Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore
Shri Vaishnav Institute of Technology and Science
Choice Based Credit System (CBCS) in Light of NEP-2020
Civil Engineering Department
Generic Elective (Undergraduate Program)
2024

COURSE CODE	CATEGORY	COURSE NAME	TEACHING &EVALUATION SCHEME					L	T	P	CREDITS
			THEORY			PRACTICAL					
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
GUCE302	GE	**Rain Water Harvesting**	60	20	20	0	0	4	0	0	4

Legends: **L** - Lecture; **T** - Tutorial/Teacher Guided Student Activity; **P** – Practical;   **C** - Credit;
*Teacher Assessment shall be based following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

Course Educational Objectives (CEOs):
Student will cover fundamental concepts, practical techniques, and the significance of water conservation for a more sustainable future.

Course Outcomes (COs):
Student will able to
1. Define the water cycle and its significance in maintaining ecosystems.
2. Explain the importance of water harvesting in addressing water scarcity.
3. Explore and evaluate innovative water harvesting technologies and methods
4. Develop advocacy skills to promote sustainable water policies and practices within communities.

Syllabus:

UNIT I 9 Hrs.
Understanding Water and Its Importance - Introduction to the water cycle, Importance of water for life and ecosystems, Challenges related to water scarcity, Basic principles of water conservation and sustainable water use.

UNIT II 10 Hrs.
Traditional and Simple Water Harvesting Techniques - Rainwater harvesting at home and school, building simple water catchment systems, Introduction to community-level water conservation practices, Hands-on activities for building small-scale water harvesting structures

UNIT III 9 Hrs.
Sustainable Practices in Water Management - Overview of sustainable water management practices, Integrated watershed management, Ecological landscaping for water conservation, Adopting water-efficient technologies at home and in the community

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UNIT IV   **9 Hrs.**
Designing and Implementing Water Harvesting Systems - Basics of designing water harvesting systems, Site assessment for effective water harvesting, Constructing, and maintaining rain gardens, Practical exercises in designing and implementing small-scale water harvesting projects

UNIT V   **9 Hrs.**
Community Engagement and Advocacy - Importance of community participation in water conservation, Advocacy for sustainable water policies and practices, creating awareness campaigns in educational institutions and local communities, Developing, and presenting community water conservation projects

Text Books:
1. Water Management Conservation Harvesting and Artificial Recharge by Dr A S Patel, Jain Book Depot.
2. Rainwater Harvesting by Chandrawati Jee, APH Publishing Corporation.
3. Rainwater Harvesting by Inder Jeet, Mittal Publications.

Reference Books:
1. Designing Rainwater Harvesting Systems: Integrating Rainwater into Building Systems by Novak C A, Van Geisen, Eddie, DeBusk, Kathy M., John Wiley & Sons Inc, 2014.
2. Water Resources Management by K Nageswara Rao, Jain Book Depot.

Chairperson	Chairperson	Controller of Examinations	Joint Registrar
Board of Studies	Faculty of Studies	Shri Vaishnav Vidyapeeth	Shri Vaishnav Vidyapeeth
Shri Vaishnav Vidyapeeth	Shri Vaishnav Vidyapeeth	Vishwavidyalaya, Indore	Vishwavidyalaya, Indore
Vishwavidyalaya, Indore	Vishwavidyalaya, Indore		