creative Thinking: CO1 and CO2 focus on analyzing population growth, distribution, and dynamics, which develop students' analytical and evaluative skills. CO3 and CO4 involve studying rural and urban settlement patterns, hierarchy, and challenges, encouraging critical assessment and creative planning. CO5, CO6, and CO7 require problem-solving and innovation in evaluating agricultural productivity, livestock management, and industrial distribution, ensuring students apply logical reasoning and creativity in practical scenarios.

PO2: Communication Skills: CO2, CO3, CO4, and CO7 emphasize the ability to clearly present population data, settlement patterns, and industrial information through reports, presentations, and discussions. Students enhance their written and oral communication skills while explaining complex geographical and economic concepts.

PO3: Multicultural Competence: CO2, CO3, and CO4 promote understanding of population and settlement patterns in diverse cultural, social, and regional contexts. Students develop sensitivity to social and cultural differences, which is essential for inclusive planning and policy-making.

PO4: Research Skills: CO1–CO7 involve collecting, analyzing, and interpreting demographic, agricultural, and industrial data. Students engage in field surveys, statistical evaluations, and inquiry-based research, developing strong research-oriented skills for practical applications.

PO5: Environmental Awareness: CO1, CO3, CO5, and CO6 emphasize understanding the environmental impacts of population growth, urbanization, agricultural practices, and industrial development. Students assess sustainable practices and gain awareness of ecological consequences associated with human activities.

PO6: Problem-Solving Abilities: CO1, CO3, CO5, CO6, and CO7 require students to solve practical problems in population management, settlement planning, agricultural productivity, and industrial distribution. This develops logical reasoning and applied problem-solving capabilities.

PO7: Collaboration and Teamwork: CO3, CO4, and CO7 highlight the importance of teamwork through group projects, surveys, and collaborative data analysis. Students learn to work effectively in teams to study settlement hierarchies, urban challenges, and industrial distributions.

PO8: Value Inculcation: CO1, CO2, CO5–CO7 emphasize ethical considerations, professional responsibility, and sustainability in population studies, agriculture, and industrial planning. Students learn to make decisions with social responsibility and ethical awareness.

PO9: Digital and Technological Skills: CO5–CO7 involve using digital tools, GIS, and modern technological applications to collect, analyze, and interpret agricultural, population, and industrial data. Students develop strong technical and digital competencies.

PO10: Community Engagement and Service: CO1–CO4 and CO7 focus on applying geographical knowledge for community development, urban planning, and industrial management. Students engage with real-world issues and learn to contribute effectively to local governance and societal development.

CBCS Syllabus as per NEP 2020 for T.Y.B.A. Semester-VI (2023 Pattern)

Name of the Programme : B.A. Geography

Programme Code : UAGEO

Class : T.Y.B.A.

Semester : VI

Course Type : Major Mandatory (Theory)

Course Code : GEO-352-MJM

Course Title : Human Geography of Maharashtra

No. of Credits : 02

No. of Teaching Hours : 30

Course Objectives:

1. To understand the importance of agriculture in the economy of Maharashtra.
2. To study the major food crops and cash crops of Maharashtra.
3. To examine the problems and prospects of agriculture in Maharashtra.
4. To analyze the distribution, density, and composition of population in Maharashtra.
5. To understand migration types and trends within Maharashtra.
6. To study the types, patterns, and urbanization processes of settlements in Maharashtra.
7. To evaluate rural development schemes and case studies in Maharashtra.

Course Outcomes:

By the end of the course students will able to

CO 1: Explain the importance of agriculture in the economy of Maharashtra.

CO 2: Identify and describe the major food crops and cash crops of Maharashtra.

CO 3: Analyze the problems and prospects of agriculture in Maharashtra.

CO 4: Examine the distribution, density, and composition of population in Maharashtra

CO 5: Interpret migration types and trends within Maharashtra.

CO 6: Evaluate the types, patterns, and urbanization processes of settlements in Maharashtra.

CO 7: Assess rural development schemes and case studies in Maharashtra.

Topics and Learning Points	Teaching Hours

Unit 1: Agriculture **10**

1.1 Importance of Agriculture in Economy of Maharashtra

1.2 Major Crops - Wheat, Rice, Jawar, Bajra

1.3 Cash Crops and Horticulture - Cotton, Sugarcane, Onion, Pomegranate, Grapes.

1.4 Problems of agriculture in Maharashtra

Unit 2: Population **10**

2.1 Population distribution of Maharashtra

2.2 Factors affecting distribution / density of population

2.3 Population composition

2.4 Migration- types and trends in Maharashtra

Unit 3: Settlement and Rural Development in Maharashtra **10**

3.1 Types and patterns of rural settlements in Maharashtra

3.2 Urbanization in Maharashtra

3.3 Schemes of rural development

3.4 Case studies of rural development- Hivare Bazar, Ralegan Siddhi, Katewadi

Reference:

1. S.G. Khedkar, 2014, Maharashtra: A Political History, New Century Book House.
2. M.R. Karanjkar, 2010, Maharashtra: History and Culture, Shubhi Publications.
3. V.S. Kulkarni, 2007, Geography of Maharashtra, Concept Publishing Company.
4. A.V. Deshmukh, 2012, Maharashtra: Geography, History and Culture, Prabhat Prakashan.
5. N. S. Apte, 2015, Maharashtra: A Comprehensive Overview, Mapin Publishing.
6. N.V. Chitnis, 2008, Geology of Maharashtra, University of Pune Press.
7. S. R. Subhedar, 2011, the Geology of Maharashtra: An Introduction, Himalaya Publishing House.
8. P. K. Joshi, 2016, *Human Geography of India*, Rawat Publications.

Mapping of Program Outcomes with Course Outcomes

Weightage: 0= No relation, 1= Weak relation, 2= Moderate relation, 3= Strong relation

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	2	1	2	3	2	1	1	2	1
CO2	3	2	1	2	3	2	1	1	2	1
CO3	3	2	1	3	3	3	1	1	2	1
CO4	3	2	1	2	3	3	1	1	2	1
CO5	3	2	1	2	3	2	1	1	2	1
CO6	3	2	1	3	3	2	2	1	2	1
CO7	3	2	1	3	3	2	2	1	2	1

Justification for CO–PO Mapping

PO1 (Critical and Creative Thinking): CO1, CO2, and CO3 develop critical thinking by analyzing agriculture's importance, crop patterns, and agricultural problems. CO4, CO5, CO6, and CO7 enhance creative thinking by examining population distribution, migration, settlement patterns, and rural development initiatives.

PO2 (Communication Skills): All COs require students to explain, describe, and present information clearly, such as agricultural issues, population characteristics, urbanization, and rural development schemes.

PO3 (Multicultural Competence): All COs promote understanding of diverse cultural and regional settings in Maharashtra through study of population trends, migration, settlements, and rural case studies.

PO4 (Research Skills): CO3 and CO4 develop research skills by analyzing agricultural problems and population data. CO5, CO6, and CO7 involve interpretation of migration trends, urbanization, and rural development case studies.

PO5 (Environmental Awareness): CO1, CO2, and CO3 promote awareness of environmental impacts on agriculture. CO4, CO5, CO6, and CO7 focus on sustainable population management, settlements, and rural development practices.

PO6 (Problem-solving Abilities): CO3 addresses agricultural challenges. CO1, CO2, CO5, CO6, and CO7 involve applying models and solutions for population distribution, urbanization, and rural development problems.

PO7 (Collaboration and Teamwork): CO6 and CO7 encourage teamwork through analysis of settlement patterns and rural development projects. Other COs may include group activities for data collection and discussion.

PO8 (Value Inculcation): All COs emphasize ethical practices, sustainable development, and responsible approaches in agriculture, population management, and rural development.

PO9 (Digital and Technological Skills): All COs strengthen digital skills by applying mapping, GIS, statistical tools, and data analysis to study agriculture, population, and settlements.

PO10 (Community Engagement and Service): CO6 and CO7 connect students with communities through rural development case studies, helping them understand practical issues and contribute to sustainable solutions.

CBCS Syllabus as per NEP 2020 for T.Y.B.A Geography (2023 Pattern)

Name of the Programme	**:** B.A. Geography
Programme Code	**:** UAGEO
Class	**:** T.Y.B.A.
Semester	**:** VI
Course Type	**:** Major Mandatory (Theory)
Course Code	**:** GEO-353-MJM
Course Title	**:** Agriculture Geography
No. of Credits	**:**02
No. of Teaching Hours	**:**30

Course Objectives:

1. To understand the definition, nature, scope, and significance of Agricultural Geography.
2. To analyze the importance of agriculture in the Indian economy.
3. To examine the physical, economic, and social factors influencing agriculture.
4. To study the types of agriculture and allied activities in India.
5. To assess agricultural problems and challenges affecting productivity.
6. To explore major crops and their spatial distribution across India.
7. To understand irrigation systems, Green Revolution, and the impact of agricultural policies on development.

Course Outcomes:

By the end of the course, students will be able to:

CO1: Demonstrate understanding of the definition, nature, scope, and significance of Agricultural Geography.

CO2: Analyze the role and importance of agriculture in the Indian economy.

CO3: Identify and evaluate the physical, economic, and social factors affecting agricultural practices.

CO4: Explain the types of agriculture and allied activities prevalent in India.

CO5: Assess agricultural problems and suggest strategies to overcome challenges.

CO6: Describe major crops and their distribution across different regions of India.

CO7: Understand irrigation methods, the Green Revolution, and the implications of agricultural policies on development.

Topics and Learning Points

Unit 1: Introduction to Agricultural Geography	**Teaching Hours**
1.1 Definition, Nature and Scope of Agricultural Geography	**10**
1.2 Importance of Agriculture in Indian Economy	
1.3 Factors Influencing Agriculture	
1.4 Agricultural Regions and their characteristics	
Unit 2: Agricultural Types and Allied Activities	**10**
2.1 Types of Agriculture	
2.2 Agricultural Problems	
2.3 Allied Areas in Agriculture	
2.4 Major Crops and their distribution in India	
Unit 3: Irrigation and Agricultural Development	**10**
3.1 Need and Importance of irrigation	
3.2 Types and methods of irrigation	
3.3 Green Revolution and its impact	
3.4 Agricultural Policies and their implications	

References:

1. Bhende, A., & Kanitkar, T. (2000). *Principles of Population Studies*. Himalaya Publishing House, Mumbai.
2. Singh, R.L. (1971). *India: A Regional Geography*. National Geographical Society, Varanasi.
3. Maurya, S.D. (2009). *Jansankya Bhugol*. Sharda Pustak Bhawan, Allahabad.
4. Singh, R. (2016). *Agricultural Geography*. Tata McGraw Hill Education, New Delhi.
5. Chandna, R.C. (2010). *Geography of Population: Concepts, Determinants and Patterns*. Kalyani Publishers, New Delhi.
6. Gupta, K.R. (2003). *Agricultural Geography of India*. Rawat Publications, Jaipur.
7. Bhagat, R.B., & Mohanty, S. (2012). *Population Geography of India*. Concept Publishing, New Delhi.
8. Misra, R.P., & Misra, S.P. (2011). *Agricultural Geography*. Prayag Pustak Bhawan, Allahabad.
9. Singh, R.B. (2006). *Natural Hazards and Disaster Management in Agriculture*. Rawat Publications, Jaipur.
10. Patel, S.G., & Suryawanshi, R.S. (2014). *Economic Geography and Agricultural Patterns*. Atharv Prakashan, Pune.

Mapping of Program Outcomes with Course Outcomes

Weightage: 0 = No relation, 1 = Weak relation, 2 = Moderate relation, 3 = Strong relation

CO\PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	1	1	2	2	2	1	2	1	1
CO2	3	2	1	2	2	2	1	2	1	2
CO3	3	2	2	3	3	3	2	2	2	2
CO4	3	2	2	3	2	3	2	2	2	2
CO5	3	2	2	3	2	3	2	3	2	2
CO6	3	2	2	3	3	3	2	2	3	2
CO7	3	2	1	3	3	3	2	2	3	2

Justification

PO1: Critical and Creative Thinking: CO1–CO7 develop critical and creative thinking as students analyze agricultural systems, evaluate factors affecting productivity, and assess regional variations. For example, CO1 requires understanding the scope and nature of agricultural geography, CO3 involves evaluating physical, economic, and social factors affecting agriculture

PO2: Communication Skills: CO2, CO3, CO4, CO5, and CO7 focus on effective communication. Students explain the importance of agriculture, describe types and allied activities, report on crop distributions, and present findings from field studies. This helps them develop strong oral and written communication skills essential for academic and professional settings.

PO3: Multicultural Competence: CO3, CO4, and CO6 emphasize understanding agriculture in different cultural, social, and regional contexts. Evaluating settlement patterns, types of agriculture, and allied activities encourages sensitivity toward regional disparities, cultural practices, and socio-economic differences, enabling students to approach agricultural issues inclusively.

PO4: Research Skills: All COs (CO1–CO7) involve research-oriented activities such as collecting demographic, crop, and agricultural data, analyzing land use patterns, and interpreting the impact of irrigation and policies. For example, CO6 and CO7 require examining crop distribution and agricultural development trends, fostering inquiry-based research and analytical skills.

PO5: Environmental Awareness: CO1, CO3, CO6, and CO7 develop environmental consciousness. Students assess physical and climatic factors influencing agriculture, analyze irrigation practices, and study sustainable methods, helping them understand the environmental impact of agriculture and adopt ecologically responsible approaches.

PO6: Problem-Solving Abilities: CO1–CO7 equip students with problem-solving capabilities. Identifying agricultural challenges (CO5), evaluating irrigation methods (CO7), and assessing regional productivity (CO6) require logical analysis and practical solutions. This prepares students to address real-world agricultural issues effectively.

PO7: Collaboration and Teamwork: CO3, CO4, CO6, and CO7 involve teamwork during field surveys, data collection, and analysis of agricultural systems and crop distribution. Collaborative projects develop coordination skills and the ability to work effectively in groups to achieve common goals.

PO8: Value Inculcation: CO1, CO2, CO5, and CO7 highlight ethical practices and professional responsibility. For instance, understanding agricultural policies, sustainable practices, and community-oriented solutions instills social and ethical values in students.

PO9: Digital and Technological Skills: CO3, CO4, CO6, and CO7 emphasize the use of digital tools, GIS mapping, and other technological applications to analyze agricultural data, crop distribution, and irrigation patterns. Students gain proficiency in modern technologies crucial for contemporary agricultural research.

PO10: Community Engagement and Service: CO1, CO2, CO5, and CO7 focus on applying agricultural knowledge to support local communities. Understanding crop distribution, allied activities, and agricultural challenges equips students to contribute meaningfully to rural development, policy-making, and community welfare initiatives.

CBCS Syllabus as per NEP 2020 for T.Y.B.A Geography (2023 Pattern)

Name of the Programme	**:** B.A. Geography
Programme Code	**:** UAGEO
Class	**:** T.Y.B.A.
Semester	**:**VI
Course Type	**:** Major Mandatory (Practical)
Course Code	**:** GEO-354-MJM
Course Title	**:** Practical in GIS
No. of Credits	**:**02
No. of Teaching Hours	**:**60

Course Objectives:

1. To equip students with the ability to georeferenced different types of maps and data in QGIS for accurate spatial analysis.
2. To develop skills in creating base maps for spatial analysis, enabling users to visualize and interpret data within a geographic context.
3. To enable students to create, edit, and manipulate shapefiles consisting of points, lines, and polygons for diverse spatial data representation.
4. To teach students how to generate effective map layouts that clearly communicate spatial data and include essential elements such as legends, scale bars, and titles.
5. To provide knowledge on adding, managing, and classifying attribute data to enhance spatial datasets in QGIS.
6. To instruct students on using Digital Elevation Models (DEMs) to produce slope maps and analyze terrain features such as aspect, contour, and hill shade.
7. To build competencies in saving, editing, and managing spatial data, including the application of buffer analysis and topology creation for clean data processing.

Course Outcomes:

CO1. Geo-reference maps accurately, ensuring that spatial data is aligned and ready for further analysis.

CO2. Design and utilize base maps that provide a solid foundation for spatial visualization and analysis.

CO3. Create and manage shape files with point, line, and polygon features for various applications in geographic information systems (GIS).

CO4. Produce map layouts that effectively communicate spatial information, integrating elements like legends and scales.

CO5. Proficient in adding and managing attribute data, as well as classifying and categorizing spatial datasets for improved analysis.

CO6. Generating slope, aspect, contour, and hill shade maps, and interpreting terrain features from DEMs.

CO7. Proficient in spatial data management tasks, including saving, editing, buffer analysis, and creating topologies for accurate spatial data.

Topics and Learning Points

UNIT 1: Digitization and Map Making using QGIS/ArcGIS **15**

1.1 Georeferencing

1.2 Making a Base Map

1.3 Creating Shapefile with Point, Line, and Polygon Features

1.4 Map Layout

UNIT 2: Spatial Data Management **15**

2.1 Adding Attribute Data

2.2 Making Classes for Different Attribute Data

2.3 Generating Layout with Legend

2.4 Saving and Editing Shapefiles

UNIT 3: Digital Elevation Model **15**

3.1 Overview of Satellite Image Interpretation

3.2 Interpretation of Land Cover and Land Use from Satellite Images

3.3 Interpretation of Single Vertical Aerial Photographs

3.4 Interpretation of Stereo Pair of Aerial Photographs

UNIT 4: Using Different Tools in QGIS/ArcGIS **15**

4.1 Raster Calculator

4.2 Spatial Analyst

4.3 Raster Data Manipulation

References:

1. QGIS Development Team. (2023). *QGIS Georeferencing*. Retrieved from https://docs.qgis.org
2. Lillesand, T., Kiefer, R. W., & Chipman, J. (2015). *Remote Sensing and Image Interpretation*. Wiley.
3. Sutton, T., Dassau, O., & Sutton, M. (2009). *A Gentle Introduction to GIS*. Spatial Information Management, UNIGIS.
4. Longley, P. A., Goodchild, M. F., Maguire, D. J., & Rhind, D. W. (2015). *Geographic Information Systems and Science*. Wiley.
5. Burrough, P. A., & McDonnell, R. A. (1998). *Principles of Geographical Information Systems*. Oxford University Press.
6. QGIS Development Team. (2023). *Creating Vector Layers (Shapefiles)*. Retrieved from https://docs.qgis.org
7. Peterson, G. (2020). *GIS Cartography: A Guide to Effective Map Design*. CRC Press.
8. Slocum, T. A., McMaster, R. B., Kessler, F. C., & Howard, H. H. (2009). *Thematic Cartography and Geovisualization*. Pearson.
9. Zeiler, M. (1999). *Modeling Our World: The ESRI Guide to Geodatabase Design*. ESRI Press.

Mapping of Program Outcomes with Course Outcomes

Weightage: 0= No relation, 1= Weak relation, 2= Moderate relation,3= Strong relation

CO\PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	2	1	3	2	3	2	1	3	2
CO2	3	2	1	2	2	3	2	1	3	2
CO3	3	2	1	2	2	3	2	1	3	2
CO4	3	3	1	2	2	2	2	1	3	2
CO5	3	2	1	3	3	3	2	1	3	2
CO6	3	2	1	3	3	3	2	1	3	2
CO7	3	2	1	3	3	3	2	1	3	2

Justification

PO1: Critical and Creative Thinking: CO1, CO3, CO5, CO6, and CO7 have a strong connection to critical and creative thinking, as they require deep analytical skills in spatial data processing, creation of shapefiles, and topographical data interpretation. CO2 and CO4 also engage critical thinking, though less intensely, due to their focus on design and visualization, earning them a moderate relation.

PO2: Communication Skill: CO4 has a direct link to communication skills as it involves producing map layouts that communicate spatial information effectively. Other COs (CO1, CO2, CO3, CO5, CO6, CO7) moderately connect to communication because presenting data and analysis requires clear expression, but it's secondary to the technical work.

PO3: Multicultural Competence: All COs have a weak connection to multicultural competence, as their focus on GIS and spatial analysis doesn't directly engage with cultural diversity, although these skills may be applied in multicultural contexts or projects.

PO4: Research Skills: CO1, CO3, CO5, and CO6 are strongly linked to research skills, as they involve rigorous data management, analysis, and the use of GIS tools critical for

conducting research. CO2, CO4, and CO7 moderately contribute to research through visualization and data management but are not primarily research-focused.

PO5: Environmental Awareness: CO6 has a strong relation to environmental awareness due to its focus on terrain analysis, which is essential for understanding environmental impacts. Other COs (CO1, CO2, CO4, CO5, CO7) moderately contribute by managing spatial data that can support environmental assessments.

PO6: Problem-solving Abilities: CO6 and CO7 are strongly aligned with problem-solving abilities as they involve tackling complex spatial and environmental challenges through GIS tools. The other COs moderately contribute by solving practical, but less interdisciplinary, problems in GIS applications.

PO7: Collaboration and Teamwork: CO3 and CO7 are closely tied to collaboration and teamwork since creating and managing GIS data often requires working in teams. The other COs moderately relate, as collaboration is helpful but not central to their tasks.

PO8: Value Inculcation: All COs have a weak connection to value inculcation, as the focus is on technical skills rather than humanistic or ethical values. These COs may indirectly support value-based outcomes in specific contexts but are not designed with this purpose in mind.

PO9: Digital and Technological Skills: All COs have a strong link to digital and technological skills, as they heavily involve the use of GIS software, spatial analysis techniques, and data management, which are key components of digital proficiency.

PO10: Community Engagement and Service: CO4 moderately aligns with community engagement, particularly in projects where map layouts help convey geographic data to the public or stakeholders. Other COs have a weaker connection as they focus more on technical skills rather than direct community service, though they could support community projects indirectly.

CBCS Syllabus as per NEP 2020 for T.Y.B.A. Semester-VI (2023 Pattern)

Name of the Programme : B.A. Geography
Programme Code : UAGEO
Class : T.Y.B.A.
Semester : VI
Course Type : Major Mandatory (Practical)
Course Code : GEO-355-MJM
Course Title : Practical in Cartographic Technique
No. of Credits : 02
No. of Teaching Hours : 60

Course Objectives:

1. To introduce students to the fundamental concepts, types, and uses of maps.
2. To provide knowledge on map scale definitions and different types of scales.
3. To familiarize students with quantitative methods for representing data through graphs and charts.
4. To develop an understanding of qualitative methods used in geographic data representation.
5. To enhance students' ability to analyze and interpret data using various cartographic techniques.
6. To equip students with the skills needed to create and effectively utilize visual representations of data.
7. To encourage critical thinking and problem-solving through data interpretation and representation.

Course Outcomes:

By the end of the course students will able to

CO1. Demonstrate an understanding of the basic concepts, types, and applications of maps.

CO2. Apply knowledge of map scales and their types for accurate measurement and representation.

CO3. Utilize quantitative techniques such as line graphs, bar graphs, and pie charts to represent data effectively.

CO4. Apply qualitative techniques like symbol, dot, choropleth, isopleths, and flow diagrams in data representation.

CO5. Analyze and interpret geographic data using various cartographic methods.

CO6. Develop proficiency in presenting data through visual means, enabling clear and accurate communication of information.

CO7. Apply critical thinking skills to evaluate and choose appropriate methods for data representation and interpretation.

Topics and Learning points

Unit 1: Map and Map Scale **Teaching Hours**

1.1 Map: Definitions and Elements **20**

1.2 Types of Maps

1.3 Uses of Maps

1.4 Map Scale: Definitions and Types

Unit 2: Quantitative Methods of Data Representation **20**

2.1 Simple and Multiple Line Graph

2.2 Simple, Multiple, and Compound Bar Graph

2.3 Pie Chart

Unit 3: Qualitative Methods of Data Representation **20**

3.1 Symbol Method

3.2 Dot Method

3.3 Choropleth Method

3.4 Isopleths Method

3.5 Flow Diagram

Reference

1. Sharma, J. P. (2010). *Prayogic Bhugol*. Meerut: Rastogi Publishers.
2. Singh, R. L., & Singh, R. P. B. (1999). *Elements of Practical Geography*. Kalyani Publishers.
3. Slocum, T. A., McMaster, R. B., & Kessler, F. C. (2008). *Thematic Cartography and Geovisualization* (3rd ed.). Prentice Hall.
4. Tyner, J. A. (2010). *Principles of Map Design*. The Guilford Press.
5. Sarkar, A. (2015). *Practical Geography: A Systematic Approach*. New Delhi: Orient BlackSwan Private Ltd.
6. Singh, R. L., & Dutta, P. K. (2012). *Prayogatama Bhugol*. Allahabad: Central Book Depot.
7. Ahirrao, Y., & Karanjkhele, E. K. (2002). *Practical Geography*. Nashik: Sudarshan Publication.
8. Saptarshi, P. G., & Jog, S. R. *Statistical Methods*. *(Publisher and year not provided — please add for completeness).*
9. Karlekar, S. N. (2008). *Statistical Methods*. Pune: Diamond Publication.

Mapping of Program Outcomes with Course Outcomes

Weightage: 1= Weak or low relation, 2= Moderate or partial relation, 3= Strong relation

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	2	1	2	1	1	1	2	2	1
CO2	2	2	1	3	1	1	1	1	2	1
CO3	3	2	1	3	2	2	2	1	3	2
CO4	3	2	1	3	2	2	2	1	3	2
CO5	3	3	2	3	3	3	3	2	3	2
CO6	3	3	2	2	2	3	2	2	3	3
CO7	3	2	2	2	3	3	2	2	2	3

Justification for the mapping

PO1: Critical and Creative Thinking: CO1, CO3, CO4, and CO5 require critical thinking to analyze data and creatively use different cartographic techniques to visually represent complex information.

PO2: Communication Skills: CO2, CO6, and CO7 emphasize effective communication by teaching students to represent and interpret data clearly through graphs, charts, and maps.

PO3: Multicultural Competence: CO1 promotes understanding of various methods used globally for data representation, fostering cultural awareness and diversity in mapping techniques.

PO4: Research Skills: CO2, CO3, and CO5 focus on data collection, analysis, and visualization through different cartographic methods, enhancing research capabilities.

PO5: Environmental Awareness: CO5 and CO7 introduce students to geographic and environmental data representation, contributing to an understanding of sustainable development.

PO6: Problem-solving Abilities: CO3, CO5, and CO7 strengthen problem-solving abilities by encouraging students to select appropriate data representation techniques to address real-world geographic problems.

PO7: Collaboration and Teamwork: CO5 and CO6 emphasize collaborative work in field-based data collection and representation, promoting teamwork in problem-solving scenarios.

PO8: Value Inculcation: CO1, CO5, and CO7 foster ethical and responsible use of geographical data and promote ethical research practices.

PO9: Digital and Technological Skills: CO3, CO6, and CO7 align with digital skills by encouraging the use of digital tools and GIS techniques for data representation.

PO10: Community Engagement and Service: CO5 and CO7 promote active community engagement by encouraging the application of mapping techniques to address local issues effectively.

CBCS Syllabus as per NEP 2020 for T.Y.B.A. Semester-VI (2023 Pattern)

Name of the Programme	: B.A. Geography
Programme Code	: UAGEO
Class	: T.Y.B.A.
Semester	: VI
Course Type	: Major Elective (Theory)
Course Code	: GEO-356- MJE (A)
Course Title	: Geography of Soil
No. of Credits	: 02
No. of Teaching Hours	: 30

Course Objectives:

1. To provide students with development of soil geography, and the role of soil as a natural resource.
2. To educate students about the factors influencing soil formation and the structure of soil profiles.
3. To familiarize students with the various components of soil and their physical, chemical, and biological characteristics.
4. To teach students about land capability and suitability classifications and the types of soil found in India.
5. To identify and understand problems related to soil, such as pollution, acidification, and salinization, and their impact on soil health.
6. To provide knowledge about soil conservation methods, their definitions, and the specific
7. To introduce students to the role of Remote Sensing (RS) and Geographic Information Systems (GIS) in monitoring and improving soil conservation efforts.

Course Outcomes:

By the end of the course students will able to

CO 1: Understand the development of soil geography and recognize the significance of soil as a vital natural resource.

CO 2: Explain the factors influencing soil formation, describe soil profiles and structure, and identify various components of soil along with their physical, chemical, and biological properties.

CO 3: Identify different types of soils found in India and classify land based on capability and suitability for various uses.

CO 4: Analyze soil-related problems such as pollution, acidification, and salinization, and assess their impact on soil health.

CO 5: Evaluate various soil conservation methods and their effectiveness, with special reference to soil conservation practices in India.

CO 6: Apply knowledge of Remote Sensing (RS) and Geographic Information Systems (GIS) to monitor and enhance soil conservation efforts.

CO 7: Develop an integrated understanding of soil geography to support sustainable land and natural resource management.

Topics and Learning Points

Unit 1: Introduction to Geography of Soil **Teaching Hours**

1.1 Definition and Meaning of Soil **10**

1.2 Nature and Scope of Soil Geography

1.3 Development of Geography of Soil

1.4 Soil as a Natural Resource

1.5 Types of Soil with Reference to India

Unit 2: Soil: Formation, Structure, and Composition **10**

2.1 Factors of Soil Formation

2.2 Soil Profile and Structure

2.3 Components of Soil

2.4 Soil Properties and Nutrients

Unit 3: Problems related to soil and Soil Conservation **10**

3.1 Soil Problems: Soil Pollution, Acidification, salinization, and Soil health

3.2 Soil Conservation: Definition and various methods of Soil Conservation

3.3 Soil Conservation in India

3.4 Role of RS and GIS in Soil Conservation

Reference:

1. Gustafson, A. S. (2007). *Soils and management*. Agrobios (India).
2. Brady, N. C., & Weil, R. R. (2008). *The nature and properties of soils*. Prentice Hall.
3. Bridges, E. M., & Davidson, D. A. (1982). *Principles and applications of soil geography*. Longman.
4. Birkeland, P. W. (1999). *Soils and geomorphology*. Oxford University Press.
5. Miller, C. E., & Turk, L. M. (2001). *Fundamentals of soil science*. Biotech Books.
6. Daji, J. A. (1970). *A textbook of soil science*. Asia Publication House.
7. Lal, R. (Ed.). (2002). *Encyclopedia of soil science*. Marcel Dekker.
8. Miller, R. W., & Donahue, R. L. (1992). *Soils: An introduction to soils and plant growth*. Prentice-Hall of India.
9. Pitty, A. F. (1978). *Geography and soil properties*. Methuen & Co.
10. Panda, S. C. (2007). *Soil water conservation and dry farming*. Agrobios.

Mapping of Program Outcomes with Course Outcomes

Weightage: 0= No Relation, 1= Weak relation, 2= Moderate relation, 3= Strong relation

COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	3	2	3	3	3	2	3	2	2
CO2	3	3	2	3	2	3	2	2	1	1
CO3	3	2	1	3	2	2	1	1	1	1
CO4	3	3	2	3	3	3	2	3	2	2
CO5	2	2	1	2	3	3	3	2	3	2
CO6	2	2	1	2	3	3	3	2	3	3
CO7	3	2	2	3	3	3	3	2	2	3

Justification for the mapping

PO1: Critical and Creative Thinking: CO1, CO2, CO3, and CO4 strongly relate to critical and creative thinking by requiring complex analysis of soil geography and environmental data. CO5 and CO6 involve moderate critical thinking for evaluation of conservation methods and technological data, while CO7 requires strong critical thinking for assessing integrated natural resource management.

PO2: Communication Skills: Effective communication is crucial for CO1, CO2, and CO4 in explaining soil geography and related problems. CO3 and CO7 need clear presentation of classification and sustainability concepts, with a moderate need for CO5 and CO6 to describe soil conservation and technological applications.

PO3: Multicultural Competence: CO1 and CO2 support multicultural understanding through regional soil insights, while CO6 and CO7 emphasize ecological and community values, contributing to global environmental awareness.

PO4: Research Skills: CO1, CO2, CO3, and CO7 strongly relate to research skills for hypothesis testing and data analysis. CO5 and CO6 require moderate research skills for soil conservation and RS/GIS studies.

PO5: Environmental Awareness: CO1 and CO4 enhance environmental awareness through understanding natural soil resources and health, while CO5 and CO6 support conservation efforts. CO7 addresses environmental degradation and sustainable management.

PO6: Problem-Solving Abilities: CO1, CO2, CO3, and CO4 engage in solving issues related to soil formation and pollution. CO5 and CO6 address soil conservation and technology application, and CO7 focuses on integrated resource management problem-solving.

PO7: Collaboration and Teamwork: CO1 and CO4 involve teamwork in research and soil health studies. CO5 and CO6 require team-based efforts for conservation and monitoring, while CO7 promotes collaborative sustainability projects.

PO8: Value Inculcation: CO1 and CO4 promote ethical practices in research and conservation. CO5 and CO6 encourage responsible stewardship of soil resources, while CO7 includes ethical considerations for sustainable natural resource management.

PO9: Digital and Technological Skills: CO1 and CO5 involve digital tools for soil analysis, while CO6 and CO7 heavily incorporate RS, GIS, and other digital technologies for monitoring and management.

PO10: Community Engagement and Service: CO1 and CO4 contribute to community awareness and conservation efforts, and CO6 and CO7 emphasize community participation in environmental protection and sustainable resource use.

CBCS Syllabus as per NEP 2020 for T.Y.B.A. Semester-VI (2023 Pattern)

Name of the Programme	: B.A. Geography
Programme Code	: UAGEO
Class	: T.Y.B.A.
Semester	: VI
Course Type	: Major Elective (Theory)
Course Code	: GEO-356- MJE (B)
Course Title	: Geography of Rural Development
No. of Credits	: 02
No. of Teaching Hours	: 30

Course Objectives:

1. To introduce the concept, meaning, and scope of rural development.
2. To analyze the causes of rural backwardness and identify key challenges.
3. To familiarize students with different approaches to rural development in India.
4. To study the relevance of Gandhian, decentralized, sectoral, and participatory approaches.
5. To examine major issues of rural development such as water, sanitation, healthcare, and inequality.
6. To evaluate the impact of the Green Revolution on rural and urban sectors.
7. To develop critical thinking and problem-solving skills for sustainable rural development.

Course Outcomes:

By the end of the course, students will be able to:

CO1: Explain the basic concept, nature, and scope of rural development.

CO2: Analyze the reasons behind rural backwardness in India.

CO3: Demonstrate understanding of various rural development approaches.

CO4: Compare and evaluate Gandhian, decentralized, sectoral, and participatory approaches.

CO5: Identify and critically examine key issues affecting rural development.

CO6: Assess the role and consequences of the Green Revolution in bridging the urban-rural divide.

CO7: Develop skills to propose strategies for improving healthcare, sanitation, and drinking water facilities in rural areas.

Topics and Learning Points

Unit 1: Introduction to Rural Development **Teaching Hours**

1.1 Concept of rural development **08**

1.2 Definition and meaning of rural development

1.3 Causes of rural backwardness

1.4 Nature and scope of rural development

Unit 2: Approaches to Rural Development in India **10**

2.1 Gandhian approach

2.2 Decentralized planning approach

2.3 Sectoral approach

2.4 Participatory approach

Unit 3: Issues of Rural Development **12**

3.1 Lack of potable drinking water

3.2 Sanitation problems and programs

3.3 Green revolution and its benefits to urban and rural sectors

3.4 Urban-rural divide

3.5 Health care service

References:

1. Bansal, S. K. *Intermation Technology and Globalization.* APII Publishing Corp., Ansari Rd., Daryaganj, Delhi.
2. Anand, S. (2013). *Dynamics of Rural Development.* Delhi, India: Research India Press.
3. Krishnamurthy, J. (2000). *Rural Development – Problems and Prospects.* Jaipur, India: Rawat Publications.
4. Ramachandran, H., & Guimaraes, J. P. C. (1991). *Integrated Rural Development in Asia: Learning from Recent Experience.* New Delhi, India: Concept Publishing.
5. Palione, M. (1984). *Rural Geography.* London, UK: Harper and Row.

6. Dutt, R., & Sundaram, K. P. M. (2013). *Indian Economy.* New Delhi, India: S. Chand Publications.
7. Mishra, S. K., & Puri, V. K. (2012). *Economics of Development and Planning.* Mumbai, India: Himalaya Publishing House.
8. Vijayakumar, K. *Empowerment of Weaker Sections: Future Planning and Strategies for Rural Development in India.*
9. Singh, R. B. (1985). *Geography of Rural Development.* New Delhi, India: Inter India Publications.
10. Gilg, A. W. (1985). *An Introduction to Rural Geography.* London, UK: Edwin Arnold.
11. Misra, R. P., & Sundaram, K. V. (1979). *Rural Area Development: Perspectives.*
12. Mukherjee, N. (1993). *Participatory Rural Appraisal: Methodology and Application.* Delhi, India: Concept Publishing Company.
13. Sundaram, S. (n.d.). *Rural Development.* Mumbai, India: Himalaya Publishing House.
14. Sudharam, R. D. *Indian Economy.* New Delhi, India: Chand and Co.
15. Nagi, B. S. *Commercial Geography.* Meerut, India: Kedarnath Ramnath Publications.
16. Rao, T. Y. *Human Resource Development.* New Delhi, India: SAGE Publications.
17. Singh, K. *Rural Development: Principles, Policies and Management.*
18. Singh, J., & Dhillon, S. S. *Agricultural Geography* (2nd ed.). New Delhi, India: Tata McGraw-Hill.
19. Desai, V. (2012). *Rural Development in India.* Mumbai, India: Himalaya Publishing House.

Mapping of Program Outcomes with Course Outcomes

Weightage: 0 = No relation, 1 = Weak relation, 2 = Moderate relation, 3 = Strong relation

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	2	1	2	2	1	1	1	1	1
CO2	3	2	1	2	2	2	1	1	1	1
CO3	3	2	1	3	2	3	1	1	1	1
CO4	3	2	1	2	3	3	1	1	1	1
CO5	3	2	1	2	3	2	1	1	1	1
CO6	2	2	1	2	3	2	2	1	1	1
CO7	2	2	1	2	3	2	2	1	1	1

Justification for CO–PO Mapping

PO1 (Critical and Creative Thinking): The course develops critical and creative thinking by enabling students to analyze rural backwardness, compare various approaches, and suggest innovative solutions to rural challenges.

PO2 (Communication Skill): Communication skills are enhanced as students explain concepts, discuss causes, and present approaches and issues of rural development clearly in written and oral form.

PO3 (Multicultural Competence): The course promotes multicultural competence by exposing students to diverse cultural and socio-economic rural contexts, fostering sensitivity toward different communities.

PO4 (Research Skills): Research skills are strengthened as students investigate rural issues, analyze approaches, and explore evidence-based strategies for sustainable development.

PO5 (Environmental Awareness): Awareness is built by highlighting issues such as the Green Revolution, sanitation, and healthcare, linking rural development with ecological balance.

PO6 (Problem-solving Abilities): Problem-solving abilities are developed by identifying key rural challenges and designing practical strategies to address them.

PO7 (Collaboration and Teamwork): Teamwork is encouraged through group discussions and collaborative projects focused on solutions for sanitation, potable water, and healthcare.

PO8 (Value Inculcation): The course inculcates values of equity, justice, and social responsibility by emphasizing Gandhian and participatory approaches to development.

PO9 (Digital and Technological Skills): Digital skills are indirectly enhanced through exposure to ICT tools, government e-rural initiatives, and data analysis applications in development.

PO10 (Community Engagement and Service): The course fosters community engagement by preparing students to apply their knowledge in rural contexts and contribute to community-based development initiatives.

CBCS Syllabus as per NEP 2020 for T.Y.B.A. Semester- VI (2023 Pattern)

Name of the Programme : B.A. Geography
Programme Code : UAGEO
Class : T.Y.B.A.
Semester : VI
Course Type : Major Elective (Practical)
Course Code : GEO-357- MJE (A)
Course Title : Practical in Soil Geography
No. of Credits : 02
No. of Teaching Hours : 60

Course Objectives:

1. To equip students with practical knowledge of soil sample collection methods and the appropriate use of field and laboratory instruments.
2. To highlight the importance of adhering to laboratory safety guidelines, ensuring both accurate analytical results and a safe working environment.
3. To develop students' ability to analyze key physical properties of soil, including soil structure, porosity, and water holding capacity.
4. To introduce students to particle size analysis techniques, enabling accurate determination of soil texture (sand, silt, and clay composition).
5. To enhance students' skills in interpreting soil analysis data, with a focus on assessing soil fertility and understanding indicators of soil health.
6. To enable students to design and implement effective soil management strategies grounded in scientific analysis and practical application.
7. To foster an integrated understanding of soil science, bridging theoretical concepts with field and laboratory-based practices for real-world relevance.

Course Outcomes:

By the end of the course, students will be able to:

CO1: Demonstrate the ability to collect soil samples using appropriate methods and operate essential sampling instruments effectively.

CO2: Apply laboratory safety protocols to ensure accurate results and maintain a safe working environment during soil analysis.

CO3: Analyze key physical properties of soil such as structure, porosity, and water holding capacity through laboratory experiments.

CO4: Perform particle size distribution techniques to determine soil texture (sand, silt, and clay composition).

CO5: Interpret soil analysis data to assess soil fertility and identify indicators of soil health.

CO6: Develop and recommend soil management strategies based on scientific interpretation of soil characteristics.

CO7: Integrate theoretical concepts with practical field and laboratory experience to solve real-world soil-related problems.

Topics and Learning points

Unit 1: Methods of Soil Sampling	**Teaching Hours**
1.1 Methods of soil sample collection	**10**
1.2 Instruments required for sampling	
1.3 Safety guidelines in the laboratory	
Unit 2: Analysis of Physical Properties	**30**
2.1 Soil Structure and Porosity Analysis	
2.2 Water holding capacity	
2.3 Particle size distribution using sieve analysis	
2.4 Determination of soil texture –sand, silt, clay	
Unit 3: Soil Data Interpretation and applications	**20**
3.1 Interpretation of Soil Analysis Results	
3.2 Understanding soil fertility and health indicators	
3.3 Soil Management Strategies	

References:

1. Gustafson, A. S. (2007). *Soils and Management*. Agrobios (India).
2. Brady, N. C., & Weil, R. R. (2008). *The Nature and Properties of Soils*. Prentice Hall, New Jersey.
3. Bridges, E. M., & Davidson, D. A. (1982). *Principles and Applications of Soil Geography*. Longman.
4. Birkeland, P. W. (1999). *Soils and Geomorphology*. Oxford University Press, New York.
5. Miller, C. E., & Turk, L. M. (2001). *Fundamentals of Soil Science*. Biotech Books, Delhi.
6. Daji, J. A. (1970). *A Textbook of Soil Science*. Asia Publication House, New York.
7. Lal, R. (Ed.). (2002). *Encyclopedia of Soil Science*. Marcel Dekker, New York.
8. Miller, R. W., & Donahue, R. L. (1992). *Soils: An Introduction to Soils and Plant Growth*. Prentice-Hall of India, New Delhi.
9. Pitty, A. F. (1978). *Geography and Soil Properties*. Methuen and Co., London.
10. Panda, S. C. (2007). *Soil Water Conservation and Dry Farming*. Agrobios.

Mapping of Program Outcomes with Course Outcomes

Weightage: 0= No relation, 1= Weak relation, 2= Moderate relation, 3= Strong relation

COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	2	1	3	2	2	1	1	3	1
CO2	3	2	1	3	2	3	1	1	3	1
CO3	3	2	1	3	2	3	1	1	3	1
CO4	3	2	1	2	3	3	1	1	3	1
CO5	3	2	1	3	3	2	1	1	3	1
CO6	2	2	1	2	3	2	2	1	3	1
CO7	2	2	1	2	3	2	2	1	3	1

Justification for the mapping

PO1: Critical and Creative Thinking: O1, CO2, CO3, and CO4 strongly foster critical and creative thinking by requiring detailed analysis of soil sampling methods, safety protocols, and physical properties. CO5 and CO6 involve moderate critical thinking for interpreting soil fertility data and developing management strategies.

PO2: Communication Skills: Effective communication is essential for CO1 and CO2 to clearly explain sampling methods and laboratory safety protocols. CO3 through CO7 require clear presentation and reporting of soil analysis results, texture classification.

PO3: Multicultural Competence: CO1 and CO2 support multicultural competence by recognizing soil diversity across different regions. CO6 and CO7 emphasize ecological and community values, contributing to global environmental awareness.

PO4: Research Skills: CO1, CO2, CO3, and CO7 strongly involve research skills through soil sampling, lab safety protocols, analysis of soil properties, and solving real-world

problems. CO5 and CO6 require moderate research skills in fertility assessment and developing management strategies.

PO5: Environmental Awareness: CO1 and CO4 enhance environmental awareness by understanding natural soil properties and their environmental significance. CO5 and CO6 support conservation efforts through fertility analysis and sustainable practices. CO7 addresses broader environmental sustainability and degradation issues.

PO6: Problem-Solving Abilities: CO1, CO2, CO3, and CO4 engage students in solving practical challenges related to soil sampling, safety, and physical property determination. CO5 and CO6 focus on problem-solving for soil fertility and management, while CO7 involves integrated resource management solutions.

PO7: Collaboration and Teamwork: CO1 and CO4 involve teamwork during field sampling and soil structure studies. CO5 and CO6 require team efforts for analyzing soil fertility and management strategies. CO7 promotes collaboration in integrating field and lab experiences for sustainable problem-solving.

PO8: Value Inculcation: CO1 and CO4 promote ethical practices in sampling and soil analysis. CO5 and CO6 encourage responsible stewardship of soil resources. CO7 includes ethical considerations for sustainable natural resource management and community impact.

PO9: Digital and Technological Skills: CO1 and CO5 involve the use of digital tools and instruments for soil sampling and analysis. CO6 and CO7 heavily incorporate technologies such as GIS, remote sensing, and data analysis software for soil monitoring and management.

PO10: Community Engagement and Service: CO1 and CO4 contribute to community awareness through soil sampling and health studies. CO6 and CO7 emphasize community participation and service by promoting sustainable resource use and environmental protection.

CBCS Syllabus as per NEP 2020 for T.Y.B.A. Semester-VI (2023 Pattern)

Programme	: B.A. Geography
Programme Code	: UAGEO
Class	: TYBA
Semester	: VI
Course Type	: Major Elective (Practical)
Course Code	: GEO-357- MJE (B)
Course Title	: Practical in Geography of Rural Development
No. of Credits	: 02
No. of Teaching Hours	: 60

Course Objectives:

1. To introduce the concept and measures of rural development.
2. To understand the role of agriculture and infrastructure in rural development.
3. To learn methods and techniques for analysis of agricultural development.
4. To learn methods and techniques for analysis of infrastructural development.
5. To develop the ability to calculate agricultural, infrastructural, and rural development indices.
6. To evaluate rural development processes using practical approaches and data.
7. To acquire skills of case study preparation and report writing on rural development.

Course Outcomes:

By the end of the course, students will be able to:

CO1: Explain the concept, scope, and measures of rural development.

CO2: Identify and analyze agricultural and infrastructural parameters in rural areas.

CO3: Apply statistical and analytical techniques to assess agricultural development.

CO4: Apply methods for analyzing infrastructural development.

CO5: Calculate indices related to agricultural, infrastructural, and rural development.

CO6: Evaluate rural development levels using practical field-based approaches.

CO7: Develop case studies and prepare structured reports on rural development.

Topics and Learning Points

Unit 1: Measures and Approaches of Rural Development **Teaching Hours**

1.1 Measures of rural development **15**

1.2 Importance of practical approaches in rural development

Unit 2: Agricultural and Infrastructural Development **30**

2.1 Parameters of agricultural development

2.2 Calculation of Agricultural Development Index

2.3 Parameters of infrastructure development

2.4 Calculation of Infrastructure Development Index

Unit 3: Rural Development **15**

3.1 Parameters of rural development

3.2 Calculation of Rural Development Index

References:

1. Narton, R. D. *Agricultural Development Policy: Concepts and Experiences.*
2. Quaraishi, M. A. *Indian Agriculture and Rural Development.*
3. Desai, V. *Rural Development*, Vol. I–V.
4. Brahmananda, et al. *Dimensions of Rural Development in India.*
5. Satyasundaram (1997). *Rural Development.* Himalaya Publishing House, New Delhi.
6. Singh, K. (1986). *Rural Development: Principles, Policies, and Management.* Sage Publication, New Delhi.
7. Deb, K. (1997). *The Challenge of Rural Development.* M.D. Publications Pvt. Ltd., New Delhi.
8. Gopal Swamy, T. P. *Rural Marketing.*
9. Goode, W. J., & Young, P. K. (1988). *Methods in Social Research.* Prentice Hall, New Delhi.
10. Johl, S. S., & Kapur, T. R. (1977). *Fundamentals of Farm Business Management.* Kalyani Publishers, Ludhiana.

Mapping of Program Outcomes with Course Outcomes

Weightage: 0 = No relation, 1 = Weak relation, 2 = Moderate relation, 3 = Strong relation

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	2	1	2	2	1	1	1	1	1
CO2	3	2	1	2	2	2	1	1	1	1
CO3	3	2	1	3	2	3	1	1	1	1
CO4	3	2	1	2	3	3	1	1	1	1
CO5	3	2	1	2	3	2	1	1	1	1
CO6	2	2	1	2	3	2	2	1	1	1
CO7	2	2	1	2	3	2	2	1	1	1

Justification for CO–PO Mapping

PO1(Critical and creative thinking): By training students to analyze rural parameters, calculate indices, and interpret results.

PO2 (communication skills): As students present their findings and write structured reports.

PO3 (Multicultural competence): It is addressed by understanding agricultural and infrastructural variations across different rural contexts. The course promotes

PO4 (research skills): Through field-based data collection and analysis of development indices.

PO5 (Environmental awareness): This built by studying rural development in relation to agricultural sustainability and infrastructure growth.

PO6 (Problem-solving abilities): Are enhanced by applying techniques to assess rural development challenges.

PO7 (Collaboration and teamwork): Are encouraged through group-based practicals and report preparation. The course also inculcates

PO8 (Values): Such as responsibility, equity, and social justice in development practices. Students indirectly develop

PO9 (Digital and technological skills) By using statistical and ICT tools in data analysis.

PO10 (Community engagement and service) Are fostered by preparing learners to conduct case studies and contribute solutions for real-world rural issues.

CBCS Syllabus as per NEP 2020 for T.Y.B.A. Semester-VI (2023 Pattern)

Name of the Programme : B.A. Geography

Programme Code : UAGEO

Class : T.Y.B.A.

Semester : VI

Course Type : Minor (Theory)

Course Code : GEO-361-MN

Course Title : Disaster Management

No. of Credits : 02

No. of Teaching Hours : 30

Course Objectives:

1. To introduce students to the fundamental concepts of geography in relation to disaster management.
2. To understand the nature, causes, and impacts of disasters.
3. To explore the role of geography in disaster management, including hazard mapping, risk assessment, and emergency response planning.
4. To analyze the impacts of disasters on people and the environment and understand how geospatial technologies can be used to mitigate these impacts.
5. To examine the role of government agencies, NGOs, and communities in disaster management.
6. To understand the psychological and emotional impacts of disasters on individuals and communities.
7. To learn methods for assessing the risks associated with different types of disasters.

Course Outcomes:

By the end of the course, students will be able to:

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: Evaluate the importance of the ocean in life.

Topics and Learning Points

Unit 1: Introduction to Disaster Management and Geography **Teaching Hours**

1.1 Definition of Hazard and Disaster, Types of Disasters **10**
1.2 Introduction to Disaster Management Cycle
1.3 Role of Geography in Disaster Management
1.4 Global and Regional Trends in Disasters

Unit 2: Natural and Man-made Disasters **10**

2.1 Tectonic Hazards: Earthquake
2.2 Climatic Hazards: Cyclone, Floods, and Droughts
2.3 Geomorphic Hazards: Landslides and Avalanches
2.4 Human-Induced Hazards: Industrial Accidents, Oil Spills, and Nuclear Disasters
2.5 Global Warming and Climate Change

Unit 3: Government Agencies, NGOs, and Communities in Disaster Management **10**

3.1 Role of Government Agencies in Disaster Management
3.2 Role of NGOs in Disaster Management
3.3 Role of Communities in Disaster Management
3.4 Role of Students in Disaster Management

References:

1. Susan L. Cutter, David A. Johnston, and Christopher T. Emrich.
2. Saptarshi P. G., More J. C., Ugale V. R. (2009), Geography and Natural Hazard, Diamond, Pune.
3. Savindra Singh (2000), Environmental Geography, Prayag Pustak Bhavan, Allahabad.
4. Singh, S. (1998), Geomorphology, Prayag Pustak Bhavan, Allahabad.
5. A.H. Choudhar, P. N. Salve, S. M. Kadam, R. H. Choudhar, V. C. Ithape (2010), Contemporary Issues and Geography, Atharva, Pune.

Mapping of Program Outcomes (POs) with Course Outcomes (COs)

1 = Weak or low relation, 2 = Moderate or partial relation, 3 = Strong or direct relation

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2	1	1	1	1	1	1	1	1	1
CO2	1	1	2	1	1	1	1	1	1	1
CO3	1	3	2	1	1	1	3	1	1	1
CO4	3	1	1	2	1	2	1	1	1	1
CO5	1	1	1	1	1	1	1	1	3	1
CO6	1	1	3	1	1	2	1	1	1	2
CO7	2	1	1	1	1	1	1	1	1	1

Justification for the Mapping

PO1: Critical and Creative Thinking: CO1 and CO4 demonstrate critical thinking by encouraging students to analyze spatial patterns, vulnerabilities, and risks in disaster management. CO7 enhances critical thinking by evaluating the causes and impacts of disasters and proposing innovative solutions.

PO2: Communication Skills: CO3 and CO7 align with communication skills by promoting the articulation of complex geographical concepts and disaster-related findings through structured reports and presentations.

PO3: Multicultural Competence: CO2 and CO6 promote multicultural competence by exploring the impact of human activities on natural disasters and understanding the role of diverse communities, government agencies, and NGOs in disaster management.

PO4: Research Skills: CO2 and CO4 contribute to research skills by analyzing natural disasters, conducting risk assessments, and engaging in literature reviews, data collection, and stakeholder analysis to support disaster management practices.

PO5: Environmental Awareness: CO4 enhances environmental awareness by analyzing the causes of disasters and exploring mitigation and adaptation strategies. CO6 promotes awareness by understanding the role of geospatial technologies and sustainable practices in disaster management.

PO6: Problem-solving Abilities: CO4 and CO6 enhance problem-solving abilities by fostering analytical thinking, developing innovative solutions for disaster risk reduction, and engaging stakeholders in effective disaster management.

PO7: Collaboration and Teamwork: CO3 emphasizes teamwork and collaboration by encouraging partnerships and resource sharing in understanding the impact of human activities on

natural disasters.

PO8: Value Inculcation: CO7 promotes value inculcation by fostering ethical practices and responsible behavior while addressing the societal impacts of disasters and encouraging community engagement.

PO9: Digital and Technological Skills: CO6 strengthens digital and technological skills by introducing the use of geospatial technologies, data visualization, and GIS applications in disaster management.

PO10: Community Engagement and Service: CO5 enhances community engagement and service by encouraging students to apply mapping techniques and geospatial tools to address real-world disaster management challenges and improve community resilience.

CBCS Syllabus as per NEP 2020 for T.Y.B.A Geography (2023 Pattern)

Name of the Programme	**:** B.A. Geography
Programme Code	**:** UAGEO
Class	**:** T.Y.B.A.
Semester	**:** VI
Course Type	**:** Minor (Practical)
Course Code	**:** GEO-362-MN
Course Title	**:** Practical in Disaster Management
No. of Credits	**:**02
No. of Teaching Hours	**:**60

Course Objectives:

1. To provide students with an understanding of natural disasters, focusing on earthquake preparedness and response.
2. To develop skills for managing flood situations, including prediction, evacuation, and water rescue techniques.
3. To equip students with knowledge and techniques for fire safety and response, including the use of firefighting equipment.
4. To train students in accident management, with a focus on first aid for common injuries and CPR methods.
5. To educate students on handling hazardous situations, such as gas leaks, with an emphasis on safety procedures and preventive measures.
6. To impart knowledge on managing biological hazards, specifically snake bites, including identification, first aid, and preventive awareness.
7. To prepare students to respond effectively to cloudbursts, flash floods, and LPG cylinder leaks, covering survival techniques, safety protocols, and post-disaster management.

Course Outcomes:

By the end of the course, students will be able to:

CO1: Understand and apply earthquake preparedness and response techniques, including creating emergency plans and conducting drills.

CO2: Develop and implement flood management strategies, including flood prediction, evacuation procedures, and water rescue techniques.

CO3: Demonstrate knowledge and skills in fire safety and response, including the use of firefighting equipment and evacuation procedures.

CO4: Apply accident management skills, including providing first aid for common injuries and performing CPR.

CO5: Handle hazardous situations such as gas leaks effectively, with a focus on safety procedures and preventive measures.

CO6: Manage biological hazards such as snake bites by identifying venomous species, administering first aid, and promoting preventive awareness.

CO7: Respond effectively to cloudbursts, flash floods, and LPG cylinder leaks, utilizing survival techniques, safety protocols, and post-disaster management strategies.

Topics and Learning Points

Unit 1: Natural Disasters and Emergency Response **Teaching Hours**

1.1 Earthquake Preparedness and Response **20**

- Understanding seismic zones
- Creating emergency plans and kits
- Conducting earthquake drills

1.2 Flood Management

- Flood prediction and early warning systems
- Evacuation procedures and flood relief camps
- Water rescue techniques

1.3 Thunderstorm and Lightning Disasters

- Understanding the formation and impact of thunderstorms and lightning
- Safety measures and immediate response actions during thunderstorms
- Lightning strike first aid and prevention strategies

Unit 2: Fire, Accidents, and Hazardous Situations Management **20**

2.1 Fire Safety and Response

- Types of fires and firefighting techniques
- Use of fire extinguishers and safety equipment

- Evacuation procedures in case of fire

2.2 Accident Management and CPR Techniques

- First aid for common injuries (fractures, burns, etc.)
- Cardiopulmonary Resuscitation (CPR) methods
- Managing road traffic accidents and accident reporting

2.3 Gas Leakage Response

- Handling gas leaks in homes and industries
- Evacuation and ventilation procedures
- Use of safety equipment and preventive measures

Unit 3: Biological Hazards and Miscellaneous Disasters **20**

3.1 Snake Bite Management

- Identifying venomous and non-venomous snakes
- First aid for snake bites
- Preventive measures and awareness

3.2 Cloudburst and Flash Flood Response

- Understanding cloudburst phenomena
- Immediate response and survival techniques
- Post-disaster assessment and rehabilitation

3.3 Handling Home Cylinder Leaks

- Identifying and responding to LPG cylinder leaks
- Safety protocols for leak prevention
- Emergency response and evacuation during a leak

References:

1. Subramanian, R. (2010). Disaster Management: Text and Case Studies. Vikas Publishing House.

2. Agarwal, P., & Shrikhande, M. (2006). Earthquake Resistant Design of Structures. Prentice Hall India.

3. Singh, R. B. (2006). Natural Hazards and Disaster Management. Rawat Publications.

4. Sharma, S. P., & Sharma, P. (2011). Flood Risk Assessment and Management. Atlantic Publishers.

5. Gupta, M. C. (2003). Disaster Management in India. Kalpaz Publications.

6. Joshi, S. N. (2012). River and Coastal Floods: Guidelines for Emergency Management. New India Publishing Agency.

7. Hegde, H. V. (2006). Manual of First Aid Management of Snakebite. Jaypee Brothers Medical Publishers.

8. Tripathy, R. S. (2012). Handbook on Snakebite First Aid. Aavishkar Publishers.

9. Sharma, B. K. (2016). Clinical Management of Snakebite in India. Jaypee Brothers Medical Publishers.

Mapping of Program Outcomes with Course Outcomes

Weightage: 0 = No Relation, 1 = Weak Relation, 2 = Moderate Relation, 3 = Strong Relation

CO\PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	1	0	2	2	3	1	1	1	3
CO2	3	1	2	2	3	3	1	1	1	3
CO3	2	1	2	1	2	2	1	1	2	2
CO4	3	3	1	3	1	3	3	3	3	2
CO5	3	3	1	3	2	3	2	2	3	2
CO6	3	2	2	3	2	3	2	2	2	2
CO7	3	3	2	3	3	3	3	3	3	3

Justification

PO1: Critical and Creative Thinking: Essential for disaster response strategies. CO1 (earthquake), CO4 (accidents), CO6 (biological hazards), and CO7 (disaster scenarios) require innovative and analytical approaches.

PO2: Communication Skill: Clear communication ensures safety and effective response. Strongly needed in CO4 (first aid) and CO5 (hazards), with moderate importance in CO1 (earthquake) and CO7 (disaster response).

PO3: Multicultural Competence: Cultural sensitivity supports diverse community needs. Key in CO2 (floods) and CO3 (fire), also useful in CO6 (biological hazards) and CO7.

PO4: Research Skills: Research refines disaster strategies. Crucial for CO1 (earthquakes) and CO2 (flood prediction), with added value in CO4 (accidents) and CO5 (hazards).

PO5: Environmental Awareness: Vital for sustainable management. Strong in CO1 (earthquakes), CO2 (floods), and CO7 (disaster response).

PO6: Problem-Solving Abilities: Central for emergencies. Practical in CO1 (earthquakes), CO2 (floods), and CO4 (accidents); quick decisions also vital in CO6 (biological hazards) and CO7 (disasters).

PO7: Collaboration and Teamwork: Teamwork ensures effective response. Strongly needed in CO4 (accidents) and CO7 (disasters), with cooperative roles in CO1 (earthquakes) and CO2 (floods).

PO8: Value Inculcation: Ethics guide disaster response. Core in CO4 (first aid) and CO7 (disasters), somewhat relevant in CO1 (earthquakes) and CO2 (floods).

PO9: Digital and Technological Skills: Technology aids detection and response. Strong in CO5 (hazards) and CO7 (disasters), supportive in CO1 (earthquakes) and CO3 (fire).

PO10: Community Engagement and Service: Community involvement builds resilience. Essential in CO1 (earthquakes), CO2 (floods), and CO7 (disasters).

CBCS Syllabus as per NEP 2020 for TYBA Semester-VI (2023 Pattern)

Name of the Programme : B.A. Geography

Programme Code : UAGEO

Class : T.Y.B.A.

Semester : VI

Course Type : Community Engagement Project

Course Code : GEO-385-OJT

Course Title : Community Engagement Project (CEP)

No. of Credits : 04

No. of Hours : 120

Course Objectives:

1. Develop proficiency in applying geographical theories and methodologies to real-world scenarios through hands-on experience in professional settings.
2. Enhance practical skills in data collection, analysis, and interpretation relevant to geographical research and decision-making processes.
3. Gain experience in utilizing geographical tools and technologies, including GIS, remote sensing, and spatial analysis software, within a professional context.
4. Understand and contribute to the practical applications of geography in various sectors such as urban planning, environmental management, and transportation.
5. Cultivate problem-solving skills by addressing real-world geographical issues and developing actionable solutions during the training period.
6. Improve communication and reporting skills by preparing and presenting detailed reports on geographical data and findings from the on-job training experience.
7. Build professional networks and gain insights into the career opportunities and requirements in the field of geography through active engagement with industry professionals.

Course Outcomes:

After completion of this on job training, students will

CO1: Demonstrate the ability to apply geographical theories and methodologies effectively in a professional setting, showcasing hands-on experience gained through on-job training.

CO2: Exhibit proficiency in collecting, analyzing, and interpreting geographical data, using appropriate tools and techniques as learned during the training.

CO3: Apply GIS, remote sensing, and other geographical technologies to real-world problems, demonstrating practical knowledge and technical skills.

CO4: Contribute to solving practical geographical issues in various sectors, demonstrating an understanding of how geography impacts areas such as urban planning and environmental management.

CO5: Develop and implement problem-solving strategies for real-world geographical challenges, showcasing the ability to create and apply effective solutions.

CO6: Prepare and deliver comprehensive reports on geographical data and findings, demonstrating strong communication and reporting skills acquired during the training.

CO7: Build and leverage professional relationships within the geography field, gaining insights into career paths and industry practices.

Standard Operating Procedure (SOP) for On-Job Training in Geography

1. **Preparation Phase:**
   - Identify potential training organizations and roles relevant to geographical studies.
   - Develop a clear understanding of the organization's objectives, projects, and requirements related to geography.
   - Prepare a resume and cover letter tailored to the geographical skills and knowledge.
2. **Application and Placement:**
   - Apply for on-job training positions with a focus on geographical tasks.
   - Attend interviews and secure a placement in an organization that aligns with the training objectives.
3. **Training Objectives:**
   - Establish clear training objectives and goals with the supervisor or mentor.
   - Discuss the expected outcomes, tasks, and responsibilities during the training period.
4. **Execution Phase:**
   - Engage in daily tasks and responsibilities as assigned, including data collection, analysis, and report preparation.
   - Utilize geographical tools and technologies as required by the job role.

- Participate in meetings and discussions to understand project requirements and contribute to problem-solving.

5. **Documentation and Reporting:**
   - Maintain a detailed log of activities, tasks, and learning experiences.
   - Prepare periodic reports summarizing work completed, skills gained, and challenges encountered.
   - Present findings and progress to supervisors or mentors.
6. **Evaluation and Feedback:**
   - Receive feedback from supervisors on performance, skills, and areas for improvement.
   - Reflect on the feedback and identify areas of strength and growth.
7. **Completion and Reflection:**
   - Complete all training tasks and responsibilities as outlined.
   - Prepare a final report summarizing the overall training experience, key learnings, and professional development.
   - Discuss the experience with the supervisor and seek recommendations or potential career opportunities.

College Guideline for On-Job Training (OJT)

UG Third Year Students (Semester VI)Under NEP 2020 (2023 Pattern)

2025-26

The National Education Policy 2020 emphasize Practical Assignments and Skill Development to the students across institutes of higher learning in various streams. In view of this, Tuljaram Chaturchand College, Baramati has come up with a concept to provide Field Project/On-Job Training Program to all students studying in third year UG programs in semester VI. The On-Job Training Program will provide valuable work experience to the students, help them explore a career path and develop and refine skills that will eventually give themselvesan edge in the job market.

Eligibility for On-Job Training Pragramme :

The students who have sought admission to the Under Graduation of any faculty, (Third Year-Semester -VI)under NEP 2020 (2023 Pattern) need to undergo compulsory 'Field Project or On-Job Training Program'.

Nature of On-Job Training Program:

A student has to undergo 120 hours of practical training in suitable establishments in consultationwith the concerned teacher.

Salient features of On-Job Training Program:

1. The fundamental framework of On-Job Training Program is as below:
2. The on-job training is of four credits and hundred (100) marks.
3. On-Job Training will be of one hundred and twenty (120) clock hours.
4. A student has to complete on-job training in the related subject that he / she has optedin PG.
5. The On-Job Training Program has to be completed in the vacation between semesterII and III.
6. In case of backlog, he/ she can complete the On-Job Training Program prior to appearing for the semester IV examination.
7. Successful completion of the On-Job Training Program is mandatory, in case a student could not complete the Field Project/ On-Job Training as per prescribed standards, he/ she has to undergo the Program again in different establishment.
8. A student is entitled to a 'Completion Certificate' after successful completion of the On-Job Training Program.
9. The On-Job Training provider establishment may select the student for regular employment depending on the skill set and nature of performance exhibited by the student.
10. A student is solely responsible for his behavior in the business establishment duringthe on-job training program

Framework of the On-Job Training:

1. The area in which a student has to undergo On-Job Training Program will be finalized by the concerned teacher in consultation with the On-Job Training Program providing organization.
2. This will help a student to have hands - on experience of the important aspects of the Discipline Specific Special Subject chosen by him / her.
3. The contents of the On-Job Training Program should be adequate and a students should be able to understand various concepts and put it into practice within a time frame of 120hours.
4. On-Job Training Program is of 120 hours net

Guidelines for Teachers:

Teachers' contribution in planning and implementation of **On-Job Training Program** is very crucial and pivotal. Teachers need to play the crucial role of a guide to make the **On-Job Training Program** a success.

Meaningful execution of the **On-Job Training Program** will add a significant value not only to the skillset of students but will enhance institutional image to a significant extent.

The National Assessment and Accreditation Council also emphasizes **On-Job Training Program** as a part of effective curriculum delivery. The number of students undergoing **On-Job Training Program** will certainly aid colleges to secure better grades during evaluation.

:

Evaluation and credits:

The process of evaluation of On-Job Training Program is structured as below.

The student will prepare a plan for proposed On-Job Training Program. The planmay contain following aspects: -

Sr. No.	Particulars
1	Name of the organization where the On-Job Training is proposed to be carried out.
2	Details of the organization
3	The areas in which he/ she is planning to undergo On-Job Training.
4	Details of the various subject specific concepts learnt bythe student before joining the On-Job Training.
5	Allocation of **120 hours** of On-Job Training Program.
6	List of the skills that he/she is planning to acquire during On-Job Training Program.
7	A brief note on how the On-Job Training Program may benefit him/her to develop better skills in his / her subject.
8	Details of the primary discussion that the student had with any officer/ authority of the On-Job Training Program providing organization about the proposed work.
9	Proposed outcome of the On-Job Training Program

Teachers may provide suggestions to make the proposed On-Job Training Program moremeaningful for the student.

During – On-Job Training Functions

Teachers need to contact the On-Job Training providing organizations at regular intervals during theOn-Job Training Program to review following matters: -

a. Regularity / punctuality of student
b. Behaviour / soft skills
c. Inclination to learn new things
d. Ability to put theory into practice
e. Ability to take initiative for problem solving
f. Commitment to the assigned task
g. Overall progress and performance (Whether satisfactory or not)

Process of Evaluation- Semester II

Methodology for Evaluation:

1. This evaluation is to be done after the student has successfully completed the On-Job Training.
2. The student will prepare a presentation based on the work performed by him/ her during the On-Job Training.
3. The parameters for evaluation are as below: -

   - Hard Skills learnt by the student
   - Soft skills / communication skills developed by the student
   - Outcome of the On-Job Training
   - Feedback received from the On-Job Training Providing organization
   - Value addition in the overall knowledge of the student
   - Quality and contents of the presentation
   - Contribution of the student towards the organization

- **Format of Slide wise presentation of work performed by the student duringthe On-Job Training program is given below.**

Slide No.	Contents
1.	Name of the organization where the On-Job Training was proposed to be carried out.
2.	Contents proposed to be learnt during the On-Job Training Program.
3.	Allocation of **120 hours** of On-Job Training Program.
4.	List of the officers and the staff members of the On-Job Training Providing organization with designations.
5.	Name and designation of the officer under whom the On-Job Training was completed.
6.	Work profile assigned during the On-Job Training Program
7.	Actual work performed during the On-Job Training Program
8.	Skills learnt during the On-Job Training Program
9.	Problems faced while performing the assigned task
10.	How the problems were addressed to
11.	Contribution made towards better functioning the organization, i.e. any techniques invented to save time, manpower or money, improvised documentation process, development of a model for better customer service etc. (Optional)
12.	List of the skills required to perform the assigned task
13.	Opinion of the student about the following - 1. Utility of the On-Job Training 2. Adequacy of the time allotted for program 3. Suggestions for improvement 4. Will the program improve employability? 5. Suggestions to make the On-Job Training program more meaningful and effective 6. Overall feedback about the On-Job Training experience 7. Any other information

- **Students need to submit following documents at the time of final evaluationof the work performed during the On-Job Training Program:-**

1. On-Job Training Completion Certificate (Format Enclosed)
2. Duly signed and completed Log Sheet stating hour wise work done.(Format Enclosed)
3. Feedback form duly signed and stamped by the On-Job Training provider organization. (Format Enclosed)
4. Student Feedback form (Format Enclosed)

Evaluation of the Proposal:

a. The student is supposed to prepare a PowerPoint Presentation covering the above aspects.

b. The evaluation is to be done on the basis of the

- Regularity and punctuality
- Actual work performed,
- Feedback by the On-Job Training providing organisation
- Nature of contribution made
- Skills learnt
- Problem solving initiative taken
- Learning attitude.

c. The evaluation panel will consist of two examiners. Industry experts maybe invited to evaluate the proposal and make suggestion, if any.

d. Total evaluation of the proposal will be of 100 marks and it carries 4 credits.

e. Minimum marks required for passing are 40.

Evaluation:

Particulars	Marks
Duration of Training	30
Practical skills	20
Professional Conduct	10
Report based on Training	20
Knowledge assessments through oral presentation	20
TOTAL	100

Formats required for On-Job Training program:

1. **Letter to On-Job Training Providing Organisation for inclusion of students**
2. **Undertaking from student about his/ her behaviour to the college**
3. **Undertaking from student about his/ her behaviour to the organisation**
4. **Log Sheet of work performed during On-Job Training**
5. **On-Job Training completion certificate**
6. **Feedback from On-Job Training provider organisation**
7. **Feedback from student**

Letter to On-Job Training providing organization for inclusion of students format

College Letter Head

To,

The Manager(HR),

.....Co Ltd.

- - - - - - - - - - - - - - -

Subject :- Request for inclusion of students of our college for On-Job Training

Program…Madam / Sir,

Tuljaram Chaturchand College, Baramati has introduced 'On-Job Training for, Third Year Under Graduate Students in its revised syllabus.

The purpose of the On-Job Training program is to provide hands-on training and experience to the students about various aspects of activities related to their field of studies. The On-Job Training will also enhance employability of students.

In view of this, I request you to provide following students of our college (List enclosed) with an opportunity for On-Job Training in your esteemed organization.

We look forward to a mutually rewarding academic association with your organization.Thank you.

Sincerely,

Departmental Coordinator, HoD PrincipalOn-Job Training Program

UNDERTAKING FROM STUDENT (For College)

1. Name of the Student :

2. Class :

3. Division and Roll Number :

4. Present address :

5. Permanent address :

6. Contact Number :

7. Contact Number (Parent) :

8. Email ID :

To,

The Principal,
Tuljaram Chaturchand College, Baramati

Sub : Undertaking

Respected Sir,

I am studying in TYBA, semester VI of Department of Geography. I am going to join ---------- ----------

(Name of the organisation) for my 120 hours On-Job Training program from----------to -- .

I assure that I will follow all the rules and instruction issued by the On-Job Training providing organization. I will be responsible for my behavior and performance during the On-Job Trainingperiod.

Thank you.

Yours obediently,

(Name & Signature of parent) **(Name & signature of the student)Date :**

UNDERTAKING FROM STUDENT (for the OJT providing Organization)

To,
The Manager (HR),

---------- (Place)

Subject : Undertaking …..

Respected Madam / Sir,

I am a student of TULJARAM CHATURCHAND COLLEGE OF ARTS SCIENCE AND
COMMERCE, BARAMATI. I am studying TYBA., semester VI of Department of Geography. I am going to join your esteemed organization for my 120 hours On-Job Training program from ---------to----------.
I assure that I will follow all the rules and instruction issued by you. I will be solely responsiblefor my behavior and performance during the On-Job Training period.
I will not disclose any information that is made available to me to anyone during or after the On-Job Training period.
I assure you that I will do my best and the On-Job Training opportunity provided to me will bea mutually rewarding experience.

Thanking you.

Yours sincerely,

Date :Place : (Name & signature of the student)

Log sheet of work performed during On-Job Training

Letter Head of the On-Job Training Provider Organization

1. Name of the Student :
2. Name of the College :
3. Division and Roll Number :
4. Address :
5. Contact Number :
6. Email ID :
7. Special Subject :
8. On-Job Training start date :
9. On-Job Training end date :

Log Sheet of Work Performed During On-Job Training

Date	Time		Total Hours	Details ofWork Done	Sign of Officer	Sign of Students
	From	To				

Certified that---------- (Name of the student) has satisfactorily completed the On-Job Training assigned to him.

Name &	**Name &**	**Name &**
signature of manager	**Signature of supervisor**	**Signature of section in-charge**

Date :

On-JobTraining Completion Certificate

Letter Head of the On-Job Training Provider Organization

To,

The Principal,

Tuljaram Chaturchand

College,Baramati

Subject: On-Job Training Completion Certificate …….

Dear Madam/ Sir,

I am happy to inform you that following students of your college have successfullycompleted the '120 Hours On-Job Training Program' in this organization.

Sr. No.	Name of the student	Roll No.	Aadhar No.	PG Class
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				

These students have been provided with adequate exposure and necessary hands- ontraining pertaining to their special subject.

I am confident that these students will perform effectively in similar type of organizations.I wish them every success in future endeavors.

Thank you.

Sincerely,

Name & Signature (Authorized Signatory)

FEEDBACK FROM ON-JOB TRAININGPROVIDER ORGANIZATION

Dear Madam/ Sir,
Please provide your valuable feedback about the performance of the student on following parameters. Your feedback will enable us to make necessary changes in the On-Job Trainingprocess. Thank you.

Coordinator- On-Job Training Program

On-Job Training Program feedback form

Sr. No.	Particulars		Details
1)	Name of the Supervisor/ Officer	:	
2)	Department	:	
3)	Designation	:	
4)	Name of the Student	:	
5)	Name of the College	:	
6)	Roll Number	:	
7)	Special Subject	:	

Part – A – Individual Ranking (Please tick the suitable checkbox)

No.	Parameter for feedback	Excellent	Very Good	Good	Satisfactory	Needs improvement
1)	Domain Knowledge					
2)	Communication Skills					
3)	Punctuality & Dedication					
4)	Ability to work in teams					
5)	Problem solving skills					
6)	Quality of work done					
7)	Effectiveness					
8)	Efficiency					
9)	Ability to take Initiative					
10)	Positive attitude					
11)	Appearance					
12)	Using full potential at work					
13)	Work habits					
14)	Honesty & Integrity					
15)	Creativity					

Part B – SWOC analysis of the student (Please mention below the strengths andweaknesses of the student and the areas for improvement)

Part C – Suggestions to make the On-Job Training program more productive and effective.

1. ---
2. ---
3. ---
4. ---
5. ---

Part D – Changes required in the curriculum to improve employability of students.

1. ---
2. ---
3. ---

Name, Designation and Signature of the Supervisor / Reviewing

Officer Place of Review :

Date of Review :

STUDENT FEEDBACK FORM

1. Name of the Student :
2. Class :
3. Division and Roll Number :
4. Present address :
5. Contact Number :
6. Email ID :

Please provide your rating about following aspects pertaining to your On-Job Training Experience on the scale of 10; where 10 means strongly agree and 0 means do not agree at all.

Sr. No.	Parameter	Response
1.	The pre- On-Job Training training provided by the college was very useful	
2.	I was properly introduced to the task assigned to me in the organization	
3.	I was given proper guidance to carry out my responsibility	
4.	My supervisor / officer was very cooperative and supportive	
5.	I found my task interesting and worth learning	
6.	My supervisor / officer addressed to my queries/ doubts quickly	
7.	I received due respect from my colleagues in the organization	
8.	The contents of the syllabus match with the practical work	
9.	The knowledge that I gained in the college was useful to carry out On-Job Training program in a satisfactory manner	
10.	The On-Job Training Program is very useful to enrich my knowledge	

Please give your suggestions to make the On-Job Training program more productive and effective.

1. .....

2. .....

3. .....

Please give your overall feedback about your experience during the On-Job Training .....

Signature & Name of the student