# B. M.Sc. ENVIRONMENTAL SCIENCE (2 YEARS)

### **Program Objectives**

- 1. Impart basic knowledge about the environment and its allied problems at local, regional and global scale.
- 2. Train the students for scientific analyses of environmental components and its management.
- 3. Provide practical training on modern instrumentation and analytical techniques for environmental analyses.
- 4. Prepare for global competence for career options in research fellowship programmes, education, research, industries, consultancy, environmental journalism, etc.
- 5. Understanding the impacts of climate change, environmental pollution and mitigation strategies.

### **Program Outcomes**

After completion of Programme, student will able to

- 1. Use concepts and methods from ecological, biological, chemical, geological and geospatial sciences and their application in environmental problemsolving.
- 2. Apply environmental concepts and methodologies to analyse and understand the interactions between social and environmental processes.
- 3. Demonstrate proficiency in conducting interdisciplinary research and communication skills.
- 4. Demonstrate an understanding of legal, regulatory and ethical considerations relating to environment.
- 5. Availability of qualified personnel for advance research.

# Central University of Rajasthan School of Earth Sciences

M.Sc. Environmental Science (2 year)

### **Course Structure**

#### Semester I/VII Subject Name of the Subject Credit S. No. Code **EVS 401** 1 **Ecology and Environment** 4 EVS 402 2 Environmental Chemistry 4 EVS 403 Environmental Geoscience 4 3 EVS 404 **Environmental Pollution** 4 4 5 EVS 405 Environmental Laboratory-I 2 EVS 4XX 6 D-Elective (Discipline) 4 7 Fitness 0.5 8 Societal 0.5 **Total Credits** 23

Semester II			
S.	Subject	Name of the Subject	Credit
No.	Code		
1	EVS 406	Instrumentation for Environmental Monitoring and	4
		Analysis	
2	EVS 407	Air and Water Quality Management	4
3	EVS 408	Remote Sensing and GIS	4(T+L*)
4	EVS 409	Environmental Laboratory-II	2
5	EVS 4XX	D-Elective (Discipline)	4
6	EVS 4XX	D-Elective (Discipline)	4
7	EVS 4XX	Elective (Ex-Discipline)	4
8		Fitness	0.5
9		Societal	0.5
		Total Credits	27

Semester III/IX			
S.	Subject	Name of the Subject	Credit
No.	Code		
1	EVS 501	Arid Environment and Desert Meteorology	4
2	EVS 502	Environmental Biotechnology	4
3	EVS 503	Environmental Toxicology	4
4	EVS 504	Environmental Laboratory-III	2
5	EVS 505	Internship/Skill enhancement	2
6	EVS 5XX	D-Elective (Discipline)	4
7	EVS 5XX	Ex-Elective (Ex-Discipline)	4
8		Fitness	0.5
9		Societal	0.5
		Total Credits	25

Semester IV			
S.	Subject	Name of the Subject	Credit
No.	Code		
1	EVS 506	Dissertation	16
2	EVS 5XX	Elective-Open	4
3		Fitness	0.5
4		Societal	0.5
		Total Credits	21

**Total: 96 Credits** 

## **Note:**

- 1. Minimum 6 students are required to run elective courses (List enclosed)
- 2. Open electives can be selected from any department of the university.
- 3. MOOCs can be selected based on the availability
  - \*T- Theory; L-laboratory

# **Elective Courses I \***

S. No.	Subject	Name of the Subject	Credit
	Code		
1	EVS 410	Soil Science	4
2	EVS 411	Agrometeorology	4
3	EVS 412	Wastewater Treatment	4(2T+2P)
4	EVS 413	Environmental Disasters and Management	4
5	EVS 414	Solid Waste Management	4
6	EVS 415	Natural Resources, Biodiversity and Wildlife	4
		Conservation	
7	EVS 416	Coastal and Marine Environment	4
8	EVS 417	Environmental Legislation	4
9	EVS 418	Energy and Environment	4
10	EVS 419	Environmental Impact Assessment and Management	4
11	EVS 420	Global Climate Change Science	4
12	EVS 421	Forest Ecology and Management	4
13	EVS 422	Sustainable Agriculture and Environmental Practices	4
14	EVS 423	Environmental Statistics and Computer Programming	4
		Massive Open Online Courses (MOOCs)	4

# **Elective Courses II\*\***

S. No.	Subject	Name of the Subject	Credit
	Code		
1	EVS 507	Geoinformatics for Forest Management	4
2	EVS 508	Occupational Hazards	4
4	EVS 509	Water Resource Management	4
5	EVS 510	Aquatic and Chemical Ecology	4
6	EVS 511	Glaciology and Climate Change	4
7	EVS 512	Environmental Stress on Vegetation	4
8	EVS 513	Carbon Capture and Sequestration Technology	4
		Massive Open Online Courses (MOOCs)	

<sup>\*</sup>These courses will be opened for students of VII<sup>th</sup> and VIII<sup>th</sup> semester \*\* These courses will be opened for students of IX<sup>th</sup> and X<sup>th</sup> semester