

3. Integrated Bachelors-Masters in Climate Science and Data Analytics (5 Year)

The Department under the Faculty of Ocean Science and Technology offers a Five-Year Integrated Postgraduate Programme in Climate Science & Data Analytics (Honours/Research) from the academic year 2026–27 onwards. The programme is jointly offered by the Kerala University of Fisheries and Ocean Studies (KUFOS) in collaboration with the KSCSTE – Institute for Climate Change Studies (ICCS). Admissions are open to students from the Science stream who have secured a minimum of 55% marks in Plus Two or equivalent with Physics or Mathematics as subjects. The programme provides a strong interdisciplinary foundation in climate science integrated with modern data analytics. Core areas include atmospheric science, climate dynamics, ocean–atmosphere interactions, data science, remote sensing, geospatial analysis, and climate data analytics, along with emerging domains such as climate modeling, machine learning applications, extreme event analysis, and climate risk assessment. Delivered within a research-oriented academic environment, the programme ensures scientific rigor, analytical depth, and industry relevance. The curriculum follows an Outcome-Based Education (OBE) framework, emphasizing

critical thinking, problem-solving, computational skills, and experiential learning through projects, internships, and field exposure. Graduates will be equipped for diverse career opportunities in climate science, data analytics, environmental management, and related sectors, with strong pathways for higher studies, research, and innovation.

OBJECTIVES OF THE PROGRAMME

- To build a strong foundation in climate science and data analytics.
- To develop analytical, computational, and problem-solving skills.
- To provide exposure to emerging areas such as artificial intelligence, machine learning, and climate risk analysis.
- To foster research orientation and innovation in climate-related domains.
- To enhance employability in scientific, technical, and analytical fields.
- To promote interdisciplinary learning integrating atmospheric, oceanic, and data sciences.

SCOPE OF THE PROGRAMME

- Offers diverse career opportunities in climate science, data analytics, and environmental sectors.
- Prepares students for emerging fields such as climate informatics, AI applications, and sustainability analytics.
- Provides exposure to atmospheric, oceanic, machine learning and coastal climate systems.
- Enables higher studies, research, and doctoral programmes in interdisciplinary domains.

ELIGIBILITY AND MODE OF ADMISSION

Candidates must have passed Plus Two (Higher Secondary) or its equivalent from a recognized board with a minimum of 55% marks, with Physics or Mathematics as subjects.

Admission will be based on the KUFOS Entrance Examination or the criteria prescribed by the University from time to time. The selection process may include academic performance and other evaluation components as notified.

NUMBER OF SEATS

Intake Capacity: 25 (plus 20% seats on supernumerary basis for Children of Fishermen).

ASSESSMENT AND STANDARDS OF PASSING

Student evaluation will be based on continuous assessment components such as assignments, practicals, seminars, project work, and class participation, along with end-semester examinations.

The assessment system follows a combination of internal and external evaluation as per University regulations.

EMPLOYMENT OPPORTUNITIES

- Careers as Climate Scientists, Data Analysts, and Climate Researchers.
- Opportunities in Meteorological Departments, Disaster Management Agencies, and Environmental Organizations.
- Roles in ESG, sustainability consulting, and climate policy sectors.
- Careers in climate-tech industries, AI-based data analytics, and research institutions.
- Opportunities in government, private sector, international organizations, and start-ups