



**CENTRAL UNIVERSITY OF
RAJASTHAN
SCHOOL OF EARTH SCIENCES**
(www.curaj.ac.in)

The Central University of Rajasthan has been established by an Act of Parliament (Act No. 25 of 2009, The Gazette of India, No. 27, published on 20th March, 2009 as a new Central University, and is fully funded by the Government of India. Presently, Prof. Arun K. Pujari is heading the University as Vice Chancellor.

M.Sc. (Atmospheric Science)

School of Earth Sciences at Central University of Rajasthan is focusing on interdisciplinary areas. The objective of this new programme is to promote interdisciplinary research in land-air-sea interaction, numerical modeling of atmosphere and ocean, monsoon studies, Extreme weather events, air pollution, and climate change to understand its physical and social consequences. This new postgraduate program will provide exposure to the students to a wide array of monsoon and associated phenomena, global and regional climate modeling, ocean state and storm surge forecasting, numerical modeling of ocean circulation, air pollution modeling, air pollution and health,

ELIGIBILITY

Bachelor's degree from a recognized University in any discipline of Science (with Physics as one of the core subject)/Engineering with minimum of 50% marks or equivalent grade in aggregate for general category and 45% or equivalent grade for SC/ST/OBC/PWD candidates.

Ph.D. (Atmospheric Science)

The programme aim to develop a strong research need and capacity development in the area of atmospheric and climate science.

Admission Through Central University Combined Entrance Test (CUCET). You can visit for details of eligibility on the **website:** www.cucet2017.co.in

COURSES STRUCTURE

Semester - I

- *Fundamentals of Atmosphere, Land and Ocean*
- *Physics of the Atmosphere*
- *Dynamic Meteorology*
- *Weather Analysis and Forecasting*
- *Mathematics and Statistical Methods for Earth Sciences*
- *Science of Climate and Climate Change*
- *Boundary Layer Meteorology & Ocean-Atmosphere Interaction*

Semester - II

- *Modelling of Atmospheric Processes*
- *Satellite Meteorology and Oceanography*
- *Statistical Analysis and Computer Programming*
- *Observational Methods and Instrumentation*
- *Simulation and Visualization*
- *Remote Sensing and GIS*

Semester - III

- *Climate change Impact, Adaptation and Mitigation*
- *Mesoscale Modelling and extreme weather events*
- *Arid Environment, Meteorology and Desertification*
- *Environmental Pollution and Management*
- *Numerical Weather Prediction and Data Assimilation*
- *Aerosols and Atmospheric Chemistry*
- *Research Paper Review and Seminar*

Semester - IV

- *Project*

RESEARCH FACILITIES

Advanced Analytical Instruments

Respirable dust sampler (PM₁₀), Aerosol spectrometer (GRIMM), Organic vapour sampler, Personal sampler with cyclone attachment, Handy sampler, Gaseous pollutant sampler, Digital Balance, Ion Chromatograph, UV-Vis spectrophotometer, Flame photometer, Rotary Evaporator, , Handy Sampler, Visible Double Beam Spectrometer.

Computer lab and Software

The computing laboratories at the department are equipped with state-of-the-art-desktop workstations for data analysis and visualization. A separate computer lab with 34 Computers, Wi-Fi connectivity is also available for the students.

Software: GrAds, NCL, ArcGIS, ENVI, ERDAS IMAGINE, MODFLOW, Aquifertest, MIKE 11, MIKE SHE, R,

Ambient Air Quality Monitoring Station



Presently, School of Earth Sciences had installed Ambient Air Quality Monitoring Station (AAQMS) for real-time data monitoring of common air pollutants including Ozone (O₃), Nitrogen Oxides (NO₂, NO, NO_x), Carbon monoxide (CO), Sulphur dioxide (SO₂), Methane (CH₄) and Non-methane hydrocarbons (NMHC), and various meteorological parameters i.e., Rainfall, Temperature, Radiation, Humidity, pressure, Wind speed and direction.

Possible Collaborators

- ⇒ National Physical Laboratory (NPL), New Delhi and National Institute of Oceanography (NIO), Goa
- ⇒ National Atmospheric Research Laboratory (NARL), Tirupati, India Meteorological Department (IMD) New Delhi, National Centre for Medium Range Forecasting (NCMRWF) Noida
- ⇒ IIT Delhi, IIT Bhubaneswar
- ⇒ Space Application Center, Ahmadabad

FACULTY

1. **Prof. Someshwar Das, Ph.D**
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CONTACT US FOR MORE DETAILS

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