




# Mahatma Gandhi University

## Program outcomes

- PO 1 : **Critical Thinking and Analytical Reasoning** : Capability to analyze, evaluate and interpret evidence, arguments, claims, beliefs on the basis of empirical evidence; reflect relevant implications to the reality; formulate logical arguments; critically evaluate practices, policies and theories to develop knowledge and understanding; able to envisage the reflective thought to the implication on the society.
- PO 2 : **Scientific Reasoning and Problem Solving**: Ability to analyze, discuss, interpret and draw conclusions from quantitative/qualitative data and experimental evidences; and critically evaluate ideas, evidence and experiences from an unprejudiced and reasoned perspective; capacity to extrapolate from what one has learned and apply their competencies to solve problems and contextualize into research and apply one's learning to real life situations.
- PO 3: **Multidisciplinary/Interdisciplinary/Trans disciplinary Approach**: Acquire interdisciplinary /multidisciplinary/trans disciplinary knowledge base as a consequence of the learning they engage with their programme of study; develop a collaborative-multidisciplinary/interdisciplinary/transdisciplinary-approach for formulate constructive arguments and rational analysis for achieving common goals and objectives.
- PO 4: **Communication Skills** : Ability to reflect and express thoughts and ideas effectively in verbal and nonverbal way; Communicate with others using appropriate channel; confidently share one's views and express herself/himself; demonstrate the ability to listen carefully, read and write analytically, and present complex information in a clear and concise manner and articulate in a specific context of communication.
- PO 5: **Leadership Skills**: Ability to work effectively and lead respectfully with diverse teams; setting direction, formulating an goal, building a team who can help achieve the goal, motivating and inspiring team members to engage with that goal, and using management skills to guide people to the right destination, in a smooth and efficient way.
- PO 6: **Social Consciousness and Responsibility** : Ability to contemplate of the impact of research findings on conventional practices, and a clear understanding of responsibility towards societal needs and reaching the targets for attaining inclusive and sustainable development.
- PO 7: **Equity, Inclusiveness and Sustainability** : Appreciate equity, inclusiveness and sustainability and diversity; acquire ethical and 24 moral reasoning and values of unity, secularism and national integration to enable to act as dignified citizens; able to understand and appreciate diversity, managing diversity and use of an inclusive approach to the extent possible.
- PO 8: **Moral and Ethical Reasoning** Ability to embrace moral/ethical values in conducting one's life, formulates a position/argument about an ethical issue from multiple perspectives, and use ethical practices in all work. Capable of demonstrating the ability to identify ethical issues related to one's work and living as a dignified person in the society.

PO 9: **Networking and Collaboration** : Acquire skills to be able to collaborate and network with scholars in an educational institutions, professional organizations, research organizations and individuals in India and abroad.

PO 10: **Lifelong Learning** : Ability to acquire knowledge and skills, including “learning how to learn”, that are necessary for participating in learning activities throughout life, through self-paced and self-directed learning aimed at personal development, meeting economic, social and cultural objectives, and adapting to changing trades and demands of work place through knowledge/skill development/reskilling

	<p align="center"><b>Mahatma Gandhi University</b> SCHOOL OF ENVIRONMENTAL SCIENCES</p>
	<p align="center"><b>Program Specific Outcomes &amp; PSO-PO mapping</b></p>
	<p>1. MSc. Environment Science and Management 2. MSc. Environment Science and Disaster Management</p>

### Programme Specific Outcomes (PSOs) of MSc Environment Science and Management & PSO-PO mapping

PSO Number	Intended Programme Specific Outcomes (PSO) On completion of the course the following specific outcomes are expected from the graduates....	MGU PO. Number
1	To understand the basic concepts of environment and its interactions with the earth and environmental systems and various ecosystems associated with it.	2, 3, 8, 7
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.	1, 2, 5, 6
3	Capacity to analyse and determine the magnitude of different kinds of environmental pollution, their sources using environmental analytical techniques, quantitative and computational techniques.	1, 2, 3, 10
4	Acquire interdisciplinary knowledge on the global aspects of climate change, its effects on the environment and its governance	3, 4, 6
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	2, 3, 6
6	Ability to use different tools for the management of energy resources, biodiversity conservation, natural disasters and	1, 2, 3, 10

	technical knowhow of remote sensing & GIS applications in environment management.	
<b>7</b>	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.	<b>1, 3, 4, 5, 9</b>
<b>8</b>	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	<b>1, 2, 3, 4, 9</b>
<b>9</b>	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	<b>3, 5, 6, 8</b>
<b>10</b>	Appreciate the ethical, cross-cultural, and historical context of environmental issues and the links between human and natural systems.	<b>3, 6, 10</b>

### **Programme Specific Outcomes (PSOs) of Environment Science and Disaster Management & PSO-PO mapping**

PSO Number	Intended Programme Specific Outcomes (PSO) On completion of the course the following specific outcomes are expected from the graduates....	MGU PO. Number
<b>1</b>	To understand the basic concepts of environment, its interaction with the earth systems, and various ecosystems associated with it in relation to the disasters	<b>2, 3, 8, 7</b>
<b>2</b>	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	<b>1, 2, 3, 4, 6</b>
<b>3</b>	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)	<b>2, 4, 5, 10</b>
<b>4</b>	Acquire practical and research knowledge to build capacities that will reduce disaster risks and contribute to better relief measures	<b>2, 3, 4, 5, 9</b>
<b>5</b>	Attain capacity to describe, analyse and evaluate the environmental, social, cultural, economic, legal and organisational aspects influencing vulnerabilities and capacities to face disasters	<b>1, 2, 4, 5, 6</b>
<b>6</b>	Develop ability to work with theoretical and practical processes of disaster management (disaster risk reduction, response, and recovery) and relate their interconnections.	<b>2, 3, 4, 6, 9, 10</b>
<b>7</b>	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	<b>2, 3, 4, 5, 6, 9, 10</b>

	future scenarios; also to build clarity in presentation, discussion and in delivering the conclusions based on the knowledge and arguments.	
<b>8</b>	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	<b>1, 2, 8, 9</b>
<b>9</b>	Ability to coordinate community based disaster management strategies, in local and regional levels	<b>3, 4, 5, 6, 8</b>
<b>10</b>	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	<b>1, 2, 3, 4</b>