(044-CMC-08-03) WATERSHED MANAGEMENT

Significance of the Program

Watershed Management is an adaptive, comprehensive, integrated water-resource management planning process that seeks to balance healthy, ecological, economic and cultural/social conditions, within a watershed.

This course gives the knowledge to integrate the planning of land and water. This course is designed to review the practical applications of watershed planning and management as a tool to manage land, water, and ecosystem resources.

Career Options

Pursuing a professional course in Watershed Management, students can explore the following opportunities:

- They can work as a watershed restoration engineers in MNC.
- Self-Entrepreneurship, Soil Conservation and Agriculture/ Horticulture Inspectors, Agro-forestry Surveyors, Livestock Assistants Technicians/Supervisors in Government and Non-Governmental Organizations (NGOs) dealing with watershed projects, Urban Housing Boards, Private Real Estate Builders, Soil Conservation Departments and Ground Water Boards.

Program Objectives

1. To give the students overall idea about: Proper use of all available resources of a watershed for optimum production with minimum hazards to natural resources.
2. Relate interdisciplinary topics such as the use of public policies, regulations, and management tools to effectively manage water resources for a sustainable future.
3. Define goals and objectives to address water resources problems.
4. Develop and implement a watershed management plan.
5. Examine the various engineering, institutional, governance, legal, and financial frameworks needed for successful implementation of a watershed management plan.

Outcomes of the Program:

The graduates are expected to achieve the following outcomes:

1. Analyze the effect of watershed management on land, water and ecosystem resources
2. Analyze public policies and practices of watershed planning.
3. Assess the impact of watershed planning through case studies.

4. Develop control and mitigation techniques for watershed problems

Major Course Outline

1. Fundamentals of Watershed Management
2. Elements of Hydrology
3. Soil and Water Conservation
4. Rainfed Farming
5. Livestock and Pasture Management
6. Horticulture and Agro-Forestry Systems
7. Funding, Monitoring, Evaluation and Capacity Building
8. Project Work integrating various aspects related to Watershed Management