

6th SEMESTER

DISCIPLINE SPECIFIC ELECTIVE (DSE)

EWM616D: ENVIRONMENT & WATER MANAGEMENT: WATER RESOURCES MANAGEMENT

CREDITS: THEORY: 4, PRACTICAL: 2

Credits 04 (64 hours)

Credit-I: Integrated water resource Management & irrigation management **16 hours**

- 1.1 History of water management
- 1.2 Integrated water resource management: concepts and theoretical perspectives
- 1.3 Principles and tools for practising IWRM
- 1.4 Issues and challenges in IWRM
- 1.5 Corporate social responsibility in water resource management.

Credit-II: Water harvesting and Watershed Management **16 hours**

- 2.1 Concept and framework of watershed approach
- 2.2 Water conservation-conservation technology
- 2.3 Water harvesting-importance and techniques
- 2.4 Integrated watershed development
- 2.5 Innovative case studies of water harvest for drinking purpose

Credit III: Freshwater Ecosystem Management **16 hours**

- 3.1 Artificial recharges of ground water
- 3.2 River basin management
- 3.3 Management of lakes
- 3.4 Management of wetlands
- 3.5 Future freshwater challenges

Credit IV. Water Legislations **16 hours**

- 4.1 National water policies 2012
- 4.2 J and K water resources (regulation and management) Act 2010
- 4.3 Indus water treaty
- 4.4 Inter states water disputes in India
- 4.5 Environmental flow release from hydroelectric projects



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P.G. Dept. Of Environmental Science,
University of Kashmir

Semester VI: UGSCBCS (DISCIPLINE SPECIFIC ELECTIVE)

Laboratory course: VI

Credits 02 (64 hours=32x2)

1. Minimum requisite size and number of quadrats for studying different habitats
2. Determination of Importance value Index (IVI) of different plant species in a lake
3. Application of diversity indices in an aquatic habitat
4. Study of vegetation in a watershed area
5. Coefficient of similarity between adjoining plots
6. Study of the soil profile in a watershed area.
7. Measurement of lake area and lake volume
8. Case studies based on techniques of rainwater harvesting
9. Visit to a regional wetland (Ramsar site)
10. Visit to a watershed.


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