



**UNIVERSITY OF JAMMU**  
**SYLLABUS FOR**  
**TWO-YEAR P.G. IN ENVIRONMENTAL SCIENCES (NEP-2020)**

**COURSE STRUCTURE**  
**(Programme Code PGFLE005),**  
**Examinations to be held in 2025, 2026 & 2027**

**DISTRIBUTION OF COURSES AND CREDITS**  
**[SEMESTER-I]**

Course Code	Course Name	Credits	Contact Hours / Week L-T-P
P2ESTC101	Ecology and Environment	4	4-1-0
P2ESTC102	Aquatic Environment	4	4-1-0
P2ESTC103	Remote Sensing and GIS Applications	4	4-1-0
*P2ESTE104	Solid Waste Management: Circular Economy and Valorization	4	4-1-0
*P2ESTE105	Traditional Knowledge System	4	4-1-0
P2ESPC111	Lab Course-1 (P2ESTC101)	2	0-0-2
P2ESPC112	Lab Course-2 (P2ESTC102)	2	0-0-2
P2ESPC113	Lab Course-3 (P2ESTC103)	2	0-0-2
*P2ESPE114	Lab Course-4 (P2ESTE104)	2	0-0-2
*P2ESPE115	Lab Course-5 (P2ESTE105)	2	0-0-2

**Note: Total Credits to be earned in Semester-I= 24 Credits**

[Major Core 12 (Theory) + 6 (Practicals) = 18; Major Elective (Any one\*) 4 (Theory) + 2 (Practical) = 6]

**[SEMESTER-II]**

Course Code	Course Name	Credits	Contact Hours / Week L-T-P
P2ESTC201	Environmental Pollution: Chemistry and Control	4	4-1-0
P2ESTC202	Biodiversity and Wildlife Ecology	4	4-1-0
P2ESTC203	Physical Environment	4	4-1-0
*P2ESTE204	Environmental Geochemistry	4	4-1-0
*P2ESTE205	Environmental Economics and Auditing	4	4-1-0
P2ESPC211	Lab Course-1 (P2ESTC201)	2	0-0-2
P2ESPC212	Lab Course-2 (P2ESTC202)	2	0-0-2
P2ESPC213	Lab Course-3 (P2ESTC203)	2	0-0-2
*P2ESPE214	Lab Course-4 (P2ESTE204)	2	0-0-2
*P2ESPE215	Lab Course-5 (P2ESTE205)	2	0-0-2

**Note: Total Credits to be earned in Semester-II= 24 Credits**

[Major Core 12 (Theory) + 6 (Practicals) = 18; Major Elective (Any one\*) 4 (Theory)+2 (Practical) = 6]

L-Number of Lectures, T- Number of Tutorials, P- Number of Practical Hours

*Dattatreya Singh* *Rakeshwar* *Wan* *Abhishek* *Kaur*



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**[SEMESTER-III]**

Course Code	Course Name	Credits	Contact Hours / Week L-T-P
P2ESTC301	Environment Impact Assessment and Disaster Management	4	4-1-0
P2ESTC302	Research Methodology and Statistics	4	4-1-0
P2ESTC303	Environmental Monitoring and Instrumentation	2	2-1-0
*P2ESTE304	Environmental Microbiology	2	2-1-0
*P2ESTE305	Energy and Environment	2	2-1-0
P2ESPC311	Lab Course-1 (P2ESTC301)	2	0-0-2
P2ESPC312	Lab Course-2 (P2ESTC302)	2	0-0-2
P2ESPC313	Lab Course-3 (P2ESTC303)	2	0-0-2
*P2ESPE314	Lab Course-4 (P2ESTE304)	2	0-0-2
*P2ESPE315	Lab Course-5 (P2ESTE305)	2	0-0-2
**P2ESMO350	MOOC/SWAYAM Course	4	4-0-0
P2ESRC325	Research Project/ Dissertation	4	0-0-4

**Note: Total Credits to be earned in Semester-III= 24 Credits**

[Major Core 10 (Theory) +6 (Practicals) = 16; Major Elective (Any one\*) 2 (Theory) + 2 (Practicals) = 4; Research Project/ Dissertation = 4]

\*\*MOOC Course is compulsory and over and above the 24 Credits.

L-Number of Lectures, T- Number of Tutorials, P- Number of Practical Hours

**[SEMESTER-IV]**

Course Code	Course Name	Credits	Contact Hours / Week L-T-P
P2ESTC401	Environmental Law and Policy	4	4-1-0
P2ESTC402	Ecotechnologies for Contaminant Remediation	4	4-1-0
P2ESTC403	Environmental Toxicology	2	2-1-0
*P2ESTE404	Environmental Health Hazards	2	2-1-0
*P2ESTE405	Atmospheric Chemistry and Climate Change	2	2-1-0
P2ESRC411	Field Visits/Industrial Training/Practicals	4	0-0-4
P2ESRC425	Research Project/ Dissertation	8	0-0-8

**Note: Total Credits to be earned in Semester-IV= 24 Credits**

[Major Core 10 (Theory) + Major Elective (Any one\*) 2 (Theory) = 12; Field Visits / Industrial Training / Practical = 4; Research Project/ Dissertation = 8]

L-Number of Lectures, T- Number of Tutorials, P- Number of Practical Hours

*Dattatreya Singh* *Rakesh Kumar* *Wan* *Abhishek Srivastava* *Raj*



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**EXIT OPTION (AFTER ONE YEAR)**  
**VOCATIONAL COURSES 4-Credit (Any one)**

Course Code	Course Name	Credits	Contact Hours / Week L-T-P
P2ESVC251	Environmental Quality Monitoring and Analysis	4	-
P2ZOVC252	Parataxonomy with special focus on Plants, Birds, and Butterflies	4	-
P2ZOVC253	Vermitechnology and Solid Waste Management	4	-
P2ZOVC254	Tools and Techniques in Wildlife Monitoring	4	-

*Dattatreya Singh* *Parashuram* *Wan* *Abhishek* *Rao*