



# **Mahatma Gandhi University**

## **School of Environmental Sciences**

### **Programmes:**

- 1. MSc. Environment Science and Management**
- 2. MSc. Environment Science and Disaster Management**

### **PROGRAMME SPECIFIC OUTCOMES (PSO)**

#### **MSc. ENVIRONMENT SCIENCE & MANAGEMENT**

1. To understand the basic concepts of environment and its interactions with the earth and environmental systems and various ecosystems associated with it.
2. Capability to analyse, evaluate and interpret the causes and effects of various environmental problems at local, regional and global scale and to develop management strategies.
3. Capacity to analyse and determine the magnitude of different kinds of environmental pollution, their sources using environmental analytical techniques, quantitative and computational techniques.
4. Acquire interdisciplinary knowledge on the global aspects of climate change, its effects on the environment and its governance
5. Capacity to use biotechnological methods in water and wastewater treatment technology. Ability to apply appropriate techniques for efficient solid waste management practices and to find the solutions to the air pollution problems.

6. Ability to use different tools for the management of energy resources, biodiversity conservation, natural disasters and technical knowhow of remote sensing & GIS applications in environment management.
7. Ability to analyse a given research problem, identify research gaps, developing suitable research methodology with suitable research design , data collection, data analysis with suitable statistical tool , interpretation of the findings leading to perfect solution to the problem given.
8. Demonstrate proficiency in quantitative methods, qualitative analysis, critical thinking, and written and oral communication needed to conduct high-level work as interdisciplinary scholars and/or practitioners.
9. Master the core concepts and methods from economic, political, and social analysis as they pertain to the design and evaluation of environmental policies and institutions.
10. Appreciate the ethical, cross-cultural, and historical context of environmental issues and the links between human and natural systems.

### **MSc. ENVIRONMENT SCIENCE & DISASTER MANAGEMENT**

1. To understand the basic concepts of environment, its interaction with the earth systems, and various ecosystems associated with it in relation to the disasters.
2. Enhance the capability to analyse, evaluate and interpret the causes and effects of various environmental problems in relation to disasters at local, regional and global scale and to develop management strategies.
3. Acquire basic knowledge, understanding and implementation of the International strategy on Disaster Reduction (UN-ISDR); to increase the skills and abilities for disaster risk reduction (DRR).
4. Acquire practical and research knowledge to build capacities that will reduce disaster risks and contribute to better relief measures.
5. Attain capacity to describe, analyse and evaluate the environmental, social, cultural, economic, legal and organisational aspects influencing vulnerabilities and capacities to face disasters.
6. Develop ability to work with theoretical and practical processes of disaster management (disaster risk reduction, response, and recovery) and relate their interconnections.

7. Enhance capacity to analyse, and communicate information on risks, relief needs and the lessons learned from past disasters in order to formulate mitigation strategies for the future scenarios; also to build clarity in presentation, discussion and in delivering the conclusions based on the knowledge and arguments.
8. Create ability to design and perform research on different aspects of emergencies and disaster events while demonstrating insights into the potential and limitations of science, its role in society and people's responsibility
9. Ability to coordinate community based disaster management strategies, in local and regional levels.
10. Demonstrate proficiency in quantitative methods, qualitative analysis, critical thinking, with written and oral communication skills needed for conducting high quality work as interdisciplinary scholars and/or practitioners.

