

# School of Informatics

## MSc Environmental Science

### **Specializations**

1. Environmental Data Science
2. Ecological Informatics
3. Sustainability Studies
4. Environmental Communication
5. Ocean and Climate Informatics

### **Program Outline**

(In accordance with the Digital University Kerala Postgraduate Regulations 2024)



**Kerala University of Digital Sciences, Innovation and Technology  
(Digital University Kerala)**

## Program outline

SNo	Course Name	Course type (Specialization)	Credits	Level
<b>Semester 1</b>				
1	Environmental Physics	PC	3	400
2	Ecology and Biodiversity	PC	3	400
3	Quantitative Methods for Environmental Science I	PC	3	400
4	Environmental Chemistry	PC	3	500
5	Experiential Learning	PC	3	400
	Digital Access for Community Development DACE-1	UC	3	500
	Holistic Development-1	UE	2	500
<b>Semester 2</b>				
6	Environmental Engineering	Core	3	500
7	Environmental Social Science	OE	3	500
8	Quantitative Methods for Environmental Science II	PE	3	400
9	Remote Sensing and GIS	PE	3	400
10	Python and Machine Learning for Environmental Science I	PE	3	400
11	Ocean and Climate Dynamics	PE	3	500
12	Environmental Communication	PE	3	500
13	Environmental Problem Solving	OE	3	500
14	Data Carpentry for Environmental Studies	OE	3	500
15	Global Change Studies	PE	3	500
16	Digital Access for Community Development DACE-1	UC	3	500
17	Holistic Development-II	UE	2	500
<b>Semester 3</b>				
18	AI/GenAI for Environmental Data Science	PE (ED)	3	500
19	Geospatial Modelling for Environmental Data Science	PE (ED, EI)	3	500
20	Python and Machine Learning for Environmental Science II	PE (ED, EI)	3	500
21	Cloud Computing and Climate Change	PE (ED)	3	500
22	Drone Analytics for Environment Sciences	PE (ED)	3	500
23	Internet of Things in Environment Monitoring	PE (EI)	3	500
24	Ecological Modelling	PE (EI)	3	500
25	Collaborative Environmental Studies	PE (EI)	3	500
26	Perspectives of Sustainability	PE (SS)	3	500
27	Life Cycle Assessment	PE (SS)	3	500

28	ESG and Sustainability Reporting	PE(SS)	3	500
29	Ecological Restoration	PE (SS)	3	500
30	Indian Knowledge Systems and Sustainable Development	PE (SS)	3	500
31	Strategic and Crisis Communication	PE (EC)	3	500
32	Digital Storytelling for Environmental Communication	PE (EC)	3	500
33	Environmental Journalism	PE (EC)	3	500
34	Environmental Policy and Legislation	PE (EC)		
35	Numerical Modelling of Oceans and Climate	PE (OCI)	3	500
36	AI for Ocean and Climate Science	PE (OCI)	3	500
37	Ocean and Climate Data Analytics	PE (OCI)	3	500
38	Remote Sensing for Oceanic and Climatic Applications	PE (OCI)	3	500
39	Environmental Impact Assessment	OE	3	500
40	Mini Project	PE	4	500
	Semester 4			
43	Master Project	PE	20	500
UC- University Core; UE- University Elective; PC- Program Core; PE- Program Elective; OE- Open Elective ED-Environmental Data Science EI-Ecological Informatics EC-Environmental Communication SS-Sustainable Studies OCI-Ocean and Climate Informatics				