

Course Title	Water Resource Management			Course Code	BST 31372		
Year	3	Semester	1	Credits	02	Theory (hr)	15
						Practical (hr)	30
						Independent Learning (hr)	

**Aim of the Course:**

To provide the knowledge and skills required to make an accurate assessment on the existing and potential impacts of abstraction, agriculture and industrial practices on water environment

**Intended Learning Outcomes:**

*After completion of this course, the learner should be able to:*

- Explain the concept of integrated water resource management.
- Explain the characteristics of various management tools, uses of water, water demand and supply issues.
- Use a technological approach to address water resource management problems methodically.
- Explain and use the systems approach for water resources management.

**Course Capsule:**

Theory
Introduction to water resource management; Surface water resources; Ground water resources; Water resource assessment and inventory; Water resource management principles; Water supply, Water demand; Management of water resource for sustainable development; Tools for water resource management; Regulatory environment for water management; Economic analysis; Climate change and water resource management, Extremes (floods and droughts)

Practical
Water quality management – parameters, measurements and monitoring; Advanced GIS for water resources management; Use of computer-based tools in solving water resource management problems; Tutorials and development of a case to identify the basic components to characterize the quantitative and qualitative nature of a water resources system and to analyze the hydrology of a water resources systems; Field visit to understand integrated water resource management concept in practice; Formulation of problem statement, collect and analyze data from field measurements and interviews; Develop a problem analysis

**Assessment:**

Continuous assessment: 50%  
 End semester assessment: 50%