



Central University of Himachal Pradesh, Dharamshala

Department Earth and Environmental Sciences

M.Sc. Environmental Sciences

Programme Specific Outcome

- **Basic and applied knowledge on the structure and function of the Earth's Environment:** Basic understanding of Lithosphere, Hydrosphere, Cryosphere, Atmosphere and Biosphere to find solution for the complex environmental problems.
- **Environmental Monitoring:** Knowledge of various techniques to monitor the quality of Air, Water and Soil of ambient environment.
- **Environmental and Disaster Management:** Ability to understand and mitigate issues related with environmental pollution and natural hazards.
- **Environmental Impact Assessment:** Basic knowledge on impact assessment related to industrialization, urbanization and other developmental activities.
- **Problem analysis:** Ability to analyze society related / applied research problem, design and execute experiments to find relevant solutions
- **Indian Traditional Knowledge:** Understanding about the Indian traditional knowledge practiced from generations to address environmental issues sustainably.
- **Advanced Usage of Technology:** Application of advanced instrumentation tools, online resources with an understanding of the troubleshooting and limitations.
- **Ethics:** Commitment towards professional ethics and responsibilities as a social endeavor to bring harmony with nature
- **Lifelong learning:** Scientific skills for industrial applications and entrepreneurship

On completing M.Sc. Programme, the students shall be able to realize following outcomes:

1. Knowledge about the natural resources, their status, importance and need for conservation.
2. Understand different natural and manmade disasters, Explore the reason of its origin and the possible antidotes so that it can dwindle to some extent.
3. Implement environmentally sound strategies in this concern

4. Knowledge of biodiversity, forest and wildlife ecology for their conservation and management.
5. Enhancement of creative and critical thinking, aesthetic sensibility, and analytical skills.
6. Understanding of the chemical processes that governs the natural and disturbed environments.
7. Waste management practices for the betterment of environment and well beings.
8. Understanding of the emerging regional and global environmental issues and their mitigations.
9. Understanding the Environmental Impact Assessment and its methodologies for Industries and Regulators.
10. Fundamental knowledge of instrumental methods employed in analysis of environmental samples.
11. Understandings of natural disasters and their management approaches
12. Knowledge of environmental laws, acts, and standard for environmental compliance
13. Apply knowledge about existing global frameworks and existing agreements and role of community in successful Disaster Risk Reduction
14. Evaluate Disaster Management study including data search, analysis and presentation as a case study.
15. Create Technological innovations in Disaster Risk Reduction: Advantages and problems
16. Understanding of environmental biotechnology and its applications in environmental issues and other biotechnology applications.

Postgraduate Attributes

On completion of the post graduate programme in Environmental Studies, students are expected to equip with the skills of creative, critical and rational thinking associated with Environmental Studies and its use for human society. The following attributes are expected from the students of M.Sc. Environmental Studies:

- Disciplinary Knowledge
- Creative and Critical Thinking
- Reflective Thinking

- Problem Solving
- Analytical Reasoning
- Communication Skills
- Research Skills
- Life Skills
- Multicultural Competence
- Moral and Ethical Values
- Life-long Learning
- Global Competency